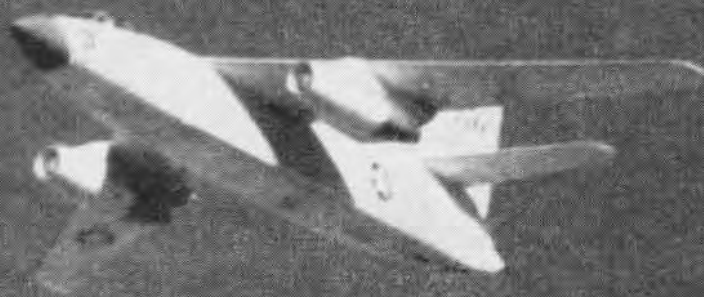
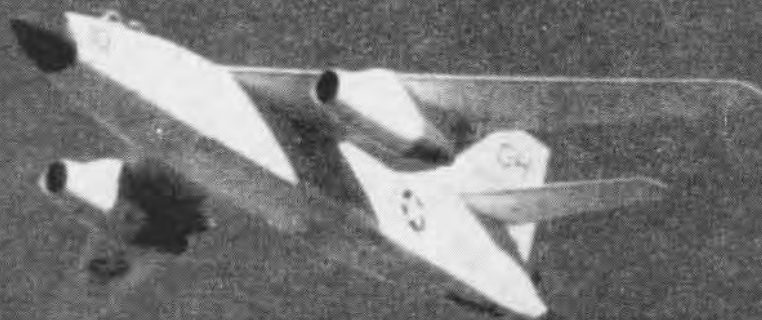
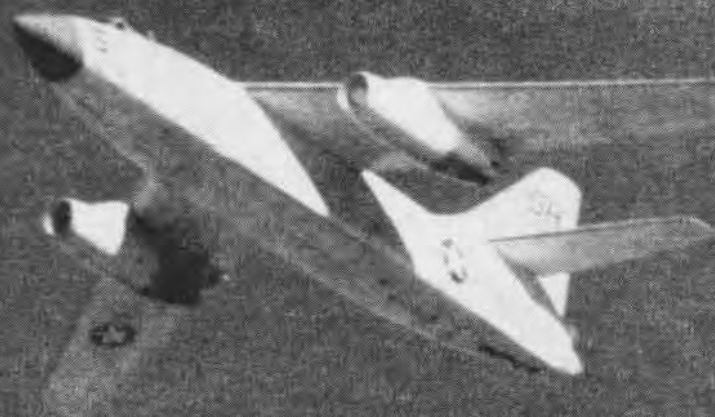


NAVAL AVIATION

NEWS



40th Year of Publication

MARCH 1959

NavAer No. 00-75R-3



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FROM NUMBER ONE TO SIXTY-ONE

The sturdy 'first' lady of carrier aviation, USS Langley (CV-1) had a few things in common with her heftier offspring like the USS Ranger (CVA-61)—wires, skilled personnel and catwalks. Today, by comparison, amazing progress has been made in carrier design and operating techniques. Steam catapults, the angled deck and optical landing systems make operations, once reserved for the most daring of aviators, routine. The strange bird shown lifting from the USS Langley is an XOP-1 piloted by Lt. A. M. Pride, USN, now a Vice Admiral and ComNavAirPac.

NAVAL AVIATION NEWS

OUR FORTIETH YEAR OF CONTINUOUS PUBLICATION, MARCH 1959

NASA to Get Chincoteague Augments Wallops Island Program

When the Navy disestablishes NAS CHINCOTEAGUE, Virginia, within the next few months, the base will be transferred to the National Aeronautics and Space Administration. Under an agreement between Thomas S. Gates, Jr., SecNav, and T. Keith Glennan, NASA administrator, detailed arrangements are being made for NASA activities to move in as Navy operations phase out.

The Navy will disestablish the base by 30 June 1959. While technical studies are being completed, the NASA plans to make use of the station in connection with the nearby Wallops Island Station in its expanding space program. The air station is four miles from the island.

According to Dr. Glennan, only a part of the permanent buildings will be used by the NASA. The 2400-acre station, built in WW II, employs 760 civilian workers.

Use of a portion of the Chincoteague facilities is expected to save the NASA an estimated \$2.5 million in its launching site construction program at Wallops Island. A contract has been let for construction of a new causeway from the island, terminating a short distance from the airfield.

The NASA still expects to acquire 1200 acres of marshland in the area. The additional acreage is needed to accommodate electronic equipment which cannot be placed at Chincoteague.

Geared for Space Projects Aircraft Companies to Cooperate

In an aggressive, far-reaching "mutual aid" plan for scientific research, engineering and production programs, three big aircraft companies are linking their efforts. Grumman Aircraft Engineering Corporation, Republic

Aviation Corporation, and Fairchild Engine and Airplane Corporation are linking the facilities, equipment and scientific divisions of their Long Island divisions together whenever advisable on new astronautics projects.

This will not interfere with each company's own programs, according to a joint statement of Leon A. Swirbul of Grumman, Mundy I. Peale of Republic and James H. Carmichael of Fairchild. Each company will, ordinarily, prepare its own individual proposals on projects of its own origination. However, when such projects provide opportunity for the exchange of compatible resources resulting in superior joint capability, the companies will collaborate on proposals for missile and space projects to the military services, the Advanced Research Project Agency of the Defense Department and the National Aeronautics and Space Administration.

Among the combined resources available will be research, electronics/

avionics, structures, equipment test and space laboratories including Republic's \$14 million space research center announced in August as being the integral part of a \$35 million R&D program, and an avionics engineering laboratory announced by Grumman earlier this year as being under construction.

Members of the Scientific Advisory Team which will act under the guidance of the coordinating committee, include Grumman's Dr. Clifford Seitz, Walter Scott, and Charles Tilgner; Republic's Dr. Alexander Kartveli and Dr. Theodore Theodorson; and Fairchild's Dr. Robert A. Gross and Hamilton O. Hauck.

Camera Tracks Satellites Registers Images as Dots on Film

A camera capable of detecting and recording "friendly and unfriendly" satellites has been developed by the Naval Ordnance Test Station, China Lake, California.

With this camera the film travel speed is synchronized with the satellite image. When the angular rate of the satellite can be properly coordinated with the film, the satellite is recorded as a dot. All other recorded astral bodies not traveling at that exact speed will appear as streaks on the film.

A network of nine cameras can cover the sky from horizon to horizon, with each unit capable of maintaining a constant photographic watch for as long as three hours.

The photo units can obtain an exposure as long as 10 minutes on a satellite. Film used is 5½-inches wide and 56 feet long.

Jack T. Leininger of the Photophysics Branch, Instrument Development Division in the Test Dept. at NOTS, is credited with the new development.



MISSILE TEST equipment comes king-sized these days. Gigantic underwater-bousing for Polaris test launcher was later towed into position off California for use in "Operation Pop-up." The firings were simulated.

Safety Session is Staged Kingsville Pilots Hear, See, Do

An all-day safety session, billed as the "Greatest Safety Show on Earth," was staged at NAAS KINGSVILLE, Texas, to help all flying personnel get back into the swing of training after the holiday period.

"Be a professional and make it a safe year," was the theme. First there were speeches by RAdm. Joseph C. Clifton, Chief of Naval Air Advanced Training, and Cdr. Frank West, station aviation safety officer.

LCdr. George Bane, on his way to the speaker's platform, stopped short and tossed two hot potatoes at the audience of pilots. The two pilots who caught the hot potatoes were designated as volunteers who would perform in simulated aviation emergency situations.

Lt. Lyle D. Persels of ATU-402 freed himself from a jammed F9F canopy in 15 seconds by cutting his way through the Plexiglas with a sheath knife. Ltjg. Milton H. Bank, II, then was suspended over the audience in a Martin-Baker parachute harness and required to remove his life raft and release himself from the harness.

Addresses by Capt. J. S. Niforopoulos, flight surgeon, and Capt. W. A. Sullivan, NAAS Commanding Officer, wound up the morning presentation.

In the afternoon, shows were presented to station maintenance and ground handling personnel where 1600 men of all rates witnessed the Safety Spectacular. Movies and illustrated presentations on ground safety, ground accidents caused by vehicles, and foreign objects damage were then given.



CDR. RICHARD W. PARKER receives Air Force Commendation Medal from VAdm. W. L. Rees, ComNavAirLant, for work he did at the Air Force Academy. Academy command award is believed first to be presented a Naval officer.



FREE FALL REQUIRES A 15 TO 25 SEC. DELAY

Practice Makes Perfect Marine Jumpers Try Free Falling

Members of the Parachute Platoon of the First Marine Division Reconnaissance Division, Camp Pendleton, California, go through an intensive airborne course before practicing their trade. Stringent requirements, rigid rules and constant checks eliminate many hazards created by the human element.

In the top picture, a jumper gets a final eagle-eyed inspection from the jumpmaster before heading for the aircraft that will take him aloft for a stabilized free fall. This phase cannot be started until ten static line jumps have been completed.

In the next picture, a Marine chutist stabilizes his body, within seconds after leaving the plane, to begin the long drop to the target area. Body control permits the jumper to swoop over the target area with accuracy.

Recognition Special Devices Aircraft Marking Card Sets Ready

Two sets of study cards on aircraft insignia have been manufactured by the U. S. Playing Card Company under a Navy contract. The U. S. Naval Training Device Center, Port Washington, N. Y., designed them to be used by aviation personnel to increase their familiarity with national markings displayed on the military and commercial aircraft of many countries.

Because these cards are the same size as regular playing cards, they are easy to handle and study. One set of 79 cards (Device 5 E 11A) covers national military markings; 52 cards in another set (Device 5 E 11B) show commercial airline markings. Military insignia are produced in color on one side of the card; on the reverse side is a sketch indicating the location of the insignia. In the commercial aircraft set, the name of the company appears on one side; the transport marking on the other.

Recognition cards are being distributed to Naval Aviation units through regular Training Aid channels.

New Trackers Contracted Have More Length, New Equipment

The Navy has placed a \$22-million contract with Grumman Aircraft for production of S2F-3 aircraft.

Described as a "futuristic" anti-submarine warfare airplane, the S2F-3 is a new version of the S2F-1 *Tracker*. Its longer fuselage allows space for a number of features designed to reduce crew fatigue.

Recent developments in electronic search equipment and armament will be incorporated in the new carrier plane.

The firm is also developing an airframe for the Navy missile, *Eagle*.

Order Placed for Marlins P5M-2 Will Have Better ASW Gear

The Navy has awarded a \$23-million contract for production of P5M-2 seaplanes equipped with a new submarine detection system.

Although earlier models of the *Marlin* have been in the fleet service since 1954, the new planes will carry a far-reaching sensitive submarine detection system which will enable detection of enemy underwater craft over greater ranges than are now possible.

Improved Terrier Bought Has Better Guidance and Coverage

A \$31.4-million Navy contract has been awarded to Convair for production of an advanced version of *Terrier* guided missiles. The new *Terrier* will incorporate improved guidance features and will provide substantial improvements in coverage over the present *Terrier*.

An all-weather missile, *Terrier* is designed to intercept enemy aircraft at longer range and higher altitudes than conventional anti-aircraft guns.

Advisory Group Selected Will Aid Pacific Missile Range

Ten top scientists and engineers in industry, education, and government agencies have been selected by the staff of the Pacific Missile Range at Point Mugu and approved by the Chief of the Bureau of Aeronautics in Washington, D. C., to act as members of the Pacific Missile Range Advisory Committee, according to RAdm. J. P. Monroe, Commander of the Pacific Missile Range.

The Advisory Committee will assist the PMR and Navy management in planning long range objectives, functions, and capabilities, and in evaluating the quality of performance and progress. In addition, the committee may assist management in assessing the performance of components within the organization. The committee members, who will meet two to four times a year, were selected because of

their past experience and background rather than because they were members of specific organizations.

The first meeting of the committee was held February 18-20, 1959, at the U.S. Naval Missile Center, Point Mugu, PMR Headquarters. Dr. A. B. Focke, Technical Director of the PMR, acted as chairman. The meeting was held to acquaint the members with the PMR organization, evaluation of weapon systems, status of missile and satellite programs, and support required of the Navy for Range operations.

The members of the committee are: Dr. W. R. Brode, Science Advisor, Department of State, Washington, D. C.; Capt. W. S. Diehl, USN (Ret.), Consulting Engineer, Washington, D. C.; Dean W. L. Everitt, School of Engineering, University of Illinois; Mr. W. A. Fiedler, Head of Development Technical Staff, Lockheed Aircraft Corporation; Dean L. E. Grinter, Graduate School and Director of Research, University of Florida.

Other members are: Dr. C. C. Lauritsen, Professor of Physics and Dr. F. C. Lindvall, Chairman of Civil, Electrical and Mechanical Engineering and Aeronautics, California Institute of Technology; Dr. W. B. McLean, Technical Director of NOTS, China Lake, Calif.; Capt. Grayson Merrill, USN (Ret.), General Manager, Fairchild Astrionics Division, Long Island, N. Y.; and Dr. Royal Weller, Vice President of Engineering, Stromberg-Carlson Company, Rochester, N. Y.



WELL VERSED in the supersonic nature of Navy ACCOUNTS, RAdm. J. W. Bondy, BuSandA Chief, checks supersonic SUPPLIES during visit to Cecil Field's VFP-62. Cdr. W. A. Shryock introduces Admiral to photo-Crusader cockpit.

More Vigilantes Coming Award NAA \$80-million Contract

The Navy has awarded North American Aviation an \$80-million "follow-on" contract for production of additional A3J *Vigilante* airplanes. The number ordered was not given.

The *Vigilante* is undergoing flight test at Palmdale, Calif., and Columbus, Ohio. It is a versatile all-weather attack system whose performance is on a par with the world's fastest, highest-flying airplanes, yet it operates with superior efficiency for low-altitude, long-range missions.

The A3J can carry a variety of ordnance, including nuclear weapons. It is powered by two G.E. J79-2 engines.



RESEMBLING SPACE MEN, these Crusader pilots of VF-142 represent the Navy's first squadron to be outfitted completely with new Mark III pressure suits. Fitting and ground orientation with the new

suits were completed just before the squadron embarked on *Ranger* for deployment. To evaluate the Mark III suit, one VF-142 pilot remained airborne for six hours in the F8U-1, refueling in flight.



GRAMPAW PETTIBONE

WHEW!

The sun had just set. In the evening twilight a Marine pilot was cruising his AD-4B at 9000 feet, in the clear, on a long crosscountry hop.

He was on auto pilot, had used up both external fuel tanks and was settled back to relax for the last stage of his trip, just over the mountains and then home.

Suddenly the engine surged and began to run rough. Instantly on the alert, the pilot disconnected the autopilot and scanned his gauges. Everything normal but torque had dropped. Flames and smoke began pouring out of the lower right side of the engine and along the cockpit canopy.

He started to open the canopy to bail out, but as smoke and flames came in the opening, slammed it closed again and quickly shut off his fuel selector. In four or five seconds the fire went out but dense black smoke continued to pour from the engine. While gliding down, attempts were made to broadcast "Mayday" over both airways frequency and Guard channel, but there was so much chatter he couldn't cut in on the conversations, so he yelled "Mayday, bailing out," gave his identification and position right on top of the chatter, then "in the blind." Guard channel got real quiet after that!

Unhooking his mask, radio cords, lap belt and shoulder harness, he attempted to bail out. As he stood erect, his APH-5 helmet blew off in the slipstream, for it had no nape strap, the visor was up, and the chin strap loose. Next he realized he couldn't get out, for something was holding him in. Looking down, he saw his right leg chute strap was passed through the handle of the Nav bag, which in turn was wedged under the seat! Sitting down, he unfastened the leg strap and freed himself.

The AD had meanwhile been gliding, trimmed up at 130 knots, wings level, down to 4000 feet. The pilot looked at the rugged terrain under him, de-



cid he was too low for bail out now, and proceeded to retrieve his shoulder harness and lap belt and, strapped in again, prepared to ride the aircraft down!

He picked a highway to belly it in on but there were cars on the road, so he angled toward a plowed field he had also spotted. This field was small and there were houses on the far end. Fearing he was going to overshoot, glide direction was changed again, and he



headed for a small dirt road. A 30-foot stone chimney loomed ahead, just short of his expected touchdown point, so he banked the AD around it and hit immediately beyond on the dirt road, flaps down and gear up. Worried over his lack of a hard hat, the pilot threw his arms over his head to protect himself from a possible knockout blow. The Skyraider piled into a bank, and as it stopped the pilot jumped out, ran about 30 feet, and heard a "whoosh" as it blew up behind him. His injuries? Minor sprains and abrasions.



Grampaw Pettibone Says:

Gosh all fishhooks! You coulda been kilt!

It's just as important to preflight your own personal survival gear and doublecheck the way you're wearing it as it is to inspect your aircraft!

The nape strap for hard hats has been a *must* item for many months, yet here's a man who couldn't spare his helmet out of sight for the 15 minutes it takes a good rigger to put one on.

Of course, the decision to ride it down was yours to make, but 4000 feet was plenty of altitude for a safe bailout in your case. You better read the new "Bail-Out and Ejection Sense" book. You'll be around a lot longer and a great comfort to your grandchildren if you keep the good dope it contains fresh in your mind.

Man Overboard!

During a pre-dawn launch, a plane director aboard one of our largest carriers had passed an A4D Skyhawk forward from its position on the fantail. As the A4D taxied toward the catapult, the pilot had to blast on quite a bit of power to get over the #2 cross deck pendant.

Clutching his wands, the director went down on one knee to hold his position against the jet blast pressure, but found himself sliding at a fast clip along the smooth deck toward the fantail! Realizing that he was going over the side, he jumped to his feet and ran

off, still propelled by the jet exhaust, in order to have a better chance of landing feet first. He couldn't risk striking the water in a bellywhopper from the deck height of about 60 feet! The crewman popped to the surface clutching a lighted wand and attracted the attention of the already alerted plane guard destroyer with it. The destroyer reversed course, threw him a life ring, and launched a whaleboat for the rescue.

At the same time, a standby helicopter had been launched from the carrier, and using landing and hover lights, had pinpointed the man in the water. Lowering the rescue seat, the whirlybird crew snatched him out of the water before the whaleboat could reach him and returned him to his ship. Total time in the water, only six minutes.



Grampaw Pettibone says:

Dip me in the briny deep, if you're not a lucky man! Just thinkin' of that drop off the flight deck in the dark makes my stomach muscles clutch up. You can thank your lucky stars that you're a member of a smooth running real team! Ol' Gramps tips his cap to both ships' companies, and the whirlybird crew. Passing the word fast and then doin' everything just right just doesn't happen by accident.

Million Dollar Gamble

A newly designated aviator was airborne on his first FAM hop in an F8U-1. He had performed the airwork required by the squadron fam card under the watchful eye of his very experienced chase pilot and had been cleared to enter the airfield traffic pattern for touch-and-go landings under Runway Duty Officer supervision.

His first approach was a wave-off for overshooting the groove, but a touch down was made on the second pass. The third and fourth passes were wave-offs, one for roll stabilization difficulties and one for being too high in the groove.

On the fifth pass, to be a final landing because of low fuel state, as the pilot passed over the ramp, the RDO called to say he looked good and to hold the attitude. Coasting up the runway at a height of about eight feet, he "eased off a little power" and rotated the nose slightly. Rate of



descent increased, and on the ensuing hard touchdown the left main landing gear collapsed.

A rather rugged rollout was made, crossing three runways and one taxiway. The pilot was uninjured, though shaken up.

Investigation revealed that this pilot had not made an aircraft landing in the 82 days prior to the accident. In the past 30 days he had a TOTAL of 1.0 hours "stick time" in a TV-2 on a two-hour hop and no other flights other than 3.9 of special crew time. The accident board noted that the pilot had attempted to maintain his proficiency, but no aircraft were available for him to fly.



Grampaw Pettibone says:

Great Jumpin' Jehosaphat! I'm not lookin' at this young tiger, for he had no doubt of his ability to take that \$1,160,000 machine out and bring it back safely, but can you picture a C.O. sendin' a man out in a top-notch fighter without havin' him darn well evaluated by his best and most experienced pilots beforehand? There was a lot of supervisin' done after take-off, but *who* checked his flight records beforehand? Your old Gramps takes more care than that of who drives his new automobile—and it didn't cost anywhere near a million bucks!

Go-Man-Go

A brand new fighter pilot was tooling along on his second fam hop in an F9F-8 *Cougar*. After 45 minutes of slow flight to get the feel of the aircraft, the pilot initiated a simulated flameout approach to an auxiliary field. As he passed 11,000 feet at an airspeed of about 300 knots, he dropped his speed brakes. The *Cougar* immediately rolled

to the left, and as it hit the inverted position, the nose dropped through and the rate of roll increased. Normal spin recovery technique only slightly slowed the rate of roll. Manual and emergency trim controls were inoperative.

As the airspeed hit 400 knots in a 60° rolling nose-down attitude, the pilot, noting he was passing through 5000 feet, ejected through the canopy.

All automatic survival equipment functioned perfectly and his chute opened at less than 1000 feet above the terrain! The chute oscillated only twice and then he hit the ground about 50 yards from the burning *Cougar*.

The rolling hills in the area were covered with high grass and with nothing else available, this young man endeared himself to the Forestry Service by beating out a raging grass fire with his Mae West. His injuries? Some mild abrasions and a strained back incurred while firefighting.



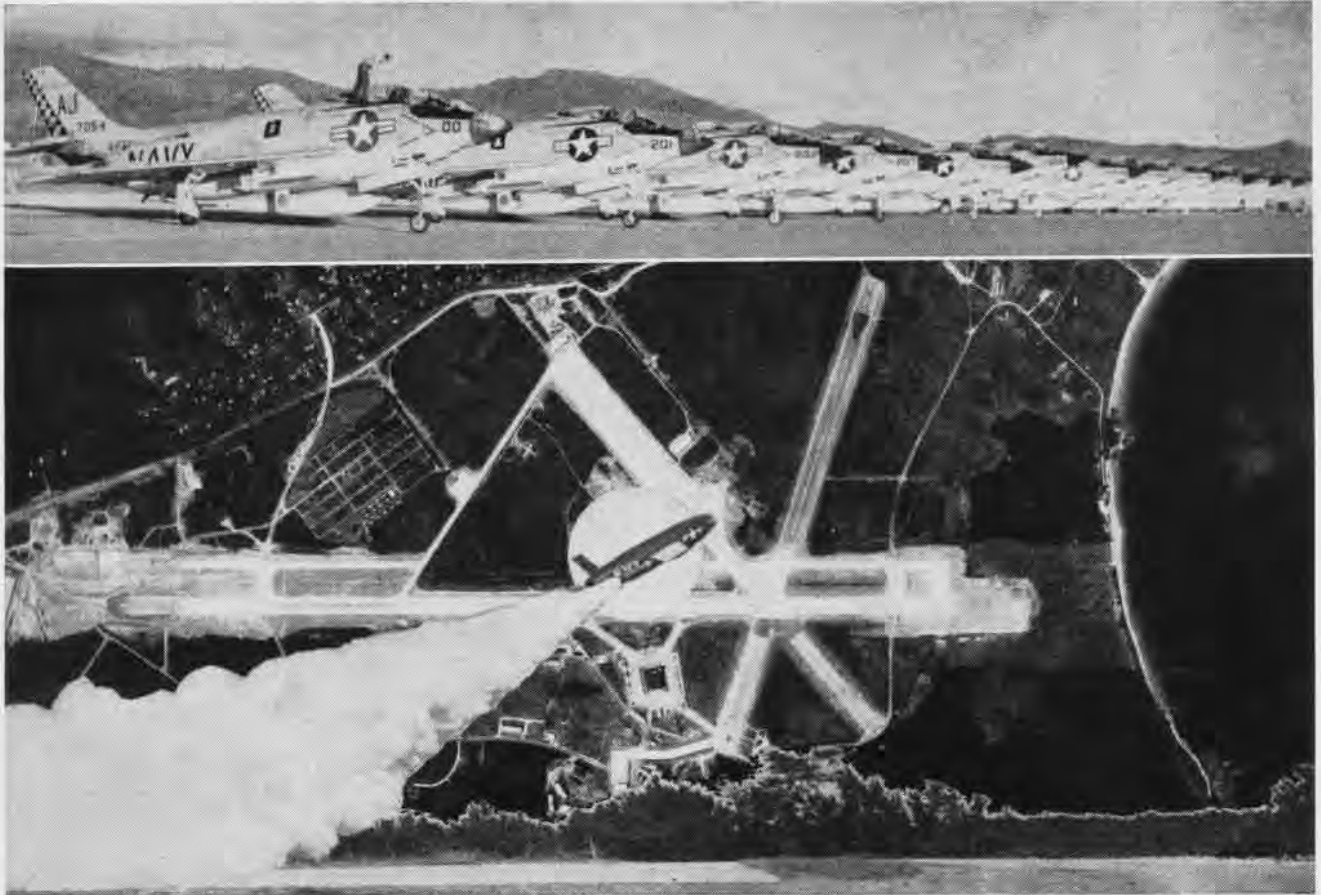
Grampaw Pettibone says:

Great horned toadies! This lad must of been thinkin' pure thoughts all week!

At 400 knots almost straight down you're covering just about 667 feet per second. If you decide to get out at 5000 feet like this lad, allowing a fast three seconds to get set and pull the curtain, two seconds in the seat, and a couple more for the chute to deploy, you'll find over 4500 feet of precious altitude used up. That's too close! A one-second delay would have made him a statistic.

On the way down, 10,000 feet is a good realistic figure for the GO-MAN-GO point if you don't have it under positive control, or are in an emergency

Ejection GO-NO-GO points make a fine bull session subject for the ready room on a foul weather day schedule.



ARTIST'S MONTAGE SHOWS ACTIVITY OF CONVENTIONAL AIRCRAFT AND LAUNCH OF MISSILE AT ROOSEVELT ROADS MISSILE RANGE

BIRTH OF A MISSILE BASE

SEVEN TIMES de-activated and eight times re-activated in 14 years, the U.S. Naval Station, Roosevelt Roads, Puerto Rico, has at last found its place in the sun. It is the Navy's newest and the Atlantic Fleet's largest missile base.

The first missile, a *Regulus I*, was launched and recovered successfully October 22. Under present plans, the base will continue to expand until 1963 when most types of air-to-air, air-to-surface, and surface-to-surface missiles in the Navy arsenal will be test fired there for training.

The huge complex (10,564 acres when nearby Vieques Island is included) was designed as a Naval Operating Base in the first years of World War II, to serve both American and British naval forces, but the complexion of the war shifted so that it was placed in caretaker status in November, 1944.

In the ensuing years, the station's drydock, fuel piers, hangars, airstrips, supply facilities and other facilities have been used for a number of reasons—training fleet and Marine units, supporting the *Hurricane Hunters*, and refueling surface ships—but it was at best a supporting activity until the decision was reached in 1957 to make Roosevelt Roads into a large missile complex.

The build-up, which is so apparent today, came after

careful consideration in the Navy Department. The Navy's missile training program on the eastern seaboard was growing swiftly. New and advanced weapon systems were, and are, developing rapidly, demanding revolutionary changes in training requirements. Under such conditions the established missile sites and operating areas were becoming inadequate.

Commercial and military aircraft and ships crowded the eastern missile training areas, reducing their usefulness.

Planners searched the Atlantic Seaboard in an effort to find a suitable location for guided missile operational training. They chose the vicinity of Roosevelt Roads as the only area in the Atlantic which had comparatively light air and sea traffic, good weather conditions the year around, and adequate space and facilities for missile operations.

The Secretary of Defense approved the development of Roosevelt Roads Naval Station as the primary center for Fleet Guided Missile Training Operations in Atlantic waters more than two years ago, and expansion was started. Today the rebuilding program is progressing with a war-like intensity to prepare the Caribbean station to support the missile training of aircraft, ships and submarines.

The base is considered operational within the limits of

facilities which have been built or improved, but full operational status will not be achieved until 1963.

When construction crews arrived to make the near-dormant base into a modern missile complex, they were faced with the need to recondition many of the facilities which had fallen into disrepair during the 14-year series of activations and deactivations, as well as to start new construction. But progress has been rapid.

Among the newly-constructed facilities in being are a group facilities building for missile maintenance, an air-to-air missile assembly building, a 43,500-foot security fence around the perimeter of the station, an air-to-air missile handling and testing building, an aviation electronics warehouse, a 27,000-gallon jet fuel storage plant, a missile launching pad, a guided missile operational control center, a high explosives magazine, and improved runways to handle both missiles and aircraft.

In varying stages of construction are a high speed jet refueling system, a new operations building and control tower, an advanced underwater weapons shop, a turbojet engine testing facility, a replacement petroleum, oil, lubrication line, a liquid oxygen plant, a new maintenance hangar and parking apron, and further lengthening of runways.

Simultaneously, work is progressing at nearby Fort Bundy, a former Army Communications post. Five 252-room enlisted barracks, a BOQ and subsistence building, an enlisted mess hall and a ten-bed dispensary are under construction there.

Housing to accommodate the sudden influx of personnel is being rushed to completion aboard the station proper.

Units which have already reported aboard NS ROOSEVELT ROADS for permanent duty in missile testing are Guided Missile Unit 51, Guided Missile Operational Control Unit (GMOCU), Guided Missile Service Squadron Two, Fleet Aircraft Service Squadron 105, a detachment from Patrol Squadron 18, and Gunfire Support Training Unit.

The factors of complexity, range and destructive powers that make guided missiles formidable weapons also create problems when naval units conduct guided missile training exercises in close proximity. A number of missile firing activities operate in the same general area without interfering with each other's work and the training must be conducted in such a manner that neither the naval units nor the

occasional commercial vessels and aircraft are endangered. Careful scheduling, adequate control and safe operational procedures are required.

This is the responsibility of GMOCU at Roosevelt Roads, where a high degree of coordination between the many users of the areas is necessary. Warning areas and operating procedures have already been established. Within permissible limits, GMOCU is similar to a shore-based CIC—yet it is the only one of its particular kind in existence today.

The arrival of Guided Missile Unit 51 at Roosevelt Roads September 10, 1958, was a significant milepost in the progressive development of the Naval Station as a major center for Fleet guided missile training operations. At its new permanent duty station, GMU-51 will continue to render *Regulus I* missile services to portions of the Atlantic Fleet Submarine Force as it has done since the unit was established at Yorktown, Va., in October, 1955.

Two versions of the *Regulus I* missile have been developed. One—a tactical version—is a non-recoverable weapon capable of carrying a nuclear warhead. Its partner is a test vehicle with a tricycle landing gear and parabrake device which enables chase and recovery aircraft to land the missile after flight operations.

While GMU-51 is capable of assembling, testing and firing the *Regulus I* missile without outside assistance, its primary mission is to supply operational missiles to the Atlantic Fleet Submarine Force.

Submarines currently based at San Juan, on the opposite side of the island from Roosevelt Roads, are the USS *Runner* and USS *Argonaut*. The Navy is now considering moving additional submarines to San Juan.

The USS *Barbero*, which launched numerous *Regulus* missiles off the Puerto Rican coast in early 1958, is now completing shipyard overhaul and could be the first guided missile submarine home-ported at Roosevelt Roads. She could be followed by the guided missile submarine USS *Growler*.

Submarines ordered to operational training duty in the Caribbean will receive *Regulus* missiles for training from Guided Missile Unit 51.

Regulus launching operations in the Caribbean are conducted by both SSG's and GMU-51. The primary training effort is that of sea launches by SSG's to attain proficiency.



CONSTRUCTION MEN ERECT A NEW BUILDING FOR MISSILE BASE



HAPPY MARINE, CENTER, WAS RESCUED AFTER EJECTION AT SEA

GMU-51 conducts its launches primarily to train replacement personnel for the SSG's and provide training services for the aircraft pilots in Guided Missile Service Squadron Two. It is essential that the chase, control, and recovery pilots maintain peak efficiency in performing their tasks during peacetime training operations. Equally important, crewmen of submarines can conduct training with missiles launched by GMU-51 when subs are not present.

Guided Missile Service Squadron Two operates directly under ComNavAirLant. Its mission is to provide supporting services to all categories of missiles. For example, GMSRon-2 launches the drone targets for air-to-air and surface-to-air missiles. The services rendered to the surface-to-surface missile program are extremely important and will be a major task at Roosevelt Roads for years to come.

During *Regulus* training operations by either SSG's or GMU-51, GMSRon-2 provides the aircraft which accompany the missile for safety, chase and standby control purposes. In addition, the aircraft which controls the missile

submarine patrols in the immediate Caribbean area, using the multi-engined P2V-7 aircraft. Presently a small group, the detachment will be brought up to full strength when the main body of men and aircraft is assigned permanently to Roosevelt Roads this year.

Gunfire Support Training Unit, operating from Culebra with the command function and offices at Roosevelt Roads, conducts shore bombardment exercises for Atlantic Fleet and allied ships and supervises strike missions.

Related exercises range from night illumination missions by naval guns to napalm and radar bombing by aircraft. GSTU is a segment of the Fleet Training Group, Guantanamo Bay.

Missile training at Roosevelt Roads will differ from the role played by the Naval Missile Center, Point Mugu, which is being developed to support fleet guided missile training operations in addition to its already established mission of supporting the development, test and evaluation of new missile systems. Roosevelt Roads will, in fact, be unique



CURRENT BARRACKS, HOSPITAL, MESS HALL WILL BE REPLACED



CARGO PIER WILL BE LENGTHENED, WIDENED FOR HEAVIER NEEDS

during the actual recovery phase is provided by GMSRon-2.

The most thrilling and breathless moment during a missile shoot is not the actual launching, as would be expected. Spectators and missilemen alike feel a great deal more concern as the missile approaches the landing field, coaxed along gently but firmly by a TV-2 chase aircraft from GMSRon-2. Side by side, separated by but a few yards, the "Redbird" is suddenly on its own as the pilot severs the guidance controls and veers away, maintaining a parallel course while the missile touches down, pops parabrake, and begins to lose speed.

Fleet Aircraft Service Squadron 105 is charged with responsibility for insuring adequate services and providing maintenance for aircraft attached to the command and for all incoming planes serving with the fleet units present. Meantime, the flexibility to permit rapid transition and expansion in the event of war is retained.

FASRon-105 is geared primarily for multi-engine work, but renders valuable assistance to Navy and Marine reciprocal and jet-engine aircraft deployed at Roosevelt Roads during training maneuvers.

Detachment Papa of Patrol Squadron 18 provides anti-

in comparison to any other missile base because it will be the only facility whose primary mission is support of the training requirements of fleet aircraft, surface ships and submarines in the operational use of air-to-air, surface-to-air and surface-to-surface guided missiles.

When the general expansion was begun in early 1957, Roosevelt Roads took over Fort Bundy from the Army. By force of habit, the name Fort Bundy is still used in referring to that portion of the station which contains a movie theater, Navy Exchange and Commissary stores, post office, personnel office, small stores, I&E office, administration building, chapel, beauty parlor, tailor shop, snack bar, recreation hall, barbershop, outdoor recreational facilities and a series of independent buildings occupied by the Mobile Construction Battalions on deployment.

The Seabees have made the hilly Fort Bundy area—a once overgrown, deteriorated haven for stray horses and cattle—completely serviceable, attractive and useful.

The supply problem at Roosevelt Roads was tackled with the same enthusiasm as the big construction project. All departments use the services of a supply system that is basically a self-sustaining and largely independent network.



FIRST MISSILE LAUNCHED, LAST OCTOBER, WAS A REGULUS ONE



PHOTO SQUADRON 62 PILOTS PREPARE FOR A MAPPING MISSION

While San Juan handles certain products destined for the Naval Station in conjunction with some air cargo funneled through the Military Air Transport Service at Ramey Air Force Base, the majority of supplies are shipped direct to Roosevelt Roads aboard military and charter vessels.

Small items such as automotive parts, fresh provisions, hardware and lumber are purchased locally to lighten the heavy load placed upon the Navy's Caribbean supply system.

Roosevelt Roads supplies the Navy and Marine Corps detachments at Vieques and Culebra with essentials ranging from truck tires to recreational movies.

Asked how fleet maneuvers not directly related to missile training would affect operations at Roosevelt Roads, Capt. O. B. Stanley, Commanding Officer, said he foresees no interference to missile training operations.

"As in the past," he said, "Roosevelt Roads will continue to give material support to Vieques personnel, perform mercy missions, and in general cooperate logistically to the extent of her continually expanding capabilities."

In its sudden transformation from a sleepy, almost forsaken, tropical non-entity to a bustling missile base, Roosevelt Roads' leaders have not forsaken the human interests of the military and civilian men who will man the base.

Besides the existing tourist attractions—modern hotels, beautiful beaches, unusual landscapes, mountain resorts—a number of Stateside attractions are being provided for the men and their families who will call Roosevelt Roads home for the duration of their tours.

Every facility that could be expected on a major continental base will be provided at Roosevelt Roads—chapel,

library, bowling alleys, pools, stores, clubs and the like—and the existing Armed Forces Radio network that serves the island will be augmented by a television station.

Families who arrived during the early stages of construction and lived in sub-standard housing have already started to move into the 813 new houses (676 Capehart and 137 built by Seabees).

And Roosevelt Roads, even under the fierce tempo of expansion, has taken time to institute a sound program of community relations. Several groups of Puerto Ricans have been invited to the base for luncheon and to witness missile shoots. Such an opportunity to see the military personnel at work has had a beneficial effect on the civilians' attitudes towards Roosevelt Roads sailors on liberty. The naturally friendly and courteous Puerto Ricans have become increasingly hospitable, understanding and cooperative in solving the problems which rapid growth of the station has brought to their communities.

On September 11, 1940, President Roosevelt appointed a board of inter-service members to survey the naval shore establishment with a view to meeting the requirements of a two-ocean Navy. Beginning its work in the Caribbean, the board conferred with British experts and submitted its recommendations on January 6, 1941.

One of the recommendations was to erect at Roosevelt Roads a literal "Pearl Harbor of the Caribbean," capable of supporting 60 percent of the surface and air forces of the U. S. Navy and elements of the British fleet as well.

Times and the art of warfare have changed, but in this missile age, it begins to appear that President Roosevelt's board must have been blessed with extremely acute vision.



THIS IS ACTUALLY ONLY HALF A HANGAR. REMAINDER LIES UNDER 100 FATHOMS OF WATER OFF HAITI, VICTIM OF U-BOAT ATTACK

NANEWS' OSBORN WINS HIGH NAVY HONOR

ARTIST Robert Osborn has been presented the Navy Distinguished Public Service Award by Secretary of the Navy Thomas S. Gates, Jr., for "outstanding contributions to the Department of the Navy in the fields of flight safety and public information."

Before making the award, Secretary Gates expressed high personal regard for Osborn's works.

"All of us who had an active part in wartime Naval Aviation remember your works," he said. "The Dilbert posters we saw on the bulletin boards, the Pettibone characters in Naval Aviation News, and the illustrations you drew for our publications actually became a sort of ritual—very much like the uniforms we wore.

"The good work you did for aviation safety in wartime has been continued as improved aircraft make air safety more important than ever."



SECNAV GATES pins Distinguished Public Service Medal on Illustrator Robert Osborn.

After the award was presented, VAdm. Robert B. Pirie, DCNO(Air), was host at a luncheon for the dignitaries who witnessed the ceremony.

Text of the citation:

"Through his unflinching understanding of the problems ever present in military flying Mr. Osborn has consistently provided timely and pointedly humorous illustrations to official publications, booklets and instructions, bringing to the reader salient points in a manner most easily understood and retained.

"His illustrations for the monthly 'Grampaw Pettibone' section in Naval Aviation News makes it the most widely read and best remembered feature of Naval Aviation Publications.

"He has demonstrated his loyalty to the Navy and his interest in the safety of Naval Aviation by giving generously of his time and talent."

Vertiplane Finishes Test Uses Deflected Slipstream Theory

Ryan's *Vertiplane*, which uses the deflected slipstream principle to accomplish vertical takeoff and landing, has completed its first conventional flight tests at Moffett Field.

The *Vertiplane* is being developed for the Army under a contract from the Office of Naval Research. It uses large propellers and double, retractable wing flaps extending far below and to rear of wing trailing edge.

Copter Pilots Think Fast Marines Extinguish Forest Fire

A small but rapidly growing forest fire was extinguished when eight Marine pilots acted promptly.

The fire was spotted while the helicopters, from Marine Helicopter Transport Group-26, were practicing landings in the hills near Brevard, N. C. Second Lt. W. J. Tabow spotted smoke and landed. His co-pilot, 2nd Lt. H. P. L. Miller, jumped out and attempted to extinguish the blaze with a fire extinguisher. The rest of the Marines 'landed,' exhausted their extinguishers and then resorted to their canvas rotor blade covers to beat out the fire. Dirt was also shoveled on the blaze, but it ignited like peat moss because of its composition. Although the burned area covered only 40 sq. ft., it was a potentially dangerous fire because of the tinder dry land and the soil composition.

Mr. H. S. Redding, Forest Supervisor at Asheville, sent a letter of appreciation to Col. K. B. McCutcheon, Group Commander. The pilots and co-pilots were: Cpts. E. R. Root, M. E. Salter, L. O. Davis; 1st Lts. G. W. Smyth, L. K. Keck; 2nd Lts. W. J. Tabow, H. P. L. Miller and MSgt. J. A. Rike.

Sparrow Testers Ordered Permit Check-out Aboard Carriers

A \$1.3-million subcontract for production of 22 missile test sets for *Sparrow III* guided missiles has been awarded to DuMont Laboratories.

The test sets are for overall final checkout of *Sparrow III*'s aboard aircraft carriers. The test equipment can isolate faults in missiles before they are fired.

Raytheon Manufacturing Company is prime contractor for *Sparrow III*.



ADM. A. K. DOYLE, RAdm. Luis de Florez, Aviation Training veterans, Robert Osborn, Miss Izetta Winter Robb, a NANEWS editor, and RAdm. C. S. Cooper, ACNO(Air) at presentation.

NAVY'S NEWEST CARRIER IN COMMISSION



'THE MOST VERSATILE POWER WITHIN A THOUSAND FEET OF STEEL THE WORLD HAS EVER KNOWN.'—ADM. ARLEIGH BURKE, CNO

ON JANUARY 10, the USS *Independence* (CVA-62) was placed in commission as 12,000 visitors looked on. The ceremonies were held at the New York Naval Shipyard.

Before Adm. Burke's address, Mrs. Thomas S. Gates gave a plaque, and Capt. Rhodam Y. McElroy, Jr., USN, took command of the fifth ship in our country to carry the name *Independence*.

Adm. Arleigh Burke, Chief of Naval Operations, in his address, said, "This ship combines a proud name in American history with the most mod-

ern and powerful naval capability in the world. . . . Its very name, *Independence*, is an inspiration to people everywhere who are struggling to assert their freedom and to take their rightful place as independent nations in a peaceful world community."

The *Independence*, like her sister ships, *Forrestal*, *Saratoga* and *Ranger*, can launch planes faster than any other type carrier in the world. Her four steam catapults make it possible to launch an aircraft every 30 seconds. Powerful hydraulic arrestors can stop 70,000-pound jet planes 150 feet after

they hit the deck at better than 100 mph. In a 24-hour period, the *Independence* is capable of constantly changing movement in excess of 600 miles. She will carry more than 100 jet-powered planes capable of carrying the latest weapons to targets far beyond the reach of earlier aircraft.

The *Independence* statistics are impressive. She is almost a quarter-mile long and has a four-acre flight deck. The SS *United States* and SS *America* could be placed on her flight deck with room to spare. She is built to accommodate 3,500 officers and men.

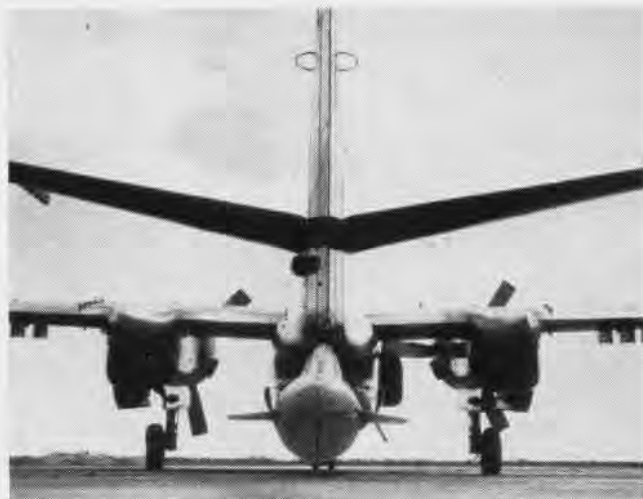


NATIONAL ENSIGN IS HOISTED INTO PLACE



APPROXIMATELY 12,000 VISITORS WITNESSED THE COMMISSIONING OF THE INDEPENDENCE

A BETTER MOUSETRAP



DETECTOR-MAGNETOMETER is mounted on tip of retractable S2F boom. MAD gear measures minute changes caused by ferromagnetic objects.



COMBINATION of unique "noise free" aluminum hangar and negligible iron content in Florida soil afforded optimum MAD test conditions.



TWO-GIMBAL rocking jig in foreground served as test bench for compensation theories. Major research centered on the distortion causes.

ONE WORD which best depicts the approach to everything at the Navy's Bureau of Aeronautics is *skepticism*.

To its scientists, researchers and more than 2000 employees, this mental attitude has been a major key to its amazing progress and the achievement of its single goal—to deliver a finished product to the Fleet when it is needed.

In consequence, no airframe, engine, accessory or system in operational use—although certified pure and "bug-free"—is considered perfect.

Throughout the years the aviation industry itself has quietly shared the BUAER frame of mind. Although a contract is signed—bird in air and money in till—the individual manufacturer keeps a jaundiced eye on his product throughout its lifetime. Through close and continuing liaison and coordination with BUAER, a second look brings a suggestion, suggestion becomes a project and project produces improved equipment.

Douglas may explore a new method of carrier arrestment to enhance the landing characteristics of its A3D. Lockheed's scientists may probe the chemistry of fuels with an eye to improved performance of its P3V. McDonnell after months of research and testing may suggest a different nose wheel strut on its F3H because it excels the one in current use.

An actual example of this type of industry effort is the manufacturer of the *Tracker*, Grumman Aircraft Engineering Corporation. Its skepticism was centered on the Magnetic Airborne Detection (MAD) gear installed in its twin engine carrier-based S2F.

In some ASW aircraft, like the P2V and P5M, which are not subjected to the shock of carrier cat shots and arrestment, the gear exceeded routine requirements.

In the case of the carrier-based S2F, a prime ASW vehicle, Grumman took more than a casual interest in MAD gear shortcomings reported by its field representatives.

Accordingly, in 1953, a project team was tapped to look into the matter. It aimed to "build a better sub mousetrap" by improving the MAD gear in the S2F.

Headed by George Klaus, a commander in the Naval Reserve and a top electronics engineer, the team, composed of three engineers and two pilots using an S2F-1, commenced operations at the Grumman plant at Bethpage, Long Island.

Klaus can claim an extensive background in avionics. After completing an advanced radar refresher course at MIT in 1942, he served successive tours as Radar Officer, Air Group Five; Electronics Officer, FAETUPac and closed his

wartime career as Head, VP Electronics (EL-22) in BUAER.

It was soon discovered that from a geological standpoint, the Long Island real estate surrounding the Grumman plant was a natural menace to the measurement of small magnetic field intensities required for MAD development work.

"Too much iron in the soil clobbered us," Klaus explained. "Garbage cans even bothered us."

"At low levels we were measuring the 'local-geology' signals which were strong enough to mask our aircraft troubles. We needed a new area."

The new area proved to be in the Grumman camp already—Witham Field at Stuart, Florida—a former Navy bounce site which Grumman had leased for winter test use shortly after WW II. In addition to excellent weather and negligible air traffic, the area offered an all-important advantage—the Florida soil contained little or no iron.

Immediate test work was begun with a series of eight flights in May, 1954 employing standard MAD gear.

What had appeared to be geological interference over Long Island turned out to be equipment installation faults. Primary causes were determined to be distortion owing to maneuver noise and distortion from magnetic fields associated with the aircraft itself.

Jury-rigging a model and the working innards of MAD gear in a motor-driven, two-gimbal rocking jig, Klaus was able to devise a method for eliminating most of the causes. But it took almost four years.

Concurrent with the scale model tests, repeated flights proved the operational integrity of Klaus' findings.

The ability to isolate unwanted magnetic distortion sources in Stuart's exceptional environment led to a unique solution. A different means of compensating for distortion was tried. Costly and weighty compensation devices in the standard gear were subject to human mis-adjustment which often required skilled recalibration.

The method tried by Klaus and Company, according to them, proved almost invulnerable to routine shock and use, inexpensive, practically weightless and required no maintenance. In addition, it could be installed in a relatively short period of time.

While one S2F with improved MAD gear didn't necessarily bring the ASW world rushing to Stuart's doorstep, it did bring a *Tracker* or two from many of the ASW squadrons saddled with compensation problems. Key squadron maintenance personnel accompanied experienced ASW crews in seeking out the word on the Klaus method of sleuthing with electronics.

Painstakingly the Grumman group explained and demonstrated. The informal gatherings provided a means for MAD gear maintenance and repair bull sessions—to the advantage of the Navy and the Klaus contingent. In a few cases it was necessary to overhaul and tune squadron gear. Said Klaus of this unofficial service, "We're not in the repair business, but we're on the same team. The S2F with properly compensated gear is equal to or better than other ASW airborne machinery—we aim to keep it that way. In our opinion, it is now less complicated and more effective."

Fully apprised of the Grumman effort at Stuart, a typical example of industry's assistance, BUAER harbors a keen interest and a keener curiosity as it eyes the MAD world around it. Science, sweat and *skepticism* pay dividends.



STUART PROJECT team included (L to R) Walter Eichen, Walter Berndt, pilot, George Klaus, and Walter McKerchar, an avionics technician.



REPEATED FLIGHT testing by company pilots and technicians established operational feasibility of lab findings. S2F had standard MAD gear.



GEORGE KLAUS (L), Grumman engineer, labored four years on effort to improve MAD gear. Here he explains technique to Navy crewman.

VAW-12'S SAFETY CONTEST

USUALLY a squadron means a group of officers and men flying, training and living together. But this is not a picture of a squadron like VAW-12 which operates 11 level-ready miniature squadrons, called detachments or teams, from the decks of Atlantic Fleet attack and ASW carriers.

Each team has its own AD-5W's and a small squadron type organization: pilots, controllers, radar crews and maintenance personnel. When embarked, each team is on its own with an officer-in-charge, and there are always reports.

The parent squadron at NAS QUONSET POINT must keep track of its aircraft, flight hours, personnel, and readiness. For every report required, the squadron must add information from the 11 teams. This is a wholesale operation when most of the 48 planes, 160 officers, and 600 enlisted personnel are spread all over the globe. These numbers are dwarfed by the numbers representing flight hours and carrier landings. In the first quarter of Fiscal Year 1959, VAW-12 flew 7000 hours and made 1700 carrier landings which indicates a yearly rate of about 25,000 hours and 6500 carrier landings.

This creates a special problem for the CNO Safety Awards Program in which hours and landings must be computed between accidents. Last week a "guppy" may have had its gear collapse on a flight deck in the Med, and six weeks later another "guppy" may engage a barrier aboard a straight deck off the East Coast. The reports require that the exact number of flight hours, day CV landings and night CV landings be computed for all 11 detachments between these two accidents. The necessity for another report from each detachment was obvious. Thus, the Monthly Detachment Safety Report was originated in which the number of flight hours and CV landings were reported for each day of operations. Then the Squadron safety officer simply had to divide the numbers as required. Since these detachments were on their own, the CNO Safety Awards Program as applicable to the home Squadron pro-

vided little safety motivation to these splinter groups in distant waters.

Therefore, an intra-squadron competitive safety program was established under the same safety point scoring rules as those in the CNO Safety Award Program, but on a smaller scale based on the number of aircraft assigned to each team. To inspire the team and advertise its accomplishments, a miniature AD-5W "guppy," representing the team, hangs on an eight-foot totem pole in the ready room. Recorded on the little "guppy" are a summary of the team's safety points to date and a summary from the monthly safety report. The "guppies" are hung on the totem pole in order of safety points accumulated to date. All members of the teams know, though they may be thousands of miles away, their "guppy" in the ready room will herald their safe operational achievements as well as their accidents for all to see.

Each team is kept informed of relative safety standings of each other team along with hours flown, landings and other safety news in the Squadron Monthly Newsletter. Team competition has been keen. The result of the program to date has been a lower accident rate than the squadron has enjoyed in years, in spite of operational commitments which have more than doubled since the program began.

All winning detachments will be nominated by the squadron skipper for the CNO Accident-Free Safety Award.

Marines Show Ingenuity Good Nose, Good Tail — Good F4D

Marines of Air Group 11, based on southern Formosa, had one F4D *Skyray* whose canopy blew off during flight



MARINE SPLICE UNDAMAGED F4D PARTS

maneuvers and smashed into the tail housing and another whose nose was damaged when a brake failure occurred during landing.

When the maintenance team first appraised the damage, they felt it would be necessary to ship both planes back to the States for repairs.

Then they decided to piece the undamaged front assembly of one plane to the unharmed rear of the other.

In a few days one complete *Skyray* was airborne, and two damaged portions were being shipped back to the States.

Japanese City Burned Out Seventh Fleet Ships Bring Aid

The small Japanese city of Koniya on Amami Oshima was 75% destroyed by a devastating fire.

Nineteen hours after RAdm. Edward E. Colestock, ComCarDiv 17, was alerted to "proceed at best speed to render whatever assistance possible," U.S. Navy ships had supplied the inhabitants with tons of food, medical supplies and tents.

An investigating party landed by helicopter from the aircraft carrier USS *Yorktown*. A courageous mayor told them that there were no plans to evacuate Koniya. "We want to rebuild our city," he said. The Navy pitched in and helped.

American humanitarian assistance continued until Japanese relief measures were taken to cope with the situ-



TERRIBLE RAVAGES OF THE FIRE ARE VISIBLE

ation. Seventh Fleet ships participating in the operation were the *Yorktown*, commanded by Capt. Porter F. Bedell, and RAdm. Colestock's flagship; the destroyers USS *Picking*, *Fechter* and *Preston*; the escort destroyers *Jenkins*, *Taylor* and *Walker*; the destroyer leader *McCain*; the store ship *Graffias* and the high speed transport, USS *Pickaway*. The Seventh Fleet is commanded by VAdm. F. N. Kivette.

Prodigal Plaque Returned Given to 'Sweet Pea' at Yokosuka

The aircraft carrier USS *Princeton*, last of the Pacific Fleet's axial (straight) deck carriers, recently added a chapter to her long career when her present skipper, Capt. William A. Dawson, received her commissioning plaque at Yokosuka, Japan, Naval Base. It happened this way.

Marine Capt. Lee F. Blanchard of Marine Air Group 13, a jet fighter pilot who is part-time Commissary Officer at NAS ATSUGI, Japan, was dumfounded to discover that one of the file drawers in his Commissary Office was occupied by a large piece of bronze, rather than by the usual records of how much hamburger and beans were on hand.

Examination revealed the object to be the commissioning plaque of the USS *Princeton* (CVS-37). A commissioning plaque is the nautical counterpart of a building's cornerstone and is definitely something no self respecting ship should be allowed to be without.



PLAQUE STARTS HOME TO USS PRINCETON

Capt. Blanchard arranged for a reunion of plaque and ship. He contacted Capt. Richard E. Harmer, former Executive Officer of the *Princeton*, stationed at NAS ATSUGI. Capt. Harmer quickly offered to deliver the plaque to CVS-37 when the "Sweet Pea" visited Yokosuka Naval Base.

How the plaque traveled from Philadelphia Naval Shipyard, where CVS-37 was commissioned July 8, 1945, to the drawer in Atsugi remains a mystery.

● In the Battle for Leyte Gulf, October 23-26, 1944, the United States naval and air forces decisively defeated the Japanese Navy. U. S. aircraft and combatant ships of the 3rd and 7th Fleets sank 3 battleships, 10 cruisers, 4 aircraft carriers and 9 destroyers.



LTJG. PARKER (L) BRIEFS CDR. MORTON (C) AND LTJG. FOOTE ABOARD USS FORRESTAL

HE FLIES THE HEAVIES

ONE OF THE oldest and finest traditions of Naval Aviation is that the Carrier Air Group Commander be proficient in, and regularly fly, all the types of aircraft assigned to squadrons under his command.

In the early days of carrier aviation this was not much of a feat, for the aircraft was basically all the same. It was usually a case of "read the pilot's handbook and go."

Then, when jet fighters began appearing on the carrier decks and more jets of all types were on the production line, it became obvious that the keeping of this tradition in the future was to be no easy task. Extra training was required.

When these part-prop and part-jet air groups embarked in their carriers, the CAG's carried on the tradition of those before them and were able to launch in a prop, a *Banshee* or a *Panther* with equal ease.

The AD is the only prop squadron in an attack carrier air group now and jets that make up the main part of the air group are more specialized and more complex than ever before.

Carrier Air Group Ten, present air group aboard USS *Forrestal*, is the most complex and versatile air group ever assembled. Included are the F4D *Skyray*, holder of the climb record; the F8U *Crusader*, speediest Navy

fighter; the A4D *Skyhawk*, smallest carrier attack plane in the world; the A3D *Skywarrior*, largest aircraft ever to operate from an aircraft carrier; and the AD *Skyraider*, the prop aircraft that is still a vital part of the attack carrier team.

CAG Ten is Cdr. A. O. Morton, who is determined to keep the CAG tradition in spite of the complexity of his air group. Seldom does an operating day at sea go by that Cdr. Morton does not launch on a regular mission in either the AD, A4D, F8U or A3D. In flying the A3D-2's of Heavy Attack Squadron Five from the *Forrestal*, Cdr. Morton is believed to have become the first CAG to fly the big birds operationally.

His flights in the A3D are not just token or proficiency flights, for he has a regularly assigned crew consisting of Ltjg. E. W. Foote as Bombardier/Navigator and E. E. Folkman, ADJ3, as Gunner/Navigator. Designated as crew No. 19 of VAH-5, his crew adds to the tactical capability and striking power of this all-weather, special weapons delivery squadron.

His direct knowledge of the A3D and its striking capability have already added to and improved the Air Group's all weather delivery capacity, according to Cdr. J. M. Tully, Jr., commanding officer of the A3D squadron.

LET'S LOOK AT THE RECORD

Atlantic Fleet Mark Set S2F's Fly 1483 Hours in 18 Days

In 18 days of operations with Task Group Alfa aboard the *Valley Forge*, Air Anti-submarine Squadron 36 broke the existing AirLant monthly performance record for ASW squadrons by flying 1483 hours.

While breaking the performance record, VS-36 set other marks. Squadron pilots flew 379 missions and made more than 500 carrier landings.

Squadron maintenance men kept 73 percent of the squadron's 21 S2F *Trackers* either airborne or available for use at all times. They worked 43,860 man-hours during the operation.

Chief Petty Officer Earnest M. James, maintenance chief, said, "These mechanics couldn't have kept on working forever, but they sure looked as if they would be willing to give it a try."

VF-81 Gets New Mission Pilots Qualify for VA in 24 Days

Members of Fighter Squadron 81 returned from a two-month midshipman cruise aboard the *Intrepid* to discover their mission had been changed from fighter to attack squadron.

Chief mission of the *Cougar* outfit was to maintain readiness while making the transition to A4D's. Cdr. L. Heyworth, Jr., and all 13 pilots in the squadron became qualified Attack Pilots in 24 days, earning eight individual E's in competitive exercises.



COL. H. E. HUMFELD, Commander 340th Bomb Wing, USAF, looks for room on flight jacket of Cdr. C. E. Carr to place AF Wing insignia. Cdr. Carr is Naval Liaison officer at SAC Headquarters, Offutt AFB, taking B-47 jam hops.

Death Rate is Lowered Pensacola Auto Deaths Cut to Five

Traffic deaths in the Naval Air Basic Training Command reached a new low of five in 1958, a drop of 59 from the high of 64 logged by the Command in 1954. Some 19,000 military and civilian personnel are employed in the command.

The chief reason given for the huge decrease in fatal accidents is the command's Safe Driving Council, headed by Paul D. Cochran.

When traffic fatalities reached 64 in 1954, RAdm. Dale Harris set up the council in an attempt to reduce accidents. The fatality rate has dropped consistently in succeeding years. It was 42 in 1955, 27 in 1956 and six in 1957.

Safety lectures are given, movies are shown, static displays are maintained, a driver merit program is in operation, printed matter and letters to servicemen's parents are mailed to create safety-consciousness.

In addition, the Highway Shore Patrol maintained by the Navy works in cooperation with the local law enforcement agencies.

Cochran believes safety is contagious. "We talk about it enough and the word gets around," he said. "And you don't get much resistance to something like safety where everyone benefits. Everyone is safety conscious. The program is paying real dividends."

12,000th Copter Landing HMR 352 on board USS *Thetis Bay*

Second Lt. David W. Martell, HMR-352 pilot, made the 12,000th landing on the helicopter carrier *Thetis Bay* with his HUS aircraft. First Lt. Richard S. Arnold flew as co-pilot.

The aircraft was returning from a Helilex mission, part of the squadron's training program. The training exercise was conducted in connection with a troop maneuver at Camp Pendleton.

During the problem the squadron was aboard the *Thetis Bay*, flying support missions for the ground troops.



FIVE-YEAR-OLD Diane pinned the Navy wings of gold on her father, Lt. Fred Kelly at NAAS Chase Field. He is now one of six select officers in the Navy who are both doctors of medicine and qualified jet pilots.

VA-36 Pilots Earn 44 E's Fliers Nicknamed 'Roadrunners'

Seventeen A4D pilots of VA-36 earned 44 E's during a four-week deployment at Guantanamo Bay. Weapons delivery exercises included medium angle loft, low angle loft, high angle dive, and over-the-shoulder loft.

Ltjgs. Bob Taylor and Don Furrow scored 100 percent by earning an E for each exercise.

The pilots earned the nickname of *Roadrunners* on low-level navigation runs over the Caribbean area as the squadron prepared for duty with Carrier Air Group Three.

Squadron pilots expended nearly a half-million gallons of jet fuel in 831 hours flight time and before returning to Jacksonville, figured they had flown far enough to reach the moon.



CONGRATULATING LCdr. John Ralston, Jr., Navy Test Pilot, assigned to NATC Patuxent River, is Capt. J. L. Nielson. By completing his 2000th jet hour in an F8U, Ralston joined a group of very select Navy pilots.

BEHIND THE BARBED WIRE

How does it feel to be a prisoner of war? How would you react if you were interrogated, threatened and harassed by the enemy while you were freezing in a barbed wire POW stockade in two feet of snow and 10-below-zero temperatures?

Three Marine Attack Squadron 332 pilots have answers to these questions. Lieutenants William Scheuren, Larry Dunning and Larry Robinson found out first-hand how it feels to be a POW while attending the Marine Corps' Evasion, Escape and Survival Course at the Cold Weather Training Center, Bridgeport, California.

As spokesman for the trio, Lt. Robinson related their experiences.

"Our 12-day training course began with two days of lectures. Then any similarity to other service schools ended. After being told that we were POW's, we were hustled into a barbed wire enclosure surrounded by machine gun emplacements. Stripped of all valuables, we were allowed to keep only a minimum of clothing. Our instructors, all veterans of Korea, became abusive 'enemy' guards.

"Two days in the compound became an eternity," Lt. Robinson continued. "Simulated torture and harassment, coupled with individual and

By SSgt. Jack Baird, USMC

group interrogation, turned hours into days. We were confronted with favorite enemy tactics, such as the 'Mutt and Jeff' treatment.

"First, a 'sadistic' guard would force a prisoner to crawl on his hands and knees, or push and shove him around. Then a 'friendly' guard would order the harasser away and would try soft-soaping the POW with food, cigarettes and other favors.

"POW organization within the compound became a must," Lt. Robinson emphasized. "With no organization, our food and clothing would not have been properly divided. Organization was necessary also for escape planning. The enemy would often place the lowest ranking prisoner in charge of other prisoners to prevent organization within the compound.

"After two days of confinement, we were schooled thoroughly on escape and survival tactics. Then we were encouraged to escape by using our own ingenuity. Those of us who escaped were forced to evade our captors and survive on the fat of the frozen land. Equipped with only one can of 'C' rations and a fishhook, three of us dodged the enemy while making our way to a so-called freedom point.

"For the most part, we had to survive by our wits. Our main diet consisted of fresh-caught trout and edible barks and herbs. With the aid of native 'partisans' we reached the freedom point five days after our escape. Our reward was a meal of steak and eggs," Lt. Robinson concluded.

Looking back, the three VMA-332 pilots said they would rather not attend POW training again, but each agreed that the lessons learned would be invaluable if he were forced down behind enemy lines.

Evasion, Escape and Survival Training is designed for pilots, crewmen and officer and enlisted ground personnel serving in such units as reconnaissance and intelligence. To date, some 150 members of the Second Marine Aircraft Wing have taken the course. This course is one of many such survival training courses conducted for Naval Aviators and crewmen throughout the U. S. Navy and Marine Corps.

Grumman Builds New Lab Reduced Development Time is Seen

Construction of a \$4-million avionics engineering laboratory has been started at Grumman's Long Island facility. The 55,000 square-foot structure will be used in future aircraft, missiles and space vehicles.

Oscar F. Olsen, Grumman's Manager of Avionics, said, "The facility will greatly reduce development time."



WHEN CAPT. H. S. JACKSON, C.O. of the U. S. Naval School, Pre-Flight, requested insignia plaques, he received an outstanding response from 98 Naval and Marine Aviation Squadrons, activities and ships. Plaques from these squadrons now hang in the academic halls of the school. They were received from VF-11, 51, 53, 91, 121, 144, 152, 154, 156; VMP-232, VMF(AW)-115; Attack Squadrons 25, 55, 56, 76, 93, 116, 151, 215; VA(AW)-35, VAW-11 and 12, VMA-224; VW-2; Heavy Attack Squadrons 1, 2, 3, 5, 7, 11; VP-1, 6, 7, 9, 10, 11, 18, 23, 26, 47, 50 and 56; FASRons 4, 6, 9, 11, 106, 108, 111, 113, 114,

116, 118, and FASRon Special 200; Air Development Squadrons 1, 3, 4, 5; VR-7, 21, 22; Utility Squadron Two, Nuclear Weapon Training Center, Pacific Tactical Air Control Group One; Fleet Tactical Support Squadron One, GMSRon-2; Anti-submarine Squadrons VS-21, 30, 32, 36, 37; VFP-61 and 62; VAP-61, AEWRon-4; VMR-352; VMCI-3; FAETuPac, FAETuLant, Fleet Air Wings 3 and 14; Flight Test, Blue Angels, Armament Test, Carriers Kearsarge, Intrepid, Ranger, Wasp, Antietam, Hornet, Valley Forge, ZP-3, HS 2, 6, 7, 8, Tacron-12 and Fleet Air Gunnery Unit. Other plaques are scheduled to be sent in.



FAGU PARADE: FJ-4B IN LEAD, F4D-1 ON LEFT, A4D-2 ON RIGHT, AND F8U-1 IN SLOT

NAVY GRADUATE SCHOOL OF WEAPONS TRAINING



FLEET AIR GUNNERY UNIT, PACIFIC, IS HOST TO ANNUAL NAVAL AIR WEAPONS MEET

FLEET Air Gunnery Unit, Pacific, located at Naval Auxiliary Air Station, El Centro, has stiff entrance requirements. Only a pilot with long flight experience, 1200 hours of military flight time and 600 hours in attack or fighter squadrons (100 hours of jet time) can qualify for the post-graduate course in aerial gunnery. He must also have completed five years of active service and be a qualified division leader or higher.

Reason for these tight requirements is that after the FAGU student spends 60 hours in a classroom and 40 hours flying during his five-week course, he is expected to become an instructor.

The Fleet Air Gunnery Unit was commissioned nearly seven years ago, on 22 May 1952 to provide aerial gunnery training to Navy and Marine pilots. The first "plank holders" were four officers and 46 enlisted men. The first class with four students in a four-week course were using the F4U-4.

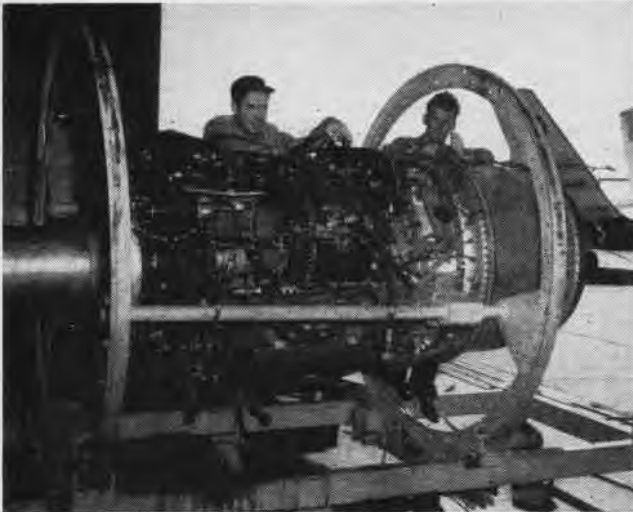
But there is a great deal more to FAGU now. Air weapons training at instructor level now includes air-to-ground and all-weather training in addition to air-to-air weapons training.

The complement has grown to more than 400 officers and men. Classes last five weeks and accommodate 11 students. In their weapons training, they fly the F8U-1 *Crusader*, FJ-4B *Fury*, F4D-1 *Skyray* and A4D-2 *Skyhawk*.

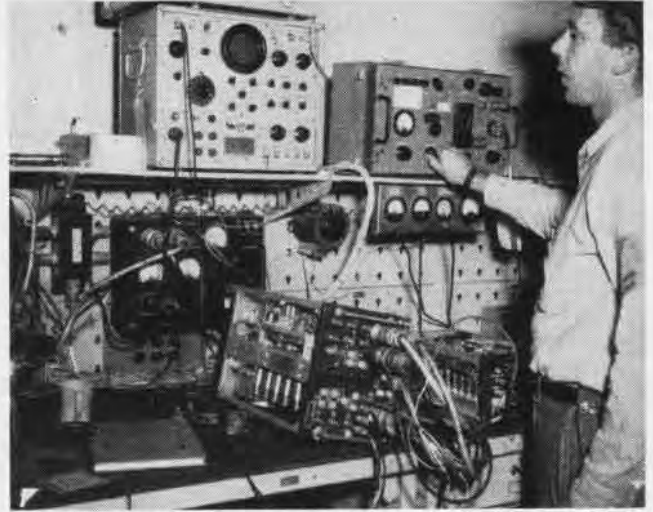
Each December FAGU convenes a short two-week course designed for staff or senior air group officers who need a refresher on current weapons and aircraft but cannot attend the normal five week course.

Cdr. Richard D. King, skipper of FAGU, and his executive officer, LCdr. L. W. Baldwin coordinate the work of five departments: Training, headed by LCdr. L. G. Gifford, prepares the syllabi with the latest word in weapons delivery and tactics; Lt. R. H. Hartzell and his staff are in charge of aircraft maintenance; Ltjg. C. F. Young is in charge of Materials; Lt. R. J. Moore handles all ordnance — bombs, rockets, missiles and special weapons— while Lt. R. M. Zook is in charge of Administration.

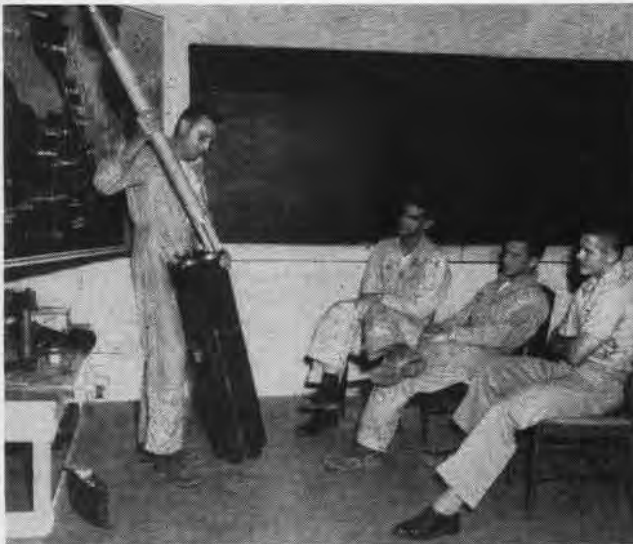
Because Fleet Air Gunnery Unit Pacific is being moved before July 1 to MCAAS YUMA, the annual Naval Air Weapons meet will be held this year in October at the new location. The Unit will, as usual, serve as host.



KENNEY, AD2, AND HAPGOOD, AN, WORK HARD ON J-65 ENGINE



FOX, AQ2, ASSIGNED TO RADAR MAINTENANCE, TESTS AN APG-30



FAGU F4D-1 FLIGHT COMMANDER, LT. R. D. MULLEN, LECTURES



LTJG. J. T. CARROLL (R) GIVES ROCKET LAUNCHER DEMONSTRATION



LT. D. N. MEALY (C) DISCUSSES WEAPONS FLIGHT WITH STUDENTS



CAPT. A. N. SCHAFF (R) CHECKS BANNER FOR HITS STUDENT MADE

FAHEY GIVEN MERIT AWARD



MRS. JOY HANCOCK OFSTIE, MR. FAHEY, AND ASST. SECNAV JACKSON STUDY CITATION

JAMES C. FAHEY'S *The Ships and Aircraft of the U. S. Fleet*, a standard reference guide and comprehensive listing of Navy flying and floating equipment for two decades, has been awarded the Navy Certificate of Merit.

The award was presented to Mr. Fahey by the Honorable Richard Jackson, Assistant Secretary of the Navy for Personnel and Reserve Forces.

Familiar to a generation of Navy men as a training and recognition handbook, *Ships and Aircraft* has won world-wide recognition and usage. Of primary interest to researchers, educators, historians and industry, the fact-packed booklet contains complete run-downs and photographs of Navy, MSTS and Coast Guard ships, a comprehensive section on missiles and submarines, and a thorough presentation of Naval aircraft.

A frequent contributor of factual Navy material for *Our Navy* in the 30's, Fahey's painstaking research for these articles grew into a sizable compilation of facts and figures on Navy ships and planes. Encouraged by Navy officials, Fahey launched the first edition of *Ships and Aircraft* in 1939. In all, seven editions of the guide, whose accuracy Fahey asserts is "like the well known floating soap—only .56% im-

pure," have appeared up to this time.

The citation accompanying the award, which was made for outstanding service to the Department of the Navy in the field of public information and education, stated:

"The seventh edition of Fahey's *Ships and Aircraft* of the U. S. Fleet, as well as previous editions, represents a vast storehouse of information relative to ships, aircraft and command elements that serves as a vital tool in the hands of Navy and Marine Corps public relations personnel unobtainable from other unclassified sources. The dignity and decorum that the publisher has shown in the booklet's layout, the accuracy of detail, the wealth of information can only reflect creditably on the Navy and Marine Corps."

Fliedner Award Established To be Given for Outstanding Work

A new award, the Charles W. and May S. Fliedner Trophy, has been established for BuAer civilian employees. It will be granted annually to a civilian employee of the Bureau of Aeronautics, field or departmental, who has made a superlative contribution to BUAER in his field of endeavor and thereby reflected credit and honor upon the United States Navy and Civil Service.

In determining the recipient of the annual award, consideration will be given for distinctive work displaying unusual executive, administrative, scientific or technical ability. Personal contributions which have produced significant tangible results in advancing scientific progress, design, development, procurement, production or maintenance techniques and have a bearing on the accomplishment of BUAER's mission will also be important considerations.

Civilian personnel, both male and female, who have been in full-time employment with BUAER or its field activities for at least three years are eligible for award consideration. There is no age limit.

Each nomination will include this information: name of nominee, post office address, date and place of birth, marital status, name of spouse and names of children, plus position.

The sterling silver trophy was given by Carlyle S. Fliedner upon his retirement from the Federal Service after 36 years with the Navy. He was a BUAER aircraft engine authority.

Airmen to Adopt Orphan Subscribe to 'Foster Parents' Plan

Squadron Four members of Basic Training Group Three at NAAS WHITING FIELD have filed an application to adopt a displaced orphan from Europe.

Lt. "Buss" Russell became impressed by the merits of the "Foster Parents" plan and passed literature he had received from the organization to instructors in Squadron Four.

Enough BTG instructors subscribed to the plan to guarantee the minimum of \$15 per month for at least a year.

'Facelift' is Successful Scrap Aircraft Converted to Cash

Operation Facelift at NAMC PHILADELPHIA has resulted in a cleaner base and savings of \$11,749.90. The 662,120 pounds of scrap aircraft and other metal collected during the drive and transported to a salvage disposal area accounted for the savings.

Included in the scrap were 35,060 pounds of wings, fuselages and tails of F8B, F7U, FJ-1 and XFJ-2 aircraft which had been used as test subjects in aviation research and development.

BAMR IS A WORD FOR HELP

IS YOUR squadron having trouble with maintenance snafus? Technical Directives got you guessing? Availability poor because of short supply? On top of it all, got a salvage job which makes you wish you had orders? Are things like these bothering you?

There's a pointed remedy—send for BAMR, otherwise known as the Bureau of Aeronautics Maintenance Representative. Here's where and why.

Three BAMR headquarters are located at Norfolk (Eastern District), Pensacola (Central District) and North Island (Western District).

Each of these supervises and lends Field Service Representatives who operate as teams. Their function is to "advise and assist operating activities to utilize proven procedures and strengthen established channels to obtain maximum aircraft availability and performance."

In the case of the BAMR, Western District, which was the first to implement fully the field service concept, its teams are located at North Island, Miramar, El Toro, Pt. Mugu, Moffett, Alameda and Whidbey Island. From these permanent locations, the field service reps also attend the needs of some 13 other Naval Air activities in the west from Seattle to Ream Field.

The two-man team method of operation is a practical one. During its first year, the Western District teams handled 12,000 cases of fleet assistance, the majority of which were accomplished on the spot without recourse to the home office.

In 750 complex cases, a special reporting system was utilized to provide rapid assistance. Technical reports in these cases were fired back to BAMR headquarters for analysis by a small group of technical experts who man the North Island (San Diego) office. Solutions derived from group study were quickly relayed to field teams for application.

The field service organization has additional uses. Various BuAer projects are given local presentation by team members, thus enabling BuAer to obtain quickly an accurate, realistic picture of field conditions on a variety of subjects. One of these involved a complete inventory of critically short



BAMR semi-annual seminar brings Western District field service representatives together for late word, periodic briefings. Group shown totals 250 years of air maintenance experience.

ground support equipment; another, user recommendation on improvement of Technical Directives System. A team assignment to a new squadron entailed the improvement of the ratio between hours flown to maintenance man-hours expended.

An example of the versatility of BAMR assistance in the field concerns the salvage of a TV-2 from a muddy field near Encinitas, California. The operation, complicated by unusually adverse circumstances, was placed in the hands of Miramar's field service rep, John Crocker, who coordinated the project. Salvage of the jet was accomplished so successfully that it was repaired in short order and returned quickly to operational status.

Similar to the field service organiza-

tion which functioned under BUAER during WW II, the major difference is in the use of civil service personnel instead of military. The merit of the



MIRAMAR field rep Crocker was called on to coordinate difficult salvage of crashed TV-2

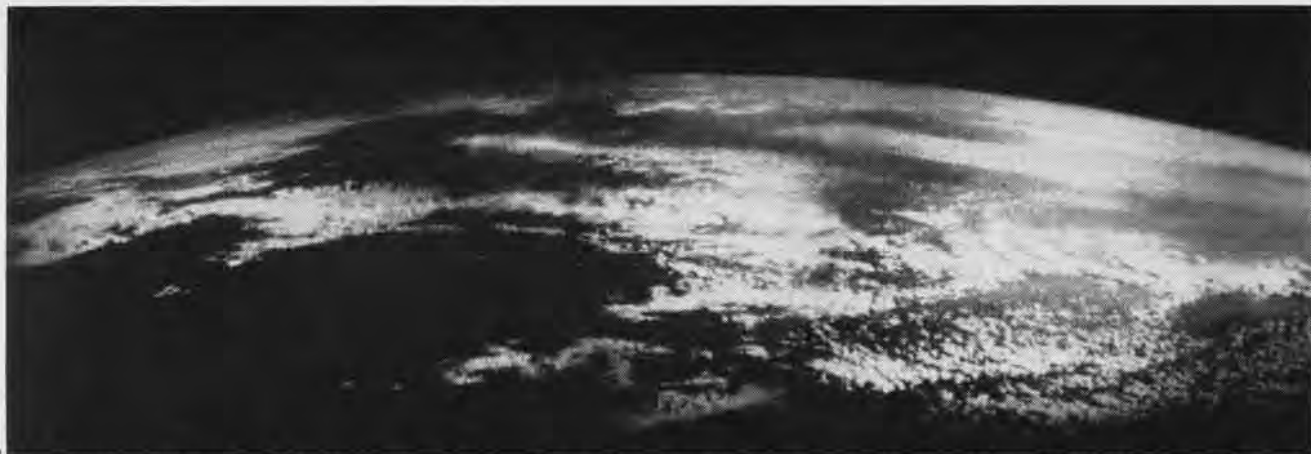


CAPT. LAWLER checks NC-3-AIR, an all-purpose starting and electrical service vehicle.

system has been proved over the years.

The Western District Group, which was formed and trained under Capt. Joseph T. Lawler, is now headed by Capt. O. F. Meyer. Its 16 members represent more than 250 years of experience in the aircraft maintenance field—a sizeable chunk of technical know-how.

There you are. BAMR spells HELP—if you need it, just reach for them.



THIS 6-PICTURE MOSAIC, SHOT AT 86 MILES ABOVE THE EARTH, SHOWS ENTIRE WEATHER FRONTAL SYSTEM SPANNING 1000 MILES

WHEREVER CLOUDS GO, HUGO

SCIENTISTS from the Office of Naval Research, the National Aeronautics and Space Administration, the Naval Research Laboratory, and the U.S. Weather Bureau described in Washington the first successful firing and recovery of a Project HUGO (highly unusual geophysical operation) rocket.

The HUGO rocket, employing a Nike-Cajun booster and fired from a Navy Terrier-type missile launcher at Wallops Island, Va., December 8, reached 450,000 feet. Its specially-designed cameras recorded photographs of a half-million square mile area which gave the clearest picture yet rendered of a weather frontal system and its associated cloud formations.

Film recovered at sea from the rocket's nose cone shows the frontal

cloud formations over an Atlantic Ocean area, starting about 200 miles off shore and stretching about 800 miles further seaward. The mosaic strip shown above represents six separate exposures, blended together. It covers approximately 1000 miles and compares roughly with the distance between Maine and Florida.

This is the first time man has been



they hoped, through an understanding of large frontal systems, to gain better understanding of the circumstances under which hurricanes are born. Heretofore, hurricanes have been observed from such low altitudes that only one storm, or a portion of one storm, could be studied. Each storm has had characteristics different from other storms. But they hope to learn through studying high altitude photos what cloud conditions might be common to all storms.

Project HUGO is being conducted by the Office of Naval Research with financial assistance from BUAER, the Weather Bureau, and technical help from NRL. It is designed to continue research into meteorological phenomena in an effort to improve the accuracy of weather predictions.

HUGO is an outgrowth of experiments begun in 1946-47 to create rainfall or snow by seeding high clouds with dry ice. Other experiments, such

able to look down from so high a vantage point on physical manifestations of the weather front theory which meteorologists have used for the past 40 years to analyze weather.

Scientists describing the successful experiment declined to speculate on specific applications of such high altitude photographic observations of weather, but they made it clear that



as Project *Cirrus* in 1947-49, and Project *Scud*, with the same goal in mind, achieved varying degrees of success in cloud modification but all focused attention on the need for basic research leading to a better knowledge of cloud physics.

Project HUGO began in 1956



when ONR contracted with New Mexico State University to design and construct a rocket camera package. The cameras, modified versions of gun-sight aiming point cameras used in wartime, were prepared by Otto Berg, formerly with NRL and now in NASA's Space Science division.

The capsule, or "can," designed by the university has, in addition to the two cameras, a radar tracking beacon, a miniature homing transmitter, a primary and secondary programming device, a nose jettison circuit, a drag parachute, a separation system, four blocks of slowly dissolving sea dye marker, and adequate power supplies. The total weight of the cannister, with air sealed in, displaces less weight than sea water, providing buoyancy.

Accompanying diagrams explain HUGO's functions from rocket launch



to impact of the instrument package.

The HUGO unit was designed to be set on a shelf, and to be readied for launch within three hours for such missions as hurricane surveillance. Its batteries are re-chargeable.

That all experiments are not conducted by white-gloved scientists working in comfortable, orderly laboratory conditions, was revealed by LCDr. Willard Houston, ONR Project Officer for HUGO, as he described the December firing and recovery.

"The wind was blowing 25 to 30 knots and the state of the sea was five or six (10 to 12-foot waves.) When the rocket was fired, it weather-cocked into the wind."

Heretofore missile and rocket firings have been delayed until good weather prevailed. The HUGO shot was made intentionally in bad weather.

"This weather cocking gave us a bit of trouble later, because it caused the HUGO can to fall 30 miles southwest of the spot where the recovery ship was stationed to pick up the can.

"Before the missile was fired, however, a P2V-6M from NAOTS CHINCO-TEAGUE had been launched to track the can as it descended. I had been flown out to the destroyer *Leary* in a helicopter provided by VU-4 so I could track the falling can from the ship.

"Wallops Island gave us a radar indication on where the can would fall



as soon as the rocket reached altitude. The P2V flew toward the impact area, picked up the radio signal, and pinpointed the spot.

"Aboard the *Leary*, which was steaming at 21 knots toward the impact area, the heavy seas were breaking over the bow so badly that we could not stand on the flying bridge to operate our portable radio direction finder. The P2V kept tracking the can and orbited long enough to vector the *Leary* to the spot.

"Once in close range of the can, the *Leary* slowed down, and we located the can by RDF. We spotted it visually from about 150 yards. The captain brought the *Leary's* bow so close aboard the floating can that a bosn's mate picked it up with a grappling hook. We didn't even have to lower a boat to make the recovery."

Total cost of equipment for the first HUGO shot was approximately \$15,000. By re-using the same can, the 10 subsequent shots planned for this year will be made at even less expense.



NIKE-CAJUN, WITH HUGO ROCKET, RESTS IN TERRIER LAUNCHER AT WALLOPS ISLAND

RESCUE TRAINING AT REAM

MEN OF Helicopter Utility Squadron One, stationed on the cruisers *Helena* and *Columbus*, recently rescued 116 men, women and children from a ship which was broached and breaking up on rocks south of Hong Kong.

The feat was made possible by the unique and thorough training HU-1 men received at Ream Field near Imperial Beach, Calif.

"When the men arrive here to begin their tours of duty with HU-1," Cdr. A. C. Snyder, Commanding Officer of the unit, said, "they are told the im-



AIRMAN TERRY CHECKS IN FOR HU-1 DUTY

the Legion of Merit, 38 the Distinguished Flying Cross, 160 the Air Medal and 38 the Commendation Ribbon.

The squadron itself holds the Presidential Unit Citation for "Extraordinary heroism in action against enemy aggressor forces in Korea from 3 July 1950 to 27 July 1953."

HU-1's jobs are not always rescue. The squadron has been called upon to furnish helicopters for everything from seeding for the California Agriculture Department to making mine reconnaissance and a variety of other jobs.



HE GETS ENGINE CHECKOUT FROM V. J. SMITH, AD2, CREW CHIEF



WITH MILLER, AN, HE LEARNS NAVIGATION FROM LTJG. BOB ROBERTS

portance of their job—and the necessity of learning it well. It is simply a matter of their learning it, or sometime, somewhere, it may cost a downed pilot his life."

The dramatic rescue off the Paracel Islands is but one of many the helicopter men make almost every week. Most rescues, of course, never receive nation-wide attention. HU-1 units are scattered from the North to the South poles and from San Diego to Japan.

They never deploy as a squadron, but usually as units of two pilots and six crew members. They ride every major U. S. Navy ship in the Pacific.

During the war in Korea the helicopters, pilots and crews were put to their first test and they answered it with efficiency and bravery. One man from the squadron earned the Congressional Medal of Honor, three the Navy Cross, five the Silver Star, two



OPERATING HOIST, HE PERFORMS A RESCUE

Because the problems of Helicopter Utility Squadron One are experienced by few other squadrons, its training program must be unique in many ways. Unlike most combat units, the detachments deploy in small groups.

Further, they are trained to rescue and help rather than to destroy as fighter and attack squadron men are trained. They learn to take expert care of the helicopter, they are taught administration and supply procedures, and they must master a host of minor but necessary detail before they are considered fully qualified.

No man can be lax or "pass the buck" because there is nobody to do his work if he cannot or does not do it. In other squadrons, the untrained or new man goes on deployment with the squadron because the move is made "en toto." The green man can learn his job while on deployment, and if he

proves unsatisfactory, he can be moved to another job, an impossibility for HU-1 units.

Members come from a variety of environments and have had varying degrees of Navy training. They must be fitted into small teams capable of taking care of themselves under any circumstances.

A typical man is David R. Terry, who reported to the squadron in February 1956 as an Airman. He has worked his way to third class Aviation Machinist's Mate and is ready for his second class advancement.

Asked if he could find an elusive mechanical failure and repair it working alone, he answered: "Of course, if it could possibly be done with the tools and parts on hand, I could do it. Any of the men working here could. The helicopters are our first concern."

Training for Terry started on his arrival. He attended classes in navigation, safety, loading balance, first aid, ditching procedures, radio operation, shipboard life, and other related subjects.

Then he was sent to the Navy Survival School where he was rescued from the water by helicopter, thus experiencing the other side of his work. He attended classes and had actual practice in beach and wilderness survival. He was given personal help in his own rate and also learned the operation of the rescue apparatus carried in the helicopters.

When he had finished his training, he went to sea aboard a carrier to acquaint himself with shipboard life, and to learn the conditions under which he would have to maintain his helicopter during deployment.

Ltjg. L. H. Gjerman, HU-1 training officer, says the men consider it an honor to be selected for a long cruise and they work toward such an assignment from the time they report to the squadron.

From recorded observations made on each man as he undergoes his training and the short cruises, men are selected for deployments of two to six months. Terry has had two long cruises, the latest to the Antarctic.

Whether the cruises are long or short, there is always a chief or first class petty officer in charge of the helicopters. The petty officer has had years of maintenance experience, and the less-experienced men work under



TERRY BECOMES UNDERWATER SHADOW AS HE RIDES DILBERT DUNKER INTO THE DRINK

his direction. But all are well experienced in rescue procedures.

Pilots of the helicopters experience a similar training schedule, but not so extensive as that given the crewmen, since they report to the squadron after receiving pilot training at Ellyson.

However, there is still squadron administration, survival school, and the tricky job of maneuvering the helicopter while the crewman mans the rescue hoist. During this operation the pilot must hover his helicopter steadily while the crewman lowers the cable

through the open hatch and lifts the rescuee from the water. The same procedure is used when removing a person from a small ship.

Cdr. Snyder sums up the results of HU-1 training in these words:

"When the men arrive at the squadron for training they are little more than boys. After they have returned from a cruise where they put the training received here into action, they have a new maturity and a measure of self-confidence that comes only to men who know and like their jobs."



NOW AN OLD PRO, TERRY INSTRUCTS AIRMAN GEO. HOPKINS ON ENGINE MAINTENANCE

RESERVES COME A LONG WAY



CHIEF WEST travels light on the long monthly haul from Colorado to California and return. He hasn't missed a VP-711 drill yet.



VS-752 PILOTS test their new immersion suits the hard way. Top, Ltjg. Thomas, LCdr. Grey. Bottom, LCdr. Vincelli, Cdr. Moutenot.

NEITHER snow, nor rain, nor gloom of night stay these Warriors from their drills. Here are two yarns of commuters truly devoted to duty.

VP-711 Man with Motivation

Any potential drill dodgers could well take a lesson from Chief Chuck West of Patrol Squadron 711. He drives almost 2300 miles to drill with his squadron each month.

The aviation electronics man had only one question when he bought the *Flying Lazy H Ranch* at Mesa, Colorado, over a year ago: Could he continue his affiliation with his outfit, based at NAS LOS ALAMITOS? This was important to him. He had been with VP-711 since it was commissioned in 1946—back in the days when it was called VPML-58—and he hadn't missed a drill in all that time. He had made lifelong friends. The thought of transferring to another squadron was completely intolerable, so he ruled out the idea.

The *Lazy H* is a 400-acre spread, stocked with everything from mountain trout to cattle. In season, the Chief serves as a guide for pack-trips and hunting expeditions around his sprawling empire. "When the time comes for my drill weekend, I just load my gear into my car and hit the trail for Los Alamitos." This is no short journey. From portal to portal is just about 1150 miles. Chuck's

weekend starts early Friday and ends very late Monday.

How long will the commuting continue? "Until I retire from the Naval Air Reserve," says Chief Chuck West.

Pedaling Pilot Proves Prowess

The United States Marine Corps is famous for its travel adventures on land, sea and in the air. But a Marine Air Reserve Captain's 65-mile bicycle trip to fly a jet plane seems to top the list.

Capt. Franklin B. Rogers, a pilot in Marine Attack Squadron 144, pedaled his two-wheeler from his home in Gainesville, Florida to attend his week-



LCOL. HARRISON greets Capt. Rogers, who looks hale and hearty after his hard bike ride.

end training stint at NAS JACKSONVILLE—the whole 65 miles.

The trip was the result of a discussion that Capt. Rogers had with the Commanding Officer of the Marine Air Training Detachment at Jax, LCol. Patrick Harrison. They were lamenting the lack of physical fitness on the part of some Marine Reservists. "Why," said Capt. Rogers, "I'd ride my bike to drills, if my tires were in better condition." The Colonel, a pedalist himself, took him up on it.

Rogers is a student at the University of Florida. Immediately after a math class one Friday, he mounted his Schwinn and, at 0840 set out. Upon his arrival at the VMA-144 barracks, four hours and 50 minutes later, he was congratulated and commended for his actions by BGen. Frank C. Croft, Commander, Marine Air Reserve Training, who was at Jacksonville for annual military inspection. The General warmly approved of the Captain's ideas on physical fitness, though hardly advocating it for every Reservist.

Asked if he would like to make the bicycle trip again, Rogers replied, "Sure I would. Want to come along?"

VS-752 Gets New Poopy Suits

The proof of the pudding is in the eating. When the men of Anti-Submarine Squadron 752 at NARTU LAKEHURST received new immersion suits, designed to prevent ill effects

from exposure to water and weather, they decided to give them a real test.

On a cold, wintry day, Cdr. Charles Moutenot, LCdr. Donald Grey, LCdr. Joseph Vincelli and Ltjg. James Thomas went for a plunge in the nearest body of icy water. The suits served their purpose; the pilots stayed warm as toast. So much ASW training is conducted over water that it's essential to be prepared for a drop in the drink.

Civilian Padre Honored

For more than 12 years the Reverend Francis X. McGinty served as auxiliary Chaplain at NAS WILLOW GROVE. Then he was transferred to Philadelphia and could no longer serve in that capacity. Capt. Lyman R. McAboy, the commanding officer, and all hands arranged a farewell tribute to the man who had given so much of himself.

Capt. McAboy met Father McGinty at the Main Gate and took him to the aircraft hangar where he was met by a special honor guard, composed of two enlisted Navy men, an enlisted Marine and a civilian fireman—all of whom were aboard the station when the priest first took up his duties. With all the officers and men standing at attention in inspection formation, he was escorted to the speaker's rostrum.

After a brief address by the skipper, the ceremonies were turned over to John S. Kelly, PHC. The Chief unveiled a black onyx desk set and clock with the inscription, "In appreciation



FATHER MCGINTY expresses his gratitude for tribute rendered him by NAS Willow Grove.

for your Moral and Spiritual Guidance—August 1946 to November 1958," and presented it to the padre.

Father McGinty was deeply touched. In his impromptu speech, he said, "I wish to give you my heartfelt thanks. It has been a great pleasure to have served with you. I extend an open invitation to each and everyone of you to visit me at any time you wish."

VP-671 Played Santa's Helpers

This is a Christmas story, but it could probably have happened at any other time of the year with the same wonderful cast of characters.

Lt. W. Thomas Fitzgerald, a member of Patrol Squadron 671 at NAS ATLANTA, is also a student of Episcopal Ministry at the School of Theology,

University of the South in Sewanee, Tenn. When VP-671 got the word they were going on a training mission in the Caribbean, they conjectured that old Santa might need a few helpers in the area.

It just so happened that one of Lt. Fitzgerald's former schoolmates, the Reverend Paul H. Mallei, now runs the St. Mark's Mission near Ponce, Puerto Rico. He had kept in touch with people in Sewanee and had given many descriptions of the impoverished conditions. In this section eggs cost as much as 50 cents apiece. Mr. Fitzgerald decided to do something about it.

The idea of helping his mission spread fast in the little community. Students and townspeople alike took part in helping out the people in need. The whole campus pitched in. St. Luke's society, composed of 79 students in the seminary, gave \$100 for groceries; the women's auxiliaries gathered food and clothing; the fraternities, of course, took a very active part in the big program.

Three thousand pounds of food and clothing were collected and stored in the auditorium. One woman gave two dozen fresh eggs, for which Mr. Fitzgerald took personal responsibility for delivery. (They arrived unbroken.)

Mr. Mallei met the heavily laden aircraft of VP-671 at NS ROOSEVELT ROADS. He was stunned. A week later he was still hauling loads to his mission in his station wagon, a four-hour drive each way. He sent his deepest appreciation to everyone who helped bring happiness and joy to his people.



RETIREMENT ceremonies for a famous Bay Area landmark were held at NAS Oakland in the form of an open house. Hundreds of local

residents visited the last West Coast Navy blimp, flown by ZP-871 until deemed unsafe. Youngster at the controls had a real thrill.



IN FOREIGN SKIES



HON. CHOONG CHUNG OH, Korean Consul General in Hawaii (R), presents Korean Presidential Citation to VR-21 aircraft crew in Hawaii as Adm. H. G. Hopwood, CinCPac, looks on. Recipients, who flew President Rhee on state visit to Vietnam, are LCDrs. L. E. Robison, L. C. Salmons, Ltjg. Paul Heinz, LCdr. R. E. White, J. M. Wilbite, ADC, O. C. Simmons, ATC, V. B. Calvo, SDC, Pat Herring, ADI, K. L. Hicks, AT1, J. E. Anderson, AE1 and I. Montefalcon, SD2.

French Fighter Tested

The prototype of the French single-seat *Etendard IV M* jet fighter constructed by Dassault recently underwent deck-landing tests carried out by the British test center at Bedford.

The *Etendard IV M* aircraft first flew in May 1958. With fold-back wing tips, it is designed for operations aboard the *Clemenceau* and *Foch*. It is powered by an Atar 7800-lb. thrust jet engine.

The tests in England, which included catapulting and arresting, were carried out by French test pilots.

France Gets Martin Seaplane

France has received the first of a group of Martin P5M-2 anti-submarine warfare seaplanes which have been ordered under the Military Assistance Program to bolster NATO defense forces. The twin-engine planes are similar to models currently in production for the U. S. Navy.

The event marks the first delivery of P5M-2's to a foreign government. Robert Valeur, minister plenipotentiary at the French Embassy in Washington, D. C., received log books for the first of the group of seaplanes

from Adm. James S. Russell, Vice Chief of Naval Operations.

In presenting the log books, Adm. Russell said, "I have flown these seaplanes myself and I know of the great reputation they have in our own anti-submarine warfare forces."

The Martin planes will make up a new anti-submarine warfare squadron which will be based at Dakar, French West Africa. They will operate as a NATO unit with Allied naval forces.

'Alize' Carrier-Tested

A production rate of five *Alize* aircraft per month has been announced. At the same time additional carrier tests have been carried out by the Breguet 1050 *Alize* on the French carrier *Arromanches*. Five pre-production models have already logged 2300 hours.

The ASW turboprop, three-place *Alize* is scheduled for squadrons on the two new carriers, *Clemenceau* and *Foch*, and takes the place of Navy TBM's. It is powered by a British *Dart* engine of about 2000 shp and has a takeoff weight of approximately 18,000 pounds.

On ASW duty, the *Alize* can perform a radar search for more than four hours at low altitude at 125 knots,

using electronic countermeasures, markers and omni-directional sonobuoys while armed with rockets, depth charges and a torpedo.

A first group of 100 aircraft is now in production, and initial deliveries to the French Navy are now scheduled to start in May 1959.

'Coots' to Replace 'Crates'

Russian transport system, Aeroflot, plans to replace its *Crate* piston-engined transport with four engine turboprop *Coots* on its thrice weekly Moscow-Kiev-Lwow-Budapest-Vienna run. Cruising speed is calculated to be improved by approximately 150 knots.

Coot can carry up to 112 passengers, about four times as many as *Crate*.



MGEN. STANTON BABCOCK, Military Assistance Advisory Group to France, RAdm. Paul Suquet, head of French equivalent of BuAer and Capt. R. W. Arnt, USN, inspect first Navy P2V-5 delivered under mutual aid plan.

Japanese Escorted by Adm. Russell

NAS OCEANA recently played host to three Major Generals and other high ranking Army Officers of the Japanese Air Self Defense.

Adm. James S. Russell, Vice Chief of Naval Operations escorted the visiting officials during their tour of the master jet base. Included in the party were Generals KoJima, NakaJima and Okumiya.

Adm. Russell, while in command of a carrier task force in the Aleutian Islands during WW II, engaged in a battle led by Gen. Okumiya. The two later became acquainted when Adm. Russell was stationed in Japan at the close of the war. Gen. Okumiya is the author of *Midway* and co-author of *Zero Fighters*.

During their visit, the Japanese were taken on a tour of the air station, shown static displays of the Navy's latest jet fighters and bombers.



GERMAN VADM. RUGE VISITS IN BRITAIN



GERMAN PILOTS ARE LINED UP FOR INSPECTION IN FRONT OF THEIR SEA HAWK FIGHTERS

WEST GERMAN NAVAL AIR ARM READIED

NAVAL AVIATION in West Germany, now in the process of being formed, holds promise of a bright future. Its reincarnation, sanctioned by SHAPE, and approved by German military planners, reflects the desire of the West German Navy to have a strong, well-integrated naval air arm. This is a 180° reversal from the situation that existed in WW II when the Luftwaffe virtually stripped the navy of its aviation units.

Rebirth of German Naval aviation was formally sanctioned at the Conference of Ministers at Paris in October 1954. Germany's admission to NATO in May 1955 and SHAPE in July 1955 included recommendations on the missions to be assigned German naval aviation. This suggested program is now in the process of realization.

Since there is no apparent intention in West Germany to revive a navy capable of operating away from Ger-

man waters, the acquisition of aircraft carriers is not being considered. Under present policy, the navy, within the framework of German NATO commitments, is charged with the defense of West German sea frontiers. The West German air arm will assist in fulfilling this commitment.

Furthermore, approved plans envisage a compact mobile force capable of contributing to the defense of the Baltic exits and the northern sea flank of the central European land front.

The West German Naval Air Arm (GNAA) is headed by Kapitän zur See Walter Gaul, who has his headquarters at Kiel. Capt. Gaul has long been identified with naval aviation, having served with the naval air arm in WW II before it was absorbed by the Luftwaffe.

Trained at naval air stations of the United States and the United Kingdom and equipped with British air-

craft, the first Air Arm Group of the German Federal Navy was formed at Jagel airfield, near Schleswig, late in the summer of 1958.

The Group's squadrons were commissioned in Britain in May 1958. At that time, VAdm. Ruge, German CNO, flew to Britain for the ceremonies at NAS LOSSIEMOUTH, MORAYSHIRE and EGLINTON, Northern Ireland.

British Hawker *Sea Hawk* Mark 4 jets and Fairey *Gannet* turboprop ASW aircraft have been contracted for, and delivery of these aircraft has commenced. Two squadrons are in commission.

Plans call for the future procurement of other British types, including Bristol 171's, Pembroke *Princes*, and Saunders-Roe *Skua's*. One Grumman *Albatross* UF-1A has been delivered with another four to follow shortly. They will be used in utility roles.



GANNET ASW TURBOPROP PLANES HAVE ALSO BEEN PUT IN SERVICE



SYCAMORES AND BRISTOL 171'S PROVE POPULAR IN UTILITY ROLE



A SIMULATED FLIGHT IN LINK TRAINER PRECEDES THE ACTUAL HOP



PILOTS MUST PASS THE BLINDFOLD COCKPIT CHECK BEFORE FLYING



INSTRUMENT STUDENTS RECEIVE DUAL INSTRUCTION IN TV-2 JETS

VMT-1: MARINE THREE-IN-ONE JET SCHOOL

IF YOU'RE a flying-type Marine, but have been chairborne instead of airborne for a year or two, there's a good chance you'll do a stint with Marine Training Squadron One at MCAS CHERRY POINT before joining the operating forces again.

Actually the squadron has a threefold training set-up: a Swept-Wing Jet Transitional and Refresher Course, a Jet Instrument Qualification Course and Special Instrument Ground School Classes. VMT-1 was commissioned as a separate squadron of the Second Marine Aircraft Wing on 1 July 1958. In its first six months 50 pilots have qualified in *Cougars*, 71 pilots have qualified for instrument ratings and another 21 have taken the third course.

The bulk of officers and enlisted personnel serving with VMT-1 are former members of the now disbanded Marine Training and Replacement Group-20, and are well versed in the subjects they teach. They instructed similar courses under MT&RG-20's Instrument or Attack Training squadrons. LCol. P. C. DeLong, CO of VMT-1, was formerly skipper of Marine Attack Training Squadron-20.

A typical class in the Swept Wing Jet Refresher and Transitional Course might include jet-qualified aviators fresh from a desk job, prop pilots and those who have been flying lower performance jet aircraft.

After checking-in at VMT-1 and drawing a packet of charts, maps, and other miscellaneous equipment, the students begin a comprehensive three-week course of instruction which will qualify them to fly the swept-wing *Cougar*.

They start off with three days of ground school, during which engineering is the main subject. The pilots take an open book exam, followed by a question and discussion session to make absolutely certain they are familiar with theory of the aircraft.

The students are also familiarized with the cockpit, learn the flight characteristics, emergency procedures, and flight equipment of the F9F-s. They are checked out in seat ejection, go through pre-flights, and a blindfold cockpit check on the flight line before starting and taxiing the plane.

On the fourth day, they take to the air and put the F9F-8B through its paces in all speed ranges. Special emphasis is placed on the effect of the swept-wing on stalls, sink rate and landing approaches. Instructors fly wing on the students during all flights and correct their mistakes. On the ground, another officer instructor checks approaches and landings from a point at the end of the duty runway.



FROM A MOBILE CONTROL TOWER, A VMT-1 INSTRUCTOR CHECKS APPROACHES AND LANDINGS OF STUDENTS FLYING F9F-8B COUGARS

Students simulate flame-outs and check out in emergency operating procedures before advancing to tactics. About one-half of all flights and total flight hours are devoted to this phase. Parade and tactical formations, using hand and voice signals, and advanced tactics such as air-to-air combat and close air support are also covered.

Finally, the pilots must master navigation and instrument flying in the *Cougar* before graduating and returning to their squadrons. Armed with the fundamentals of flying a swept-wing jet, the pilots can go on to more training in their squadron type aircraft.

Instruction in the Jet Instrument Qualification Course is designed to renew the proficiency of aviators who have been away from instrument flying, to indoctrinate students who have never flown a jet under instrument conditions, and to qualify pilots for jet instrument ratings. Pilots must renew their instrument cards each year within 60 days before their birthday. If graduation from the VMT-1 course falls within this period, they are automatically granted a renewal of their jet instrument rating.

An average school day lasts for nine or ten hours. Each day of the first two weeks is devoted to three hours of ground school, two hours in the link trainer and the remaining four hours to actual flying.

Initially, the basic jet instrument flight techniques

and procedures are taught, with emphasis on scan and trim control. Scan is the procedure by which the pilot glances over the instrument panel, gathering information almost faster than he can think, so that he can react instinctively in keeping his plane on a given course or heading.

BEFORE climbing into the back seat of a TV-2 or F9F-8T, the pilots fly the same type hop in a link trainer. During actual flights, a hood is placed over the rear canopy allowing visibility only to the instructor in the front seat. A cross-country instrument navigation hop is made by each student the week before graduation. He plans the entire flight which runs from one to three days. The instructor goes along to test in-flight procedures.

Every two or three months VMT-1 conducts the Special Instrument Ground School Class, which parallels the ground phase of the Instrument Qualification Course. It brings personnel up-to-date, so they can spread the latest word to other pilots upon return to their squadrons.

VMT-1 has maintained an accident-free record, while the students and instructors have posted 3800 hours of flying time—roughly equal to 60 flights around the world. The first 15 minutes of each day are devoted to a safety meeting. This, together with fine aircraft availability, made possible by the maintenance men, adds to safety.



SKILLED MAINTENANCE MEN KEEP THE AIRCRAFT IN TIP-TOP SHAPE



STUDENT PILOTS ENGAGE IN TOUCH-AND-GO PRACTICE IN F9F-8T

NUTS AND BOLTS COURSE FOR PILOTS



HAL HINSINGER of the Assembly Division holds a question session on the A4D engine with Sirkin, Woehrman, Cook, Jones and Greiling.



INSPECTOR George Miller and metalsmith **Robert Jones** demonstrate tank sealing on the Skyhawk and explain the why's and wherefore's.

NAVAL AIRCRAFT today are so highly engineered that the know-how needed to keep 'em flying cannot be gained on a "catch as catch can" basis. There must be a strong program—one that blends maintenance systems and methods with specialized mechanical application.

The Overhaul and Repair Department at NAS ALAMEDA has started such a program. The Master Mechanics and Foremen Association, working with fleet maintenance officers, industrial relations training personnel, and other sources, developed a basic course of instruction designed to qualify pilots as tactical or support squadron maintenance officers. The curriculum includes both classroom lectures and on-the-job training.

Power plants, airframes, electronics systems, ordnance, publications and records are covered, as well as the general structure of the aircraft maintenance system. Most important, an understanding of the principles of management is given, with particular application to the organization and administration of a squadron or FASRON maintenance department. The supply system is also studied.

Five Naval Aviators, all with engineering backgrounds and newly-graduated from Corpus Christi, comprise the first class at NAS ALAMEDA, and are now taking the six-month course. Ltjg. David Greiling, Ensigns Dennis Cook, Bill Jones, Gary Woehrman and

Sam Sirkin, are being checked out on the care and upkeep of the A4D-2 Skyhawk, which is the jet they will fly upon reporting to a squadron.

Capt. R. C. Thorburn, the O&R Officer, welcomed the students aboard and explained some of the thinking behind the new project. The Chief of Naval Operations established two boards to examine the adequacy of aviation logistics, including material and training aspects. They recommended that positive steps be taken to raise the level of specialized skills in fleet operations, and specifically suggested the use of O&R Departments for the training of military personnel, both officer and enlisted. The Chief of the Bureau of Aeronautics gave the go-ahead and urged the O&R's to encourage fleet and training command activities to make use of this service. Thus, Alameda's program came about.



INTERIM REWORK phase is thoroughly discussed by Leadingman **Glenn Lane** with men.

Capt. Thorburn concluded, "Your own training and consequent assumption of technical leadership will, we believe, become the effective catalyst required to blend enlisted technicians into the most efficient teams. We also believe that your own training will encourage you to make further utilization of the O&R Departments in the special technical upgrading of your enlisted personnel."

During their tour at Alameda, the five pilots are also getting first-hand knowledge of the operation of an O&R, as well as taking apart and putting together the A4D. They can observe that, as a matter of policy, work programs are integrated to the maximum extent possible with operational maintenance requirements. End purpose is to insure Naval Aviation forces the highest degree of aircraft availability, readiness, mobility and safety, consistent with assigned missions. In addition, they learn that services provided fleet and training command activities include: interim rework, modifications, emergency repairs, manufacturing, AOCPC processing, planner and estimator service (both local and overseas returns), and other forms of daily customer service.

Thus, when the officers graduate they will have a thorough grasp of the over-all maintenance picture, as well as a sound, working knowledge of their specific aircraft type. Their expert training should bring marked results.



FOR A REST IN COMFORT, JUST TRY OUT R-1730-242-9145-S 030

EASY DOES IT, AS ONE RESTS IN THE SUN ON THE ROLLING DEEP

R-1730-242-9145-S 030

A CHOCK is a chock, is a chock, is a chock—except when it is being used a number of ways. The men aboard the USS *Intrepid* (CVA-11) have shown that the Big I can stand for Ingenuity. Shown here is a variety of uses to which flight deck crewmen have put the familiar landing gear “chocks.” It is one type of equipment that lends itself to many a special need. Lay them down, stand them up, lean against them, sit on them, use them for a place to nap or as a post against which to lean, they’ll prove durable, adaptable. Every crewman should have one.



A CHOCK BRACES THESE DECK OBSERVERS

'HOW ABOUT IT? THEY WENT RIGHT BY US!'

CHOCKS MAKE GOOD SUPERSIZED DUMBBELLS



NOT CONTOUR LOUNGE CHAIRS, BUT COMFORTABLE NONE THE LESS

BUT AT THE MOMENT, IT JUST ESCAPES US WHAT THIS IS FOR



RADM. FITZHUGH LEE, CNATECHTRA, FOURTH FROM RIGHT, PRESIDED AT THE CONFERENCE

Conference Discusses Needs Technical Training Leaders Meet

Commanding officers of the commands under the Chief of Naval Air Technical Training met at Memphis in January to discuss training and administrative matters. Rear Admiral Fitzhugh Lee, Chief of Naval Air Technical Training presided.

Attending the conference were (from left to right in picture): Cdr. E. M. Ward, CO NATTU LAKEHURST; Cdr. R. C. Corlett, CO NATTU PHILADELPHIA; Capt. C. L. Moore, CO NATTC JACKSONVILLE; Capt. R. L. Newman, CO NAS MEMPHIS; Cdr. R. L. Ashcroft, prospective OinC, CPO Academy Pensacola; Capt. L. W. Parrish, CO NATTC NORMAN; Capt. A. C. Berg, CO CIC School, Glynco; Capt. E. M. Stever, CO NATTC MEMPHIS; RADM. Lee, CNATECHTRA, Capt. J. J. Moynahan, CO NAS GLYNCO; Cdr. W. P. Tan-

ner, CO NATTU OLATHE; and Cdr. S. Mendenhall, CO NATTU PENSACOLA.

The group discussed ways and means of making technical training more effective, as well as problems that would arise with the future closing of Norman and NATTC JACKSONVILLE.

Future conferences are planned as problems arise which can be solved by round-table discussion methods.



AIR TASK GROUP One on USS *Ticonderoga* checks out in correct method of escaping from a parachute, in a harness rigged on hangar deck by A. L. Leathers, PR1, of VF-112 (R), shown helping his exec, LCdr. J. J. Konzen.

And Then There Was Light Crewman Finds Bug at 10,000 Feet

Flight Orderly George A. Roberts, AE3, came to the rescue when the lights went out on a VR-24 special flight from Naples to Port Lyautey.

The R5D was flying at 10,000 feet over Spain, on instruments as the pilot flew into and out of thunderstorms. All was in order and the flight was proceeding on schedule when the electrical system went out. The aircraft was left without radio communication

and instrument lights. In the passenger compartment, 26 men sat in darkness.

Lt. Patrick Benner, plane commander, held the plane on course, altitude and airspeed with light supplied by a flashlight on the magnetic compass, altimeter and airspeed indicator.

Roberts went into the belly of the aircraft to check the trouble source. After an hour of checking hundreds



ROBERTS RE-ENACTS HIS FEAT ON GROUND

of feet of wire and electrical equipment he found the trouble in the panel above the pilot's head.

A small plug which connects the electrical power source to all the switches had become disconnected. Roberts connected the plug, restoring lights. Needless to say, the 26 men on board breathed—again and more easily.

Electronics Course Opens Equals Two Years of Engineering

A 52-week Aviation Electronic Officers' School has opened at NATTC MEMPHIS to train selected LDO's and Warrant Officers of the Navy and Marine Corps. Courses will include mathematics through differential equations; physics through Nuclear Physics; English grammar, composition, report writing and presentation; DC, AC and Vacuum Tube Circuits; Solid State devices; Advanced Systems; Engineering Drawing; Electronic Computers; Electronic Measurements; Servo Mechanisms; Antennas and Propagation.

LCdr. Richard A. Dunning, school coordinator, estimates that the school will be equal to the Sophomore and Junior years at any good engineering college.

The first class convened January 9 and others will convene quarterly.



WING TILT operation of the USAF's research transport is shown in sequence. The X-18 can operate conventionally or as a vertical take-off or short take-off aircraft, depending upon the landing area then available.

LETTERS

SIRS:

The officers and men of Patrol Squadron Five wish to extend their congratulations to both Patrol Squadron Nine and Patrol Squadron Twenty-three for their "Record-Breaking" flying as reported in the September (p. 39) and the December (p. 32) issues of *Naval Aviation News*. Everyone in VP-5 knows that such sustained periods of accident free operations are difficult to achieve. We would like to add our achievements just for the record.

VP-5 in its deployment for 1 July to 24 November 1958 (slightly less than five-month period) flew a total of 5654.1 accident free hours, or an average of better than 1130.8 hours per month for five consecutive months. In the three-month period from 1 July to 30 September 1958, flying under anything but favorable weather conditions, ranging from operations well above the Arctic Circle (including flights over the North Pole) to the Mediterranean, the squadron piled up a total of 3668.6 hours for an amazing average of 1222.9 hours per month for three consecutive months. This exceeds any other known patrol squadron record by a total of 498 hours for any three-month period, and sets a new five-month deployment flight time average.

Among the other achievements of the squadron during its recently completed deployment, have been:

1. The winning of the NavAirLant Battle Readiness Award "E" for 1957-58.
2. Receiving a Certificate of Award from ComNavAirLant for accident free operations two consecutive years, 1957-58.
3. Receiving a grade of Outstanding with a numerical mark of 99% by ComBarLant for Arctic Operations during the fall of 1958 while deployed to Argentina, Newfoundland.
4. Commendation by Commander in Chief, U. S. Atlantic Fleet, for outstanding photographic coverage while engaged in shipping and ASW reconnaissance missions.
5. "Well Done" from CTF-6 for the prompt and effective accomplishment of all tasks assigned in support of the 1958 Arctic resupply mission.

The very high degree of operational readiness indicated by these squadron achievements would have been difficult to attain without outstanding morale among all personnel of the squadron. Cdr. J. W. Crowe, our Commanding Officer, and all the officers and men of the squadron are proud to be a member of one of the finest Patrol Squadrons in the Fleet.

A. C. CASON, CDR.
Executive Officer

SIRS:

This office recently received information from the U. S. Military Attache, Kuala Lumpur, Federation of Malaya, stating that the



Public Relations Officer at Headquarters, Overseas Commonwealth Land Forces, Seremban, Federation of Malaya had informed him that the 656 Light Aircraft Squadron, Army Air Corps, using Austers, Mk V, VI, VII and IX, will have logged 150,000 hours of operational flying since the beginning of the Emergency in July 1948.

The Public Relations Officer thinks that this is a world record for any squadron over a comparable period and is sure it is for any service squadron. He would like to be informed if any squadron in the USN or USMC can equal or better this record.

C. R. ANDERSON, LCDR.

Ass't U. S. Naval Liaison Officer
British Crown Colony, Singapore

SIRS:

With reference to the historical account of what is now known as NAS HAMPTON ROADS and its various skippers, written in *NANews* of December 1958, I recall that the seven seaplanes mentioned were based at U. S. Aeronautical Station at Newport News, Va., under command of Lt. Harry B. Cecil, USN, in July 1917. They were flown over to Hampton Roads where at first there were no shelter facilities, not even tents.

Lt. Cecil was relieved by LCdr. E. O. McDonnell who was followed by LCdr. P. N. L. Bellinger, all in the year 1917.

Numerous pilots and student pilots of the class at Newport News were selected as members of the LaFayette Escadrille.

The article on the retirement of Capt. Alvin O. Priel, Coordinator, Naval Air Reserve, after 41 years in the Naval Reserve, is of personal interest as he has informed me that I was his flying instructor in 1917.

CDR. GEORGE W. SHAW, USNR (Ret.)
Naval Aviator #171

SIRS:

We are requesting your assistance in determining the answer to a quite interesting question that has developed on the USS *Randolph* (CVA-15), now on maneuvers with the Sixth Fleet in the Mediterranean. It seems that the *Randolph*, with Capt. B. M. "Smoke" Streat at the helm, recently topped all Atlantic Fleet Carriers by winning the Battle Efficiency E Award for the second consecutive year. What makes this feat more outstanding is the fact

that every department on the ship also managed to gain an E.

Our question is this: Has any other ship, or specifically, any other Aircraft Carrier ever accomplished this competitive honor? Perhaps one of your more historically minded readers might be able to help us find the answer.

H. G. RAMMATH, LTJG.

Public Information Officer

USS *RANDOLPH* (CVA-15)



ON TRAINING DUTY, EACH TOPPED 70 HOURS

SIRS:

Perhaps you "little noted nor long remembered" a story submitted to your excellent publication by the Weekend Warriors of VA-672, NAS ATLANTA. This news release, accompanied by the enclosed picture, pointed out that during 13 flying days of its 14-day active-duty-for-training period, VA-672, with 17 pilots on cruise, logged a total of 1129.8 hours—an average of 66.4 hours per pilot.

Six days of the August cruise were spent at NAS JACKSONVILLE; the remainder at NAS ATLANTA.

Cdr. James A. Brakefield of Spartanburg, S. C., squadron CO, was high man with 75.2 hours. He is at extreme right in the photo, looking at the big "66" on the side of an AD—symbolic for the purpose of the picture of the 66 hours-plus averaged by squadron pilots. Others who topped 70 hours are (left to right) LCdr. L. M. Vaughan, Lt. F. E. Price and LCdr. C. O. Scherzer.

In many years as a newspaperman, I learned to avoid superlatives—so we don't claim any world's records. But I feel this is a performance up to the highest standards of Naval Air Reserve.

LCDR. M. E. DENHAM, USNR
Admin/Pers Officer, VA-672

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LETTERS

SIRS:

In-flight refueling in carrier-borne missions has been taken for granted by Attack Squadron Twelve for such an extended period of time that it comes as a deep and grievous shock to hear that VMA-225 of Marine Aircraft Group Fourteen (NANews, December 1958, p. 19) challenges our claim to earliest complete qualification in this concept by all pilots in the squadron.

In June 1958 prior to deployment with Carrier Air Group Ten on the USS *Forrestal* as part of the Sixth Fleet, VA-12 pilots qualified in both high and low level tanking and gulping with the Douglas buddy store.

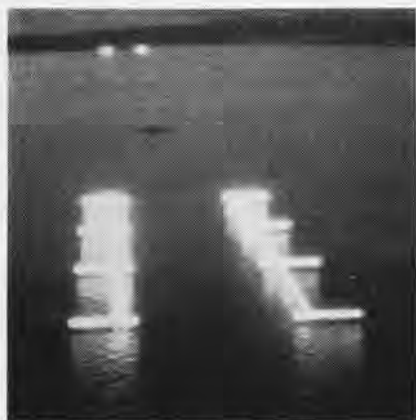
This squadron was among the first to carry these stores on A-1J's from a carrier base and use them on a daily operational basis. Furthermore, the "buddy system" has since been utilized as a standard adjunct on all simulated strike missions, including participation in various NATO exercises.

While VA-12 wishes to congratulate both VMA-225 and VA-83 (NANews, November 1958, pp. 34-35) on their recent accomplishments and claims, it would hasten to deflate their overzealous enthusiasm. For not only has the squadron qualified in in-flight gulping as high as 35,000 feet and as low as 500 feet, but all pilots are presently night-qualified in this art.

C. A. PENDLTON, JR.
Attack Squadron 12

SIRS:

"Seadrome Nears Completion" in the January 1959 issue is an accurate, well-written article; however, the accompanying picture



THIS IS LATEST VIEW OF SEADROME LIGHTS

does not do justice to the installation as it actually exists.

When your picture was taken, only two of the four approach light circuits were operating, so that only 50% of the approach lights are lit. Also, the threshold light bars at the top of the picture are not turned on. Your picture does not include the threshold lights at the far end of the 12,000 foot channel.

One of the distinguishing features of this system is the channel identification lights. There are four of these lights, one at each corner of the channel just outboard of the threshold light bars. These are flashing lights and cannot be adequately shown in still photographs. They have received much favorable comment.

C. H. HOLT
Bureau of Aeronautics

SIRS:

On page three of your January issue is an article titled "Joint Army-Navy Exercise." In this article it is stated that "instead of the usual complement of U. S. Marines, the 'helo' carrier was carrying part of the 57th Battle Group, 12th Infantry, 4th Infantry Division."

The 57th was the helicopter unit which carried the 1st B.G., but the men pictured are U. S. Marines. These Marines are members of the 1st FAC (Forward Air Control) Team of 1st ANGLICO (Air and Naval Gunfire Liaison Company), FMFPac, which supported the 4th Division on its helicopter assault.

JOHN R. WATERSTREET
Air Liaison Officer
1st ANGLICO, FMFPac

¶ Ah so. Let the record stand corrected and we hope the author of the source material lays an eye to your epistle and our verbal blush. Glad we had the right carrier.

SIRS:

Marine Attack Squadron 121 is compiling a history from its beginning to the present date. Thus far the squadron has received all of the official documentation as to who the commanding officers have been, in what areas the squadron served and in what campaigns it participated. During WW II, it was designated as VMF-121.

Anecdotes and true-to-life stories of the men and events of VMF-121 (now VMA-121) are needed. We also require squadron patches since there were a number used, three of which have been determined. If anyone can furnish a patch or sketch of a patch, it will be appreciated.

Please send any material or data to address below.

LCOL. THOMAS J. SAXON, JR.
Commanding Officer, VMA-121
Third Marine Aircraft Wing

MCAS El Toro (Santa Ana), Calif.

CONTENTS

Roosevelt Roads	6
Robert Osborn Honored....	10
Independence Commissioned	11
'MAD' Project.....	12
VAW-12 Safety Contest....	14
Behind Barbed Wire.....	17
Fleet Gunnery Training....	18
Fahey Merit Award.....	19
Maintenance Experts	20
Project HUGO.....	22
Ream Rescue Training.....	24
German Naval Aviation..	29
VMT-1 Jet School.....	30

Use of funds for printing this publication has been approved by the Director of the Bureau of the Budget, 22 April 1958.

● COVER

Low over NAS Sanford, Fla., three VAH-1 Skywarriors led by Cdr. Bill Spiegel bid for honors during Bombing Derby's "Carrier Airmanship Competition."

● SUBSCRIPTIONS

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