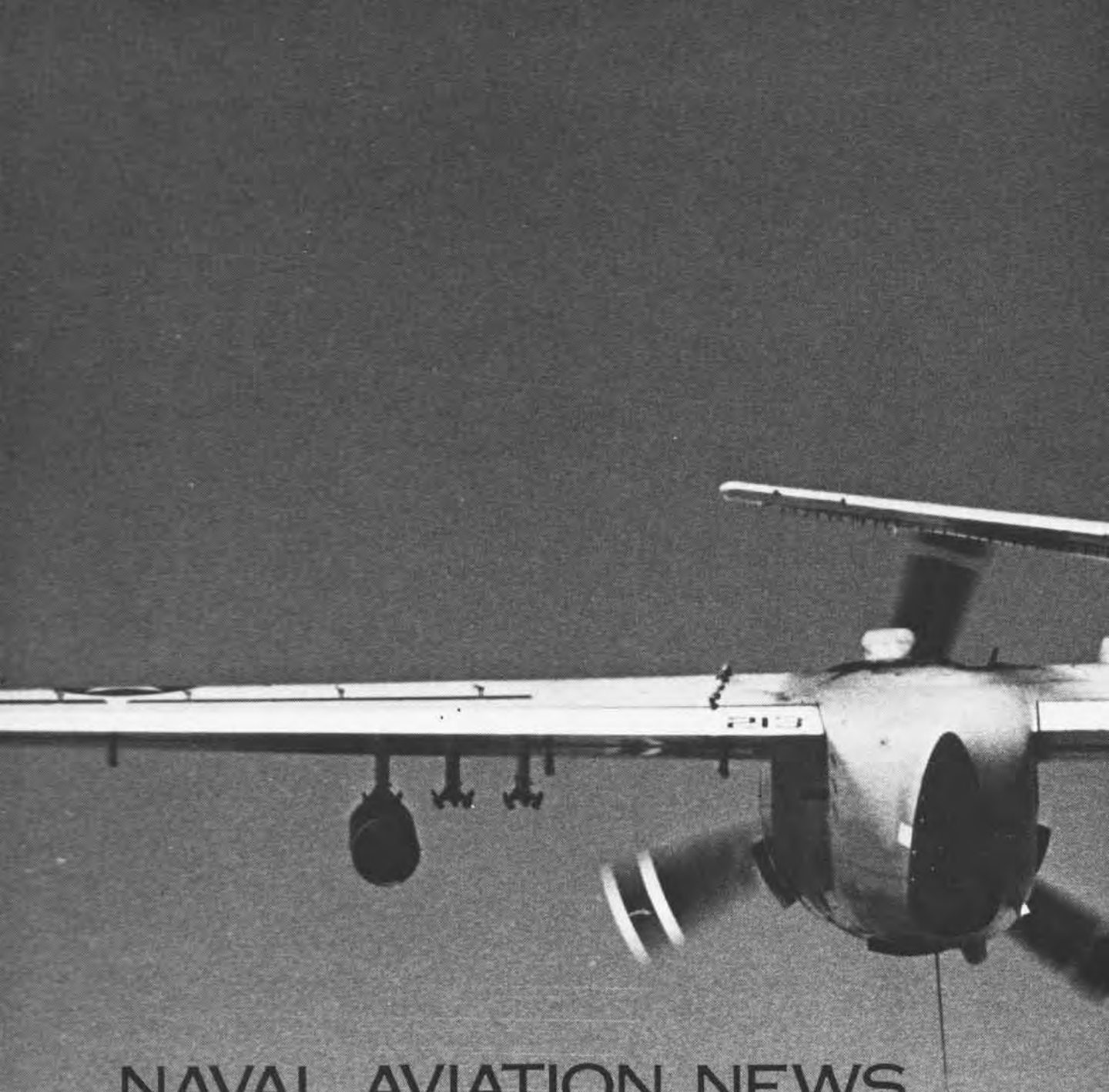
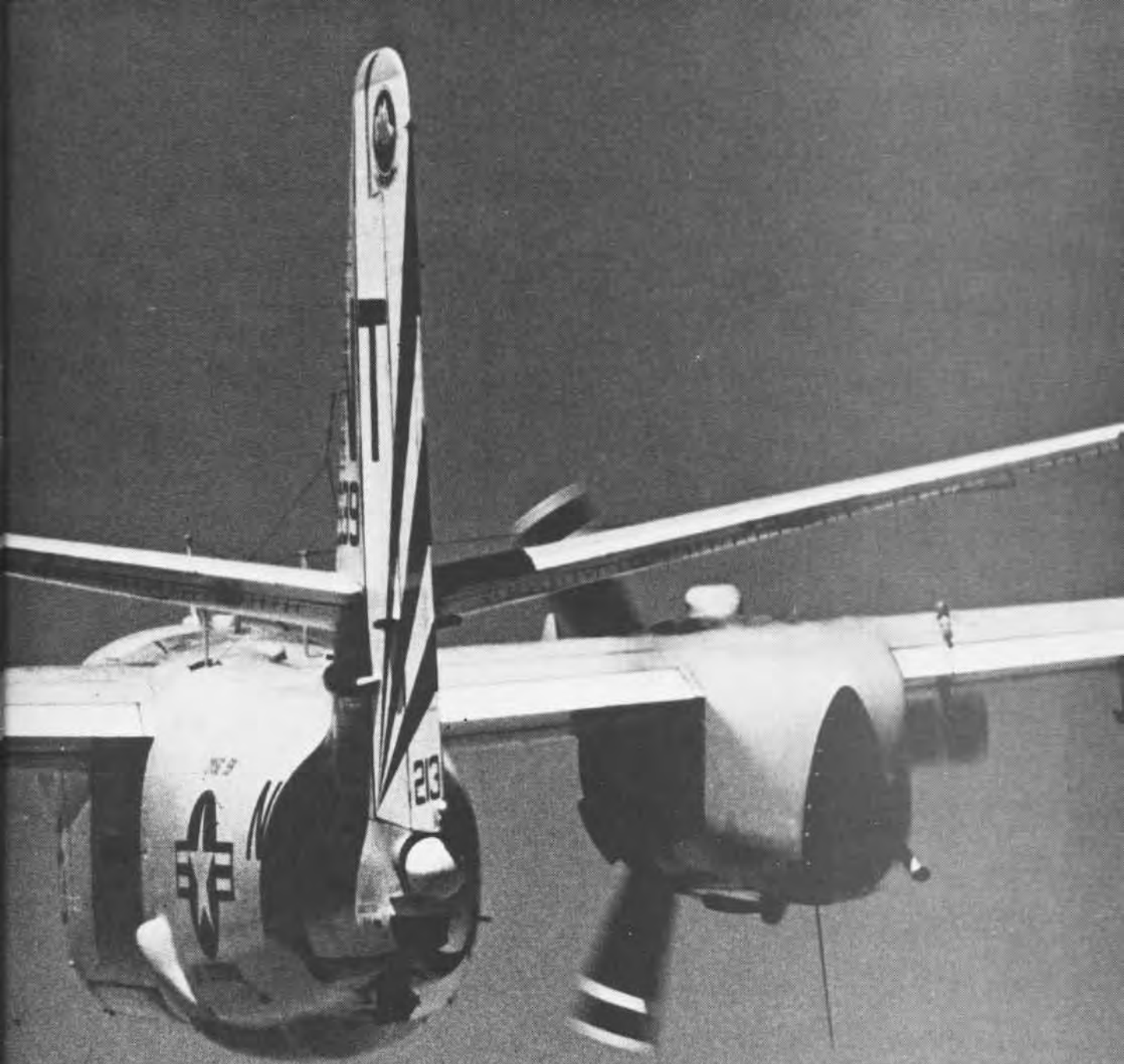
NAVAL AVIATION NEWS

APRIL 1972



NAVAL AVIATION NEWS

FIFTY-FOURTH YEAR OF PUBLICATION



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On the front cover, PHC Wade Davis caught a Marine Sea Stallion in action during Operation Snowy Beach. The VS-37 Tracker on these pages is courtesy of PH2 James Fallon, Coral Sea (CVA-43) and Niagara Falls (AFS-3) cruise side by side on the back cover, compliments of PH2 S. L. Chandler.

EDITOR'S CORNER

The NANews survey questionnaires have been trickling into this office in sufficient numbers to allow us to make some preliminary assumptions concerning your likes and dislikes. We are more than a little pleased that you find most of the magazine to your liking and little to lodge a complaint about. While we enjoy reading all those comments which advise us to "keep up the good work," we realize that in order to do so we must take a close look at those comments which tell us we could do better.

The number of questionnaires returned so far has not been overwhelming (about 200 by late February), but we have been able to draw a reasonable profile of the average respondee. He is a middle-grade officer or senior petty officer with a mean age of 32, normally filling a maintenance or administrative billet.

He reads between 75 and 100 percent of the magazine every month and rates "Grampaw Pettibone" by far his favorite feature. Trailing Gramps by a number of percentage points are "Naval Aircraft" and articles on aircraft or weapons development. Our average reader says he would like to see more articles concerning research, test and development in the aviation field, than any other item. He also rates squadron activities and humor high on his "more-wanted" list. The most common write-in request was for more historical articles.

Next, we get down to how useful our readers think the magazine is. It seems a strange anomaly that captains and chief petty officers most frequently indicate that NANews increases their knowledge of Naval Aviation greatly while the ensigns and airmen usually find that it increases theirs only some. This either proves what we all suspected when we were younger or else confirms what we have since observed with age. In any case, it seems that we need to make our publication more interesting to the newer members of our service.

While most readers thought that our strong points lay in information and pictures, the highest scorers in the weak-point area were pictures and writing style. Now, with pictures we can understand some of the reasons for these marks. Some of you gave us additional comments to underline your objections. These included a desire to see more use of color and criticism of the quality of some photos. Though we would like to increase our use of color, current regulations restrict such elegance to special issues, such as last month's commemoration of the 50th anniversary of commissioning the Navy's first aircraft carrier. The other major objection to photography was the quality of the photos themselves. Occasionally, this is due to the quality of printing but most frequently it is due to the quality of the photography available. Rather than leave the material discussed to the readers' imagination, we often must use lower quality photos than we would desire to properly illustrate an article.

Public affairs officers and photographers can help us improve this area by carefully screening photos sent for publication and by supplying a number of alternative choices.

The second item, however, gives us more concern. Most of our staff, considering themselves writers by trade, are made somewhat uneasy by indications that writing style is one of the weak points. Though only 10 percent objected to writing style and roughly three readers indicated this category as a strong point for every one who marked it as a weak one, we are nevertheless sincerely concerned. The matter is further complicated by a general lack of amplifying information — so that we don't know what it is that we should be doing better. Your further comments in this area are earnestly solicited.

There is one other item which we were already aware of and which we would like to improve. Approximately 80 percent of those responding indicated that their unit had not submitted any material to NANews in the past year. Some individuals indicated that they did not know they could, or did not know how to go about it. The answer is simple. Anyone may submit articles or photographs to NANews. Normally we expect that these will be properly cleared for accuracy and security as appropriate within your organization. However, no special format or covering letter is required. Just let us know who, what, when, where, why and how — and we'll take it from there. Our editors feel responsible for earning their keep by editing anyway. While on this subject, a number of you have asked why we do not notify those of you submitting items that your material has been received and, if it is not published, the reason. While we can understand and appreciate this concern and would like to accommodate, we are unable because of the usual reasons — time and personnel. However, as a rule of thumb, NANews does not normally publish submissions dealing with reenlistments, change of command or such other events of largely local interest, which are adequately covered by ship or station publications. Other articles, though significant, may be put aside due to insufficient space in a current issue and will then either be printed at a later date or not used because of loss of timeliness.

There are numerous other comments and criticisms put forward in this survey which we do not have space to remark on in this issue. As more questionnaires are received and we are better able to evaluate your views, NANews will again discuss what our readers desire in the way of improvements. We hope that you will also continue to provide us with your comments so that we may better serve you.

NAVAL AVIATION NEWS

1911 1972

The S-3A Viking on its first flight at Lockheed's flight test facility at Palmdale, California.

S-3 Viking Makes First Test Flight

WASHINGTON, D.C. — The Navy's newest antisubmarine warfare aircraft, the S-3A *Viking*, made its maiden flight ahead of contract schedule at Lockheed's engineering flight test facility, Palmdale, Calif., on January 21.

Powered by two General Electric TF-34-2 engines, the S-3A will eventually replace the S-2 *Tracker* which has been in the fleet for more than 15 years.

In its first flight, which lasted 1 hour and 42 minutes, the *Viking* performed maneuvers at speeds ranging from 120 to 200 knots at altitudes up to 20,000 feet. The new ASW jet is designed for eventual operation at speeds in excess of 400 knots and at an altitude above 35,000 feet.

Five additional *Vikings* will be flight tested this year and two more R&D aircraft will enter the program in 1973. Fleet introduction of the S-3A is scheduled for 1974.

Record Nashville Landing

NORFOLK, Va. — USS *Nashville* (LPD-13) counted its 2,000th accident-free helicopter landing in January while participating in operations off Camp Pendleton, Va. The landing was made by Ltjg. Kirkland W. Todd III, HC-4, Lakehurst, N.J.

Helicopter capability is important to the LPD, which is a ship type designed to combine the advantages of the landing ship dock and the amphibious assault ship in one hull.

Three More Wings Formed Under CNATra

WASHINGTON, D.C. — Three additional training air wings were recently established as part of the reorganization of the Navy's training structure.

Training Air Wing Five was established at NAS Whiting Field on January 6. The new wing encompasses that air station, NAS Ellyson Field, VT's 2, 3 and 6, and HT's 8 and 18. Commanding the wing is Captain Joseph Rezzarday, Jr.

Established at NAS Saufley Field on February 1 was Training Air Wing Seven, commanded by Captain Glenn E. Lambert. The wing is made up of the air station and VT's 1 and 5.

Training Air Wing Six was established March 1 at NAS Pensacola and includes the air station and VT's 4 and 10. The wing is commanded by Captain James A. Homyak.

The commanding officer of each unit reports to the wing commander who is responsible for all aspects of support and operations. He, in turn, reports directly to the Chief of Naval Air Training.

Duties of a wing commander include developing necessary directives, maintaining high standards of pilot training, conducting vigorous safety and standardization programs, coordinating logistics and aircraft maintenance needs and making timely recommendations for aircraft assignment. He also ensures that all student aviators meet established standards, conducts inspections of the assigned commands and reports to CNATra on the progress and achievements of pilot training.

FAETU - Name Goes But Mission Remains

SAN DIEGO, Calif. — A name synonymous with quality training became part of naval history when Fleet Airborne Electronics Training Units, Pacific and Atlantic, were renamed Fleet Aviation Specialized Operational Training Groups, Pacific and Atlantic.

This change in title has been long in coming. For the past several years the organization's name did not truly reflect its mission. With the modernization of the fleet, a natural evolution of training tasks had taken place and airborne electronics was not the entire scope of FAETU training.

When commissioned 26 years ago, FAETU concentrated its training effort on airborne electronics. All phases of the subject were covered from theory through airborne operation of systems — a full and complete training course for the aircrewmen of the day.

The Berlin crisis brought about the need for men with special navigation training to ensure that airspace in the corridors approaching Berlin was not violated. FAETU was given the responsibility of training aircrews in these particular skills, and one of the first nonelectronic courses was added to the curriculum.

When the Korean War exploded the complement of Naval Aviation personnel to combat proportions, airmen had to be trained swiftly and an aircrew course was developed. After the war, FAETU was given the responsibility of training Navy airmen to meet the threats of psychological and physical stresses brought on by modern warfare.

This was the start of several training programs which include deep water environmental survival training; cold weather environmental survival training; search and rescue; survival, evasion, resistance and escape; and jungle environmental survival training.

As the need for more specialization increased during the 1960's, FAETU began to lose maintenance courses and played a stronger role in operational specialty training. More nonelectronic courses were convened, even a course dealing with management problems.

With the passage of time, FAETU no longer dealt solely with training concerning flight but had to consider training for the entire Naval Aviation community. The new name covers the mission now and in the future.

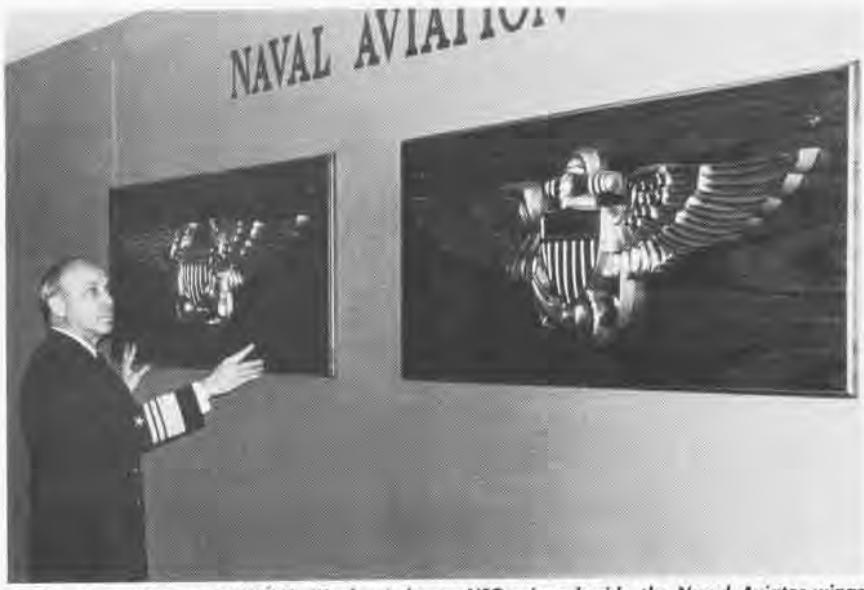
VT-1 Safety Record

PENSACOLA, Fla. — Training Squadron One, NAS Saufley Field, counted 100,000 accident-free hours late in January.

At the ceremony in the squadron's hangar, Commander Claude C. Vernam, C.O., said, "You may be wondering why the celebration is being held here. Well, this is where it all started. The best pilots depend greatly on the men of maintenance — the men that keep the planes mechanically fit."

The record is the equivalent of keeping a single aircraft airborne, accident-free, for 11 years and five months. That is as long as the squadron has been commissioned. The record included training 2,906 fledgling Naval Aviators and recording 341,646 landings and takeoffs.

VT-1 teaches primary flight to all Navy flight students. Every Naval Aviator begins at VT-1 in the T-34.



VAdm. M. F. Weisner, DCNO(Air Warfare), hangs NFO wings beside the Naval Aviator wings outside his office. The wings represent policy change allowing NFO's to command squadrons.

New Look at Helmets

WASHINGTON, D.C. — Until recently, the design of efficient, protective crash helmets was stymied by the lack of analytical data on how different forces interact on different areas of the skull to produce a fracture. Now Dr. Nicholas Perrone of the Office of Naval Research has developed a mathematical model of the forces resulting in skull fracture, which makes possible improved crash helmets and protective padding in the areas where the head might impact. The validity of the model was established in studies of the impact points of skull fractures.

Development was spurred by Department of Defense and Navy concern over the great number of head injuries resulting from insufficient protection. According to ONR, in the last decade DOD has lost more men to head injuries than to combat action.

The new design takes into account the dynamics of skull fracture and the individual differences of people. It is hoped this information will lead to improved crash helmets and a marked reduction in head injuries.

Wasp Stand-Down

Washington, D.C. — The ASW carrier *Wasp* went into stand-down in late March in preparation for her July 1 deactivation. Antisubmarine Warfare Group 2 was disestablished April 1 as a result of the stand-down. The squadrons assigned to the group will remain active, but the carriers they will be assigned to had not yet been determined when *NANews* went to press.

7th Fleet and AirLant Change Command

WESTPAC — The Seventh Fleet has a new commander. Vice Admiral William P. Mack was relieved by Vice Admiral James L. Holloway III, former Deputy Commander in Chief, Atlantic/Chief of Staff, U.S. Atlantic Fleet. VAdm. Mack is now serving as Superintendent, Naval Academy.

NORFOLK, Va. — Vice Admiral Frederick H. Michaelis relieved Vice Admiral Robert Lee Townsend as Commander, Naval Air Force, U.S. Atlantic Fleet, in a change-of-command ceremony held aboard USS *Saratoga* (CVA-60) at NS Norfolk on February 29.

VAdm. Michaelis exercises managerial and administrative responsibility over 180 individual commands, including nine aircraft carriers, 16 shore stations and 96 aircraft squadrons. With approximately 65,000 personnel assigned, NavAirLant is the largest type command in the Atlantic Fleet.

NASA and DoT Research Clear Air Turbulence

WASHINGTON, D. C. — The National Aeronautics and Space Administration is working with the Department of Transportation to better define the characteristics of clear air turbulence (CAT) and to develop methods of detecting it in flight.

At the NASA Flight Research Center, Edwards, Calif., a B-57 carrying experimental instruments is making flights throughout the western U.S. at altitudes up to 50,000 feet in areas where turbulence is expected to be found or where it has been reported by other aircraft. If actual turbulence is encountered, a 30-minute flight pattern is flown by the B-57 to record data while probing the turbulent area.

The right wing tip pod of the B-57 carries the DOT-sponsored prototype radiometric sensor that may be able to detect CAT up to 50 miles ahead. At jet transport speeds, this remote detection would provide three to five minutes' advance warning of impending turbulence. The sensor is designed to receive microwave signals associated with the air temperatures ahead of the aircraft. Other studies have shown that abrupt temperature variations are usually associated with CAT. The flights are also attempting to determine the advance warning time that is possible with this detection equipment and to find out if the equipment can distinguish false detections.

Working under a NASA grant, the University of Wyoming has installed an aerosol and ozone detector on the B-57. This research is aimed at determining if there is a positive relationship between the presence of aerosol or ozone and the atmospheric conditions that cause CAT.

In related research, the NASA Langley Research Center, Hampton, Va., is developing a flight system to investigate the characteristics of CAT caused by various types of air flow. Later this year, the B-57 will investigate the amount of energy contained in various sizes of turbulent eddies.

The Marshall Space Flight Center, Huntsville, Ala., is seeking to adapt laser Doppler technology for use in future flight research programs.

Enlisted Pilot Returns

LOS ANGELES, Calif. — The steady decline in the number of enlisted pilots was reversed recently when AOC James W. Ray returned to active duty.

Chief Ray, who joined the Navy in 1939, was released from active duty in 1967 after he had a heart attack. He was serving with the Naval Aerospace Recovery Facility, El Centro, Calif., at the time. Following his discharge, he toured the country by camper several times and worked as a civilian test pilot. He petitioned the Navy to return to active duty and was accepted.

Ray is qualified to fly all types of aircraft, and says his favorites are the *Skyraider* and the *Phantom II*.

A rose by any other name...

MIAMI, Fla. — The first month of every year, representatives from the weather services of the Navy, Air Force and Department of Commerce meet to develop the U.S. Hurricane Plan. The plan is the weatherman's op order and contains all the necessary details to ensure coordination and implementation of hurricane reconnaissance by aircraft of the three organizations involved. The Navy's weather recon flights are conducted by VW-4 from NAS Jacksonville. Data acquired by the flights that penetrate the storms is monitored by the Fleet Weather Facility, Jacksonville.

The National Hurricane Center, Miami, employs the recon data in the preparation of forecasts which are issued by the National Weather Service (the old Weather Bureau) and used by the Department of Defense.

When the January 1972 meeting convened, the agenda items appeared to be in order and not too much controversy was expected. However, Mrs. Roxey Bolton, a former vice president of the National Organization of Women, in a brief appearance quickly dispelled that thought! The Miami feminist told the group that she's partial to dubbing the storms "himicanes."

She said hurricanes sounds like "hericanes." Addressing the fact that the tropical storms are named after women, Mrs. Bolton said, "I'm sick and tired of hearing that 'Cheryl was no lady as she devastated such and such a town' or 'Betsy annihilated this or that.'"

When last heard from, the weathermen were still trying to decide whether to go home to face their wives.

GRAMPAW PETTIBONE

That Smarts

The F-4 *Phantom* was spotted on the aft starboard side of the flight deck with the main landing gear close to the deck edge, the tail section and the trailing edge of the starboard wing overhanging the catwalk. The pilot and NFO arrived, preflighted, strapped in and started the aircraft. The plane captain was in front of the *Phantom* performing post-start checks, preparing for the night launch. He was assisted by another fully qualified plane captain, who was acting as the second mechanic. The plane captain signaled the pilot for half flaps and checked the port flap for boundary layer control air and security while the second mechanic checked the starboard flap. The plane captain returned to the front of the aircraft, in view of the pilot. He thought he received a "thumbs up" signal from the assisting second mechanic, and signaled the pilot to cycle all controls to check for freedom of movement. The assisting second mechanic had his arm between starboard aileron and flap, checking for the presence of boundary layer control air. His left hand and wrist, caught between the aileron and flap, were seriously injured.

The investigation revealed that the plane captain did not ensure that the critical areas were clear before he gave the wipeout signal. The assisting second mechanic contributed his share by not adhering to established procedures.

placing his arm between movable surfaces. Other contributing factors were poor lighting in the area and the failure of the assisting plane captain to ensure that signals between plane captain and his assistant were clear.

Grampaw Pettibone says:

Holy Hannah! Funny how an investigatin' team or an ASO finds all these things wrong — after the accident! Where's the prevention program? I guess we still have a few ASO's and supervisors around who think that a safety program is investigating an incident and then taking corrective action. Not so! The ASO and all supervisors should be checkin' for practices and procedures which could lead to a mishap — and stop them, dead! That's accident prevention! I get mighty tired of readin' about accidents that could'a been prevented by a little effort on the part of safety officers and supervisors. Seems to me that both gents involved in this accident had a "qualified" stamped after their name — hmmm!? Training program?

How Not To

Two lieutenants were scheduled for an airways training flight, in a T-39D *Sabreliner*, from NAS Atlantic Coast to Northern AFB via Midwest AFB. Two student NFO's and a passenger were also included on the flight which was to remain two nights at the destination before returning by the same route.

The flight to Northern AFB was uneventful and the crew went their separate ways for the weekend. On the afternoon of their departure, the crew met at base operations, briefed and filed a flight plan to Midwest AFB, the en route stop. During the preflight, the pilots discovered that a small patch of cord was showing on both mainmounts but decided the tires would hold for several more landings. The flight and landing at Midwest were uneventful. The lieutenants re-checked the bald spots on the mainmounts and decided they were good for "one more landing."

The flight to destination proceeded as advertised and, upon arrival, approach control was contacted. The weather was reported at 800 feet scattered, estimated 1,700 feet broken, 2,500 feet overcast, visibility two miles with thunderstorms and rainshowers in the vicinity. While on a GCA final approach, the T-39 pilot was advised that he was too far right and above glide slope and was given a "go-around" if the runway was not in sight. The pilot acknowledged and advised that "runway was in sight." The

ILLUSTRATED BY Osborn

GCA controller transmitted wind information which indicated a four or five-knot tailwind.

The *Sabreliner* continued the approach and touchdown was approximately 2,000 feet down an 8,000-foot wet runway. The flaps were retracted just prior to touchdown. Shortly afterward, the aircraft commenced a slight left drift; the pilot reacted with right brake and rudder. The lieutenant realized he was going to encounter difficulty in stopping and shutting down the starboard engine to reduce residual thrust.

The left drift continued as the aircraft crossed the arresting gear and blew the port tire. The aircraft's speed at this point was 75 knots, with 2,750 feet of runway remaining. At approximately 50 knots, the pilot engaged the nose wheel steering; he was still using right rudder and right brake. The aircraft veered to the right, collapsing the port main gear, followed by the starboard and nose landing gears. The pilot secured port engine as the aircraft slid to a stop. The pilots, NFO's and passenger immediately left the aircraft because of strong fuel fumes.

There were no injuries; however, the aircraft sustained major damage. Investigation revealed that the pilots had violated NATOPS, using improper technique on landing rollout, failing to get a formal weather brief at their en route stop, and accepting the aircraft with bald areas on the mainmounts.

Grampaw Pettibone says:

Sufferin' catfish! How hairy can it get? This young fella threw his NATOPS and — worse yet — his common sense out the window. This whole mess was kind of a preloaded "booby trap" — self induced by the pilots' accepting the machine with bald tires, not knowin' what weather to expect and usin' non-standard procedures.

There is a tendency to minimize this type of accident because no one is hurt; however, with gasoline fumes present, one spark and it would'a been like the Fourth of July. You lucked out there, fellas! The passenger who, it turned out, was unauthorized, now strongly advocates "travel by train."

We don't need this type of non-professionals flying our machines. Nuff said.

Last Performance

An EKA-3B *Skywarrior* launched from a carrier on a routine tanker mission. On board were the pilot, a lieutenant with over 1,500 hours, more than 1,000 in the A-3; a lieutenant junior grade NFO; and an enlisted aircrewman. The *Skywarrior* climbed to 20,000 and entered an orbit while awaiting further instructions and the aircraft which would soon be checking in for refueling. The weather was excellent, with some haze, and visibility in excess of seven miles.

In about an hour, two F-8 *Crusaders* joined for inflight refueling which was conducted at 20,000 feet on a heading of 180 degrees and at 260 knots. The refueling was normal in all respects and, after the second F-8 had finished, the *Skywarrior* retracted its drogue and received a "properly stowed" signal from one of the F-8's.

The two *Crusaders* now observed the nose of the EKA-3B coming up 15 to 30 degrees and commencing a roll to the left. The rolling maneuver continued through the inverted position. From the inverted position, the nose of the aircraft passed through the horizon with the roll now resembling an extremely nose-low barrel-roll type maneuver. The roll rate ceased with the aircraft in an approximate 75-degree nose-down attitude and on a westerly heading. The F-8's estimated the altitude of the A-3 to be 10,000 feet when it rolled to the right and appeared to pull up on a northwesterly heading. It didn't make it and hit the water in a 45-degree nose-down attitude at an estimated 400-plus knots, and exploded on impact. There were no survivors.

Investigation revealed that this same pilot, after refueling two aircraft, had performed a similar maneuver successfully a few days before. One witness stated he had observed similar maneuvers on previous cruises. The accident board concluded that this was an intentionally initiated maneuver—in violation of NATOPS.

Grampaw Pettibone says:

Wild blue blunder — what a waste! All of you "throttle pushers" reading this story will agree that this was a needless loss of lives and machine. The causes of this accident repeat themselves like a broken record. Non-compliance with NATOPS. Overconfidence. Disregard for crew welfare. Yes, sir. Sad! Very sad, indeed!

Gents, you can bet on one thing — the big boys in the Navy Department are through putting up with that small percentage of lads who intentionally violate NATOPS or other existing instructions. For the ones who survive these childish, foolhardy deviations, the long green table awaits. Don't say I didn't warn you! One last Pettipointer for any potential "ham": Don't be a show-off. You may be giving your last performance.


MARINES

CH-53 lifts a 105 to the beach while a SeaCobra *flies gunfire support.*

SNOWY BEACH

Navy and Marine Corps elements combine in the first cold environment amphibious exercise to employ helicopters and airborne minesweeping.

SNOWY BEACH

Twenty-seven miles east of NAS Brunswick, Maine, the predominantly rugged coast yields to a mile-long stretch of gently sloping sandy beach. Logically — or illogically — depending upon your attitude toward New England reasoning, this is Mile Beach in Reid State Park.

In Wiscasset, 20 or so miles down the coast, eroding skeletons of four-masted schooners from another time lie aground on picturesque tidal flats. Scenic coastal route U.S. 1 winds through the trees overlooking the Atlantic to the affluent summer resort village of Bar Harbor.

During the tourist season, park rangers estimate 196,000 people visit Reid State Park to bask in the sun, walk in the pine and cedar woods, picnic or sail on the island-studded bay. They dine on lobster and steamed clams while marveling at the "quaintness" of the taciturn Maine coast residents.

After the Labor Day exodus—when the summer people retreat to warmer climates—the fishermen who live and work on this coast watch the Atlantic churning up under Northeast winds while overhead migrating Canadian geese sound the last calls of summer. The first snow is not far behind. By mid-January the weather is extremely cold and rough.

This is the setting in which the Navy and Marine Corps chose to evaluate new cold weather amphibious tactics — the ideal climate for Operation *Snowy Beach*.

"Normally, when you are planning an amphibious landing, you hope and pray for optimum weather. Since the objective of this cold weather operation was to test our capabilities in bad weather, we had to half-heartedly hope for bad weather," Captain Robert A. Hogsed said in an interview after the operation. As Commander, Amphibious Squadron Eight, Capt. Hogsed was in command of the *Snowy Beach* amphibious task force, which included airborne minesweeping and ASW units as well as what are normally considered the elements of an amphibious task force.

Planning for *Snowy Beach* had begun several months before. After a great deal of research, the Navy and Marine Corps requested and received permission from the State of Maine to use Reid State Park for the exercise. There were, however, several stipulations to the agreement.

"From the beginning, we knew of the restrictions that the State of Maine had imposed upon the Navy and Marine use of the state park. Such basic things as do not bulldoze the sand dunes around; do not cut down any trees; no tracked vehicles on the park roads; strict adherence to the load limitations on the few bridges," Captain Hogsed said.

"This fell in very well with the approach that we followed for the assault phase. With these restrictions, we used the helicopter to its full potential.

"The restrictions pointed up two things relative to *Snowy Beach*. We could take advantage of the capability, or mobility, we had in vertical assault and we would ensure that the very tender ecological balance within the park was maintained. This reduced the number of vehicles we would land ashore and therefore the traffic on the roads. It worked out fine. It was a realistic consideration that we had to contend with."

HM-12 crewmen, left, check the rigging of a Mark 105 hydrofoil in tow behind a Sea Stallion, below. Hydrofoil produces a magnetic signal that triggers mines. Trenton, in background, provided helo platform and logistic support for Snowy Beach airborne mine countermeasures phase. Mission time of CH-53, lifting the minesweeping rig, far left, is estimated at four hours, including time required to get on station and stream the sweep equipment.

SNOWY BEACH

'We got a lot of mileage out of the helicopters . . . They certainly are a godsend in increasing the total flexibility of the amphibious ready group.'

A Huey gunship crosses paths with a logistic support CH-46. During Snowy Beach, helos were used in variety of missions. UH-2C, above right, had an ASW mission.

CH-53's and 46's airlifted Marines from Guadalcanal and other ships in the task force, left. Above, deck crewman tries to keep warm during the Maine operation.

SNOWY BEACH

The task force got under way from Camp Lejeune, N.C., where the Marines embarked, and on January 20 contingents began arriving off Mile Beach.

Operation *Snowy Beach* was the first cold weather-amphibious exercise to employ helicopters. (The last cold weather beach assault was in 1954 when a training exercise was held in Hamilton Inlet, Labrador.) Nearly 40 units were directly involved with Operation *Snowy Beach*, but the helicopter proved to be one of the most valuable assets available.

"The helicopter is the most useful tool that I know of," Capt. Hogsed continued. "It can fly over water or over land. We used helicopters for surveillance of suspected enemy surface contacts while we were en route — this projects our eyes above and beyond the horizon.

"We, of course, had helicopter ASW units aboard USS *Austin* (LPD-4). They were pursuing their ASW role, flying from amphibious ships.

"During the transit, we used helicopters assigned to USS *San Diego* (AFS-6) for vertical replenishment. Vertrep is a real time saver and a very smooth operation.

"We got a lot of mileage out of the helicopters. They certainly are a godsend in increasing the total flexibility of the amphibious ready group."

Helicopter Mine Countermeasures Squadron 12 (HM-12), commissioned only last summer at NAS Norfolk, flew its big CH-53's from USS *Trenton* (LPD-14) for a pre-assault channel-mine-clearing mission. The squadron recently completed a successful test of its rapid deployment capabilities when it operated with Sixth Fleet forces in Exercise *National Week 11* (page 18). The big helicopters can fly from any ship with a flight deck large enough to accommodate them, but LPH's and LPD's are most suited for the support mission.

Snowy Beach was the first cold weather test of the airborne mine countermeasures concept.

"The support rendered by *Trenton* to the CH-53's was about optimum under the circumstances," according to Capt. Hogsed. "There were some minor difficulties with the minesweeping rig, but it was determined that the concept is feasible in cold weather environments."

Helicopters, of course, also were used to move Marines and supplies to the beach during the assault phase of the operation.

Other air elements involved in *Snowy Beach* included the attack aircraft carrier USS *Franklin D. Roosevelt*, with Rear Admiral D. D. Engen, Commander, Carrier Division Four, embarked; and P-3 *Orions* from VP-44, NAS Brunswick. Rear Admiral G. L. Cassell, Commander, ASW Group Two, coordinated ASW and missile defense.

Attack and fighter aircraft from *Roosevelt* flew simulated strike and interdiction missions, while VP-44 aircraft worked with surface ASW units on tracking exercises.

Vice Admiral Vincent P. DePoix, Commander, Second Fleet, coordinated the overall exercise from his flagship, the heavy cruiser USS *Newport News*.

Planning for any amphibious assault is a major undertaking but, when the operation is planned for cold weather, several additional items must be considered.

Commander William A. Domingue, air boss aboard USS *Guadalcanal* (LPH-7), explained how the ship prepared for cold weather operations:

"We try to anticipate the severity of the weather in regard to ice, snow, sea state, heavy rains, sleet and extreme temperatures. What we usually do is work toward getting our equipment prepared for winter — antifreeze in rolling stock, special heaters for the light water vehicles — anything that might freeze we prepare for cold weather.

"We get our supplies in order — salt, sand, things we may need to clear the deck. We don't like to throw salt and sand on deck because it presents an FOD problem for the aircraft, but we prepare for the extreme conditions where we might need these things.

"Topside crewmen are briefed extensively on the hazards of cold weather environments. They are issued thermal underwear, face masks, heavy coats and gloves. We tell them how to protect themselves from frostbite and what signs to look for as the body temperature approaches frostbite conditions. We also talk about chill factors. With winds across the deck and low temperatures, you're down to a very low chill factor before you know it, and this can be very damaging to exposed skin in a very short time.

Seaborne mobile logistics support concept helicopters flew vehicles, ammunition, supplies and hot food to Marines ashore. Hot meals prepared aboard Guadalcanal were stowed in styrofoam containers; from liftoff to mealtime was about 30 minutes.

"One day on *Snowy Beach* our chill factor was minus 28 degrees. With a chill factor like that, regardless of how much clothing a man puts on, his skin chills rapidly and you have to relieve him much sooner than you ordinarily would. During cold weather ops, you run a guy out there for a very short period, then relieve him, and you provide plenty of hot soup and coffee," Cdr. Domingue said.

Guadalcanal did not have any problems with frostbite on the flight deck although 35 to 60-knot winds across the deck kept the chill factor extremely low throughout most of the operation.

"Cold weather does have a decided effect on shipboard operations but with helicopters you can operate as long as you don't have high humidity or precipitation," Capt. Hogsed said.

"We developed the amphibious assault phase around the expected weather conditions in the operating area for January. We researched this over the past years and devised a landing-plan sequence for basically three different modes of landing:

"All air, taking advantage of the 80 percent of January we could expect weather conditions to allow us to operate helicopters. This is with the acceptable levels of ceiling visibility and wind conditions. Temperature per se was not too much of a threat unless it was associated with precipitation. The worst condition would have been freezing rain.

"The restrictions on boats would be predominantly sea state and, with the prevailing winds we could expect during January off the Maine coast, about 50 percent of the time unlimited boat operations would be prohibited.

"We had a spectrum of landing plans that ran from all air to all surface. We realized that 20 percent of the time we would not be able to operate helicopters. About half of that would be because of reduced visibility. We could operate boats in reduced visibility with radar control.

"What I'm talking about here is flexibility. With our helicopters, boat mix and types of ships, we had absolute maximum flexibility to go either all air, all surface or, preferably, a combination of the two."

'Helicopters are here to stay, no doubt about it. This is the way to put troops on the beach ... exactly where you want them.... When they come out of the helicopter, they are fresh and in good shape.'

On D-Day a combined vertical and surface assault was launched. CH-53's and CH-46's from *Guadalcanal* lifted 900 troops from the LPH and some of the accompanying troopships with helicopter platforms, while surface landing craft were launched from the well decks of the LPD's and USS *Saginaw* (LST-1188), which can launch LVT's while underway. The entire assault evolution was complete in an hour and a half.

CH-53's from *Guadalcanal* airlifted artillery pieces, jeeps and heavy support equipment to the Marines ashore, while CH-46's kept a steady flow of small supplies moving in.

"A 105mm howitzer is normally moved behind a five-ton six-by truck," Capt. Hogsed said. "To move a howitzer from spot to spot takes a pretty good road or cleared terrain. With the

SNOWY BEACH

helicopters, we could place the 105's — fly them in over the beach and sit them down right on the spot they would be firing from, be it a parking lot, as it was in Reid State Park, or a hilltop.

"This provides a faster means for getting the 105's into place and eliminates the necessity of bulldozing trees or preparing roads for the five-ton trucks to move on. This applies to a wide range of hardware equipment and vehicles that the Marines have in their inventory. Some radio jeeps, for example, are the heart and soul of the command and control system. All of these are helicopter transportable. It is really easy to yank them off the ships and set them down in choice spots ashore. AH-1J *Cobras* were used in *Snowy Beach* as protection for the troop helicopters, flying gunfire support missions to suppress any small arms fire the troop transport assault helicopters might be exposed to."

"Helicopters are here to stay," Cdr. Domingue says, "no doubt about it. This is the way to put troops on the beach. You can put them anywhere you want them — exactly where you want them — and they don't have a problem getting from the beach to the objective area. When they come out of the helicopter, they are fresh and in good shape. It is much faster. Our helicopters can land a considerable number of people in a very short time."

The Marine landing force bivouacked ashore for 72 hours during the operation and every meal they ate was a hot one, prepared aboard *Guadalcanal* and flown to them by helicopter.

This was part of a test of Seaborne Mobile Logistics Support (SMLS), a concept designed to limit the stockpiling of supplies ashore by moving material in by helicopter as it is needed.

The Marines tested a new styrofoam container that keeps food and beverages hot for extended periods. The dispensable containers are patterned after the self-contained catering units used by commercial airlines. Pre-prepared food is placed on the airliner in the containers and the stewardesses simply serve it.

Each ration container used by the Marines holds about 50 rations and beverages and eliminates field kitchens with all their hardware and raw food materials.

"The whole evolution takes about 30 minutes," Capt. Hogsed explained.

"a hot meal from the galley to the guy on the beach."

During the backload phase of the operations, the *Snowy Beach* task force faced its most adverse weather.

"It wasn't necessarily cold weather," Capt. Hogsed said, "but we had sustained high winds of about 40 knots for almost 24 hours. These high winds prevented us from operating helicopters and, for a period, made boating marginal. With some of our heavier boats — the LCU's — we were able to conduct some boating operations but, unfortunately, we were not able to get the troops who were ashore back aboard as early as we would have liked to."

Anticipating the backload operation, the Marines ashore had broken camp to await pickup. When the weather deteriorated — sometimes with winds of 40 to 60 knots — they were left with limited shelter. Helicopters finally were sent in to pick them up. (Six minor cases of frostbite were reported.)

"I don't know that *Snowy Beach* was really much of a real test of cold weather operations because we didn't have extremely cold weather," Cdr. Domingue said. "But, as far as helicopter operations go, they are certainly feasible. We had just about every condition you could imagine except for extreme icing conditions on the deck, which would mean that we could not go. We had extreme winds, we had rough seas, we had mild weather and we had extremely cold weather. When you talk about minus 28 degrees, that's pretty cold — and we were operating helicopters in all these conditions."

Prior to Operation *Snowy Beach*, a group of ecology-oriented Maine citizens protested the landings. They felt that the amphibious assault would do irreparable harm to the beach and woods of Reid State Park. Their fears proved unfounded.

"As a matter of fact," Capt. Hogsed says, "the Marines left the park in better shape, policed much better, than it was when *Snowy Beach* began. When we first got ashore there was considerable refuse from last summer on the beach — cans, paper, that sort of thing. There is no doubt that the park was cleaner when the Marines left than when they arrived. I inspected the beach during and after our assault operation and, even a week later, there was absolutely no oil, no flotsam, no residue on the beach from our operations."

Capt. Hogsed turns his attention toward the future of amphibious warfare.

"I think we'll see helicopters used more and more. We will be conducting assaults or landings — perhaps insertion is more technically correct — further and further from the beach. To supplement the helicopter, we need a higher speed, higher performance surface craft that can cover greater distances, distances beyond the horizon from the beach. I think that we must look forward to surface assault craft with this capability."

Combat Camera Group, Atlantic Fleet sent 22 photographers with the Snowy Beach task force — the largest crew ever assigned to a fleet operation. Under the direction of Lt. Robert L. Williams, CCGLant administrative and assistant operations officer, the men covered all aspects of the operation from the aircraft, the ships and the landing craft.

Former NANews Associate Editor, JOC James Johnston, now a member of CCGLant, wrote the story. Photographs on these pages are the work of PHC Wade Davis and PH1's Rich Pendergist, Bill Hamilton, John Hollis, John Sheppard and John Francavillo.

CH-53D Sea Stallion, left, supported Marines on the beach. SeaCobra, right, is framed against the Maine coastline.

Speed and Mobility

By RD3 Hamp Rogers Photos by PH3 Ron Gorman

Helicopter Mine Countermeasures Squadron Twelve completed its first deployment only ten months after being commissioned (*NANews*, August 1971).

Working with Mobile Mine Countermeasures Command's Detachment A, the squadron spent two months towing minesweeping gear with CH-53's. They operated from Souda Bay, Crete. Pilots and aircrewmen completed over 70 airborne mine countermeasures (AMCM) missions amounting to more than 240 AMCM hours and over 390 total flight hours.

HM-12's *Sea Stallions*, minesweeping gear and personnel from both units were transported to Souda Bay aboard three C-5A *Galaxies*. Four days after the first plane left Norfolk, Va., the last plane landed in Souda Bay, demonstrating the squadron's most important elements — speed and mobility.

Earlier operations off the coasts of South Carolina and Virginia with the mobile command gave HM-12 pilots and aircrewmen a chance to train in AMCM missions. Skippered by Commander David W. Humphreys, the squadron has 39 pilots and over 200 enlisted men. A third of the pilots are qualified plane commanders; the others are copilots. Before a copilot can become a plane commander he must complete a training syllabus which takes about a year.

"In the future, our goal is to have the copilots complete a ground syllabus and some training hops," says LCdr. Melvin A. Runzo, OinC of the HM-12 detachment that went to Souda Bay. "Then they will be ready. But right now we must rely heavily upon on-the-job training."

Like the pilots, most of the aircrewmen are new at flying AMCM missions. Although most of them have been to a Navy specialty school, much of their training in using AMCM gear is acquired on the job.

"The hardest thing for an aircrewman to learn is how to operate minesweeping gear," says AMSAN Lyle R. Smith.

The mobile mine countermeasures command is made up of about 30 officers and enlisted men who supervise and control mine countermeasures operations. One of the staff's major functions is to control the helicopters during AMCM missions. Radarmen on the staff are sent to the MCM helicopter controller course at the Fleet Training Center, Charleston, S.C. After several operations they qualify as AMCM air controllers.

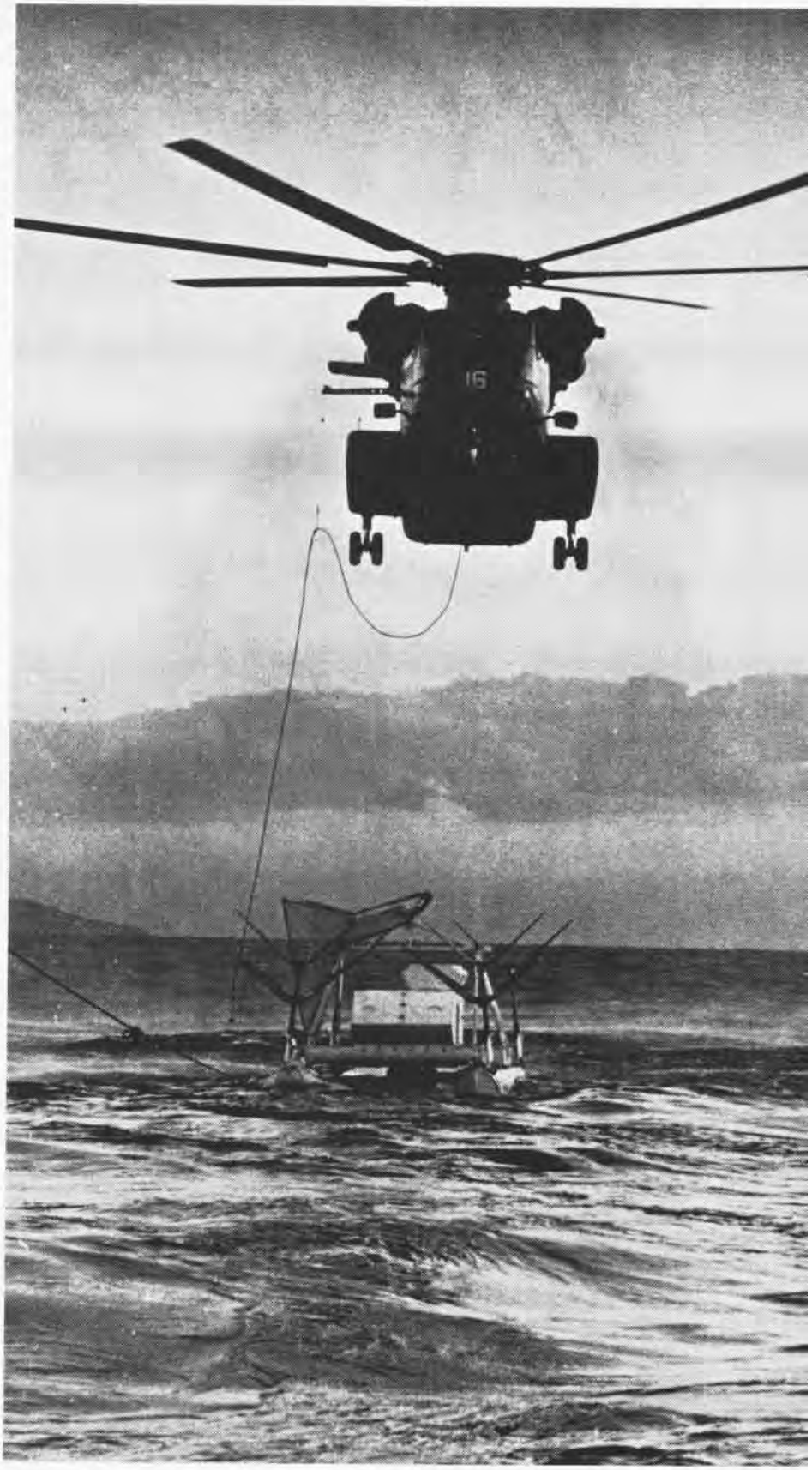
The Charleston-based command is headed by Capt. Wesley E. Lindsey, Jr.

Three types of minesweeping gear can be towed by HM-12's helicopters. The Mark 103, used for sweeping moored mines, consists of cutters attached to sweep cables that are towed by the helo at a depth determined by the length of cable attached to buoyant floats. When pulled through the water, the cutters free the mines allowing them to surface. They are later destroyed by .50 caliber machine guns mounted in a *Sea Stallion* assigned to mine-destruct missions. ADJ1 Lloyd T. Williams, Jr., is the squadron's machine gunner. He gained his experience flying missions on helicopter gunships with HAL-3 in Vietnam.

The Mark 104 acoustic device is a lightweight, water-actuated venturi tube that produces a signature through cavitation at various frequencies. The signature resembles that of a ship and explodes acoustic mines in its range.

Next in the inventory is the Mark 105 magnetic sweep. This sled-on-hydrofoils is fitted with a turbo-generator and a magnetic conductor cable which simulates the magnetic field of a ship with electrical pulses that actuate the firing mechanisms of magnetic mines. If an acoustic device is included in the Mk 105's system, a combined influence is achieved and the sweep is then known as a Mk 106.

Even though a few problems remain, the basic mission of a mobile minesweeping force has been accomplished.



Two CH-53A's make an air-to-air transfer of an MK 105 magnetic minesweeping device, opposite. Right, a Sea Stallion prepares to pick an MK 105 device out of the water and place it on the flight deck of an LPD.

NAVAL AIRCRAFT

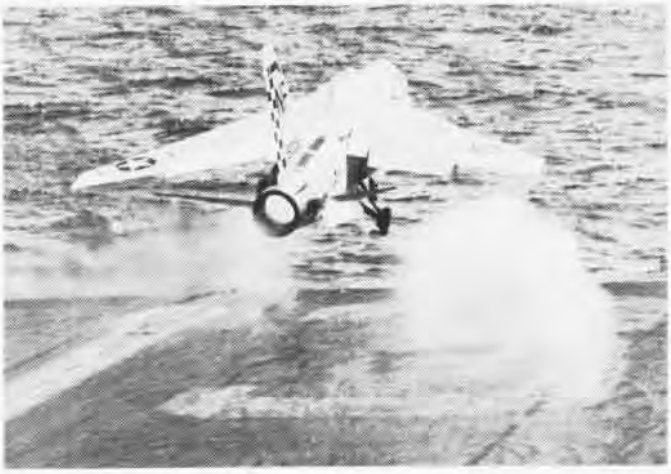
Cr

The F-8 *Crusader* began life as the XF8U-1, selected from among eight designs for a Navy supersonic air-superiority fighter in 1953. The *Crusader's* shark-like appearance suited its performance as the first U.S. plane to break 1,000 mph in August 1956. The following March, the initial service model, the F8U-1 (F-8A), entered VF-32 and made its first deployment on *Saratoga* later in the year. The F-8 features a two-position variable-incidence wing which ensures good pilot visibility by allowing the fuselage to remain level though the wing assumes a high angle of attack for landing and takeoff. The *Crusader* was originally armed with four 20mm guns and 32 folding-fin 2.75" rockets, carried internally; plus two externally mounted *Sidewinders*.

The F-8A was soon followed by the F-8B which featured a nose radome. Another version appeared in 1956, the RF-8A (F8U-1P) with six aerial cameras in its modified fuselage and a photo recon mission.

In 1959, the F-8C (F8U-2) entered active service, distinguished from previous models by ventral tail fins and an improved engine which gave it higher performance characteristics. The F-8C added two more *Sidewinders* to its armament. The next variation, the F-8D (F8U-2N), in addition to better radar and increased fuel capacity, featured a new engine giving it near Mach 2 with afterburner. The belly-rocket pack was deleted in the F-8D which was assigned to the Marine Corps and the Navy.

The F-8E added two underwing pylons adaptable to a variety of bombs and missiles and an infrared scanner tied to the *Sidewinder* system. Production of *Crusaders* ended in early 1965. From 1966 to 1970, earlier versions were modernized with improved radar, fire-control systems and beefed-up landing gear, and redesignated as F-8H, F-8J, F-8K and F-8L.



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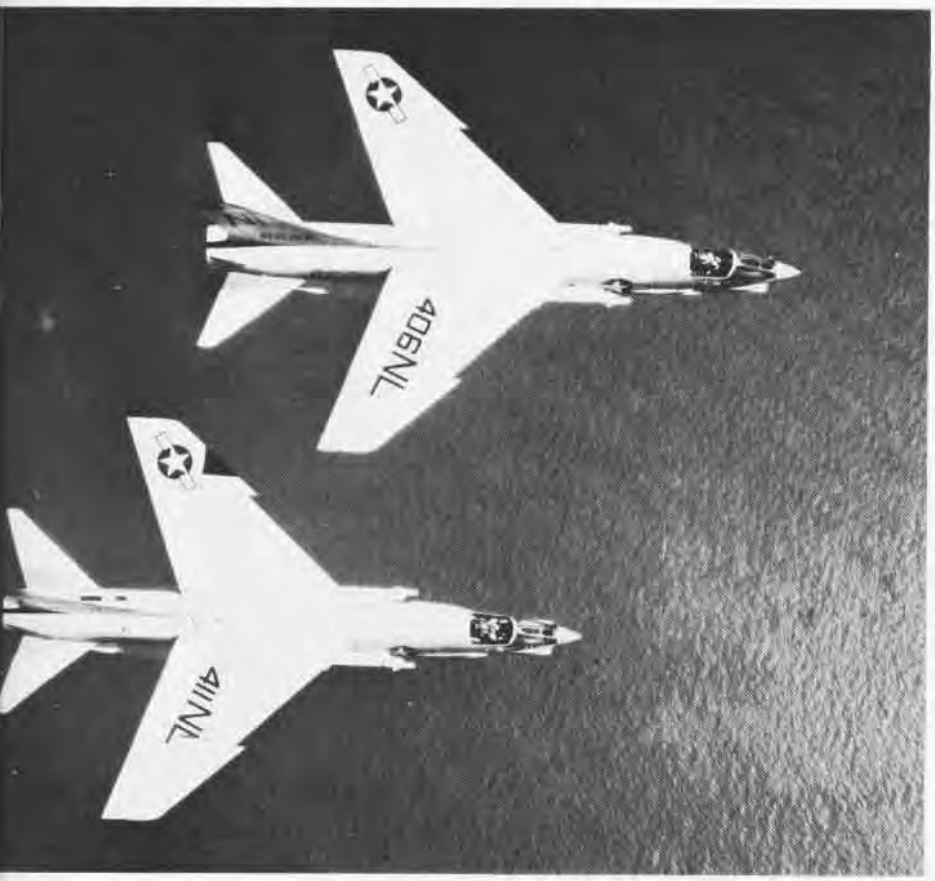
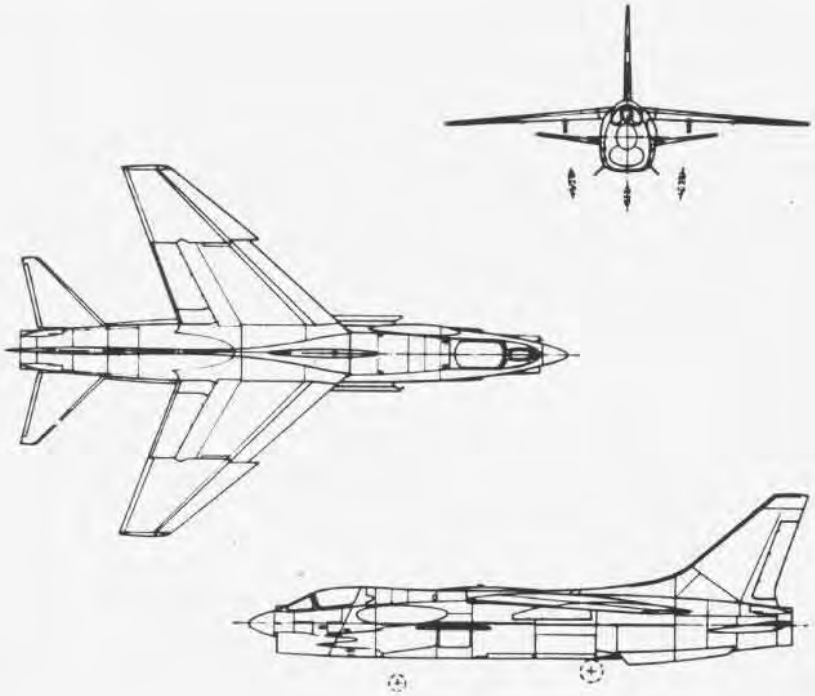




F-8

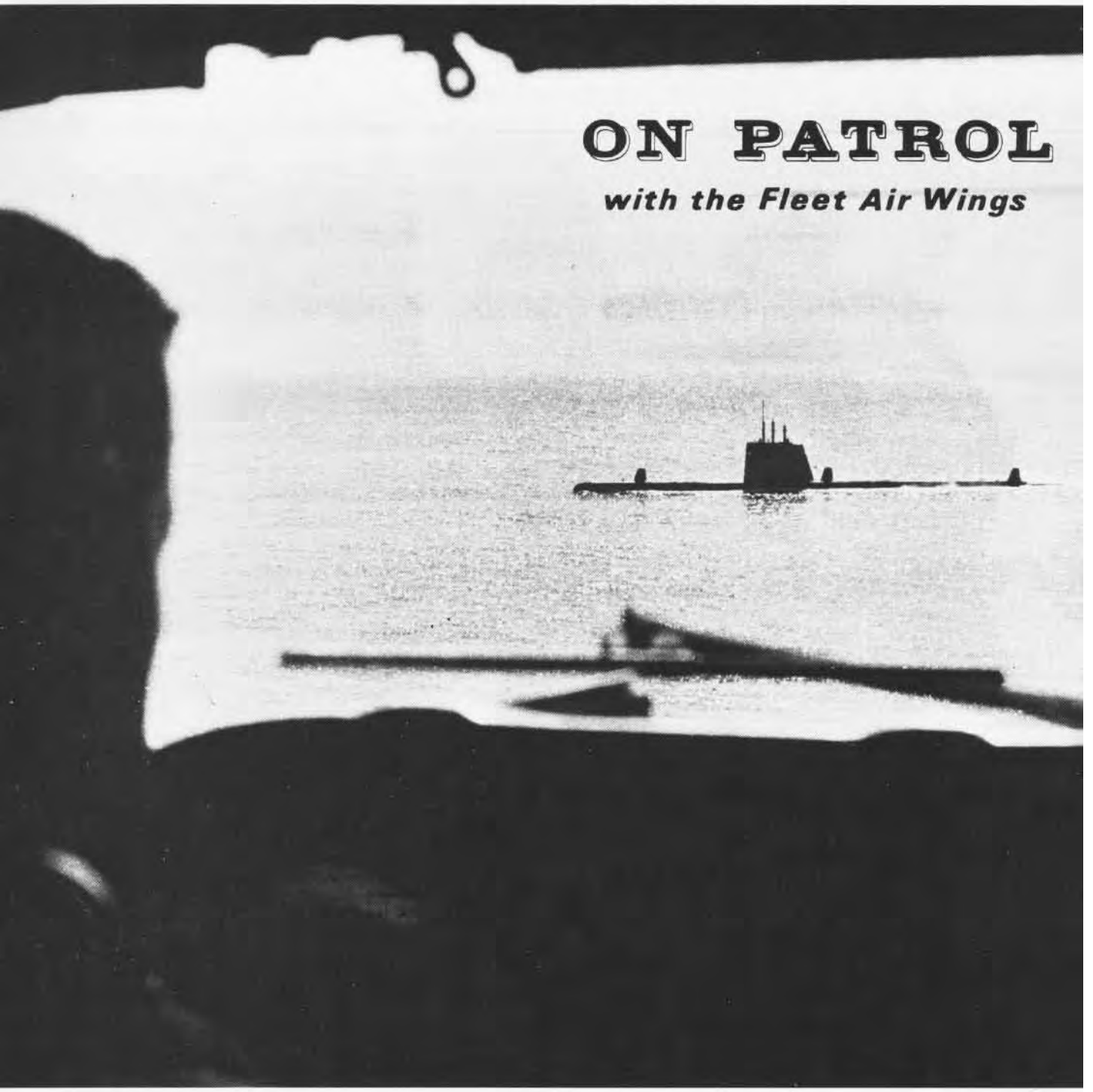
Length		
F-8		54'3"
F-8J/RF-8A/G		54'6"
Height		15'9"
Wing span		35'8"
Engine/Thrust		
F-8A/B/L, RF-8A/G	16,000 lbs.	J57-P-4
F-8C/K	16,900 lbs.	J57-P-16
F-8D/E	18,000 lbs.	J57-P-20
F-8H/J	18,000 lbs.	J57-P-20A
Maximum speed		
F-8A/B/L		880 kts.
RF-8A		855 kts.
RF-8G		870 kts.
F-8C/K		960 kts.
F-8D		1,067 kts.
F-8E		984 kts.
F-8H		886 kts.
F-8J		943 kts.
Service ceiling		
F-8A/B/L		42,300'
RF-8A/G		41,600'
F-8C/K		41,700'
F-8D		42,900'
F-8E		40,000'
F-8H		39,250'
F-8J		38,400'
Combat radius		
F-8A/B/L		345 nm
F-8C/K		320 nm
F-8D		394 nm
F-8E		350 nm
F-8H		344 nm
F-8J		382 nm

Armament

F-8A/B/C	Four 20mm guns, 32 FFAR, 2 Sidewinders
F-8D	Four 20mm guns, 4 Sidewinders
F-8E/H/J	Four 20mm guns, 4 Sidewinders or 8 Zunis plus 2 Bullpups or 12 MK 81 bombs
RF-8A/G	Six cameras, one scanner

ON PATROL

with the Fleet Air Wings



An Orion makes a low pass over an "enemy" submarine that had surfaced after an ASW exercise during Unitas XII off the coast of Peru, above. Lt. Jim Humphrey (right) discusses tactics with a Peruvian Air Force pilot in the cockpit of a P-3 Orion, at right.

VP-17 IN UNITAS XII

Story and photos by JOC Richard Montgomery

A 37-man detachment of Hawaii-based Patrol Squadron 17 traded their alohas for two months of flying in South America late last year.

The men participated in *Unitas XII*, a naval training exercise involving the United States and the major maritime nations of South America. This is the first time a Pacific Fleet squadron has participated in combined maneuvers.

The two fully loaded P-3's of VP-17 left NAS Barbers Point, Hawaii, for Panama City in the Canal Zone. They eventually visited Colombia, Peru and Chile.

After pre-sail conferences in Panama, the two crews took their Lockheed-built planes to Cali, Colombia, to begin operations. Flights from Calmaseca International Airport in Cali introduced the maintenance and flying crews to the strange and rather long hours they were to experience for the next two months.

Maintenance crews began getting up in the early morning hours to keep the planes in the air and on station for nine and ten-hour missions. Crews quickly fell into a routine of flying, eating and catching what sleep they could.

The first of two week-long stand-downs occurred in Lima, Peru, the third stop of the deployment. After operating off the coasts of Colombia, Ecuador and Peru, the men and planes took a well deserved rest.

The layover period in Lima proved to be more of a slowdown than a stand-down. The aviators joined in pre-sail conferences, restocked sonobuoys and other expendable ordnance and got in a few instrument hops over the Andes Mountains.

All too soon the planes were flying south again, this time to a small copper mining town — Antofagasta, Chile. After four days of almost continuous operations, the men packed their spare parts and moved their base of operations to Santiago, some 700 miles nearer Cape Horn.

Coming off station near Valparaiso, Chile, flight engineer Bob Kelly, in one of the P-3's, relit an engine that had been feathered for loiter. Then, something, literally, hit the fan. After a loud explosion and spinning engine oil pressure gauges on number three engine, Kelly pulled the emergency feather handle.

After the wounded bird landed in Santiago, there was no doubt that the

Orion was hard down and a long way from home.

A lot of thought and planning had been given to spare parts for the P-3's while the aircraft were operating down south, but a spare engine was out of the question. It would not even fit through the door.

A message from the American Embassy in Santiago requested Navy support people in Jacksonville, Fla., to expedite shipment of an engine, an extra stand and an engine sling. Fourteen days later the equipment arrived aboard an Air Force C-141. A few hours later, the maintenance crew was laboring over bolts and screws, getting ready for the swap.

Maintenance chief Sid Vipperman set out to find a suitable lift to hoist the 4,200-pound engines on and off the plane. The highly professional Chilean Air Force came through. The

lift was not the type P-3 ground-pounders normally used, but they made it work.

"The change went very smoothly," says Vipperman. "We had our professional squadron mechanics working on it."

Two days and 122 man-hours later, number three was turning and shortly thereafter a check crew had the plane in the air.

During *Unitas XII*, the P-3's were on station more than 200 hours. Despite the engine change in Santiago, they did not miss an operational commitment.

The language barrier proved the biggest problem during the trip. The aviators had attended two months of Spanish training prior to leaving Hawaii, but most wished they had had more. But the lack of communications did not deter the training exercises.

Second mechanic Jesse Wilson watches gauges while refueling in Lima, Peru, opposite. AEC Bobbie Zackery signals "turn three" to the pilot of a VP-17 Orion in Santiago, Chile, left. Old engine hangs from a sling as maintenance men prepare to lower it into stand, above. Visitors in Lima, Peru, board an Orion, below.

THE SELECTED AIR RESERVE

Reserve Admirals Selected

Four Naval Air Reservists have recently been selected for advancement to flag rank. They are Rear Admirals (selectee) Hugh R. Smith, Jr., NASRU-G1, NARTU Alameda; Raymond Hemming, senior project officer, Naval Air Reserve Management Unit, NARTU Alameda; John D. Gavan, NARS-B1, NAS Atlanta; and Robert Hobbs, NARTU Whidbey Island, a member of the NavAirResFor's Naval Air Reserve Support Component.

Naval Air Museum Donation

The men and officers of NAF Detroit, Mich., have donated $500 to the Naval Aviation Museum at NAS Pensacola, Fla. The donation qualifies the NAF for an organizational membership and a plaque in the museum.

The donation was made by Captain Howard H. Soester, C.O. of the NAF, to Vice Admiral M. W. Cagle, Chief of Naval Training and President of the Naval Aviation Museum Committee. The idea for the donation came from a TAR officer and was implemented by officers from NARS-Y1.

The museum will honor all Naval Aviation, past and present. The ultimate building will cost about $4,000,000; however, the Museum Association has decided to construct the building in increments as funds become available. The first increment, costing $1,700,000, will consist of nearly ten times the present display area.

New Denver NARDiv

A new Naval Air Reserve Division has been commissioned at Buckley Air National Guard Base in Denver, Colo. NARDiv-4 will serve as a training unit for more than 100 men and women from Colorado and surrounding states. Captain Louis J. Muery, Jr., commanding officer of NAS Dallas, Texas, inspected personnel before addressing 300 assembled Reservists and civilian guests.

The new unit's commanding officer is Commander Martin H. Long.

NARTU Whidbey Gets $3 Million

NARTU Whidbey Island has been allocated $3,207,000 to construct a new hangar and renovate a building for its administrative offices.

The funds were released by the Defense Department for the two projects that were made necessary when NAS Seattle, Wash., closed and its Reserve air activities moved to NAS Whidbey Island in June 1970.

Hangar construction has been allocated $3,096,000 while $111,000 is assigned to house the NARTU offices. The 75,000-square-foot hangar, accommodating two patrol planes, is to be built at the south end of the naval air station. The work is expected to be completed in a year; renovation of the administration building will take six months.

Some 300 active duty Navy men and 1,500 Naval Air Reservists train at Whidbey Island. The unit is commanded by Capt. Fred W. Lawrence.

Recruiters Honored

Two NARTU North Island recruiters were honored for achievements which added approximately 300 veterans to San Diego area Selected Air Reserve squadrons in 1971.

CSC Joseph Charette and ADJ1 Ronald K. Gfell received special *Centurion* plaques signifying that each had recruited 100 veterans last year. Chief Charette, one of the two top recruiters in CNAResTra, brought in 192 men and Gfell recruited 100. Both are serving as Naval Air Reserve recruiters on temporary active duty.

Joint Exercise

Five Naval Air Reserve squadrons flew from NAS Whidbey Island while they took part in a joint Canadian and U.S. antisubmarine warfare exercise off Canada's Vancouver Island.

Six ships, 25 aircraft and one submarine were used to sharpen the skills of the sub hunters. Round-the-clock air and sea operations were conducted during the 12-day exercise which was held to improve the operational readiness of the combined forces. It also provided operational team training in assigning air, surface and subsurface units in antisubmarine tactics and coordinating procedures, using both U.S. and Canadian forces.

VS-83, NARTU Whidbey Island, acted as host for four California-based Reserve squadrons. VS-81, NARTU North Island, VS-82 from NAS Alameda, HS-84 from NARTD Imperial Beach and NARTU Alameda's HS-85 flew to Whidbey to complete the U.S. aerial component for the exercise. Together they are part of CVSGR-80, home-based at NAS North Island.

Headquarters for exercise coordination was located at the Esquimalt Naval Base at Victoria, British Columbia. Antisubmarine aircraft of Canada's 407 Squadron were the Cana-

NARTU Norfolk personnel made the foul paddles used by LCdr. Russell Wolfe, OinC of the Norfolk Recruiting Substation, to indicate personal and team fouls during basketball games. Opposite side reads "Go Navy."

dian aviation contribution to the exercise.

Three U.S. and two Canadian destroyers conducted surface antisubmarine warfare tactics in the area in coordination with the air search. Five helicopters from HS's 84 and 85 operated from the Canadian oiler *Provider*, equipped with a helicopter landing platform.

Whidbey-based S-2's flew approximately an hour and a half to reach the exercise area. Once over their assigned stations, the *Trackers* searched for three hours before returning to base. Each helo was scheduled for a four-hour flight during the exercise, and relieved another on station.

Commander Frank Sanders, operations officer of CVSGR-80, coordinated the air search for U.S. forces.

Although not part of the overall operational objectives of the exercise, VP's 91 and 69 each supplied two aircraft to search for submarines. VP-91, home-based at NAS Moffett Field, Calif., flies P-3 *Orions*, while VP-69, Whidbey Island, flies *Neptunes*.

Cub Scouts Tour North Island

Fullerton, California cub scouts and their fathers saw Southern California's Naval Air Reserve Force on display when they visited NARTU North Island.

Eighteen cubs, under the direction of cub master Herb Ertel, were treated to a daylong round of activities. They were welcomed by Captain John G. Korecki, C.O. of the North Island-based Air Reserve Force, and Captain William Grago, Naval Air Reserve Staff commander.

Highlight of the visit was a tour of *Kitty Hawk* and the guided missile cruiser *Providence*.

The scouts joined the crew of *Kitty Hawk* for lunch and later observed air operations of Naval Air Reserve squadrons and units.

3,200-mile Round Trip

Have a long trip to your Reserve drills? Come in from the suburbs or even another state? Well, take heart—two Reservists fly up from the Virgin Islands to attend drills in New York City.

They are PNC John and YN1 Mary LeBright. They are possibly the long distance record holders for the Naval Air Reserve—the round trip is 3,200 miles. Both are attached to NARDiv-W6 of NARTD New York.

Since 1968, the LeBrights have been residents of St. Croix, Virgin Islands. Chief LeBright says, "We really enjoy the Navy and find a great deal of pleasure in drilling with the Air Reserve. We have been on some wonderful cruises to various parts of the world."

The two met in 1959 at NAS New York where they were both attached. Three years later they were married. Chief LeBright has been drilling at NAS New York since 1949. YN1 LeBright came to the station in 1957.

The eyes have it as Cub Pack 232 scrutinizes the interior of one of the many aircraft aboard USS Kitty Hawk. Tour was part of daylong NAS North Island visit sponsored by NARTU.

New Naval Air Reserve MCPO

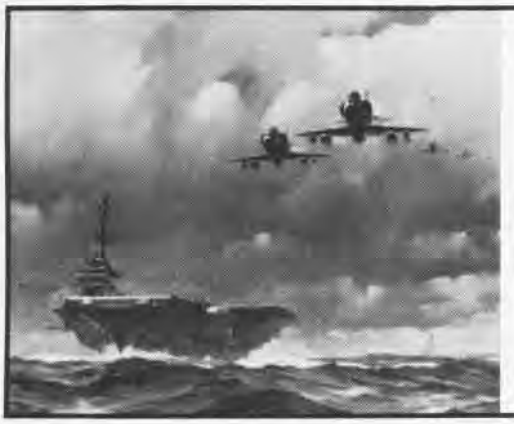
Master Chief Yeoman Herbert J. McCauley, a veteran of more than 19 years of Naval Air Reserve service, has assumed the duties of Master Chief Petty Officer of the Naval Air Reserve. He is the third senior enlisted man to serve as the Naval Air Reserve's top enlisted man since the billet was established in August 1969.

Official ceremonies recognizing the transfer of MCPO responsibilities from Master Chief Avionics Technician Hurley "Pat" Fellows were conducted by Captain U. L. Fretwell, Chief of Staff, Commander Naval Air Reserve Force/Chief of Naval Air Reserve Training, prior to Fellows' transfer to the Fleet Reserve.

More than 100 guests heard the new MCPO pledge his support to promote further meaningful communication at all levels of command and to encourage keener sensitivity to the enlisted community's needs and interests.

NAS N.Y. Reopens Briefly

Floyd Bennett Field reopened to flight operations on January 7, 1972, to land a Navy SP-2H *Neptune*. The brief opening was made by special arrangement between the Navy Department and the Federal Aviation Administration. The aircraft, piloted by Commander Jerry Higgins, commanding officer, and LCdr. Wylen R. Holland, both of Air Ferry Squadron 31, Norfolk, Va., arrived from NAS North Island after a one-month trip delayed by minor maintenance requirements, pending agreements, weather and, finally, runway conditions. Following the landing, LCdr. Holland transferred custody of the aircraft to Commander Phillips A. Ammons, Jr., OinC, NARTD New York. The detachment will retain permanent custody of the plane, using it to train maintenance crews from among the 1,000 Naval Air Reservists drilling at Floyd Bennett. The field has been closed to air traffic since November 1, 1970. This flight was guided in by J.F.K. air controllers.



at Sea with the Carriers

ATLANTIC FLEET

Independence (CVA-62)

Independence received the latest word on everything from overseas carrier basing to reenlistment bonuses when Admiral Elmo R. Zumwalt, Jr., visited the *Big I* during his tour of the Sixth Fleet's TF 60.

Adm. Zumwalt experienced a short delay while the ship launched its Alert Combat Air Patrol. Two F-4 *Phantoms* were shot off to intercept a pair of Russian *Badgers* heading toward *Independence*.

Twenty minutes after touchdown, the Chief of Naval Operations addressed several hundred crewmen on the forward hangar deck.

Saratoga (CVA-60)

Holding a plasma bottle high, HMC Albert M. Hetrick braced himself against the wind that swept *Saratoga's* flight deck. Just ahead he could see a cluster of men crouched beneath the spinning blades of a helicopter as it prepared for takeoff.

Less than an hour before, some of these same men had watched helplessly as a 2,100-pound ammunition crate broke from a cable and slammed into SA Gary V. Kenn, carrying him into a steel bulkhead. Kenn, working on board USS *Suribachi* during an ammunition transfer between the two ships, was rushed to *Sara's* larger medical facilities.

Even as the helicopter was landing on the flight deck, word passed throughout the ship that blood might be needed. *Saratoga's* volunteer "walking blood bank" formed a long silent line outside the emergency room.

After nearly an hour of intensive emergency treatment, Commander H. M. Braswell, senior medical officer, determined that Kenn's condition was stable enough to attempt a medevac.

The stricken sailor was taken to the flight deck on the ship's elevator where, attended by Chief Hetrick and his staff of hospital corpsmen, Kenn was transferred to an HS-7 helo for the more than 100-mile journey to the hospital at NAS Jacksonville, Fla. At last report, Kenn was in satisfactory condition.

Wasp (CVS-18)

Quick thinking on the part of FA Leon D. Davis during *Wasp's* last cruise prevented a dangerous situation and possible damage to the ship when he took quick action to control flooding in his working space.

Davis was pumping forward auxiliary room bilges when he noticed water from a faulty fire sprinkler system flooding in from the seventh deck. He immediately secured his electrical equipment and left the space. He secured the hatches to a damage control pump room and a saltwater activated ordnance magazine as he left. The water had already risen to his waist by the time he climbed out.

Because of his action, Davis prevented the activation of explosives that could have caused a major fire. If water had flooded the damage control pump room, the result could have been a six to eight-week yard period.

The Marine Detachment from Independence marches past the famous White Tower at Thessaloniki, Greece. Marines joined two Greek navy platoons and army band in flag ceremony.

PACIFIC FLEET

Ticonderoga (CVS-14)

Last November as CVSG-59 was preparing for its final flyoff from *Tico*, the *Tico Tiger* mysteriously found its way to one of the air group's helicopters which was intent on getting home early to meet the ship at the pier. During the preflight passenger survival briefing, it was learned that *Tiger*, like most cats, had a fear of water. A hastily performed standard Navy swimming test proved he could not swim and he was lost at sea.

Since then, a replacement *Tiger* has had five weeks of intensive survival training and in ceremonies held on board at NAS North Island, Captain Edward A. Boyd, C.O., accepted custody of the "fierce feline" while the band played *Hold That Tiger*.

Hancock (CVA-19)

Hancock recently returned to Yankee Station for her seventh Vietnam cruise. Shortly after arriving, she recorded her 150,000th catapult launch. She also logged her 160,000th arrested landing when Lt. Ken Bray of VA-55 landed in an A-4.

The oldest attack carrier in the Navy, 28 years old, is undergoing a habitability improvement campaign

New Tico Tiger is welcomed aboard and presented a Mae West by Capt. Edward A. Boyd.

spearheaded by her C.O., Captain Albert J. Monger. Capt. Monger recently opened a model "head" complete with wood paneling and stainless steel fixtures. The head has been overwhelmingly successful and more are planned.

In addition, the captain has set up a habitability committee composed of divisional representatives to help improve living compartments and eating and recreational facilities aboard.

With that in mind, the supply department recently opened a sound shop, providing crew members an opportunity to purchase brand name stereo equipment, records, tapes and televisions. For those who would rather save their money, yet enjoy the sound of stereophonic music, the ship's library will be equipped with stereo components—complete with headphones.

Constellation (CVA-64)

A VA-165 warrant officer aboard *Constellation* is alive and well thanks to four quick-thinking squadron mates.

While an *Intruder* was being readied for launch, CWO2 James Rowe came down the A-6's starboard boarding ladder and started to move forward around the aircraft's nose. To avoid another man, the "Gunner" side-stepped and was caught in the suction of the engine intake. Seeing what was happening, ADJ1 Hans P. Ruder grabbed Rowe around the waist, assisted by AE3 John C. Buchko and AO3 Leonard E. Fallin. Realizing the situation, AME1 George F. Higley, who was standing in front of the *Intruder*, caught the attention of the pilot who immediately reduced power. With the suction reduced, the victim and his rescuers tumbled to the deck, unhurt.

Rowe, who was pulled into the intake up to his waist, received only a few bruises, thanks to the rescuers' quick action.

Enterprise (CVAN-65)

USS *Enterprise* and CVW-14 returned to NAS Alameda, Calif., in February following an eight-month deployment to WestPac and an unexpected trip to the Indian Ocean during the India-Pakistan crisis.

CVAN-65, along with other units of the Seventh Fleet, was ordered into the Indian Ocean where she operated as part of Task Force 74 for about 34 days. During the closing days of the operation, this poem was written by an *Enterprise* crewman.

Listen, my children, and I'll tell you more
Of the cruise of Task Force Seventy Four.
Hardly a man can forget the commotion
We caused when we sailed to the Indian Ocean.

The world was surprised and the people got mad,
From Peking to New Delhi, from Moscow to Vlad.
In Dacca, Calcutta, and old Singapore,
They followed the movements of Seventy Four.

Our carriers, auxiliary, and seven small boys
Made quite a strong force and caused lots of noise.
They did not know why we had come to this sea.
(Nor did they know that neither did we!)

They asked many questions, but no one asked more
Than the officers and sailors of Seventy Four.

But there were no answers, no messages of cheer.
To brighten our Christmas or greet the New Year.

And so we sailed on 'round these far distant lands,
Doing field days and flight ops and contingency plans.
We watched for supply ships who came out and met us,
And wondered if one day they might just forget us.

The days dragged on by and our own sense of humor
Carried us through each discouraging rumor.
We watched and we waited and hoped for a word,
To go back to Subic, but nothing was heard.

That's all there is, children. I've no more to say.
Just write to your sailor and hope that one day,
The story I've told you will then have an end.
If the mail ship arrives I will write you again.

RIMPAC '71

Units from four Allied countries recently completed the largest, multi-nation antisubmarine warfare exercise staged in the mid-Pacific — ASWEx *RimPac '71*.

Air, surface and subsurface units from the United States, Australia, Canada and New Zealand participated. *RimPac '71* gave the members of each force a significant amount of multi-threat training and a greater awareness of the magnitude of the enemy threat.

U.S. participants included *Ticonderoga;* the fleet oiler *Hassayampa;* the destroyer escorts *Whipple, Sample, Ouellet* and *Claude Jones;* the submarines *Swordfish* and *Bonefish;* air units from VP-4, VC-1 and MAG-24; and the Coast Guard cutter *Rush.* Australian units included the carrier *Melbourne;* the guided missile destroyer *Hobart;* the destroyer escorts *Yarra* and *Torrens;* the submarine *Onslow;* and four RAAF *Orions.* From Canada came the replenishment ship *Provider* with a U.S. Reserve detachment of SH-3's from CVSGR-80; the destroyer escort *Quappelle;* the submarine *Rainbow;* and three *Argus* patrol aircraft. New Zealand participants were the destroyer *Waikato* and two RNZAF P-3B's.

Vice Admiral Evan P. Aurand, Commander, Antisubmarine Warfare Force, Pacific, was in overall command of the exercise. Rear Admiral W. J. Dovers, RAN, Commander Australian Fleet, and Rear Admiral C. J. Seiberlich, Commander, Antisubmarine Warfare Group Three, each had an opportunity to command Blue forces. Orange units were under the command of Captain R. S. Leddick, Commander, Submarine Flotilla Five, who delegated command of Orange aircraft to Commander S. E. Harrison, C.O. of VC-1.

All units assembled at Pearl Harbor where elementary exercise phases were conducted to calibrate the accuracy of various systems. Semi-controlled weap-

By LCdr. Graham Sloper, RAN
Lt. Alice Holds, USN

ons deliveries were carried out at the Pacific Missile Range Facility, Hawaiian area, on Kauai, and appropriate presailing exercise briefs and instructions were given.

The Blue force departed Pearl Harbor prepared to counter a multithreat situation in which Orange units played the part of realistic potential opposition forces of today. Orange submarines, ships and aircraft simulated attacks and were counterattacked. The missile range facility was activated throughout the period to evaluate tactical situations and weapons deliveries.

ASWEx *RimPac '71* provided many opportunities for ship and aircraft personnel of the Allied countries to exchange information and become more familiar with each other's methods of operation. Important lessons were learned both at sea and during the reconstruction period that followed.

Prior to this exercise, ComASWForPac scheduled a series of minor ASW exercises in the Hawaiian area in which various countries were invited to participate. Representation varied. It became clear that scheduling problems met by the different navies involved would be lessened or eliminated if one annual multi-nation exercise were held at the same time each year. Then all nations could schedule it in advance and participate.

VAdm. Aurand approached the heads of the Allied ASW communities in Australia, Canada and New Zealand, and the "one annual exercise" idea met with great favor. ASWEx *RimPac '71*, born as a result of this recommendation, is a new element in Pacific antisubmarine warfare.

Invitations are out to other Pacific allies for future participation.

RAN A-4 ready for takeoff from Melbourne, opposite top. SH-3 visits Torrens, opposite. Australian Orions fly over Hawaii, top. Helicopter flies past Provider, center. Sample and Sea King from HS-4 aboard USS Ticonderoga (CVS-14) prosecute a sub contact, right.

By Michael McDonell

No one can place exactly when he was first seen up on the flight deck. Stories of his genesis abound, but his birth date remains a mystery, the first stitch in the cloak of legend that surrounds him.

Together with the tail hook (and every bit as functional), he is probably Naval Aviation's most representative symbol.

The Landing Signal Officer (LSO) still exists today but he and his job have changed considerably since that unknown day in the 1920's when, armed with a set of semaphore flags, he waved aboard his first aircraft.

The reason for the LSO's creation and continuation is not difficult to understand. Landing aboard a carrier has always demanded an absolute precision that an unaided pilot would be as hard pressed to produce in 1972 as Lt. Godfrey deC. Chevalier was when he made the first landing aboard *Langley*. For the carrier to effectively perform her mission, the aircraft that she launches must be recovered safely. In short, the name of the game is "you bet your life" and a pilot can use all the help he can get to land aboard a carrier.

LSO

Picked from among his squadron mates, the LSO in the early days was a "visual" individual, standing well aft on the port side, his semaphore flags in his hands. From this vantage point, he gave three standard signals in aiding the incoming pilot: arms outstretched, *Roger*, signified a clear deck and good approach; *cut*, a 45-degree slash, directed the pilot to throttle-off and land; the *waveoff* was a frantic waving of the flags overhead, signaling the pilot that it was unsafe to land.

From these basic signals, the LSO's skills and techniques progressed, reducing turnaround time and greatly contributing to the perfecting of carrier landing operations.

Cloth paddles replaced the flags and signals evolved informing the pilot as to his aircraft's position and advising him of corrective measures.

A bond of close cooperation and understanding exists between LSO and pilot that enables the two to effect fast safe recoveries with intervals measured in seconds rather than minutes.

During the pre-WW II period, the method of training new LSO's was the time-honored, master-apprentice technique. But as America entered the storm of WW II, the increased number of pilots, aircraft and aircraft carriers could not tolerate the luxury of this method of instruction. LSO's were needed and in far greater numbers than ever before: veteran pilots, nuggets and even some non-aviators were tapped for duty with the paddles.

In 1942, LSO schools were instituted at all advanced training bases and produced many qualified LSO's. But, while these sundry training courses served a purpose, it became obvious that each instructor could not teach as he saw fit; standardization in signaling techniques was badly needed.

The situation was corrected in 1943 when an LSO training unit was established at NAS Jacksonville with a monthly quota of 39 trained LSO's. The training consisted of learning the signals and the fundamentals of the job. Field carrier landings were made with the students alternating between the paddles and the cockpit. Following this training, the students carqualed aboard *Sable* or *Wolverine* and were then assigned fleet duty as primary or assistant LSO's.

Reactions to being assigned to LSO duty differed with the individuals. Those of Captain Roy Farmer, Naval Air Systems Command, were, "When my squadron got back to the States at the end of WW II, it was supposed to select someone to send to LSO school. I was it but I felt so strongly about not going (I wanted to continue flying and I thought that if I were an LSO I wouldn't get to fly much), that I just flat said I wouldn't go. They selected someone else."

With the end of the war, would-be-LSO Farmer went Regular and found himself the transportation officer — automobiles, not aircraft — at NAS Mojave.

"I was there for just a few months and I felt that I wanted to get back into aviation. I applied for LSO school.

Within two weeks I was on my way to Jacksonville.

"At the school, we were divided into groups of six and we would go out with the LSO instructors (who were also instructing the students going through flight training) and work beside them. We would fly the airplanes and then wave them, carqual, and eventually join an air group. I joined Air Group Five in San Diego and worked with the ship's LSO as his assistant. When he decided that I had enough expertise, he declared me qualified and I started waving by myself."

Except for some college years, Capt. Farmer served as an LSO from 1946 to 1960 and saw the transitions from props to jets, from straight to angled deck.

"When the Navy first got its jets, FJ's assigned to Air Group Five, I had to be qualified in waving them. The only difference was, quite naturally, that, with jets, things happened faster, particularly with the older jets that didn't have the power ratio we have today. You had to stay ahead of them. Because they went faster, making a longer, wider approach, a lot more was dependent upon the pilot. The LSO did not have the control over the aircraft that he had with the props. With props, you had time to give three or four signals and the pilot had time to answer to each before you got him aboard; with the jets, you might have time for two or three signals and that was it — if he hadn't answered them in time, you waved him off.

"As for the difference between waving aboard a straight deck as opposed to an angled deck, aboard the former you could not afford the liberties that you could on the angled deck. On the latter, if you thought the pilot was a little bit high, you could let him try — if he didn't catch the wire he could go around again. On the straight deck, if he was a little high, you couldn't take a chance because he would end up in the barricade or, even worse, over the top and into the planes parked up front.

"I think it was somewhat tough on the pilots landing on a straight deck. Every time they came in, they had that barricade in front. They didn't have to contend with it on the angled deck."

whether waving or watching,
the LSO's skill
culminates in
one moment...

An LSO from 1952 to 1954, Captain J. H. Post sits in a Pentagon office and reflects on those days of duty on the platform.

"The clues that you looked for in the aircraft to judge their speed were the same in the jets as in the props: it was the angle of attack that the pilots were flying. The LSO judged it by looking over the wing; the amount of horizontal stabilizer that showed was your indication of the angle of attack and speed."

Capt. Post waved aboard the Navy's first angled deck carrier, *Antietam*, early in his LSO career and it made an impression.

"I was only aboard *Antietam* for a week of evaluations but I soon discovered it was easier to wave from. You didn't have to worry about the 'pack' up front. You had a little more latitude with the pilot's speed and altitude when you cut him. It gave him a broader 'window' to go through."

With the advent of the angled deck and visual landing aids in the mid-Fifties, it appeared that the days of the LSO were over. But, as newer and faster aircraft were introduced to Naval Aviation, aircraft accidents which were occurring during the landing phase caused concern. While the number of these accidents was reduced with the angled deck and landing aids, it was still above the number occurring aboard the stations. The accidents no longer involved relatively cheap prop aircraft lodged in a barrier but were of the million-dollar-jet-hitting-the-ramp variety.

Formal LSO training which had ceased in 1953 was resurrected in 1959.

Today the LSO is still standing at his station. He no longer has his paddles and his role has changed somewhat, but he is still as important to the carrier landing process as he ever was. With his final approach averaging 30 seconds in duration and flying at speeds averaging between 105 and 140 knots, the pilot needs all the help he can get. The angled deck helps; so does the Fresnel lens, a cellular structure which permits the pilot to view a light (meatball) in the center cell when he is in the correct position for landing. These aids plus the pilot's knowledge and experience help to analyze a landing situation and effect a solution. But the LSO still monitors the approaching aircraft. From his position and experience he can often see *all* of the pilot's problems and, if the pilot needs assistance, the LSO can radio corrective action. His paddles have been replaced by a "pickle" which operates the lights around the lens.

When radio contact with the aircraft is lost, flashing lights on either side signal the pilot of the loss and instruct him to continue the approach. If the pilot fails to take the corrective action radioed to him, or if his approach deteriorates, the LSO will exercise his right to a wave-off, setting off the flashing lights above the lens.

There are some who consider the judgment of the LSO arbitrary when he exercises his right to wave-off. One must consider the accusation in the light of his two-fold responsibility: He has the task of getting the aircraft aboard safely and, secondly, he must do it expeditiously to minimize turnaround time. There have been, despite claims to the contrary, no perfect carrier landings. But the task of the LSO, in conjunction with the skill of the pilot, is to determine that performance acceptable for a safe landing, one which guarantees the safety of the men and the aircraft and the continuation of the carrier's mission.

Today, as he did in the past, the LSO continues his duties of bringing in the aircraft and their passengers. He demonstrates the same professionalism, the same reactions under stress situations, and commands the same respect from the pilots whose confidence he has won.

His competence will continue to be rewarded — as one captain with ten years of LSO experience remarked, "It didn't hurt my career at all." — and he will continue to be needed as long as there is that element of risk in getting aboard a pitching carrier.

...and this is it.

Landing Signal Enlisted

For the helicopter pilot landing on a ship's pitching deck it makes no difference whether the man guiding him is in an old-timer or a tyro. Both get the helo down on the deck with arm signals.

They have to be right the first time. Distance and two screaming jet engines make voice communication impossible.

One cool, sunlit afternoon off San Diego, AN Humberto M. Flores stood on the deck of USS *Cleveland* (LPD-7) signaling Helicopter Antisubmarine Squadron Two aircraft on and off. The NAS Imperial Beach squadron was going through one of its periodic carrier landing qualification drills.

It was a long day for this old-timer. AN Flores, 20, has been landing signal enlisted (LSE) less than a year, but he still qualifies as an old-timer.

With Flores was another airman, 19-year-old Gary L. Manning, who, that day, would become a fledgling LSE.

Manning watched his teacher guide three of the helicopters down on the landing pad near *Cleveland's* fantail.

Then, tapping Flores on the shoulder, he indicated he was ready. He had been practicing signals before any LSE who was willing to watch him and give him help. Now he was ready for the real test.

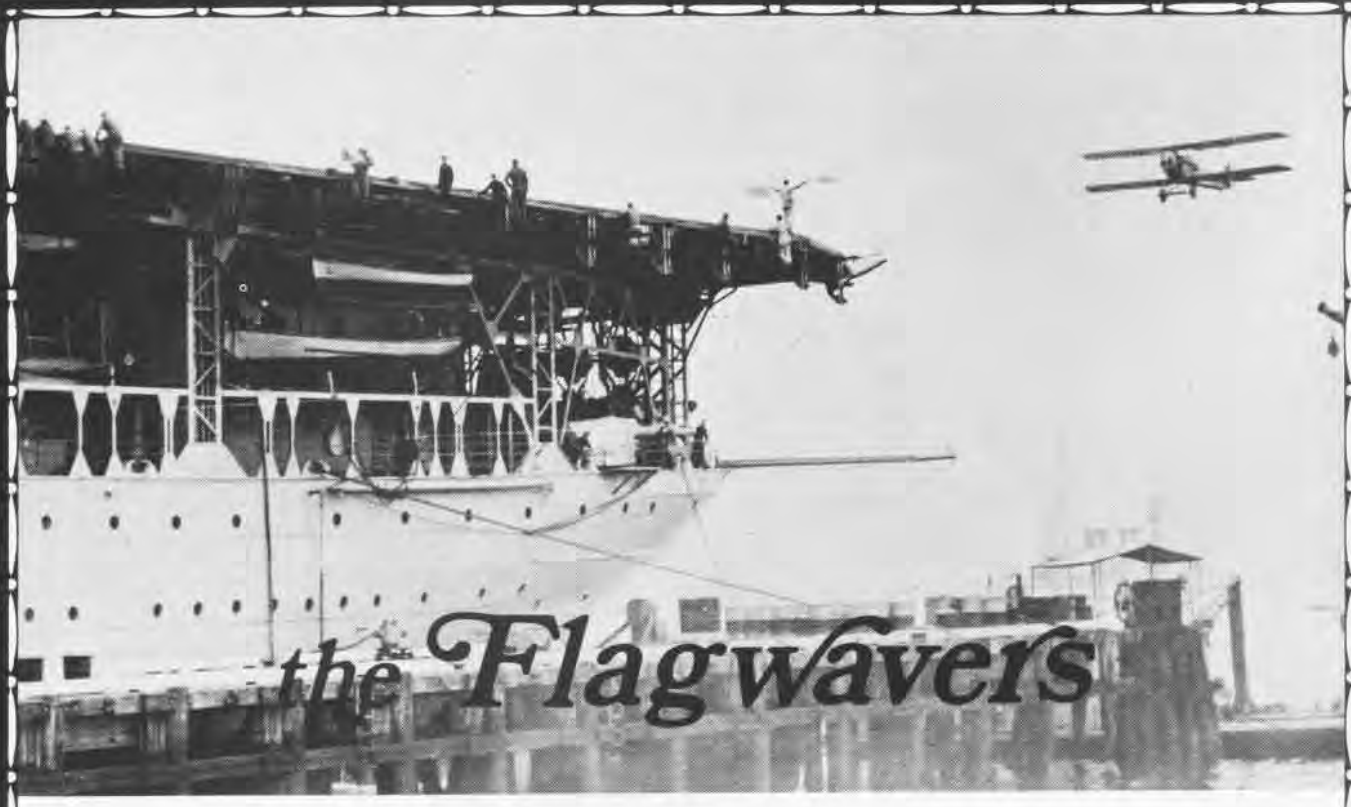
For the next two hours, nearly every helo was landed by Gary Manning.

He knew, though, that right behind him was Humberto Flores with a reassuring pat on the shoulder if all went right, or an impatient jab in the ribs that said he'd booted a signal — not badly enough to get anyone in trouble, however.

Now and then, the two would get a break. Five minutes, or even ten, would pass between a landing and a takeoff. And in the quiet sea off the coast of southern California, the two would saunter to the deck edge, talking and gesturing.

Flores was teaching; Manning was learning.

By JOC Warren Grass



the Flagwavers

Rear Admiral J. R. Tate, USN (Ret.)

When we first started landing on the *Langley*, there was no LSO. Each pilot was on his own. The only communication between the ship and plane was a red flag at the aft end of the deck. A red flag meant "Do not land," a white flag meant "Land."

We had developed no standard type of approach, but each pilot tried to accomplish a three-point landing just short of #1 wire in the center of the deck. In 1923, to escape the rigors of operating in Chesapeake Bay, *Langley* went to Pensacola. The major operations were still with Aeromarine 39B training planes but we were starting operations with service planes — the UO-1, the VE-7 and the TS-2. Most of the landings were still made at anchor or with the planes based ashore at the NAS.

Langley's regular anchorage lay in the center of a circle of buoyed anchors. Standard practice, on the morning watch, was to hook the stern winch to the appropriate anchor and haul the ship into the wind. During landings, Commander Kenneth Whiting, the exec and the senior aviator, always watched the landings from the stern of the flight deck, on the port side. He developed a type of back-seat driving and would talk out loud and make appropriate motions. "He's too low, now he's too high, now he's O.K." Lt. A. M. (Mel) Pride, who was just about the hottest pilot on board and whose piloting was precision plus, had developed a dragging nose high approach with power, which was eventually to become the standard type approach. He came in for a landing in a TS-2 fighter. On deck afterward, while discussing the landing with Whiting and Squash Griffin, Pride remarked to Whiting, "You were wrong on my being too low on the approach. I was over the stern by ten feet and caught the #2 wire." Whiting looked at him in surprise and asked, "Did you see me?" Pride laughed, "We all watched you waving, too high, too low and O.K."

Whiting called a meeting of all pilots and set up a plan to station an experienced pilot, on the portside stern of the flight deck, who used a pair of semaphore flags to monitor each approach. At first, Whiting supplied the comments and the flag waving was done by one of the junior aviators. We used only three signals: O.K., too high and too low. Later, we added the cut.

When *Lex* and *Sara* came into the picture, additional signals were added and the cut became a mandatory order. About this time, we realized the signals were advisory rather than orders.

It was suggested that we reverse the signals but this was turned down as we had trained too many pilots and any change might be disastrous. Later, the British carriers adopted the idea but stationed the LSO almost amidships, and reversed the signals: arms up meant "go up" while arms down meant "go down." In WW II when U.S. carriers had to take on British *Seafires*, this was a point that caused much confusion.

It is almost impossible to believe but, for the first four years, we worked without a barrier. This happened because most planes which did not engage an athwart ship wire rode fore and aft wires, and usually wiped out the landing gear at the forward end of the arresting gear.

In 1926, Lt. Dorris Gurley went through the gear and almost wiped out all 12 planes of VF-2 on the forward deck. Captain E. S. Jackson, the skipper, ordered the bos'n to rig a section of 10" hawser across the deck on sawhorses and the barrier was born.

Will the HISTORICAL OFFICER please come forward...

IF IT HAPPENED IT'S HISTORY

Those day-to-day happenings that seem dull and routine are much a part of Naval Aviation. And they are needed for the record!

Historical reports are due on March 1 every year per OpNavInst. 5750.12B of May 20, 1971.

Don't be modest. The Aviation History Unit (Op-05D2) wants to know what the routine is and how it's carried on. Write it in the record! Unit histories are used by many functional divisions as background information for current studies involving plans, policies and programs. They are also used to verify certain unit and personal awards and for official Navy histories.

And if you can, attach some colored photos representing your aircraft, unit and/or operations. Your reports are definitely serving a purpose.

So, go down in history!

Send those reports to:
Chief of Naval Operations
Op-05D2
Washington, D. C. 20350

Letters

Propellers

In the letter section of the January 1972 issue of *Naval Aviation News*, I read with interest Mr. Karl White's letter in which he questions the photo caption on page 40 of the August 1971 issue.

In order to clarify the caption, it should read, "This particular propeller was a model submitted by the military to the W. H. Gunlocke Chair Co. from which production was accomplished." Mr. Burbank stated that he was not positive whether this type was used on Army or Navy planes but that it looked much like the ones he flew behind at Pensacola in 1919.

Until further research can positively identify its type, the Naval Aviation Museum has accessioned it as a WW I-type propeller.

The museum is planning a propeller display for its prospective new building and we would be pleased to include Mr. White's propeller if he sees fit to part with it.

Grover Walker, Capt.
OinC, Naval Aviation Museum
NAS Pensacola, Fla. 32508

Overload?

In the January 1972 issue of *Naval Aviation News*, the picture on page nine shows three MK 82 *Snakeye*-configured bombs being transported on an aero 12C bomb skid. The weight capacity of that skid is 1,250 pounds. Three MK 82 *Snakeye*-configured bombs exceed this capacity by several hundred pounds.

A load like this was never permitted on any CVA that I have been stationed on, and I cannot understand why it is permitted on *Kitty Hawk*.

Donald R. Etier, AOC
TraWing Two
NAS Kingsville, Texas 78363

Tare-Baker-Yoke

I have often thought about a little publicized Navy aircraft, the TBY (Tare-Baker-Yoke in the old phonetic). Possibly your staff or readers can come up with something in picture or print on this rare old bird. Many old-time Navy aircraft buffs have even argued that there never was such an airplane.

In late 1945 or early 1946, I was assigned to the VT ordnance shop of CASU-22 at NAS Quonset Point, and I recall at least one squadron of TBY's on board. I believe the squadron was VT-153 or 154. Of course, the other Air Group Torpedo Squadron on board had the famous TBM *Avengers*.

I remember the TBY was similar to the three-place TBM except it had an R-2800 engine and the single .50-caliber turret was hydraulically operated while the TBM's was electrically operated. Also the gunner had access to the inside of the aircraft. He entered the turret while on the ground and wore a back-pack chute for emergency egress. The TBY's bomb bay was wider than the *Avenger's* and could carry a torpedo plus a row of bombs (two 500-pounders, I think). Synchronized machine guns had become somewhat obsolete on naval aircraft by the end of WW II; however, the wing guns of the TBY were mounted so close inboard they required synchronization with the propeller. So much for my limited knowledge and memories of the TBY; the rest is up to you and your readers.

J. A. "Buddy" Williams, LCdr.
RVAH-6
NAS Albany, Ga. 31703

Here is our contribution, a 1945 photo of a TBY-2 from the files of Aviation History.

Scat

I am currently compiling a profile on the variants of the ubiquitous Douglas DC-3 transport, as used by the U.S. Navy, Marine Corps and Coast Guard, which first entered service as the R4D series in 1941.

Today, over 31 years later, the type is still flying the airways with the U.S. Navy and Marine Corps. It is a unique airplane and the Navy variant can claim many firsts, including flying from an aircraft carrier in Operation *High Jump* in January 1947 with Admiral Byrd's Antarctic expedition. Nine years later, *Que Sera Sera* was the first aircraft to land at the South Pole during Operation *Deep Freeze*. In fact, the type was only retired from serving Antarctica a few years ago.

One hundred models of the R4D (redesignated the C-47 series in 1962) were rebuilt by the Douglas Company to *Super-Dak* standard in 1952 and of these around 75 are still flying from naval facilities around the globe. Surely no other type can claim to have remained on the inventory so long.

Any information or photographs of the old lady — this workhorse of the air — will be gratefully received by the author and acknowledged and returned if required. Information is desired on SCAT operations—Special Cargo Air Transport — which served in the Solomons during 1944.

Authur Pearcy Jnr.
Aviation Photographer
Douglas DC-3 Specialist
Cartrefle
3 Ystad Y Wenallt
Llanbedr Merioneth North Wales

For want of a nail . . .

The December 1971 issue of *Naval Aviation News* reported preliminary results of a study of the use of helicopter barge combinations in amphibious assaults. The study mentioned was not performed by Research, Incorporated but *Presearch* Incorporated.

Leonard P. Gollobin
President and Technical Director
Presearch Incorporated
Silver Spring, Md. 20910

Reunions

The annual Red River Valley Association Practice Reunion will be held this year in Wichita, Kans., April 21-23. About 1,000 Navy, Army, Air Force and Marine *River Rats* are expected to attend the convention hosted by McConnell AFB.

The *Red Rippers* of VF-11 will hold their 45th Year Reunion on May 20 at NAS Oceana, Va. Former *Red Rippers* are invited to contact VF-11, FPO New York, N.Y. 09501 or telephone NAS Oceana, Code 703, 425-2961, for information.

The Second Reunion of All Hands of NAS Tillamook, Ore., will be held July 7-9 at Tillamook. This reunion also celebrates the 30th anniversary of the station. All persons interested should write to: Naval Air Station Reunion, Convention Secretary, Tillamook Chamber of Commerce, Tillamook, Ore. 97141.

Battle of Coral Sea

The 30th Anniversary Reunion of the Battle of the Coral Sea will be held in Norfolk, Va., at the Admiralty Motel, May 4-7.

For further information write to: The Coral Sea Association, Inc., P.O. Box 1172, Rockville, Md. 20850.

SQUADRON INSIGNIA

Air Test and Evaluation Squadron One, led by Capt. Kenneth O. Ekelund, Jr., has called NAS Key West, Fla., home since 1946. VX-1's aircraft inventory includes P-3's, S-2's and SH-3's — all essential to the squadron's mission of evaluating ASW weapons systems and developing tactics for their use.

Photos by PH1 Martin Hershenson

Naval Aviation
NEWS