

NAVAL AVIATION

# NEWS



47th Year of Publication

NOVEMBER 1965





## ***THE HARDWARE CONFIDENCE FACTOR***

I found the morale of our servicemen to be remarkably high, and this I attribute to two factors. First, all of our men in Vietnam seem to understand the necessity of being where they are. The other factor might be called the Hardware Confidence Factor—this is the firm and unchanging conviction of our men that their equipment is the finest, most reliable hardware that can be produced.

—Admiral David L. McDonald, Chief of Naval Operations, September 30, 1965.

FORTY-SEVENTH YEAR OF PUBLICATION NOVEMBER 1965

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■ COVERS

A talented photographer was on hand for USS Shangri La's first vertical unrep (front cover); there's more on page 11 . . . Miss America 1966, Debbie Bryant, goes Naval Air all the way (back), in a shot from NAS New York, taken by Dan Hendricks, PH2.



# NAVAL AVIATION NEWS

## A-7A Makes First Flight LTV Pilot at Corsair Controls

The Navy's A-7A *Corsair II* made its initial flight September 27 from the Ling-Temco-Vought Corporation's facilities near Dallas with the company's chief test pilot, John Konrad, at the controls.

Primarily designed as an all-purpose attack weapon system, the A-7A is the first aircraft since WW II to be developed with specific capability for the close tactical support of ground troops. Designed and built by the LTV Aeronautics Division, the *Corsair II* is a fan-jet powered aircraft that combines the endurance and load-carrying capability of a propeller-driven plane with the simplicity and power of the fan-jet engine.

LTV is scheduled to deliver the A-7A to the Navy's Combat Readiness Air Wing (CRAW) in 1966.

## CNO Trophy to HMM-365 Judged Safest of all Squadrons

Marine Medium Helicopter Transport Squadron 365 (HMM-365) has been selected winner of the FY 1965 CNO Readiness Through Safety Trophy.

Presented for the first time, the trophy honors the safest of all Navy and Marine squadrons.

The squadron topped a field of seven contenders to claim the new honor. Other nominees included: VA-93 (ComNavAirPac), HC-4 (ComNavAirLant), HMM-264 (CG-FMFLant), VT-4 (CNATra), VF-931 (CNAResTra), and HMM-770 (CGMARTC). HMM-365 was nominated by CGFMFPac.

During the judging period, the Marine squadron flew 15,000 hours,



SAFETY TROPHY WON BY HMM-365

hailed more than four million pounds of cargo, and participated in the evacuation of some 1,700 Vietnamese flood victims under battle conditions. Squadron pilots were presented a Legion of Merit, 17 Flying Crosses, three Bronze Stars, eight Purple Hearts, and other medals.

Based at MCAF NEW RIVER, N. C., HMM-365 is commanded by Lieutenant Colonel Joseph Koler.

## Moves Save Time, Money AirLant Squadrons are Relocated

Consolidated Site Base Loading is a project designed to concen-

trate all attack carrier aircraft of the same model at a single shore location. The idea grew out of the increased complexity of jet aircraft and the rising costs of support equipment. (See AirPac plan, NANews, December 1961, page 36.)

Previously, most ComNavAirLant carrier air wings were located at a single Naval air station. This meant logistic support was divided between two or more bases. Under the new plan, A-4 and F-8 squadrons will be based at Cecil Field. F-4 and A-6 squadrons will be at Oceana and RA-5C's at Sanford.

The advantages will take many forms. There will also be savings in travel and time along with the opportunity to remain in one place for more than one tour of duty. Since an assignment with a Replacement Carrier Air Wing is considered shore duty, transfer of personnel between squadrons at the same air station is likely.

Full implementation of Consolidated Site Base Loading will necessitate relocation of 14 fighter and attack squadrons. Units involved will be moved by mid-1966.

## Pilot Astronauts Wanted Recruits for Coming Space Jobs

The National Aeronautics and Space Administration is recruiting additional pilot-astronauts in order to make a selection for manned space flight missions.

To be eligible for selection applicants must:

1. Be a citizen of the United States; be no taller than six feet; and have been born on or after December 1, 1929.

2. Have a Bachelor's degree in

engineering, physical or biological science.

3. Have acquired 1,000 hours of jet pilot time or have been graduated from an Armed Forces test pilot school.

Military applicants must apply through their respective services. Others should send applications, postmarked no later than midnight, December 1, 1965, directly to: Pilot-Astronaut, Post Office Box 2201, Houston, Texas 77001.

All applicants must be able to pass a Class I flight physical examination, which requires 20/20 uncorrected vision. Civilian applicants and military reservists should submit a Standard Civil Service Form 57, available at all U.S. Post Offices, or a resume of their employment experience and academic training. Civilian applicants also should send a statement of their total jet flying time.

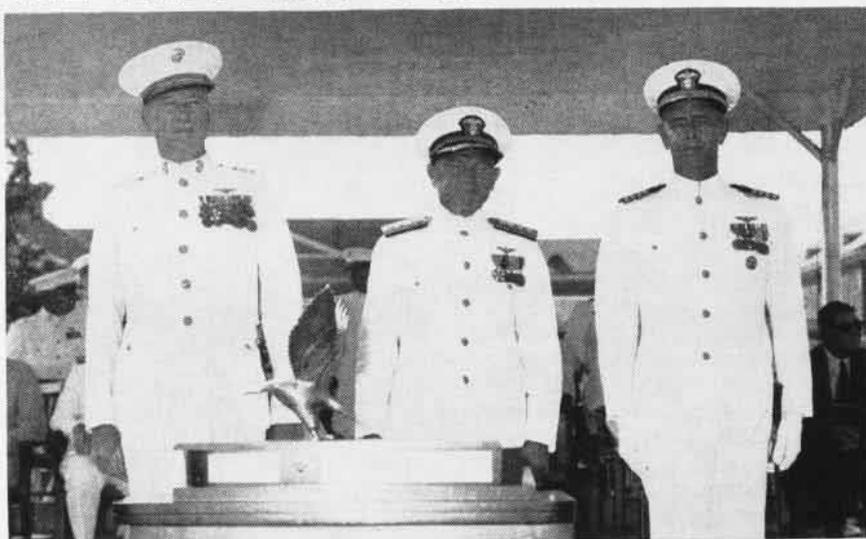
The selection process will be completed next spring, and the new pilot-astronauts will report for duty at the NASA Manned Spacecraft Center in the summer of 1966.

Twenty-eight aviator-astronauts and five scientist-astronauts are now participating in the NASA manned space flight program. Recruitment of additional pilot-astronauts is necessary to insure availability of an adequate number of flight crews for Project *Apollo* and future manned missions. Within the next year NASA plans to recruit additional scientist-astronauts into the program.



**IN VIETNAM, WW II Ace and Medal of Honor winner, Gregory "Pappy" Boyington, talks with his friend of 23 years ago, Colonel Robert F. Conley, C.O. of MAG-11. Boyington, now retired, visited the colonel while making an evaluation of the electronic equipment being used by the Marine Corps.**

## THE NAVY HAS A NEW 'GRAY EAGLE'



**NEW GRAY EAGLE, LGen. Mangrum (L), stands with RAdm. Goldthwaite (C) and Capt. J. C. Haynie, who attended ceremony in which a Marine won the honor for the first time.**

**T**HE coveted Gray Eagle Trophy changed hands September 25 during a ceremony at NAS PENSACOLA.

Lieutenant General Richard C. Mangrum, Assistant Commandant of the Marine Corps, became Gray Eagle No. 14 when he "relieved" Rear Admiral Robert Goldthwaite, who retired as ComFAir Jacksonville October 1.

Adopted four years ago, the "Venerable Order of the Gray Eagle" is an honor bestowed on the Naval Aviator on active duty who has the earliest designation date; it recognizes "a clear eye, a stout heart, a steady hand, and a daring defiance of gravity and the law of averages."

Proposed in 1960, the Gray Eagle Trophy was donated by Ling-Temco-Vought Corporation. It comes in the form of an aircraft carrier with a silver eagle landing on deck. The trophy was presented for the first time during the Naval Aviation 50th Anniversary Ball in Washington, D. C., in 1961.

Admiral Goldthwaite became the Gray Eagle January 7, 1964.

General Mangrum, who underwent flight training in 1929, will have his name engraved on the large trophy kept at the Naval Aviation Museum. He received a miniature version.

More than 225 military and civilian dignitaries, in Pensacola for

the 6th Region Convention of the Navy League, watched the turnover of the Gray Eagle mantle. Before General Mangrum officially claimed the title, the Navy Leaguers and other guests saw School of Pre-Flight graduation ceremonies and a pass in review by flight students.

NAS PENSACOLA provided the visitors with guided tours of the Naval Aviation Museum and the Naval Aerospace Medical Institute.

Among those present for the ceremony were Vice Admiral A. S. Heyward, Chief of Naval Air Training, and Rear Admiral W. I. Martin, Assistant CNO for Air. Gray Eagle number 6, Captain Alvin O. Preil, USNR (Ret.), also attended.



**NAAS SAUFLEY'S newest solo flight student, T. D. Clem, gets tie cut by new Gray Eagle.**



# GRAMPAW PETTIBONE

## F-8 Wingfold Folly

A division of F-8 pilots was briefed for an air-to-air gunnery flight about 0745 on a bright clear morning at a desert air station. The flight was scheduled for a 0915 departure but was delayed due to aircraft availability. At 0945 the pilots manned their aircraft, after a normal pre-flight inspection, with each aircraft reportedly in an up status.

All pilots got normal starts but when the division leader spread his wings the line chief, supervising the launch, noted the left wing lock flag was up about an inch. He tried several times to push the flag in, but was unsuccessful. He then signaled the pilot to fold the wings and as the folding cycle began a small piece of metal fell from the wing fold area. It actually hit one of the men who had gathered around to assist with the problem. The broken piece of metal was quickly identified as the face plate from the forward port wing-fold locking bolt. The wing fold area was inspected by the line chief and detachment C.O. but no evidence of binding, misalignment or scoring was noted on the locking lugs.

The pilot was then directed to



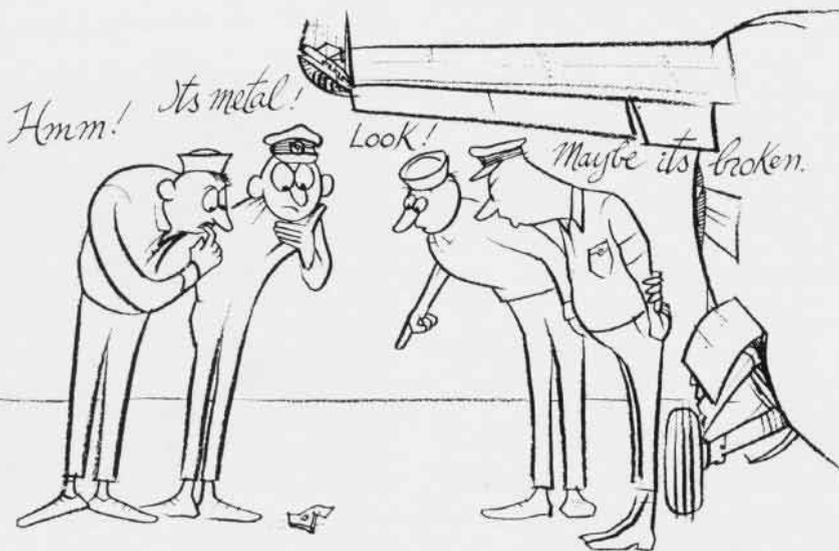
spread and lock the wings but the flags would still not fully retract. Personnel on the ground visually checked the aft locking bolt through the inspection port and found it to be in the locked position, but were not fully in agreement that the forward pin could be seen. The decision was made that the flags failed to fully retract because the forward locking bolt had been shortened by approximately  $\frac{1}{2}$  inch due to the missing

face plate. The detachment C.O. then walked to the side of the aircraft and indicated to the pilot with thumbs-up that he was clear to taxi out for takeoff.

The remaining ground checks and arming proceeded normally so the flight departed at about 1000. During climb-out, the flight leader's radio became very weak so he passed the lead to the No. 3 pilot who had been briefed as the alternate flight leader. After passing the lead, the No. 1 pilot dropped back to the No. 3 position.

At 20,000 feet the flight went into a loose column to check the gun sights in 360 degree, 60 second,  $2\frac{1}{2}$  "G" turns. As the No. 3 pilot went through 45 degrees of the first turn he started to cross to the inside but as he crossed about 200 feet behind the No. 2 man there was a loud noise and the *Crusader* pitched down violently. The pilot was thrown forward in the cockpit and almost immediately became completely dis-oriented with the feeling he was standing on the rudders with the stick full forward. In a few seconds he managed to push himself back a little and get the stick into a neutral position. This seemed to reduce the rotation and ease the "G" forces, but at this point he saw flame and smoke coming from the fuselage when he looked through the mirror.

Immediately, the pilot placed both hands on the curtain and pulled. Everything operated normally and in a few seconds he spotted the F-8 burning in a plowed field. After landing, the pilot made his way to the burning aircraft, to warn the people who had gathered there, about the ammo aboard. A rescue helo soon arrived and the pilot was flown back to the air station.



**Grampaw Pettibone says:**

Egads, lads! Somebody could've got hurt. This whole bunch—pilot, line chief and even the detach-

ment C.O. worked like beavers to booby-trap this *Crusader*. It's pretty plain that the pilot played this one with his feet, but he sure got nothin' but bum steers from the people on the ground. They helped him out all right—plumb out!

The gents who investigated the accident concluded that the thump the pilot felt when he flew through the jet wash was caused by the left wing panel separating from the aircraft at the wingfold. This ruptured the fuel cell allowing the fuel to be ignited by the broken wires to the wing lights which were on at the time of the accident.

We've found a lot of odd ways to bust up mighty expensive hardware, but a stunt like this is downright hard to figure. With all the checkin', inspectin' and discussin' that went on before the big decision was made to launch this bird, it would appear there was some question as to whether it was the right thing to do. The old adage was proved again—WHEN IN DOUBT, DON'T.

### Get-Home-Itis

A CVA returning from a West-Pac deployment launched an F-8 squadron shortly before noon in good weather to fly ashore. Destination for the *Crusader* pilots was the home air station they had left nearly eight months earlier, which was approximately 600 miles away.

The ship's position at launch time was 450 miles west of a naval air station designated during the preflight briefing as the primary divert field. The pilots were also briefed on the availability of an Air Force base that was 380 miles from the ship.

Immediately after the catapult launch, one of the F-8 pilots found that he was unable to get the gear up and in a couple of minutes he realized that he had a generator failure. He quickly dropped the RAM air turbine and informed the ship of his generator failure and of his inability to retract the landing gear. The ship questioned him about his intentions. He informed them he would proceed to the primary bingo field—wing down, gear down and RAT out, rather than come back aboard.

The ship quickly assigned a wingman to accompany the pilot to the beach. During the first few minutes of the flight, the pilot noted a fuel flow of 4,000 pounds/hour at 5,000



feet and 3,700 pounds/hour at 10,000 feet with an estimated ground speed of 240 knots. With this fuel flow and ground speed, the pilot figured he would arrive at the bingo field with around 1,200 pounds of usable fuel abroad, not counting the 1,200 pounds he would be unable to transfer because of the generator failure. His TACAN was inoperative owing to the generator failure, so the escort pilot did the navigating.

At an estimated distance of 260 miles from the ship, the TACAN at the Air Force base that was briefed as a secondary bingo field was picked up and indicated that they were 196 miles west. The pilot quickly realized that they had not made good the 240-knot ground speed and that the fuel flow was nearly 500 pounds more per hour than had been indicated. The flight was quickly altered to head straight for the Air Force base, but the pilot soon realized that he would not make it and directed his wingman to request search and rescue from the AFB.

The *Crusader* flamed out at 8,000 feet 47 miles west of the AFB. At a speed of 180 knots, the pilot ejected. The seat and chute worked as advertised and in a few minutes the pilot was squared away in his raft.

Search and rescue aircraft were launched shortly after the escort pilot informed the AFB of the emergency and rescue was accomplished approximately one hour after ejection. The pilot was taken to the

AFB dispensary where he was examined by a flight surgeon. He was released and later in the afternoon flown to the destination naval air station.



*Grampaw Pettibone says:*

Great balls of fire! If this fiasco wouldn't wilt the lily, nothin' would.

Here is a *Crusader* driver with over 800 hours in the bird and he lets overconfidence, complacency, get-home-itis—or maybe a combination of all three—influence him to the point that he attempts to fly a crippled aircraft ashore rather than land back aboard for repairs. That desire to arrive at the home station with the squadron after a deployment can cause a guy to make pretty shaky decisions sometimes, and it appears this is just what happened here.

I don't doubt for one minute that this experienced gent took a real hard look at the situation before decidin' to fly his machine ashore, but I can't help but believe that the old "get-home-itis" played a big part in his final decision.

Sure hope the next fellow that finds himself in a spot like this will weigh all the facts and remember "When in doubt—don't." (Sound familiar?)

### Memo from Gramps:

During the past few months the mid-air collision problem has increased at an alarming rate. When you take a hard look at the reports and messages, such things as improper pre-planning, incomplete briefing, poor join-up, poor throttle technique, losing sight of lead aircraft and operating beyond the capabilities of the least qualified pilot in the formation, keep jumping out at you.

In most mid-air collisions, it's pretty clear that somebody in the supervisory chain failed to carry out his responsibility. When proper action is taken by supervisory personnel (I'm talkin' about the section leader and right on up), the mid-air problem will be a long way toward bein' solved.

You can bet your last sawbuck that no truer words were ever spoken than the ones that appeared on a Safety Center poster a few years back: "A mid-air collision can spoil your whole day." It's just as true that nothin' can help your day as much as havin' a swivel neck and never assumin' what the other fellow is goin' to do.



SHANGRI LA BLUE SHIRTS (AT FAR RIGHT) MOVE ON THE DOUBLE TO GET WELL CLEAR OF FLIGHT DECK ACTIVITY

## HURRYING, HARD-WORKING BLUE SHIRTS

Red, yellow, white and blue  
Brown, green or checkered hue  
Worn on the roof and in the barn  
Show who does what around the farm.

THIS BIT of doggerel refers to the various colors of shirts worn on the flight deck and hangar deck of carriers such as USS *Shangri La*. Each identifies a type of work: red for fuel and ordnance handlers, yellow for aircraft directors—and blue for plane handlers.

About 55 men aboard *Shangri La* wear blue shirts. They are ordinarily airmen and airman apprentices, averaging about 19-20 years old, members of the Air Department's V-3 and V-1 Divisions. The two divisions work closely together as their members move planes to the flight deck for launch and back to the hangar deck for maintenance.

V-3 Blue Shirts are assigned to the hangar deck where they are organized into three crews, each working under the supervision of a yellow-shirted petty officer. They re-

By W. R. Green, JOC

port for work about two hours before the day's first launch; they seldom quit until about two hours after flight quarters are secured. To be a V-3 Blue Shirt means to spend a routine 14-18 hours a day on the job, for several days at a time, during at-sea periods.

Almost all aircraft must be moved manually around the hangar deck because there is seldom sufficient room to maneuver a tractor. The various types of aircraft aboard *Shangri La* weigh up to 28,000 pounds; the muscle of from eight to ten men is required to roll them.

At the same time, three Blue Shirts are standing four-hour

The photographs illustrating this article are the work of three *Shangri La* men: Lt. G. P. Bienstadtly, Ron Wright, PH3, and D. L. Ratliff, PH3.

watches at fire stations located in each of the hangar bays. The stations must be manned constantly, both at sea and in port—24 hours a day, every day. In case of emergency, Damage Control Central would direct these watchstanders to turn on the overhead sprinkler system in the hangar bays, close the hangar bay fire doors, and turn on fog foam generators.

In addition to handling aircraft, six V-3 Blue Shirts are assigned as operators of the ship's three aircraft elevators. At least three of them must be available to operate the elevators during flight quarters and at least one operator must be on watch after flight quarters.

Most of the Blue Shirts' work load on the hangar deck consists of plane-pushing. Almost every aircraft movement within the hangar bays requires their shoulders and backs; they push planes onto the elevators to be lifted to the flight deck for launch. After the aircraft return to *Shangri La*, they are low-



**BLUE SHIRTS LISTEN ATTENTIVELY AS PLANE DIRECTOR GIVES ORDERS**

ered to the hangar deck where Blue Shirts resume the endless process of moving them around.

Anyone who thinks V-3's personnel have an easy job has never seen them work. At worst, a moment's carelessness can cost one of them injury. At best, these plane handlers put in terrifically long hours at a task that leaves them covered with grime, sweat, and grease be-

fore they are permitted to secure.

They may strain like Volga boatmen to budge a 14-ton plane, but their movement to the next aircraft is always on the double.

Even when conditions are not the best, the Blue Shirts do the job. They can recall 108 hours of continuous flight quarters—4½ days during a NATO exercise when the only sleep they got was composed

of catnaps on the hangar deck between launches and recoveries—and afterwards only a couple of hours sleep before they had to return to work.

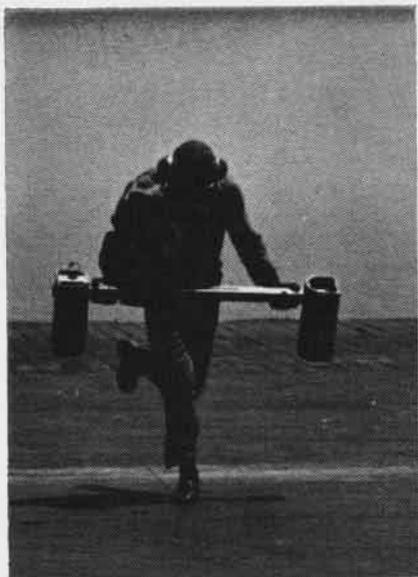
They're busy even in port. They are assigned more cleaning spaces per man than any other group in the ship. They provide three men daily for the in-port fire party and, when required, provide another three men for external security watches.

V-3 must also have a plane handling crew on duty in port to move helicopters to and from the flight deck and to man elevators for public visiting. They go to training lectures on first aid, uniform regulations, and other military requirements.

Normally, a Blue Shirt gains enough experience within eight months to two years to qualify for duty as a yellow-shirted aircraft director. If he makes the switch, he takes charge of a crew of Blue Shirts who handle aircraft under his supervision. Most Blue Shirts eventually advance to the aviation boatswain's mate and aviation machinist's mate ratings; a smaller number get into other aviation job categories.



**V-3 PERSONNEL RUSH FROM HANGAR DECK ONTO NO. 1 AIRCRAFT ELEVATOR TO MOVE A PLANE ON ITS WAY DOWN**



**TYPICAL BLUE SHIRT SPEED: FAST**



**PLANE HANDLER'S WEARYING WORK**



**AIRCRAFT TIEDOWNS ARE ATTACHED**

On the flight deck, all the blue-shirted men are from V-1 Division. Much of their work is similar to that performed by V-3 men on the hangar deck, but their circumstances and environment differ radically.

During flight quarters they work the same hours as their counterparts below. In port they have cleaning spaces and equipment to maintain. They also receive training lectures, provide a crew for re-spotting aircraft and handling helicopters, stand watches, and perform drills.

Indoctrination of Blue Shirts on the "roof" consists of four or five days spent on the 07 level during flight operations watching what goes on. Then there comes two weeks of working side by side with a "mother hen" (an experienced plane handler acting as supervisor).

This careful indoctrination is necessary because of the flight deck's inherent hazards: the bedlam of distracting noise, the turning propellers and jet exhaust blast, and the exposure to occasionally brutal weather conditions.

Tractors move most of the aircraft on the flight deck but sometimes there are tight places into which planes must be pushed by hand. Even with the tractors, plane handlers have much to do on the flight deck.

They put chocks under the

wheels, then pull them. They attach and take off tow bars, and drag them (they weigh 100 pounds

and more) up and down and across the deck. They crawl in and around planes, with jets and propellers



**DRAGGING TOW BARS BEHIND HIM, BLUE SHIRT TRUDGES BY SHIPMATE**



WHIRLING PROPS, ARRESTING GEAR CABLES ARE HAZARDS

HOOKMAN'S JOB IS TO CLEAR CABLE AFTER PLANE LANDS

turning up, throughout the day.

When a plane is a "dud" during a launch and cannot be flown, Blue Shirts have to move it in 35-knot winds through jet blasts and engine exhausts off the flight line. During recoveries they have to stand where a snapped arresting gear cable could severely injure or kill them. There are other dangers to this work, some of them coming from unlikely directions.

When a Blue Shirt is handling an A-4 Skyhawk, for instance, he must look out for several particular hazards. The man using the tillie bar to guide an A-4 onto a catapult stands the chance of a head injury should the little jet pitch forward at the wrong time. If his foot slips, he could get run over.

All flight deck plane handlers must be qualified crash firefighters. Both in port and at sea, they participate in fire drills. The order, "rig the barricade," sends them on the double to help the arresting gear crew set up the 24-foot-high

nylon barrier near the ship's stern.

Like their opposite numbers in the hangar bays, flight deck Blue Shirts turn to in port maintaining the flight deck, their equipment, and other spaces. Most of the personal needs—haircuts, ship's store purchases, and sometimes a full quota of three square meals a day—must be curtailed until *Shangri La* is in port.

There can be no doubt that the men who wear the blue shirts aboard *Shangri La* are doing a lot of hard, dirty, and dangerous work. Like their comrades serving aboard carriers in areas where "this is no drill," the onus of getting that plane from the hangar deck into the air falls upon them. It's a job that no one relishes; it is, however, one step in the path to advancement for an airman—an initial phase that usually lasts only a few months or a few years, depending on individual initiative and service requirements.

But even though the job is a

transitory one, it does form the basis for many a man's decision to make the Navy a career—and it sometimes takes more than an understanding that what he is doing is vital to take the reenlistment route. Money helps, and steps have been taken to give some flight deck Blue Shirts more of it in the form of hazardous duty pay. There is also the recent service-wide pay raise to consider.

Once such an airman exchanges his blue shirt for a yellow one, he can begin to move up the advancement ladder with a firm assurance that he has learned a part of his job in a tough but thorough school of experience. Throughout the rest of his career, he will continuously rely on his hard-earned practical experience to manage the men under him.

Understanding that fact does much to help a new airman over the hurdle imposed by plane handling chores, as many a flight or hangar deck career PO can attest.

## FLIGHT DECK PAY APPROVED

FREQUENT and regular participation in flight operations on the flight deck of a CVA or a CVS may now mean an extra \$110 a month for Navy officers and \$55 a month for enlisted men who qualify for the new Flight Deck Hazardous Duty Pay.

Congress approved, and President Johnson signed into law, the measures required to make the incentive pay a reality. Because of their actions, more than 200 officers and 7,600 enlisted men are scheduled to

receive the additional money.

Implementing instructions for Flight Deck Hazardous Duty Pay (FDHDP) are SecNavInst. 7220.53 of Sept. 17, 1965, and OpNavInst. 7220.4 of Sept. 22. The two directives establish the basis for FDHDP and outline the requirements officers and enlisted men must meet.

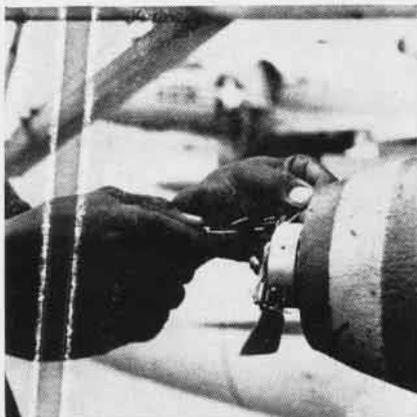
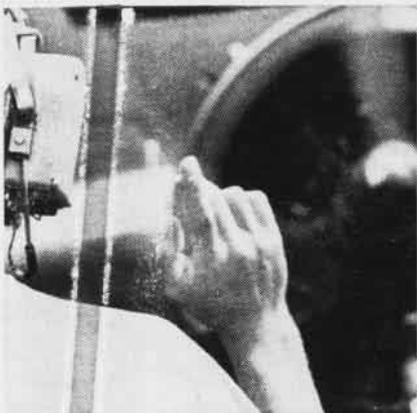
Provision for payment of FDHDP is twofold:

1. It was designed to "provide differential pay to flight deck crewmen in recognition of the extra-

hazardous environment in which such personnel perform duties."

2. It was intended to "provide an incentive to encourage flight deck personnel to qualify for, and to remain in, ratings which require duty on the flight deck."

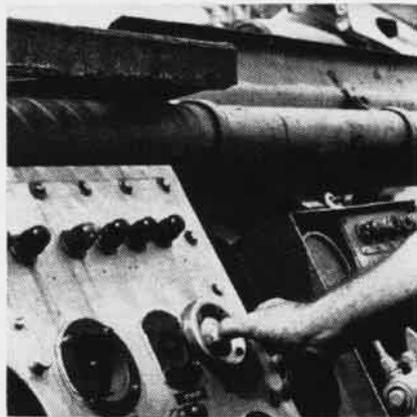
SecNavInst. 7220.53 sets forth the criteria for authorizing the pay, gives definitions and outlines entitlement details. The OpNav instruction is intended to designate billets for which FDHDP may be granted, and to establish quotas.



# HANDS

*Photographs and Story  
by J. F. Falk, PH1*

THE EYES see, the mind thinks, the legs move the crewmen, but it's the hands that do the work on the flight decks of the 7th Fleet. Calloused hands train and watch over the young hands.



Start with the picture at the upper left and read clockwise: A rotating hand signals, "Start engines"; five minutes to launch time; catapult officer sends an A-3B on its way; veteran hand fires the catapult; waiting hands hold asbestos helmet; gloved hands adjust goggles; tired hands rest; hands describe a mission; efficient hands fuel a plane; sensitive hands make adjustment to a bomb.



At the end of the Naval arm in the South China Sea are the hands of thousands of U.S. seamen.



# VERTICAL UNREP: NEW WAY FOR THE NAVY

Photos by Jack Weir, PH2

**D**URING at-sea operations with the Sixth Fleet in the Mediterranean, the carrier USS *Shangri La* and the supply ship USS *Sylvania* participated in what is believed to be the first all-vertical underway replenishment in naval history.

While *Shangri La* and *Sylvania* steamed on parallel courses about 1,000 yards apart, two H-46 *Sea Knight* helicopters transported cargo from the supply ship to the carrier. They lifted loaded nets containing an average 4,700 pounds of provisions, general stores, and ship's store stock.

The most important aspect of a vertical replenishment that uses helicopters instead of highlines is the freedom it gives the ships involved. Their new-found maneuverability makes it possible to transfer supplies with much less vulnerability to sneak attacks. Other advantages include:

- Reduced transfer time.
- More efficient spotting and sorting of supplies.
- Elimination of rigging and recovering lines between the ships.
- Reduced danger of loss of loaded nets.
- Receipt of supplies in better condition.

Rate of transfer for the *Sylvania-Shangri La* unrep was about 31 tons every 20 minutes. Alternating between the CVA's No. 1 and No. 2 elevators, the helicopters completed their load drops in about three and a half hours.



**A SEA KNIGHT** helicopter deposits net loaded with stores on *Shangri La*'s deck-edge elevator while supply ship, USS *Sylvania*, and a destroyer steam on parallel course.



**EMPTY NETS** are re-spotted by *Shangri La* crew members for pickup by helo and return to the supply ship. In vertical unrep, some 310 tons of supplies were transferred.

# WITH THE MARINES IN VIETNAM



**HELICOPTERS** from Marine Medium Helicopter Squadron 161, loaded with combat-ready Marines, move through a valley in surprise attack against Viet Cong installations.

## Chu Lai Airstrip in Action

The Marine Corps airstrip at Chu Lai, in operation since June 1 (*Battle Zone Airfield—Vietnam Style*, NANews, September 1965, pp. 10-12) has proved its worth over and over again in expediting combat readiness of response and efficient logistic support.

Marine Capt. Fred E. Lacy, operations officer of the airstrip, which is 52 miles southeast of Danang, declares that the existence of the airstrip was directly

responsible for the safe landings of three USAF jets and three Huey-armed helicopters. All six aircraft were running low on fuel and made safe emergency landings at Chu Lai in bad weather.

In the early weeks of Chu Lai operation, VMA-225 and VMA-311 used the airstrip when the 8,000-foot runway was slightly more than one-third completed. JATO lifted them off the short strip, right over the heads of Sea-bees working 'round the clock to

finish the runway. MOREST brought the returning jets to a stop when the matted landing strip was no longer than 3,600 feet. Both squadrons fly the A-4 Skyhawk, but VMA-311 is equipped with the faster A-4E.

## Historic Helilift

America's first night helicopter assault took place Friday, August 13th, beneath a full moon at the witching hour. But right there ends any similarity between super-



**AS NAVY SKYHAWKS** take off, a KC-130F transport waits at the air freight terminal at Chu Lai to load Marine passengers. As many

as 500 men a day are flown from this sandlot air terminal. In three months, 3½ million tons of cargo have also been lifted from the field.

stitution and Operation *Midnight*.

For the 96 helicopter crewmen who flew the historic mission and the staff officers who planned it, the lift, which hit two landing zones (LZ's) at three minutes past midnight, was precisely planned.

The lift was dangerous. Although the pilots had flown night exercises back in the States and two-plane medical evacuations in Vietnam, involved in this situation were elements of massed flight and enemy opposition.

The lift was many things, but most of all, it was successful.

The idea was Maj. Marc A. Moore's of the 2nd Battalion's operations section. Fifty or more VC had been spending the nights in two villages 10 miles northwest of Danang, leaving before dawn. A heliborne assault at night should trap them. And so, Operation *Midnight*.

H Company of the Third Marines, augmented by a platoon from F Company, was tapped for the three-day job. Faces blackened, the men were trucked to Danang's copter flight line and divided into seven-man chopper "sticks."

Lieutenant Colonel Lloyd Childers, C. O. of HMM-361, told the flight crews, "You have the distinction of being the first men to fly a nighttime combat helicopter strike."

Sixteen of LCol. Childers' UH-34D troop-toters were used for the lift with six others from HMM-261. In waves of ten, the copters lifted off and formed a column of two's.



AN HMM-261 chopper, one of 16, sets down to offload ground forces for one day's task.

While the birds were en route, Marine artillery pounded the terrain surrounding the LZ's. Four minutes before touchdown, the artillery was called off, and four armed "Huey" copters from VMO-2 roved over the landing zones. The Hueys were to draw fire, if there was any, and squelch it with rockets and machine guns. But it was quiet, so the tactical air controller radioed the LZ's were "sweet."

The first troop carriers were rotoring through a 2,700-foot pass when the call went to a USAF transport to drop flares. A pattern

of flares was dropped from 5,000 feet and illuminated at 3,000.

The flares made the 1,000-2,000-yard wide Elephant Valley an arena of white light. Within 40 minutes, every ground marine was ready for his three-day task which netted two VC killed, 30 suspects detained, plus the capture of a VC rocket launcher, with two rounds, grenades and other items.

The helilift had succeeded. Maj. Robert P. Guay later described how his bird had refused to start at the beginning of the mission. So he and his crew and the seven Marine passengers sprinted to a standby copter 50 yards away: "I hadn't run so fast since high school. But I sure wasn't going to miss this one."

This was exactly the feeling of every man involved in America's first night assault helicopter lift.

### 'Clear Cut Victory'

Operation *Starlight*, the largest Marine Corps operation in Vietnam history, involved elements of three Marine infantry battalions, the entire flying strength of five helicopter squadrons as well as the helicopters from USS *Iwo Jima* and five Marine jet squadrons flying *Skyhawks* (MAG-12) and *Phantoms* (MAG-11). The five-day destruction (August 18-23) of the Viet Cong 1st Regiment was, for Marine Aviation, the heaviest concentration of bombing and rocketry since WW II in support of a single battle. The battle took place 12 miles south of Chu Lai.



ONE OF 20 Marine copters used for America's first nighttime heliborne assault begins to set down as smacking flares light landing zone.



FILL 'EM UP QUICK is order at Chu Lai where pit crew competition is as fierce as the race to get a car back for the Indianapolis 500.



**A TASK FORCE** of 24 helicopters from Marine Aircraft Group 16 Van Tuong peninsula during Operation Starlight. The five-day moved a battalion of ground Marines into three landing zones on the operation proved how devastating vertical assault can be.

*Skyhawks* and *Phantoms* alternated on station high over the embattled peninsula for three nights. In addition, there were 144 daylight sorties, some flown within 100 yards of advancing elements.

"We were giving targets within 20-foot areas," said one aerial observer, "and the jets were hitting them right on the money."

The 500-plus Marines were lifted into three zones, each about a mile apart. The VC regiment was bottled between the heliborne Marines and another battalion which had landed amphibiously on the opposite flank of the peninsula with the South China Sea as the only way of escape. One enemy company tried, but naval gunfire and Marine jets cut them off.

As the battle went on, new supplies came in, wounded were evacuated and prisoners of war were ferried out by helicopters. The choppers were bloodied, but no copter Marine died and total casualties were light.

At Chu Lai, *Skyhawks* flew as *Corsairs* did at Pelileu, streaking down the runway with a full load and expending it almost before their wheels had been raised. Then the attack jets banked back to the airstrip for another load of bombs and 20 mm cannon rounds.

Every time the assault Marines hit a fortified position or network of caves, there were *Phantoms* or *Skyhawks* overhead, waiting for the radio call from an airborne or ground controller. And, every

time, the enemy position was blasted into dust or neutralized so that the infantrymen could sweep through.

At the end of five days, *Starlight* had resulted in 600 confirmed VC dead, 147 suspects detained, and 127 weapons and numerous war materials seized. Naval gunfire, in addition to causing heavy enemy casualties, destroyed 39 VC boats.

President Johnson, in a message to Major General Lewis W. Walt, CG, III Marine Amphibious Force, said in part: "I extend my heartfelt thanks and congratulations—and those of the American people—to the military units under your command which have achieved a clear cut victory against the 1st Viet Cong Regiment at Chu Lai."



**THROUGHOUT STARLIGHT**, MAG-16 choppers dropped into fields to evacuate wounded, even when fire fights raged within 50 yards.



**IMMEDIATELY AFTER** the troop lift, the helicopters began lifting six howtars, a combination mortar and howitzer, into support spots.



A **TERRIER MISSILE** streaks from *USS Constellation (CVA-64)* in the Pacific during exercises. This armament distinguishes the attack aircraft carrier as a member of the *Kitty Hawk* class. The missile is handled by the GM Division of the Weapons Division in carriers.

## The Modern Aircraft Carrier

# BEHIND THE GUNS AND MISSILES ARE BUSY MEN

Scenes: 'She was dirty with chipped paint and soot and littered with air and gas lines and power cables so that it seemed to the crew that she would never be clean and shipshape again. . . . The dive bombers made repeated deliveries of their heavy bombs and returned, unmolested, for more. . . . It seemed as if every bullet from his .50-calibers made a hit. The target Val exploded and collapsed into a flaming rag doll of an airplane as it fell the three miles to the Pacific. . . . For an instant the Big E's guns paused as gunners were knocked out of position, but they picked up again more furiously as the angry sailors found their sights and triggers again. . . . For the gunners, there was a six-day period of gunsmoke, gun grease and gun oil, and noise and the smell of powder.'

—Cdr. E. P. Stafford, USN, *The Big E*, WW II Story of USS Enterprise, Random House

WHETHER IT IS called the Ordnance, Gunnery or Weapons Department in an aircraft carrier, it is one of the largest in the ship's organization, and also one of the busiest. Change Number 11 to U.S.

By Scot MacDonald

Navy Regulations on July 9, 1962, essentially abolished "Gunnery Departments" from major combatant ships, but this is not yet reflected

in the AirLant/AirPac CV Standard Ships Organization Manual. *Midway's* Weapons Officer, Cdr. H. P. Notson, sums up the mission of his department in attack carriers: "Aboard CVA's, the primary mis-

sion of the Weapons Department is to provide reliable ordnance for arming the embarked aircraft. The secondary mission is to defend the ship from enemy attack."

Cdr. J. E. Mulcahy in the *Intrepid* compares his department's mission in an ASW carrier: "The Weapons Department's primary mission is to defend the ship from attack. To achieve maximum effectiveness, the officers and men of Gunnery have been divided into two main groups: Deck and Ordnance [comprised] of almost 300 men."

The AirLant/AirPac organization manual singles out the four most important officers in this department and assigns responsibilities to each. They are:

The Weapons Officer, who reports directly to the Commanding Officer, except to the Executive Officer for administrative matters. All officers in this department report to him. The Weapons Officer is responsible for:

- The supervision and direction of the employment and maintenance of the armament and ordnance equipment of the ship.
- The procurement, handling, stowage, assembly, maintenance and issue of ship and aircraft conventional ordnance, missiles, pyrotechnics and nuclear weapons.
- The supervision and direction of deck seamanship operations and evolutions, including the care, operation and maintenance of associated boats, ground tackle and other equipment.

He is assisted by the Ordnance Officer who is charged with the efficient operation and administration of all magazines, ship's armory, and ship's saluting battery. Generally, the air-launched nuclear weapons are placed under the Special Weapons Officer (SWO) who is in charge of the W Division. This division is responsible for receiving, receipting for and stowage and handling of these weapons.

The Aviation Ordnance Officer assists in insuring operational readiness of the ship's ordnance and supervises the arming and de-arming of embarked aircraft. He is also the G Division Officer.

The Special Weapons Unit and Advanced Underseas Weapons Of-



**MEN IN ORISKANY'S** First Division, part of Weapons Department, repair steel cable.

ficer is charged with the efficient operation and administration of the W Division. This includes responsibility for maintenance, testing and proper stowage of the ASW homing torpedoes and other special weapons.

In the Weapons Department's deck divisions in the *Intrepid*, there is a 1st Division, a 1-A Division, a 2nd Division, a 3-A Division, and a 3-B Division. In the *Midway*, there is no such splitting; the 1st, 2nd, and 3rd Divisions conduct her seamanship operations. This holds true in the *Oriskany*, but *Saratoga* adds a 4th Division.

*Intrepid* does it this way: the 1st Division is primarily concerned with the operation and maintenance of ground tackle, highline rig, refueling station I, and the upkeep of the foc'sle. The 1-A Division works directly for the Ship's Bos'n, under the 1st Lieutenant. These are the side cleaners and men who operate the Paint, Bos'n's, and Sail Lockers. They are the Spray Team and operate the incinerator as well as the Captain's gig. The 2nd Division is responsible for "rearming, refueling, and replenishing." It also maintains the Quarterdeck. The 3rd Division is divided into two equal parts, providing an additional division to allow another junior officer the opportunity to display his talents as a division officer. The 3-A Division operates two of the ship's boats and handles two refueling rigs at one time. The 3-B Division also has varied chores assigned to it, from chipping paint to operating

a tanker refueling station and the after highline station. All of *Intrepid's* deck divisions have boats assigned and the competition to have "the best boat" is continuous.

"At one time," says Ens. R. K. Martin of the *Fighting I*, "all Gunnery Department divisions were consecutively numbered. As the mission of the ship changed, the identifying numerals were changed—with little regard to a coherent system." But the system works—and so do the men.

Although there is no 4th Division in the *Intrepid* (it was the 3"/50-cal. division and was disestablished when the guns were removed), men in *Saratoga's* 4th Division provide upkeep for the ship's boats—seven "U" boats, two officer "P" boats, two motor whaleboats (ship's lifeboats), and the gig.

*Sara's* other deck divisions reflect changes in areas of responsibility. Her 1st Division is responsible for the foc'sle and all anchoring details, and is also in charge of a fueling station for both receiving fuel from oilers and transferring it to her destroyer screen. The men in the 2nd Division operate her incinerators, located off Hangar Bay Two on the starboard side. They supplement the 1st Division when the need arises for seamanship details. Her 3rd Division is responsible for the upkeep of the yard and stay rig, for lifting stores aboard.

There are 66 men in *Oriskany's* 1st Division. They also are responsible for the foc'sle, the gig and 40-foot "U" boat. Underway, they furnish helmsmen for the bridge and messengers who shuttle between the bridge and CIC. During underway replenishments ("unreps"), they man several transfer stations, rigging the necessary lines between the ships. At the sound of General Quarters, they man the ship's 5" gun mounts.

*Oriskany's* 2nd Division is 57 men strong. Their cleaning stations are in officers' country and areas of the port and starboard sponsons. They attend the port Number 2 motor whaleboat, the Number Four personnel boat, and the officers' "P" boat. When mooring or casting off, they are on the starboard sponson, attending the mooring lines, assisted by other

men in the division manning a whaleboat in the water. When the word is passed to man all starboard side replenishment stations, they set up Station Nine on the sponson and prepare fueling stations fore and aft.

The 3rd Division in CVA-34 has an allowance of 59 men who are responsible for keeping the aft section of the ship clean. Men in it also participate in unreps and man the 5"/38's. They also are assigned the Number 5 "U" boat, and the Number One motor whaleboat. Much of their work is the unglamorous but necessary chipping, painting and routine cleaning.

*Midway* divides her first three divisions sectionally. The 1st Division conducts seamanship opera-

and are responsible for the upkeep and operation of the ship's 5" guns, ammunition hoists, and battery magazines.

*Oriskany* describes 5th Division:

"Weather, saltspray and air operations persistently challenge the abilities of 5th Division's Gunner's Mates in their task of keeping *Oriskany's* four, time-honored 5"/38-caliber open mounts in top firing conditions. Old carrier sailors recognize these guns as the same type which defended our World War II flattops. Although now 20 years older and a little bit tired, these venerable stalwarts continue to carry out their assigned task as an integral part of *Oriskany's* air defense system. The six, highly cherished E's, which grace the splinter shields, attest to their accuracy, point out their readi-

"It is responsible for the four 5" gun mounts located on the port and starboard side, aft. This division is made up of 25 men who are charged with the repair, maintenance and firing of the guns. The 5-inchers can each fire 40 rounds per minute. Each gun is operated by a series of electronic control panels located in the mount, and is completely automatic. The range of these guns is over 17,000 yards and they are capable of hitting a target traveling at high speed."

None of the carriers has a 6th Division. Ens. Martin explains how this came about in his ship, the *USS Intrepid*. "The 6th Division was the Armory and Magazine Division. It was combined with Aviation Ordnance to become G Division when all ordnance responsibilities were transferred to the Gunnery Department."

Aboard some aircraft carriers, the Marine Detachment embarked forms the ship's 7th Division. Aboard others, such as the *Midway* and *Saratoga*, there is no 7th Division, although there are Marines assigned the Weapons Department, designated Marine Detachment.

From the *Intrepid*: "The Marines form the internal security nucleus of the ship. Upkeep of the ship's brig is the responsibility of a permanent staff of Marines. To name just a few of the 7th Division's extra duties, one sees them manning a 5-inch mount, keeping unauthorized persons from obstructing fire parties, standing sentry duties in Weapons spaces, being orderlies and couriers, and even blowing taps and reveille. The Marines



**REPLENISHMENT OPERATIONS** at sea are conducted by *USS Intrepid* with the *USS Hale* (DD-642) during *Strikeback*. Deck divisions in Weapons Department man refueling rigs.

tions in the forward part of the ship, including manning the anchor machinery in the forecastle. The 2nd Division takes care of seamanship duties in the middle third of the ship. And the 3rd Division handles the after third of the ship, including operations in the fantail and of the whaleboats.

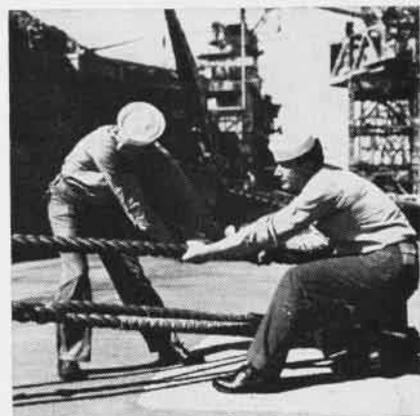
The remaining divisions in the Weapons Department are directly concerned with ordnance.

Men in the 5th Division in the *Intrepid* are all Gunner's Mates

ness to respond when called upon in a time of emergency.

"*Oriskany's* gunners do not confine their interest to the guns alone, but to the associated hoists and magazines as well. No less important are the jobs of those who labor below decks, making sure that a steady supply of ammunition is available to the mounts above. Together with the gun crews, they form an efficient, hard-working team, dedicated to their ship, the Navy, and to gunnery excellence."

*Saratoga* gets down to cases in the description of her 5th Division:



**LINEHANDLERS** in the *Kearsarge* moor the carrier in port and are part of anchor detail.

also form the nucleus of the ship's landing force and are the finest honor guard afloat."

Duties of Marines are similar aboard the various aircraft carriers. Cdr. Alexander W. Urquhart, Weapons Officer in the *Oriskany*, indicates this in his comments:

"The primary mission of the 7th Division is to provide the nucleus of the ship's landing party. In addition, the detachment maintains the ship's brig, has charge of the ship's internal security, with special emphasis on W Division spaces, provides orderlies for the Commanding Officer and Executive Officer, and provides honor guards for visiting dignitaries.

"Along with these responsibilities, the detachment maintains a well-rounded training program in general military subjects, both at sea and in port. During in-port periods, facilities permitting, the detachment conducts extensive field maneuvers. The most ideal conditions were found at the Naval Base, Subic Bay, Philippine Islands, where the terrain offers great flexibility in the training program. On Subic the training program is composed of field-firing all the weapons organic to the detachment, small-unit tactics, and as a high point, jungle survival, which includes the constructing of shelters, identifying and gathering edible plants and roots, and procuring potable water.

"The detachment has a total of two officers and 55 enlisted, including two staff NCO's."

In an article edited by Lance Stalker, JO2, appearing in *Saratoga's* ship newspaper, *The Fighting Cock*, the Marines are carried as a "Marine Detachment" under the Weapons Department, for *Sara* does not have a 7th Division.

The Fox Division is primarily concerned with the carrier's fire control system. In the *Intrepid*, "it maintains and operates the complex sets of radars, directors and computers that control the pointing of the ship's guns. Tanker tracking when approaching an oiler, getting a distance to a navigational aid, or tracking a weather balloon are all duties of Fox Division."

*Midway* succinctly describes her Fox Division: "Operation and maintenance of the fire-control system, including directors, computers, and target designation equipment."

The Fox Division in the *Oriskany* is comprised of a total of one officer and 30 men, including two CPO's, three first class, seven second class, eight thirds, and ten seamen. Their responsibilities include the upkeep, maintenance and operation of four gunfire control systems, and one target designation system. *Oriskany's* Fox Division boasts a collection of 11 E's for excellence in fire control over the last four years of competition.

Stalker becomes graphic in describing *Sara's* Fox Division:

"The finest guns in the world and the best ammunition would be useless



A CLEAN WASHDOWN of *Midway's* flight deck is made by crewmen. This unglamorous but important job is part of the housekeeping chores by men in the Weapons Department.

without accurate aim. In the typical shipboard fire control system, there are two main parts, the Director and the Computer. These are linked electronically to the gun. The fire control system and guns can be compared to a prize fighter. His punching arm and fist are the gun and shell. His eyes and reflex system equal the search radar, and his brains the computer.

"The ship's search radar is located aft above each quarter. It is the first step in the process of controlled gunfire. When a target is picked up by the search radar, the men in the control room below are informed. They lock the fire control radar on the enemy. This radar provides speed, range, and other important information, to the computer.

"This is digested, along with the ship's speed, direction, and other factors, and the computer whirls out the answer. The computer makes a decision and sends it to the guns, which automatically swing into line with the target, ready to fire."

The G Division differs only slightly from aircraft carrier to aircraft carrier. It is concerned with aircraft ordnance and munitions.

*Intrepid's* G Division is "responsible for the ordering, receiving, stowage, assembly, and delivery to the flight deck of all types of munitions used by the aircraft aboard."

Other responsibilities of *Intrepid's* G Division include the ship's armory where all small arms and landing party equipment are stowed and serviced, and the training and supervision of the ship's "line-throwing gunners." The Aviation Ordnancemen maintain highly

trained Special Weapons Loading Teams, while another special team formed by the Division is the Explosive Ordnance Demolition Team, better known as EOD.

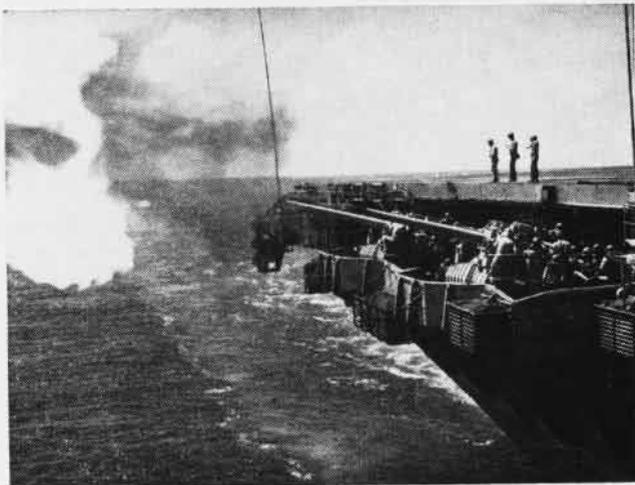
In the *Kitty Hawk*, the G Division is manned by 92 men drawn from Aviation Ordnanceman and Gunner's Mate rates. They work closely with the embarked Carrier Air Wing. George Collier, JO3, reported, when aboard:

"Prior to breaking out ordnance, all ammunition must be observed carefully and watched after, somewhat like flowers in the many steel-plated 'greenhouse' magazines. Temperature and humidity are constantly checked and cooling devices are employed to maintain a constant level.

"This complex of magazines honeycombs the ship. They are found from the seventh deck to the 03 level, along with ready-service lockers on the flight deck catwalks. Many tons of explo-



**MEN IN BENNINGTON'S Fifth Division, all Gunner's Mates, are responsible for the upkeep and operation of the 5"/38-caliber guns.**



**THE NOISE IS LOUD** but the aim true when GM's in the Hancock fire the 5"/38-calibers. The crews are training on a target missile.

sives are contained within.

"Two men of G Division—one must be aboard at all times, at sea and in port—are especially trained in the use of Self-Contained Underwater Breathing Apparatus (SCUBA) and other diving equipment. They are ready at any moment for special work."

*Oriskany's* Gunnery (G) Division is comprised of 84 men, compared to about 110 in the *Saratoga*. For greatest efficiency, they are assigned to one of five teams. Of these, three are comprised entirely of Aviation Ordnancemen.

The elevator crew makes up the first team. It is responsible for the operation and maintenance of all bomb and rocket elevators.

The second team operates on the hangar deck and is charged with delivering all ordnance needed.

The flight deck crew is the third team. It is its responsibility to see that all ordnance coming to the flight deck is loaded on the assigned aircraft. These men insure that all ordnance is properly secured, and that all electrical connections are tight. This crew also belts all 20mm ammunition used by the aircraft. Also on the flight deck is the EOD man, whose presence is required in the event aircraft returning to the ship have ordnance that failed to fire or release, due to some malfunction. He inspects the ordnance and decides whether or not it is safe to offload and stow below, or to jettison it.

The fourth team is made up of Gunner's Mates who break out

bombs and rockets and maintain all magazines below the third deck.

The fifth team handles routine maintenance of ordnance handling equipment.

The GM Division handles and stows aircraft guided missiles, such as the *Sidewinder* and the *Bullpup*. In the *Oriskany*, 24 men are assigned: Aviation Electronics Technicians who maintain test equipment, and Aviation Ordnancemen who assemble, test, and deliver the missiles to squadrons when "Missiles to flight deck" sounds.

Attack aircraft carriers, such as the *Saratoga* and *Oriskany*, have a W Division comprised of 30 technicians who maintain the carrier's special weapons potential. All W Division areas are high security, limited access spaces.

LCdr. John W. Bradford, Jr., former Weapons Officer in the *Kearsarge*, describes his department:

"A recent change corrected the old and honorable name of the department from Gunnery to the more inclusive name of Weapons. This change is in keeping with the mission of the department to provide the specialized rockets, bombs and homing torpedoes for our antisubmarine aircraft.

"Many talents are encompassed within the department, including Gunners, Ordnancemen, Torpedomen, Fire Control Technicians, Special Weapons Technicians, an Explosive Ordnance Disposal team, SCUBA divers, Boatswain's Mates, and Marines.

"All aspects of deck seamanship fall under the department, including op-

eration of the ship's boats, replenishment and refueling at sea, and ship's preservation.

"It should be noted that during both the Schirra and Cooper astronaut recoveries, it was a *Kearsarge* boat crew that made the initial hook-up to their capsules, and a *Kearsarge* deck division crane crew which hoisted them aboard."

The *Mighty K's* Weapons Officer compared his department in a CVS to a similar one in a CVA.

"Based on my own observations," LCdr. Bradford said, "I would say that a CVS Weapons Department differs from its counterpart on the CVA's in weapons emphasis only. Whereas *Kearsarge* has a large and comprehensive homing torpedo shop, the CVA would have much talent devoted to air-to-air missile testing. The primary conventional ordnance of the ASW forces are depth bombs and air-to-ground rockets. Other departmental functions are much the same."

LCdr. Bradford recalls an old manuscript describing the proper way to load a 16th Century cannon which cautioned that failure to comply might result in a flash-back which would "Spoyle ye gonner." To avoid spoiling any present-day gunners, he points out, much engineering ordnance talent has gone into designing safe and easily loaded weapons. "This, however," he says, "in no way detracts from the fact that when you handle an explosive charge equal to 425 pounds of TNT, you must do so with care. Over every shoulder peers the singed ghost of a 'spoiled' Flemish 'Gonner'."



**NAVY CREWS** have learned to operate ACV's like this one, which operates on a daily schedule in the San Francisco-Oakland area.



**FIRST TRAINEES** in Bell's factory training program receive their ACV 'graduation' certificates at Buffalo from VAdm. Paul H. Ramsey

## JET RIDE TO ALTITUDE OF FOUR FEET

ONE of the Navy's premier test pilots logged 30 minutes of ACV time recently, but he didn't dare add the half hour to his log-book.

ACV stands for Air Cushion Vehicle, a term applied to the Bell Aerosystems Company's series of air-riding machines. The U. S. Navy has ordered three SK-5 vehicles (which are nicknamed *Jet-skimmers*) and is training officer and enlisted crews for their operation. SK-5 models are currently in daily operation in the Oakland-San Francisco, California, Bay area.

Vice Admiral Paul H. Ramsey, Deputy Chief of Naval Operations (Air), took the controls of an SK-5

during a recent visit to Buffalo, N. Y. As an early jet test pilot, and former Commander of Naval Air Test Center, he had flown dozens of aircraft. But Admiral Ramsey admitted that the *Jet-skimmer* ride was difficult to classify.

"You're riding on a cushion of air, so you are free of the surface of the beach or water. But four feet is as high as you can go—the sensation is more like that of riding a very fast boat," the Admiral said.

The jet-engine ACV "floats" on air and can be turned in a complete circle even as it makes a straight path over the water. The commercial model has been li-

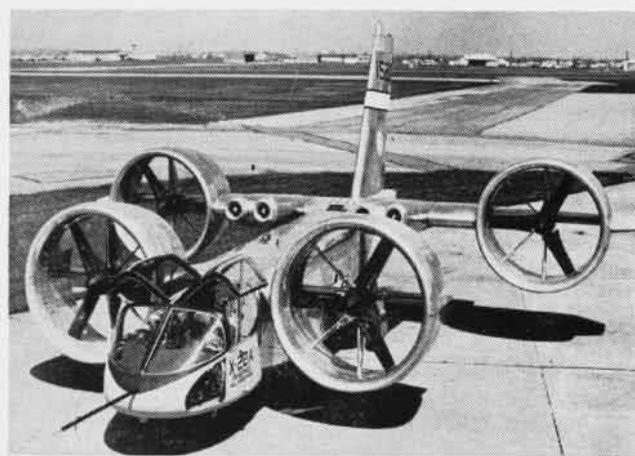
censed by the U. S. Coast Guard so it qualifies as a boat rather than an aircraft.

Admiral Ramsey presented certificates of "graduation" to officer and enlisted operators in the first class sponsored by the Navy at the Bell installation.

During his stay in Buffalo, Admiral Ramsey received detailed briefings on the Bell X-22A research aircraft, scheduled to make its first flight this year. The X-22 is a Tri-Service experimental v/stol being built under Navy management. Briefings also were given on the SPN-10 Automatic Landing System for use on aircraft carriers

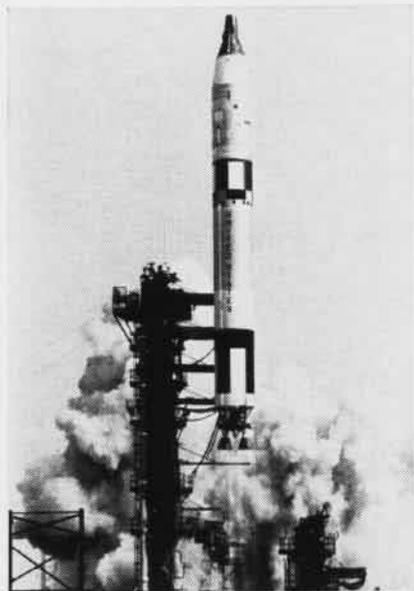


**VINCENT PAXHIA**, technical director, shows X-22A's props to Admiral Ramsey and Bell Aerosystems' president, William Gisel (R).



**X-22A V/STOL** research aircraft is nearing flight test stage on its development. Four turboshaft engines power the propellers

# CHAMP COMPLETES ASTRONAUT RECOVERY



**GEMINI 5** is launched from Cape Kennedy on eight-day flight that ended in Atlantic.



**AN HS-5 HELO** crew hoists one of the astronauts aboard after splashdown in Atlantic.



**ASTRONAUT** Gordon Cooper takes his turn on the helo hoist as his mission nears an end.

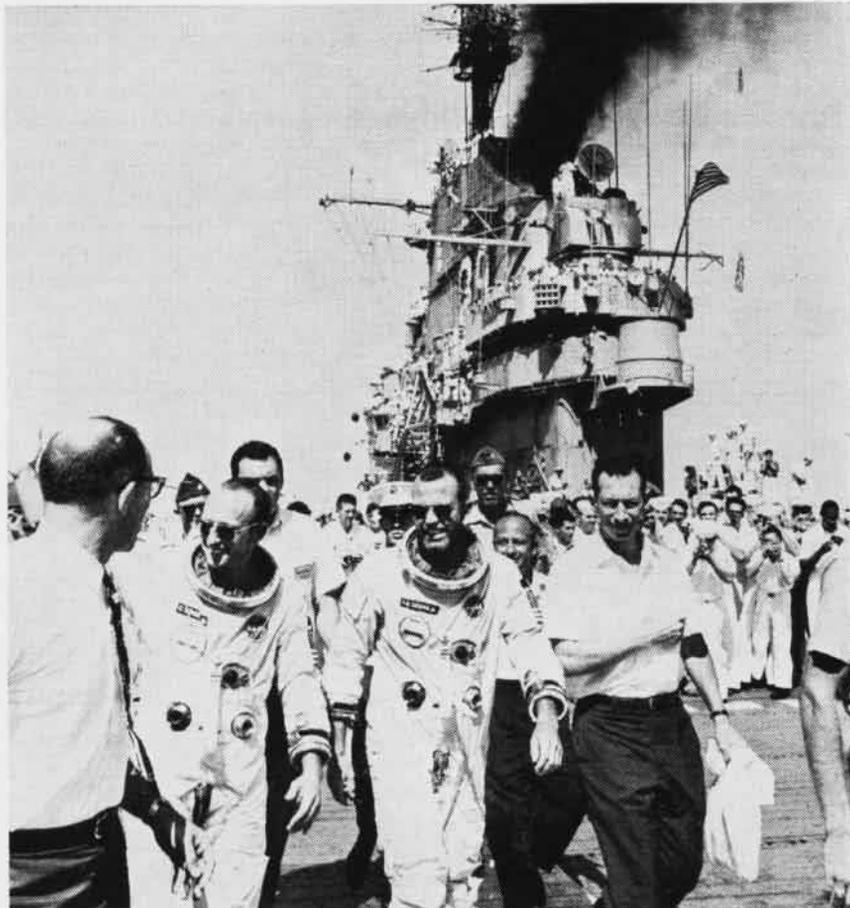
**T**HE DECKS teemed with reporters, officers and enlisted men. Then, the HS-5 H-3 *Sea King* landed; from its interior two bearded men clad in silver space suits alighted on a crimson carpet.

"*Gemini 5*," USS *Lake Champlain* reported later, "was history."

That statement might be a bit misleading, for there were certainly dozens of facets to the eight-day flight of Astronauts Charles (Pete) Conrad and Gordon Cooper still to be recorded for the benefit of space science—and history. But the flight itself was over. It was successfully completed on August 29 with the arrival of the two space travelers and their craft on *Lake Champlain's* deck in the Atlantic.

The safe return of the spacecraft and its occupants meant the third successful recovery of U. S. astronauts by *Champ* crewmen and the start of an "old home week" for Commander Conrad, who made his first carrier landing aboard *Champ* in 1954.

Before they were flown back to Cape Kennedy, the astronauts ate an evening meal with the crew, participated in a cake-cutting ceremony, and got themselves a well-earned night's sleep that lasted until 9:30 a.m. After they left, *Gemini 5* was, for *Champ*, indeed history.



**GREETED** by a cheering USS *Lake Champlain* crew, Astronauts Charles Conrad (L), and Gordon Cooper are surrounded by NASA officials as they leave their recovery helicopter.

# NATURE'S UNDERCOVER AGENT— CORROSION

By William Polk, JO1  
Photos by Daniel Reed, PH2

A PERSISTENT, nonhuman enemy agent is sabotaging four Navy seaplane squadrons in an unending campaign. It is costing the Navy over \$1 million a year. The victims are the aircraft of Navy Patrol Squadrons 31, 40, 48 and 50, home-based at NAS NORTH ISLAND.

Their nemesis is not a super spy, but one that is a past master at undercover work. The enemy agent in this instance is nature's own master saboteur—*Corrosion*.

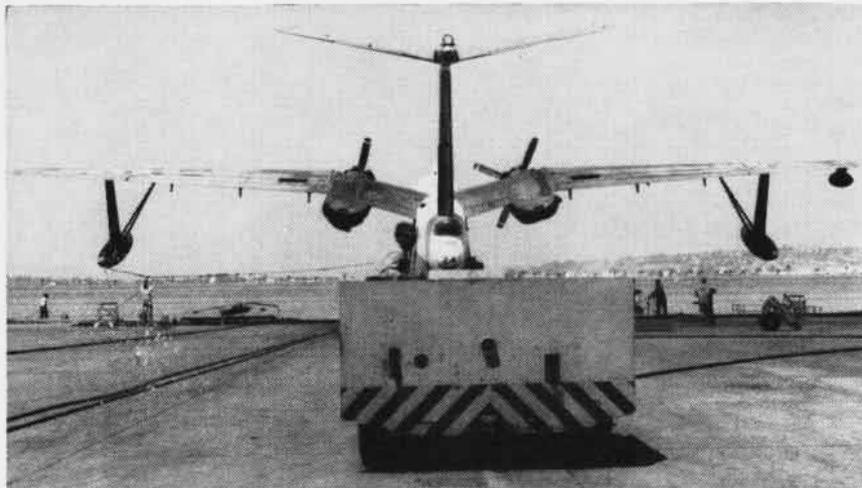


THE SURFACE IS RUBBED CLEAN

*Agent Corrosion's* prime target is the 44 Martin *SP-5B Marlins* which belong to the four squadrons.

Each *Marlin* is worth an estimated \$2.5 million. To keep them free of corrosion for this fiscal year, squadron officers estimate an expenditure of 32,472 man-hours and approximately \$105,000.

To tackle the corrosion problem a *Marlin* presents is no small task. The big seaplane weighs 79,000 pounds or more than two small



MARLIN IS TOWED INTO HANGAR WHERE EXPERTS CONDUCT AN INSPECTION



CORROSION CONTROL BEGINS WITH WATER WASHDOWN

box cars. It's one third as long as a football field and its 33-foot high tail rises to the height of a three-story building.

A VP-50 squadron instruction sums up the characteristics of the enemy: "Corrosion is the result of chemical or electrolytic action on metals. It is greatly accelerated when dissimilar metals are joined together, such as aluminum and steel in the *Marlin*."

It is against this enemy, nature's



SUSPECT AREAS ARE NOTED FIRST



TROUBLE SPOT IS VACU-BLASTED



TECH REP EXAMINES ALL REPAIRS

#1 undercover agent, that the maintenance men and aircrews wage a never-ending battle. This is how they do it.

As part of an over-all Preventive Maintenance Program (PM), each of the 44 seaplanes is scheduled for anti-corrosion treatment at 45 and 90-day intervals.

After each flight, two crewmen with high pressure hoses remove salt deposits with a fresh water washdown. Its bilges pumped, the plane is left to dry. An aircraft on its 45-day PM check is given a soap and water washdown, then towed into one of two huge semi-circular hangars.

Here it remains for one week while Corrosion Control Teams concentrate their efforts on such major trouble areas as the underside of the hull and wing areas exposed to engine exhausts. Many trouble spots are found under paint bubbles and around rivets. These are circled with a colored crayon. To blast these areas

clean, maintenance men use a device called *vacu-blaster*.

While this is essentially a sand-blasting gun, it has a vacuum element. The operator places the device flush with the corroded surface and presses a trigger. Millions of tiny glass beads blast the surface under pressure of 85 pounds per square inch. Simultaneously the *vacu-blaster* sucks the beads into a retrieving hose for re-use.

Diluted phosphoric acid is then carefully applied with a sponge. This removes minute corrosion or paint spots which remain despite the blasting. Maintenance crews use plastic scrapers to avoid scratching the metal surface.

Once the acid has been applied, the surface is coated with a chemical solution. This produces a corrosion resistant film on the surface of the aircraft. After 15 minutes, the surface is wiped down with paint thinner before the application of a coat of zinc chromate primer. This primer dries in about

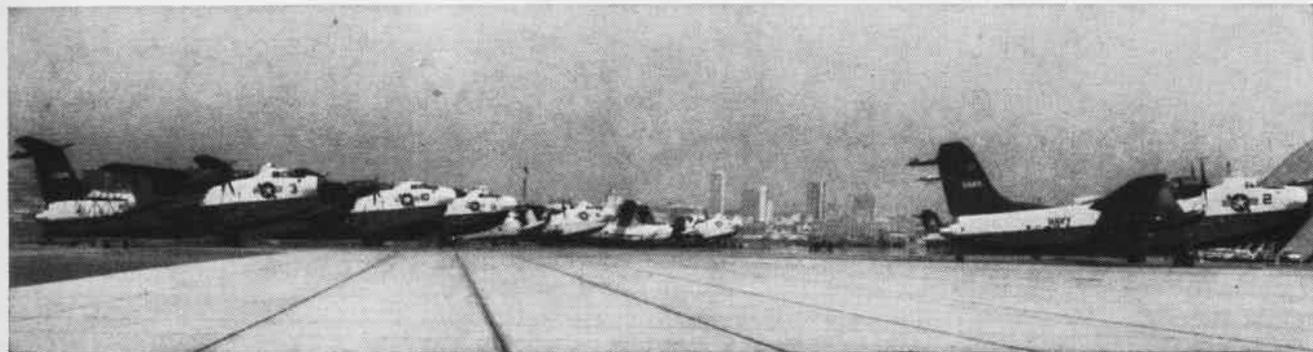
one hour. Finally, a corrosion-resistant top coat is applied to the reworked areas.

Wing top surfaces, directly exposed to engine exhaust gases, are coated with a black, rubber-like substance. Having the appearance of non-skid asphalt, this material is more resistant to exposure and engine heat.

The same procedures are used, on a more intensive basis, when an aircraft comes in for a 90-day PM check.

When a *Marlin* is sent to O&R, the entire aircraft's outer skin is stripped to bare metal. It is then corrosion-proofed in the same manner as in the 45 and 90-day checks and repainted.

This is how the men of Patrol Squadrons 31, 40, 48 and 50 battle one of nature's most subversive agents. For them it is a frustrating conflict. Despite hard work and long hours, they know the *enemy* can only be arrested—but can never be destroyed.



THE OBJECTIVE OF ALL MAINTENANCE PROGRAMS IS TO PROVIDE 'UP' AIRCRAFT TO FLIGHT CREWS WHEN NEEDED



THIS IS THE AIR FORCE'S NEW TRANSPORT, THE C-141 STARLIFTER . . .

## NAVYMAN QUALIFIES IN AF C-141

By W. G. Cary, JOC



HE'S ITS FIRST NAVY PILOT

**L**CDR. W. H. Wagner has become the first Naval Aviator to qualify as a pilot in the giant new Air Force transport, the C-141 *Starlifter*.

Wide-sweeping wings indicate the *Starlifter's* mission: airlifting huge military loads across long reaches of the world's oceans and continents. First of a new breed built by Lockheed, the C-141 is capable of airlifting 50,000 pounds 4,600 miles nonstop or 20,000 pounds a distance equal to that between California and Japan (more than 6,300 miles). It is an all-jet 550-mph aircraft, with wide rear doors for big cargo.

The first C-141 was delivered to the Military Air Transport Service's (MATS) training wing—the 1707th Air Transport Wing based at Tinker AFB, Oklahoma—in October 1964. LCdr. Wagner began training in it six months later.

A unique situation permitted the Navy pilot to receive the C-141 training: His job as transition training unit officer at Headquarters, MATS (DSC/O/Training) includes an authorization to qualify in newly-assigned aircraft.

For experienced MATS pilots (LCdr. Wagner has flown the C-54, C-118, C-121, and C-131), the C-141 qualification course can be completed in about ten weeks at Tinker. Additional flight time is necessary, however, with an operational wing before a pilot is designated an aircraft commander. In addition to ground school and simulator requirements, a minimum of 100 hours' flying time is required for commander qualification.

LCdr. Wagner expected to be attached to an operational *Starlifter* wing. The new jets are operational with MATS wings at Travis AFB, California, and Charleston AFB, South Carolina.

The veteran Navy pilot, who is also currently qualified to fly MATS' T-39 *Saberliner*, has been piloting transport aircraft since 1952. A Naval Aviator since 1944, he has logged almost 10,000 hours.

LCdr. Wagner was transferred to MATS Headquarters at Scott AFB, Illinois, after a tour with a MATS Navy squadron, VR-7, at Moffett Field, California.

The Kingman, Kansas, native entered the Navy in 1942.

LCdr. Wagner's reaction to taking the controls of the 500-mph-plus *Starlifter* for the first time was definite and emphatic: "The greatest flying experience I've ever had."

## Navigation Aids Orbiting Ships Use Satellite Signals

Two navigation satellites were orbited this summer to augment the now-operational all-weather satellite navigation system. It will allow for more frequent position fixes by ships at sea, according to a recent BuWeps announcement.

The 135-pound octagonal satellites were launched from the Western Test Range. Powered by solar cells and batteries, they are gravity-stabilized so one side always faces earth. Gravity stabilization was achieved in the first satellite 21 hours after launch when its 100-foot silver-plated beryllium-copper boom was erected.

According to The Johns Hopkins University Applied Physics Laboratory, which designed the satellites, all systems are working well.

Radio signals from the satellites are the source of data used by shipboard navigation sets. One is sufficient for an operating system, but additional satellites provide more opportunities for assistance.

The program was started in 1958 after two Johns Hopkins scientists discovered that the position of the first Russian Sputnik could be plotted precisely by its radio signals. This led to further research that developed the ability to locate positions on earth that are relative to the orbiting satellites.



REAR ADMIRAL John J. Lynch, the first Naval Aviation Cadet to attain Flag Rank relieved Rear Admiral D. F. Smith, Jr., a Chief of Naval Air Basic Training during ceremonies at NAS Pensacola on September 3



**CAPTAIN F. W. Oliver, C. O., NAAS Fallon, presented letters of commendation to R. L. Shafer, AC2, and D. R. Stone, AN, after both prevented wheels-up approach by Douglas A-4 Skyhawks.**

### Franked Mail Privilege Given to U.S. Forces in Vietnam

Starting September 1, members of the U.S. Armed Forces stationed in Vietnam have been able to send letters and postcards free to any place in the United States and to any military post office worldwide. The free mailing privilege was voted by the Congress as part of the military pay raise bill signed by President Johnson August 21st.

Free airmail delivery of any personal letter mail, including postcards, in the usual and generally accepted form, can be mailed by any member of the U.S. Armed Forces at any U.S. military post office in Vietnam and contiguous waters. "Vietnam and contiguous waters," as defined in the directive, is the same area prescribed as the "combat zone" in the President's Executive Order of April 24, 1965 for use in connection with the income tax exemption.

The Defense directive states that the sender must write the word "FREE" in the upper right-hand corner of the address side. The upper left-hand side must bear the name of the sender, his service number, grade and complete military address. It need not be in the "handwriting" of the sender (formerly required in WW II and during the Korean conflict), thus permitting the use of typed and

stamped addresses, personalized address labels, etc.

Anyone hospitalized in a facility under the jurisdiction of the Armed Forces of the United States as the result of disease or injury incurred as the result of military service or operations in the combat zone, also has franking privileges.

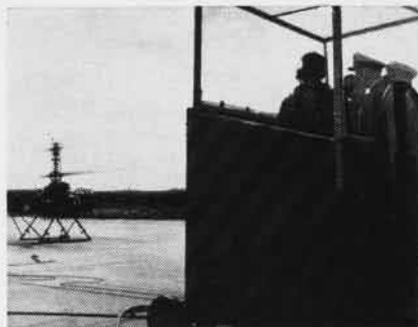
"Free Mail" will automatically go as air mail. While free mail may not be registered, insured or certified, it will be accepted as special delivery mail upon the sender's paying the usual fee.

### VS-22 Three-Time Winner CVSG-54 Gets Air Group Award

A CVSG-54 squadron, VS-22, has claimed three ASW efficiency awards, while the air group itself has been presented a fourth.

During ceremonies at NAS QUONSET POINT, R. I., Rear Admiral Magruder H. Tuttle, ComFAir Quonset, presented Commander Ivan R. Campbell, the squadron's C.O., the annual Battle Efficiency "E" pennant, the Chief of Naval Operations Aviation Safety Award, and the Captain Arnold J. Isbell Award.

Commander Kenneth O. Ekelund, skipper of CVSG-54, accepted the ASW Air Group Award (Red Rooster) - presented by the Rhode Island Council of the Navy League.



**A NEW COMMAND** was formed with the commissioning of the U. S. Atlantic Fleet DASH Training Unit at the Fleet Anti-Air Warfare Center, Dam Neck, Va. The unit, commanded by LCdr. E. H. Crudup, Jr., will train officers and men to maintain and operate weapon systems in Atlantic Fleet ships.

### Marines Receive Intruder Two Squadrons are Operational

VMA (AW) -533, commanded by Lieutenant Colonel E. S. Maloney, recently became the second Marine squadron to be equipped with the A-6A Intruder and redesignated an all-weather attack squadron.

The first Marine Squadron to make the change was VMA (AW) -242, commanded by Lieutenant Colonel R. H. Wilson. Both are part of the Second Marine Air Wing at MCAS CHERRY POINT.

The dual-seat jet carries a pilot and bombardier/navigator.



**AERONAUTICAL ENGINEERS** Ron Reasoner, Sam Sevelson and Carroll Berner discuss the sleek mockup of the new XBQM-34E Firebee at the Ryan plant in San Diego. The high-performance, remote-controlled target drone will be designed and initial fabrication will begin under a \$5 million contract signed by the Bureau of Naval Weapons. The drone model will fly at speeds in excess of Mach 1.5 (about 1000 mph) and at altitudes exceeding 60,000 feet.

# ATLANTIC AIR WINGS ON PATROL



REAR ADMIRAL A. R. Matter presents the second consecutive E to Commander P. F. Hunter, then VP-44 C. O., and Commander J. R. McDonald, present C. O.

The *Eagles* of Patrol Squadron 16, under the command of Commander C. J. Eadie, returned to Jacksonville in September after a nine-month deployment to Bermuda. Their return saw the entire squadron together for the first time in two years.

While in Bermuda, VP-16 engaged in various antisubmarine exercises including maneuvers with the Royal Canadian Air Force. Routine patrols during this time ranged throughout the South Atlantic.

While deployed, the squadron won the Navy Battle Efficiency E presented annually to the outstanding patrol squadron of FAW-11. During the period covered by the award, the squadron was commanded by Commander W. J. Vaught, and Commander Eadie. VP-16 completed transition to the P-3A from the SP-2E during the competitive period.

\* \* \*

After returning from Sigonella this summer, VP-5 hosted VP-702 from NAS DALLAS, conducting in-flight and ground school training.

While serving as Patron Sigonella, VP-5 participated in six major NATO and Sixth Fleet exercises. Its pilots flew a total of 4,787 accident-free hours. Eight simulated submarine kills were made during

exercises. The squadron's major off-duty project was the adoption of a boys' orphanage in Paterno, Sicily. Squadron personnel raised money to equip the orphanage with dishes, gym equipment and furniture.

\* \* \*

Patrol Squadron 45 is absent from its normal Atlantic Fleet duties at Jacksonville and is deployed to Adak, Alaska. During the month of August, the squadron flew 1,337 hours in fulfilling its mission of air ASW and open-ocean surveillance. All commitments were met on time.

At this time, the squadron is under the operational control of Commander Alaskan Sea Frontier at Kodiak, Alaska.

\* \* \*

During the summer, Fleet Air Wing 11 was host to four reserve squadrons. Almost 500 officers and men of Atlanta and Dallas patrol squadrons trained under the operational control of Captain H. B. Stott, ComFAirWing 11. The squadrons logged over 700 flight hours and 2,500 hours of ground training.

During the two-week period, the Atlanta reservists drilled together as a single squadron under Commander T. R. Gresham of VP-672. The participating squadrons were VP-671, commanded by LCdr. H. L.



COMMANDER C. L. Wyman, VP-23 C. O., admires third consecutive E awarded squadron.

McKeever, and VP-674 under LCdr. J. H. Harra. VP-702, from Dallas, is commanded by Commander J. L. Scott.

Primary emphasis was given to crew training and individual ASW qualifications. Classroom instruction was provided by FAETULant Detachment Two, NAMTD and FAW-11 Communications School. Airborne instruction was performed by the assigned host squadrons.

\* \* \*

VP-18 now has a new Alfa crew status board to honor its qualified crews. It was designed and built in off-duty hours by Cusumano, AM-HC, and Rose, AN. The latest crew to gain Alfa status and a place on the board is crew 5 under Lt. Whitey Hahn, going from zero points to Alfa status in 26 days.

\* \* \*

Patrol Squadron 23, under the command of Fleet Air Wing Three, has won the Battle Readiness Excellence E award for the third consecutive year.

VP-23 claims to be the first Atlantic Fleet land-based squadron to win the E for three consecutive years. The squadron is commanded by Commander Charles L. Wyman. Recent areas of deployed operations have included the Mediterranean, the North Atlantic and the



**CUSUMANO** and Rose of VP-18 show Alfa status they designed and built.

Caribbean. Over 10,000 accident-free hours were flown during the past twelve months.

Another first for the squadron may have been established on September 3 at the not-so-routine swearing-in of T. J. Chambers. After presenting the third consecutive E to the squadron, Rear Admiral A. R. Matter administered the oath that may have made VP-23 the first squadron to have a father and three sons in service at the same time.

Kenneth E. Chambers, Sr., AMS1, enlisted in the Navy in 1940 and came to the squadron in April 1963. His oldest son, Kenneth E., ADR3, enlisted in June 1961 and reported in March 1962. Michael L., ADR3, also enlisted in 1961 and arrived in January 1963. No definite plans have been stated by young Chambers but informed sources claim his mind is made up about his first duty station.

In ceremonies at NAS PATUXENT RIVER, Rear Admiral A. R. Matter, Commander Fleet Air Wings Atlantic, presented the Battle Efficiency award to Patrol Squadron 44 for the second consecutive year. At the time of presentation, the squadron was commanded by Commander P. F. Hunter. The present commanding officer is Commander J. R. McDonald.

Commander Frank C. Kolda be-

came the 25th Commanding Officer of VP-24 when he relieved Commander Richard D. Amme during an impressive change of command ceremony at the Royal Hellenic Air Force Base, Soudha Bay, Crete, on September 7, 1965.

The guest speaker at the ceremony was Captain John C. Fox, Chief of Staff for Operations, Fleet Air Mediterranean. Commander Kolda reported to VP-24 as Executive Officer in July 1964 from the Fleet Weather Center, Alameda. Commander Amme, who has commanded the squadron since October 1964, has been ordered to report to the USS *Guam* (LPH-9) as Operations Officer.



**COMMANDER HUME**, VP-45 C. O. relieved Commander Howard of VP-19 at Adak.

icipating in the program.

The first phase took place in the Caribbean with Colombian, Venezuelan, and United States forces taking part. The U. S. forces joined with the Venezuelan units in Trinidad and conducted maneuvers en route to Venezuela where they were met by the Colombians. All three units then continued combined Naval operations while en route to the Panama Canal.

U. S. forces will travel over 20,000 miles and visit eighteen ports in South America during the four month *Unitas deployment* which is scheduled to end in December.



**REAR ADMIRAL A. R. MATTER**, ComFAirWingsLcmt, administers Navy oath to T. J. Chambers in presence of his mother as father and two other sons, all of VP-23, look on.



HC-1 HELO LIFTS PILOT FROM WATER IN ONE OF 1,000 SUCH RESCUES

### HC-1 Makes an Even 1,000 Squadron Claims Rescue Record

With the rescue of VA-85 pilot, Ltjg. Frank Wagner, during carquals aboard USS *Kitty Hawk* off California, Helicopter Combat Support Squadron One (HC-1) claimed a Navy-wide record. It was the squadron's 1,000th "save" of a downed pilot.

The largest squadron of its kind in the Navy, HC-1 provides helicopter services for every major ship in the Pacific Fleet. With more than 125 officers and 595 enlisted men assigned, the squadron flies the UH-46A *Sea Knight*, UH-2A/B

*Seasprite*, H-13, UH-34 and the H-19.

HC-1 is home-based at NAAS REAM FIELD, Imperial Beach, Calif.

### VMFA-323 Wins Trophy Scores High in Wing Competition

At MCAS CHERRY POINT, Marine Fighter/Attack Squadron 323 and some of its members were singled out for outstanding achievements in a Wing Competitive Evaluation Exercise (COMPEX).

The awards were presented by Major General George S. Bowman, Jr., Commanding General of the 2nd Marine Aircraft Wing, to Lieutenant Colonel Norman W. Gourley, former VMFA-323 com-

mander, now G-3 Operations Officer. He in turn presented the trophy to Lieutenant Colonel Andrew W. O'Donnell, the present VMFA-323 C.O.

1st Lt. R. C. Norred received a "Top Gun" certificate and commendation for attaining the highest COMPEX score in conventional dive bombing during FY 1965.

A "Top Gun" certificate also was presented to 1st Lt. A. P. Cunningham. As an RIO, along with his pilot, he "exhibited outstanding marksmanship and superb ability in attaining the highest score in conventional dive bombing within the 2d Wing during Fiscal Year 1965."

### Quonset Squadron is Cited VS-34 Tops in Reenlistment

Air Anti-submarine Squadron 34 was awarded the Don Bryan Trophy for Reenlistment Excellence by Rear Admiral M. H. Tuttle during ceremonies at Quonset Point. The annual award is given to the Quonset based squadron with the highest reenlistment percentages. It is named for the WW II president of the Providence USO, whose work on behalf of the Navy in the area made him a well-known figure.

The "Proud Tigers" earned the trophy by reenlisting 100% of their career personnel and 26.3% of their first tour personnel. This gave the squadron an over-all reenlistment average of 37.3%. The award was accepted by Cdr. R. M. Tucker, Commanding Officer of VS-34.



DOD HAS ORDERED a 100% increase in the production schedule of the Marine Corps' CH-46A *Sea Knight*. Its primary mission is the rapid deployment of up to 20 combat equipped marines, artillery and support equipment from amphibious assault landing ships to advanced areas under all-weather conditions day or night. Powered by two GE



T-58 shaft turbine engines, the *Sea Knight's* maximum speed is 134 knots. It can carry a payload of 4,000 pounds for a 100 nautical mile radius mission. The Navy version, the UH-46A (on front cover) is the key element of the Navy's Vertical Replenishment program. This concept utilizes replenishment by helicopter from fast supply ships.

# HURRICANE BETSY HITS GULF COAST



VIEW FROM HT-8 HELICOPTER SHOWS MISSISSIPPI FLOOD WATERS COVERING TOWNS SOUTH OF PORT SULPHUR, LA.



NAVY HELICOPTERS RESCUE VICTIMS

The many faces of a hurricane are reflected here as they apply to a Navy man. Before hurricane Betsy battered the Gulf Coast in September, hundreds of Navy aircraft already had been evacuated to inland bases. After the storm had passed, helicopter crews went into action on search and rescue missions and emergency clinics were set up to provide medical assistance. Sailors and Marines evacuated barracks to provide shelter.



MEDICAL PERSONNEL READY CLINIC



NEARLY 400 AIRCRAFT FROM THE TRAINING COMMAND WERE EVACUATED TO NAAS MERIDIAN BEFORE THE STORM

# SELECTED AIR RESERVE



**LCDR. A. CHABOT** (left) and **LCdr. A. Jay Cristol**, of YR-742, attached to NARTU Jacksonville, study weather charts at Ramey AFB, Puerto Rico, prior to homeward flight.

## Voluntary Recall Announced

Because of the increasing demands in southeast Asia, the Secretary of the Navy announced on August 19 a voluntary recall of Naval Reserve Officers in these categories: Medical Corps, Lieutenant and above; Supply Corps, Lieutenant Commander and Lieutenant; Chaplain Corps, Lieutenant Commander and below; Civil Engineer Corps, Commander and below; Unrestricted Line, Lieutenant and below.

No officer will be recalled in less than 30 days after submission of request unless earlier recall is requested by the officer.

Requests are to be submitted directly to BUPERS with copy to command having custody of the officer's service record. Officers should indicate the minimum and maximum periods of active duty acceptable to the officer if the recall is approved.

All volunteers for recall will be considered and approved on an individual basis.

## New Trophy Awarded

The first winner of the Richard K. West Trophy, a new perpetual

award, is NAS WILLOW GROVE. The trophy is to be awarded annually to the Naval Air Station Unit in the Naval Air Reserve Training Command with the outstanding Personnel retention record for the previous fiscal year.

Captain Nelson R. Charles, Commanding Officer of NAS WILLOW GROVE, received the trophy during the National Conference of the Naval Reserve Association, held in Memphis, September 29-October 1.

Commander West, a past National President of the association, was killed while on training duty at NAS GLENVIEW. At the time of his death, he was the Commander of Air Wing Staff 72 (L).

Commander West went on active duty in July 1941 and served to March 1946. During this time he served in the Bureau of Aeronautics. He was also assigned to rescue and fighter-bomber squadrons in the Caribbean and Pacific areas.

After 1946, he remained in the Naval Air Reserve, commanding VF-725, CVEG-71 and VF-71E.

## Training Mission

Transport Squadron 742, attached to NARTU JACKSONVILLE, successfully completed an over-water



**WEST TROPHY** is given for outstanding retention record among CNAResTra stations.

training flight with Panama as its destination during its annual two weeks of active duty.

LCdr. A. Jay Cristol, the plane commander, boarded the aircraft Sunday afternoon for its over-water hop at MacDill Air Force Base. Then the C-54 *Skymaster* headed out to sea and touched down shortly after sunrise the next morning at Howard AFB in the Panama Canal Zone.

The officers and men became tourists for a day before starting their return flight early Tuesday.

The flight offered maximum navigational training, and an overnight stop at Ramey AFB, Puerto Rico. Wednesday morning, the plane headed for Jacksonville, and late that afternoon, the crew secured.

## Olathe Squadron at North Island

VP-881, based at NAS OLATHE, arrived at North Island this year for its two weeks of ground and flight training with VP-31 in ASW.

This was the second time the "Prairie Navy" had come to San Diego for training. Flying their own recently-acquired SP-2E *Nephtunes*, the Weekend Warriors had the advantage of expert instruc-



**FORMER USAF Capt., Lt. B. G. Dolan is sworn into Alameda Air Reserves by Cdr. J. G. McDonnell. Cdr. G. S. Locke looks on.**



**WITH APPROPRIATE ceremony, Cdr. H. P. Sykes (left) assumed command of VS-863, NAS Norfolk, relieving Cdr. R. E. Norman.**

tion in the complex requirements of ASW by instructors of VP-31 and FAETUPac.

ASW is nothing new to VP-881. The squadron proudly boasts that it has the only VP crew in the Navy that has successfully detected, localized and "killed" a nuclear submarine, the USS *Nautilus*, during war game exercises. LCdr. Dick Skeen, the PPC of the participating crew, received the coveted submarine Dolphins from the *Nautilus* skipper for the crew's accomplishment.

Since its commissioning in 1946, the squadron has flown various types of aircraft, including the PBV, the PB4Y, and two *Neptune* models, the EP-2E and the SP-2E.

The current complement of 35

officers and 154 enlisted men is commanded by Commander R. C. Boatman.

### Memorable Bullseye

Because he scored the first bullseye in 6,354 over-the-shoulder loft bombing runs at the Candid Camera Range, MCAS YUMA, Ariz., LCdr. Bruce R. Fletcher, of VA-811, was presented with the miniature practice bomb with which he scored the bullseye. His Commanding Officer, Commander Lyle A. Lundeen, made the presentation.

LCdr. Fletcher, flying a Navy *Skyhawk* jet attack aircraft, was on a two-week active duty for training cruise with VA-811, homebased at NAS TWIN CITIES, when he made the record score.

### From Key West to Glenview

Helicopter Antisubmarine Squadron 723 had a big training boost when HS-1 deployed a detachment from Key West, Fla., to NAS GLENVIEW. Three SH-3A helicopters and six helo pilots, along with 18 crewmen, were ready to familiarize HS-723 with their new, sophisticated, turbine-powered aircraft.

HS-1 is the East Coast combat readiness training squadron. Since HS-1 and HS-723 would become one unit in an emergency, HS-1 went to Glenview to establish closer relations and give HS-723 flight time in the SH-3A. At the present time, HS-723 is flying the piston-powered SH-34J.

Commander C. O. Fiske is present Commanding Officer of HS-1.



**CDR. LYLE A. LUNDEEN (R), VA-811, presents LCdr. B. R. Fletcher miniature practice bomb with which Fletcher scored bullseye.**



**CDR. H. K. COOLEY, C.O. of VP-31, gives key to "ASW Readiness" to Cdr. Raymond C. Boatman, C.O. of VP-881, home-based at Olathe.**

# AT SEA WITH THE CARRIERS



**CORAL SEA** Commanding Officer Captain George L. Cassell signals the launch of the 10,000th aircraft to be catapulted during his tour.



**VF-84 PHANTOM** is shot off *USS Independence* during South China Sea operations. Squadron contends its combat hours have set a record.

## PACIFIC FLEET

### CORAL SEA (CVA-43)

Memorial services for Commander Harry E. Thomas were held aboard *Coral Sea* while the carrier steamed in the South China Sea. Commander Thomas, C.O. of VA-153, was on a low-level reconnaissance mission about 45 miles south of Hanoi in North Vietnam when his aircraft was hit by ground fire, and crashed.

Lt. William T. Fidelibus, VA-155, escaped injury when he was forced to eject from his crippled A-4E *Skyhawk* a mile and a half from *Coral Sea* after a mission over Vietnam.

Lt. Fidelibus was rescued by a *Coral Sea* helicopter. Its crew included Ltjg. B. G. Brandow, pilot, Ltjg. J. E. Linqvist, copilot; M. J. Austin, ADJ3; and J. J. Ferlick, AM3. Of the rescue operation, Ltjg. Brandow said: "The pilot handled himself like a real pro. We couldn't ask for any more cooperation. We regret his watch was not waterproof."

Commander William N. Donnelly, VF-154 skipper, logged *Coral Sea's* 146,000th arrested landing in an F-8D *Crusader*. Ten days later, VA-155 Executive Officer Com-

mander John Harris made No. 147,000 in a *Skyhawk*.

*Coral Sea* Commanding Officer Captain George L. Cassell, who usually watches flight operations from the bridge, got considerably closer to the action when he assumed duties as catapult officer for the 10,000th launch from CVA-43 since he became skipper. Ltjg. Ross K. Anderson did the honors in a *Crusader* that was shot off No. 1 catapult.

The next day, Ltjg. D. G. Rohrer, VAW-11, brought in his E-1B *Tracer* for the 10,000th arrested landing made during Captain Cassell's tour of command.

As the number of arrested landings neared 147,000, *Coral Sea* crew members put in a quiet claim for the record in this department.

CVA-43 crewmen knew for sure they were Seventh Fleet veterans when they completed their 100th underway replenishment during South China Sea operations. The magic number was reached when the carrier pulled alongside USS *Vega* (AF-59). During 7½ months of WestPac cruising, *Coral Sea* sailors have unrepped from fleet oilers 50 times, ammunition ships 35 times, stores ships 11 times, and general cargo ships four times.

LCdr. George Gedney, Jr., VAH-

2's operations officer, has made 800 arrested landings, 160 of them aboard *Coral Sea* when the "octo-centurion" mark was reported.

Fifteen officers and six enlisted men assigned to VAW-11's Detachment Delta were presented Air Medals, Armed Forces Expeditionary Medals, and citations from Rear Admiral R. W. Cousins, who commended them for participating in 20 missions "in direct support of combat operations, in areas where enemy aircraft and enemy anti-aircraft (fire) could be materially expected." Thirteen of the men also received Commendation Medals with Combat "V."

### INDEPENDENCE (CVA-62)

With 44 days of continuous South China Sea operations completed, *Independence* pulled into Subic Bay, the Philippines, for an in-port period. The carrier beat by two days its previous time-at-sea mark—42 days during the 1962 Cuban crisis—since its 1959 commissioning.

The operations off Vietnam resulted in these statistics aboard *Independence*: 14,500 miles steamed, an estimated 6,000 flight hours logged, 1,000 tons of bombs dropped, 300 missiles and rockets expended, and 10,000 rounds of 20mm ammunition fired.

*Independence* crew members refueled the big carrier 14 times, re-armed it 13 times, and replenished it seven times during its first stay "on the line." Squadron pilots of CVW-7 flew strikes over an area that ranged from below the 17th parallel to within 40 miles of Hanoi.

One of those squadrons reported its Vietnam combat flight hours set a record: VF-84 contended it has flown "more combat and more carrier-based hours than any other F-4B squadron in the history of the *Phantom II*." The number was 742. VF-84's C.O., Commander L. S. Lamoireaux, was said to have more flight time in the F-4B than any other pilot.

Still in the record-claiming category is VAW-12 Detachment 62's statement that the unit's 504 flight hours "were the most . . . ever flown by an E-1B 'Fudd' detachment during one month of carrier operations."

There also was issued the claim that VA-72 pilots, flying the A-4E *Skyhawk*, "set a combat record for light jet attack squadrons by flying 565 combat sorties (in a month) for a total of 1,188.6 flight hours." The VA-72 report contended the mark broke a previous record, 1,036 hours, set by VA-192 aboard USS *Bon Homme Richard* earlier.

## ORISKANY (CVA-34)

If underway replenishments are any criteria, there is more than one veteran CVA operating in the South China Sea. In what was described as a "first" for their carrier, *Oriskany* sailors completed their 100th unrep since the ship deployed.

All the replenishments were accomplished in a two-month period, a report said, and it added: "Several (replenishing ships) signalled that with *Oriskany* on the receiving end they set new records for themselves in 'tons per hour' delivered to a CVA. In many cases the rate of transfer topped 100 tons per hour, nearly twice the normal rate." Supplies taken aboard CVA-34 included 5,238 tons of ordnance, 600 tons of food and dry stores, 8,900,000 gallons of black oil, and 5,350,000 gallons of JP-5.

Ltjg. Thomas G. Olson, piloting a VA-164 *Skyhawk*, made *Oriskany*'s 96,000th arrested landing.

Jack W. Swinney received an honorary Associate of Science De-



**KITTY HAWK** held an open house for Naval Air Reservists during Alameda port call.



**AN A-3B SKYWARRIOR** from *Oriskany* swoops down for a bombing run on a concentration of Viet Cong in South Vietnam. The bomber is the Navy's heavyweight in the conflict.



**AIRCRAFT** ready for launch on strike mission are shown on *Oriskany*'s flight deck.

gree from Massy Junior College in Atlanta, Ga., in what, Dan Hansen, JO2, reported, may be a rather strange field of study for a chief aviation ordnanceman. Chief Swinney attended the college for two years during a shore duty tour.

His field? Dress designing. Hansen hastened to point out the chief had some good reasons for choosing such an unlikely subject to study. There were four of them, in fact: a wife and three daughters.

While Ltjg. John C. Davis looked on, his plane captain, Ross P. Spalino, AN, inscribed the following notation on a 1,000-pound bomb slung under the VA-164 pilot's A-4 *Skyhawk*: "To the VC with love—Oriskany." While the message was

not to be taken seriously, a report said, the bomb was; it was delivered, "business end first, to the Viet Cong in South Vietnam.

"Like scores of other pilots," the report added, "[Ltjg. Davis] daily brings home to the Viet Cong, or the communist North Vietnamese, the strongest possible argument against aggression in Southeast Asia.

"Hopefully, the Viet Cong will, in time, get *that* message."

## KITTY HAWK (CVA-63)

About 2,500 dependents and guests of *Kitty Hawk* crew members boarded the carrier for a day at sea. They returned, a release said, "tired but with a better knowledge of how the Navy operates." Official hosts



**DECK EDGE** operator aboard *Ranger* signals to catapult officer during operations at sea. The carrier is soon to leave for WestPac.



**SAVED** after he bailed out of his crippled plane over North Vietnam, Midway flier G. R. Townsend embraces the helo pilot who saved him.

were Rear Admiral Edward C. Outlaw, ComCarDiv One, and *Kitty Hawk* C.O. Captain Martin D. Carmody.

More than 3,000 Naval Air Reservists and their families toured CVA-63 during a "Naval Air Reserve Day" open house at Alameda.

## RANGER (CVA-61)

A presentation of medals, a visit from the Air Force, a "takeover" by Navy League cadets, a career class graduation, a wedding on the fore-castle, and a weird welcome—all were events aboard *Ranger* that kept crew members busy while their carrier was at the Hunter's Point Naval Shipyard in San Francisco.

Navy Commendation Medals were awarded to six *Ranger* officers and enlisted men during a ceremony

on the carrier's flight deck. The presentations climaxed a material readiness inspection conducted by Rear Admiral Henry L. Miller, ComCarDiv Three, and his staff.

Recipients were Commander Warren H. Sells, CVA-61's X.O.; Ltjgs. Delbert B. Miller and James E. Hughes; Raymond C. Boehm, MMCS; Richard M. Bowley, DCC; and Henry J. Wright, SFC. Except for Commander Sells, who won his medal for meritorious service as CAW-21 aboard USS *Hancock*, all the men were honored for service during Vietnam operations.

More than 250 Air Force ROTC cadets from Hamilton AFB, Calif., visited *Ranger* in groups of 25 and 50 over a week's period as part of their regular four-week summer training program.

"From fore-castle to fantail, from signal bridge to engine room, this attack aircraft carrier was conquered by 37 young U.S. Navy League cadets for 48 hours," the *Ranger* news release exclaimed. The "takeover" was not quite that complete, but the 12-to-14-year-old cadets did undergo thorough indoctrination and training during their stay aboard.

The initial *Ranger*-sponsored graduating class of Navy career counselors, the first of its kind in the 12ND, held end-of-course exercises at Hunter's Point recently. Included in the class were 16 whitehats from CVA-61 and four men from USS *Hancock*.

Part of a new push for increased

enlisted retention, the school was designed to educate men on Navy benefits and career programs; they in turn would pass the information on to potential shipover candidates in their divisions aboard ship. A similar setup is presently being used aboard USS *Independence* while that carrier serves in WestPac.

Ens. Norman R. Lessard, VA-145 pilot soon to report to *Ranger* with his squadron for the ship's sixth WestPac deployment, is already about as familiar with the CVA as any man could care to be: He married Miss Sharon Lee Smith in a wedding ceremony held on the fore-castle. The Smiths were not altogether unknown to *Ranger* even before this event; Miss Smith's father, Commander John E. Smith, recently completed a tour as the carrier's executive officer.

"Welcome to the deadliest state



DFC is presented to Lt. G. W. Mau, VA-216, for participation in Vietnam air strikes.



ComFAirAlameda, Capt. E. E. Stebbins, pins DFC on VA-212 pilot Lt. J. M. Longshore.

in the nation." This was the opening statement to one of six talks given by San Francisco Policeman John K. Johnson aboard *Ranger*. Patrolman Johnson's subject was traffic safety; his lectures were arranged by LCdr. George Pappas, *Ranger's* traffic safety officer, and were part of an intensive campaign carried on in CVA-61 against accidents on streets and highways.

## MIDWAY (CVA-41)

An alert helicopter crew rescued *Midway* seaman apprentice Walter L. Barton from the South China Sea after he fell overboard while the ship was operating off the coast of Vietnam. Barton was painting a sponson deck when a lifeline parted and he fell into the sea.

Crewman of the HC-1 helicopter that saved Barton included Lt. James A. Speight, pilot; Ltjg. Kent M. Vanderveelde, copilot; and John E. Hale, ADJ3, who jumped from the helo to help the tiring swimmer.

## HANCOCK (CVA-19)

Captain E. E. Stebbins, ComFAir Alameda, presented two Distinguished Flying Crosses, 19 Air Medals, seven Gold Stars in lieu of second Air Medals, and four Navy Commendation Medals to officers of VA-212 and VA-216 for participation in Vietnam action while the squadrons were aboard *Hancock*.

The DFCs were presented to Lt. G. W. Mau (VA-216) and Lt. J. M. Longshore (VA-212).

VA-216 pilots who received Air Medals included Commanders C. Birdwell and R. E. Schwoeffermann; LCdr. W. C. Hicklin III; Lts. W. J. Suffich, Mau, J. T. Eilertson, K. S. Jones, and W. L. Chatham (Gold Star); Ltjgs. R. E. Tallent, C. O. Tolbert, and R. G. Myers.

Air Medals went to these VA-212 pilots: Commander K. L. Shugart, Jr. (Gold Star); LCdrs. V. G. Donnelly (two Gold Stars), J. P. Flick (two Gold Stars), and B. R. Miller, Jr.; Lts. E. D. Gilbertson (Gold Star), B. A. Gastrock, G. F. Thiele, Longshore, and R. C. Jenner, Jr.; Ltjgs. L. A. McIntire, J. S. Smyth, C. R. Phoebus, and R. H. Mansfield.

Captain Stebbins also presented an Air Medal to LCdr. T. Wilkinson, CVW-21 LSO, for meritorious



**400 LANDINGS** rate congratulations for Lt. D. A. Moore aboard *Bon Homme Richard*.

achievement as a member of VA-93.

Navy Commendation Medals went to Ltjgs. J. R. Kasvinsky, R. B. Clark, and A. L. Culver, all of VA-212; Lt. D. T. McDaniel, VA-216.

Rear Admiral Robert B. Moore, ComFAir San Diego, also decorated 13 members of VAW-11's Detachment Lima for participation in combat missions aboard *Hancock*.

Receiving the medals were LCdrs. John H. Ward, Wayne House, Jr., and Richard W. Widen; Lt. Perry S. Tillotson; Ltjgs. Wayne W. Wetzel, Barry W. Gilmore, William C. Barnich III, Edwin K. Hurst II, Gilbert A. Baker, and Hector M. Sotelo; Frederick A. Kralowetz, AT1; Michael L. Laughlin, AT3; and Lynn A. Grouch, AT3. Ltjg. Stephen L. Hynes and David M. Johnston, ATN3, received Navy Commendation Medals.



**INVENTOR** Ens. R. L. Allison demonstrates tail hook dolly now used aboard *Roosevelt*.

# ATLANTIC FLEET

## LEXINGTON (CVS-16)

A tri-service rescue crew manned an H-34 helicopter from HT-8 at Ellyson Field, Pensacola, to rescue student pilot Ens. Walter L. Mayers within three minutes after his T-28 went into the Gulf of Mexico.

Ens. Mayers was involved in carquals aboard *Lexington* when his plane went down. The crew that rescued him included Marine Capt. Ray M. Franklin, pilot; Air Force Capt. Ralph C. Setzer, copilot; and Philip E. Slaughter, ADR2, USN.

Arrested landings No. 128,000, 129,000, and 130,000 were reported by *Lex*. The first was made by Lt. John R. Watkins, VT-21, in a TF-9J jet trainer; the second by Lt. Lawrence D. Chase, VT-5, in a T-28; and the third by Commander J. P. Howell, VT-5 X.O., also in a T-28.

Such X000th landing records are easy to come by when hundreds of arrestments are logged in a single day as they were when *Lex* flight deck crewmen brought 561 aircraft aboard to break the ship's previous one-day mark of 471, made just two months earlier. Both counts were thought to beat anything the rest of the carrier Navy could offer.

## GUADALCANAL (LPH-7)

*Guadalcanal*, commanded by Captain Robert E. Taylor, was scheduled to leave Norfolk in mid-September for Mediterranean training maneuvers.

## AMERICA (CVA-66)

Captain Lawrence Heyworth, Jr., *America's* skipper, received a commendation from Admiral Thomas H. Moorer, CinCLantFlt, in recognition for the ship's outstanding record set during shakedown training off Guantanamo Bay, Cuba. The commendation came as the date moved rapidly closer for *America's* Mediterranean deployment.

## F. D. ROOSEVELT (CVA-42)

Captain Charles L. Burbage relieved Captain Malcolm W. Gagle as *FDR* C.O. during a change of command ceremony aboard the carrier while the ship was anchored off Marseilles, France. The new skip-



**CROWDED** flight deck of *F. D. Roosevelt* is shown as carrier steams under new skipper.



**FLIGHT DECK** personnel stood in line to make certain *USS Guam's* 1,000th helicopter landing came off without a hitch. It did; LCol. James Bruce got the lucky number.

per was formerly assigned to BuPers; Captain Cagle was bound for new duties in the office of CNO.

A routine mail transfer became a rescue assignment when an HC-2 helicopter broke off from a mail run to investigate a reported sighting of two parachutes about 60 miles from *FDR's* operating area in the Med.

"With night falling and bad weather closing in, pilot Lt. J. C. Thorpe and copilot Ltjg. D. E. Behm, following directions from the ship, headed at top speed for the downed fliers," a news release said. Once the airmen were located, aircrewmen G. W. McGuire, AMH3, and C. G. Godoski, AMS3, hoisted them aboard. The fliers were identified as Ltjg. C. S. Stark and Ltjg. J. S. Reed.

"It was not until after dark, with only 10 minutes' fuel remaining, that the helo touched down safely on the deck of the carrier with its two wet but uninjured aviators," the release said.

It sounds as complicated as the plot of an old mystery movie, but *FDR* now boasts rescuers who rescued rescuers—and they, too, are all from HC-2. One of the squadron's helos came up with an engine failure and was autorotated into the water. So, another HC-2 helo picked up Ltjg. Michael O. Smith, pilot; Albert G. Perry, copilot; and Joseph S. Scott, ADJ1, aircrewman. The rescuer-rescuing-rescuers were Ltjg. Paul W. Kayle, pilot; Lt. Merrill A. Delange, copilot; James F. Walton, AMH1; G. R. Bohlinger, ADJAN.

## GUAM (LPH-9)

Crewmen aboard the Navy's newest amphibious assault ship chalked up the LPH's 1,000th helicopter landing during an amphibious exercise off the Virginia Capes. The helo was piloted by Marine LCol. James P. Bruce, C.O. of HMM-264.

Rear Admiral H. V. Bird, ComNavMarianas, presented Governor Manuel F. L. Guerrero of Guam two mementoes of the commissioning of the ship that bears the island's name, one of them the 17-foot-long commissioning flag itself.

The huge Stars and Stripes, nine feet wide, flew from the ship after she was commissioned in Philadelphia, Pa., in January. Governor Guerrero was principal speaker at the ceremony.

Also presented to the governor was an album of photographs and documents picturing the commissioning ceremony and tracing the history of the Navy's three ships named *Guam*.

## RANDOLPH (CVS-15)

Captain William B. Morton relieved Captain John F. Refo as C.O. of *Randolph* during a change of command ceremony aboard the CVS. Captain Refo's new assignment is to the office of the Secretary of Defense; Captain Morton was skipper of the *USS Altair* (AKS-32).

The flagship for Rear Admiral W. A. Stuart, commander of Task Group Alfa, *Randolph* has returned from a deployment to the Med. In-

cluded in scheduled exercises during the deployment was participation in Task Force 60's Operation *Poop-deck VI*. The ship also hosted more than 12,000 visitors during port visits and participated in Project *Handclasp*.

An E-1B piloted by Lt. W. C. Layton of VAW-12's Detachment 15 made *Randolph's* 70,000th arrested landing while the ship was en route home. Copilot was Ltjg. P. R. Russell. Aboard to verify the landing was Lt. R. C. Coffey, catapult and arresting gear officer, who was riding to pick up flight time. He insisted he had nothing to do with the wave-off of the plane before his—which was piloted by Commander R. S. Stone, ComCVSG-58.

## SARATOGA (CVA-60)

Captain Harold P. Lang is *Sara's* new C.O.; he reported from command of the *USS Kankakee* (AO-39) to relieve Captain Jack M. James, who was bound for duty in Washington, D. C.

## SHANGRI LA (CVA-38)

Under command of new skipper Captain August W. Elliott, Jr., *Shangri La* left the Bay of Naples, Italy, for home port, Mayport, Fla., ending a cruise of nearly seven months with the Sixth Fleet. During the deployment, which began February 15, *Shangri La* steamed 46,600 miles. Crew members marked the CVA's 21st anniversary since commissioning en route home.



**KEARSARGE CREW** members race to get fire hoses in proper position to battle a simulated aircraft fire during an underway training drill.

**ASBESTOS-CLAD** Kearsarge crewmen practice rescue procedures while firefighters stand by to completely extinguish make-believe fire.

# TRAINING PROGRAM THAT WON'T GO UP IN SMOKE

**U**NDERWAY TRAINING is a rough, rugged period for crew members of any ship. Day after day, for as long as a month, men such as those stationed aboard USS *Kearsarge* are called to General Quarters time and again, practice damage control procedures endlessly, and—in the case of carriers—battle simulated aircraft fires on the flight deck whenever there is a lull in flight operations (and sometimes when there is not). This dramatic training procedure includes the “rescue” of the “pilot” of a well-battered practice aircraft as well as the use of the ship’s fire-fighting equipment. Even a historical event, such as making the ship’s 96,000th landing, has training significance when fire-fighters decide to hold a drill on the lucky (?) Navy pilot’s aircraft.



**VS-21 PILOT**, Lt. Mel M. Romine, got quite a reception after Kay’s 96,000th landing.



**UNCOOPERATIVE** “crashed” aircraft is righted by Kearsarge flight deck personnel during underway training exercises off California.

The carrier’s C. O., Captain Merle M. Hershey, had words of praise for his hardworking crew when the CVS started back for Long Beach.

# VERTICAL MOTION

EXTENSIVE REGIONS OF PRECIPITATION ARE AREAS OF



LARGE SCALE UPWARD MOTION OF AIR THROUGH ALTITUDES AS GREAT AS 20,000 TO 30,000 FEET.

SIMILARLY, THE NEARLY CLOUD-FREE REGIONS OF LARGE HIGH PRESSURE SYSTEMS ARE AREAS IN WHICH AIR IS SUBSIDING (SINKING) THROUGH A LARGE PORTION OF THE TROPOSPHERE



IN METEOROLOGY THE MAGNITUDE OF VERTICAL MOTION IS COMPUTED TO THE ORDER OF CENTIMETERS PER SECOND. IN AREAS OF INTENSE RAINFALL, VM MAY BE AS HIGH AS 10 CM/SEC.

THE BASIC REASON VERTICAL MOTIONS ARE SO IMPORTANT IS THAT IF THEY PERSIST FOR A LONG PERIOD OF TIME OVER A LARGE ENOUGH AREA, THEY WILL PRODUCE METEOROLOGICALLY IMPORTANT MODIFICATIONS TO THE DISTRIBUTION OF TEMPERATURE, HUMIDITY, AND STABILITY.

PRESENTLY, THERE IS NO SIMPLE METHOD IN WHICH VM CAN BE MEASURED DIRECTLY. IT MUST BE COMPUTED FROM MEASURABLE PARAMETERS, AND THIS IS CURRENTLY ACCOMPLISHED BY COMPUTERS.



THE MOST IMPORTANT APPLICATION OF VERTICAL MOTION IS TO THE PREDICTION OF RAINFALL PROBABILITY AND RAINFALL AMOUNTS.



## Study on Target Spotting Autonetics Gets ONR Contract

North American Aviation's Autonetics Division has received an Office of Naval Research contract to determine if ground checkpoint prediction aids will help pilots stay on course during high-speed, low-level missions.

Autonetics's early laboratory studies indicate a pilot can find checkpoints faster and more accurately when his area of search is reduced. The study will evaluate man's ability to spot targets on

radar and head-up displays with the aid of various predesignation markings.

The ability of 40 trained radar observers to spot ground checkpoints will be tested in a cockpit simulator, using films of fixed flight routes.

Area, accuracy and marking variables will be evaluated.

The one-year study will be conducted at Autonetics' Dynamic Vision Laboratory, Fullerton, Calif., and in the company's mobile laboratory in the field, according to Human Factors Manager, K. Teel.

## Assignment to Coast Guard Navy Makes Icebreaker Transfer

The U. S. Navy's five remaining icebreakers—USS *Atka* (AGB-3), *Edisto* (AGB-2), *Glacier* (AGB-4), *Burton Island* (AGB-1), *Staten Island* (AGB-5)—have been transferred to the U. S. Coast Guard under an agreement between Acting Treasury Secretary Joseph W. Barr and Secretary of the Navy Paul H. Nitze. The Navy operates five icebreakers and the Coast Guard four from the polar regions to the Hudson River.

The transfer of the ships will be accomplished within a 16-month period. A review of the dual Navy-Coast Guard operation of icebreakers led to the conclusion that the operation and manning of icebreakers by the Coast Guard would best satisfy the national interest.

Coast Guard operation of icebreakers will be responsive to Navy requirements in polar latitudes as well as to the requirements of commerce and the needs of national research programs.



REAR ADMIRAL J. R. Lee, Commander NATC Patuxent River, enjoys a spot of tea with Mr. L. H. G. Sterne and Rear Admiral S. Gratton-Cooper, both representatives of the British Ministry of Aviation. The Britons were aboard for a technical tour of the base and its related facilities and projects.

## Deep Freeze Has Begun C-130's End Polar Isolation

Ski-equipped C-130 aircraft from VX-6 arrived at Antarctica in September to mark the beginning of the Navy's eleventh annual Operation *Deep Freeze*. Their arrival ended a seven-month period of isolation for more than 280 scientists and Navy men there. It was the first re-supply mission to the South Polar continent since March.

## PERSONAL GLIMPSES

# Editor's Corner

**POWER PINWHEEL.** Early on the morning of September 2, high winds buffeted the USS *Shangri La* at her mooring along a quay wall inside Naples harbor. Suddenly five of the six steel cables securing the ship snapped, leaving only fore and aft lines holding her to buoys and one line to hold the ship against the wind. Pilots were called out to man five A-1H *Skyriders* which had been placed on each outboard quarter of the ship prior to mooring. The pilots, taking power directions from primary flight control, revved up their props on signal to maintain the ship's position. After approximately two hours of air-powered tugging and pushing, lines were restored. Captain A. W. Elliott congratulated all men in the 0400 drama for responding so quickly.

*The C.O. Must be Resilient.* As Commanding Officer of the Naval Aerospace Recovery Facility, El Centro, Calif., Commander William Koenig volunteered to undergo the training course required for designation as a test parachute jumper. An aviator for 15 years, Commander Koenig thought the training would give him a better understanding of the recovery facility's research program. The course involves 15 test parachute jumps using standard and modified

parachutes as well as mastery of various parachuting techniques. He made 15 test jumps to complete the course, then was thrown into Sun Beam Lake, as are all other test parachute graduates.

*Coral Sea Veteran.* For three years prior to October, 1962, James Thompson, ABEL, was the Arresting Gear Petty Officer on board the USS *Coral Sea*. He was "more than intimately" involved with the ship's arresting gear. In August of 1963 Boatswain's Mate Thompson flew aboard the *Coral Sea* for the first time as a crewman in an A-3B *Skywarrior* with VAH-2. Since then he has logged 200 landings on CVA-43, all as a crewman/navigator. His 200th landing was made with Commander J.P. Sundberg after a bombing strike over South Vietnam.

*The Sign Makers.* Wherever aviation personnel appear, special signboards are certain to sprout. Witness, the Da Nang air base where Marine Air Group 11 is stationed. Over the MAG-11 Safety and Survival shop doorway, for example, a sign advertises the group's proficiency with these words, "Recommended by Good Housekeeping." The tents in which Marines are billeted have signs, "Knock before entering." A concrete and mud O club doorway has this sign: "No coats. No ties. No wives after 7 p.m." And new guards assigned to a machine gun bunker are warned, "Don't shoot the green bushes. They're friendly."

**WHAT'S IN A NAME?** At about the time that Hurricane *Betsy* was churning past Key West, Florida, on her way to ravaging New Orleans, a new incentive award named *Betsy* made its debut at NAS Miramar. The Miramar *Betsy* is a "customized industrial flatbed" which has chrome bumpers, directional signals, bucket seats, radio, metallic blue paint, special horns, white sidewall tires and a white rag top with a gold fringe. The name stands for "Better Equipment to Serve You," which (according to Ground



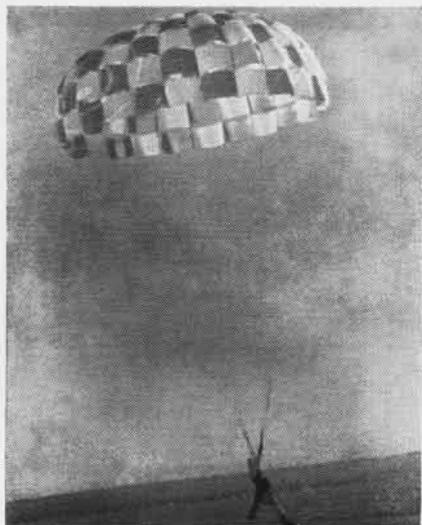
**BETSY, THE CUSTOMIZED FLATBED**

Support Equipment Division Officer Lt. D. E. Bakko) "is just what GSE Division hopes to attain." Most of the parts for *Betsy* were found in a local junk yard. *Betsy* is to be awarded periodically to the Miramar unit adjudged best in the care and operation of ground support equipment.

**EASY TRANSLATION.** The NAS Corpus Christi *Beam* carried the following notice about one of the station's clubs:

*Thursday.* A temporal interval characterized by joviality and diminished monetary remuneration for libations imbibed will be inaugurated at 4 P.M. to prevail until 5 P.M."

*Vietnam Call Sign.* Lt. Richard Long, a Navy chaplain assigned to the Marine air base at Chu Lai, Vietnam, bought a two-way radio set with his personal funds. Now when he is away from his office, he can keep in close touch with his assigned unit. For this unofficial hook-up his office call sign is "Angel," and the chaplain's call sign is "Conscience One."



**HE'S RESILIENT — AND LEARNING**



**'CONSCIENCE ONE' CALLS 'ANGEL'**

## LETTERS

### Plea for Spad Help

SIR: For some time I have been in the process of compiling information for a book on the A-1 *Skyraider* and its Navy squadrons. I have written several squadrons who are now flying the A-1, but have not been able to contact them all.

I am in need of squadron histories, two decals of each squadron insignia, any 8x10 photographs showing markings and insignia, and a color photograph showing the markings or an explanation of the squadron markings on a black and white photograph.

I am interested in all phases of the *Skyraider* and would appreciate hearing from squadrons or pilots who have flown or are now flying the A-1E, EA-1E, EA-1F, A-1G, A-1H and A-1J aircraft.

B. R. JACKSON

17560 Blythe  
Northridge, Calif.

### They also Serve

SIR: In the "Atlantic Air Wings on Patrol" and "At Sea with the Carriers," articles appearing in the September 1965 issue of *NA News*, VP-5, with pardonable modesty, neglected to state that they had darned good AMO's (squadron and supporting activity) while based at NAF SIGONELLA.

Not only is the *Tallahatchie County* supporting VP-24 while the squadron is based at Soudha Bay, but NAF Sigonella has a pretty good contingent of men over there assisting in such support.

Many of the Atlantic Fleet carriers write about operations in the Med. Quite a number of carrier aircraft have been supported by NAF Sigonella during these deployments.

Just thought you'd like to know that NAF SIGONELLA (the garden spot of the Med) is "Where The Action Is." For the uninformed—NAFSIG is in Sicily.

A. S. CREIDER, CDR., USN  
EX-AMO, NAFSIG

NAS Miramar, Calif.

### Catapult Tests Completed Intruder's Durability is Proved

The Grumman A-6A *Intruder* recently completed an extensive series of catapult fatigue tests designed to prove airframe durability under the conditions imposed by the "nose-tow" method of launching.

The tests utilized a structurally-complete A-6A fuselage, including the nose gear less tires and wheels, to which all stresses that occur during a catapult launch cycle were



### NOSE-TOW METHOD OF LAUNCHING INTRUDER REDUCES LAUNCH CYCLE TIME

applied. A unique test structure, incorporating hydraulic and compressed air cylinders for the simulation of various cycle loads, was constructed at Grumman's Bethpage (N.Y.) facility.

The nose-tow method of launching, developed by Grumman and the Navy, results in greater usage of an aircraft carrier's catapults, by reducing the launch cycle time, and requires a minimum handling crew.

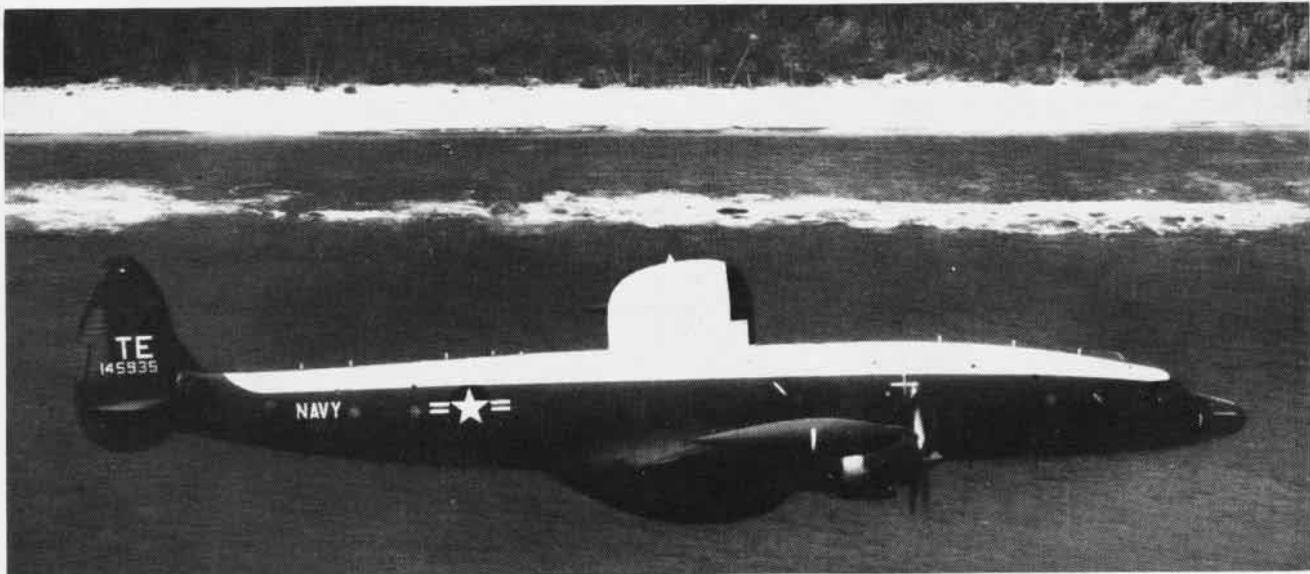
This method eliminates the use of the standard "bridle" hookup to the catapult shuttle. Instead, the pilot steers the nose wheel tow link into guides which are in-

stalled in the carrier deck. The tow link rides over and automatically engages the catapult shuttle. The rear holdback fitting is then coupled, full takeoff thrust is applied, and the holdback fitting breaks, releasing the plane with the necessary thrust and catapult force for launch.

The limit of the fatigue tests originally had been set at 1,000 launch cycles. However, the Bureau of Naval Weapons approved Grumman's request to extend the limit to 2,400 cycles—more than twice the number that would be required throughout the minimum design life of the aircraft.



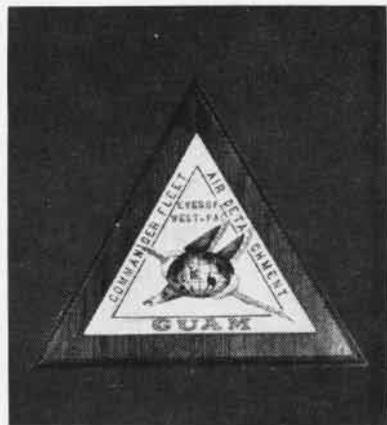
NORFOLK-BASED VAW-12 claimed a first recently when LCdr. C. R. Jasper (l) took command of VAW-12's Detachment 15 from LCdr. S. W. Jordan (r). Commander J. Rezzarday, C. O. of the squadron, and Mrs. Jasper look on as the model "Fudd" is swapped. LCdr. Jasper is reportedly the first Naval Flight Officer to become an officer-in-charge. The E-1B detachment had just returned from a three-month cruise aboard USS *Randolph*.



EC-121K LUMBERJACKS BY PALM TREE-LINED WHITE BEACHES AFTER RETURNING FROM A WEATHER RECON MISSION



Fleet Air Detachment Guam is made up of two squadrons based at NAS Agana. Providing all the weather recon and typhoon tracking services in the Pacific, VW-1 is commanded by Cdr. C. A. Barton, ComFAirDet Guam. VAP-61, commanded by Cdr. D. A. Woodard, flies the RA-3B. In the past year, the detachment has operated from Hawaii to Thailand, Korea to Australia. They are the eyes of the Fleet.



OPERATING FROM MOST WESTPAC CARRIERS, VAP-61 IS THE FLEET'S ONLY HEAVY PHOTOGRAPHIC SQUADRON



# FLY NAVY

