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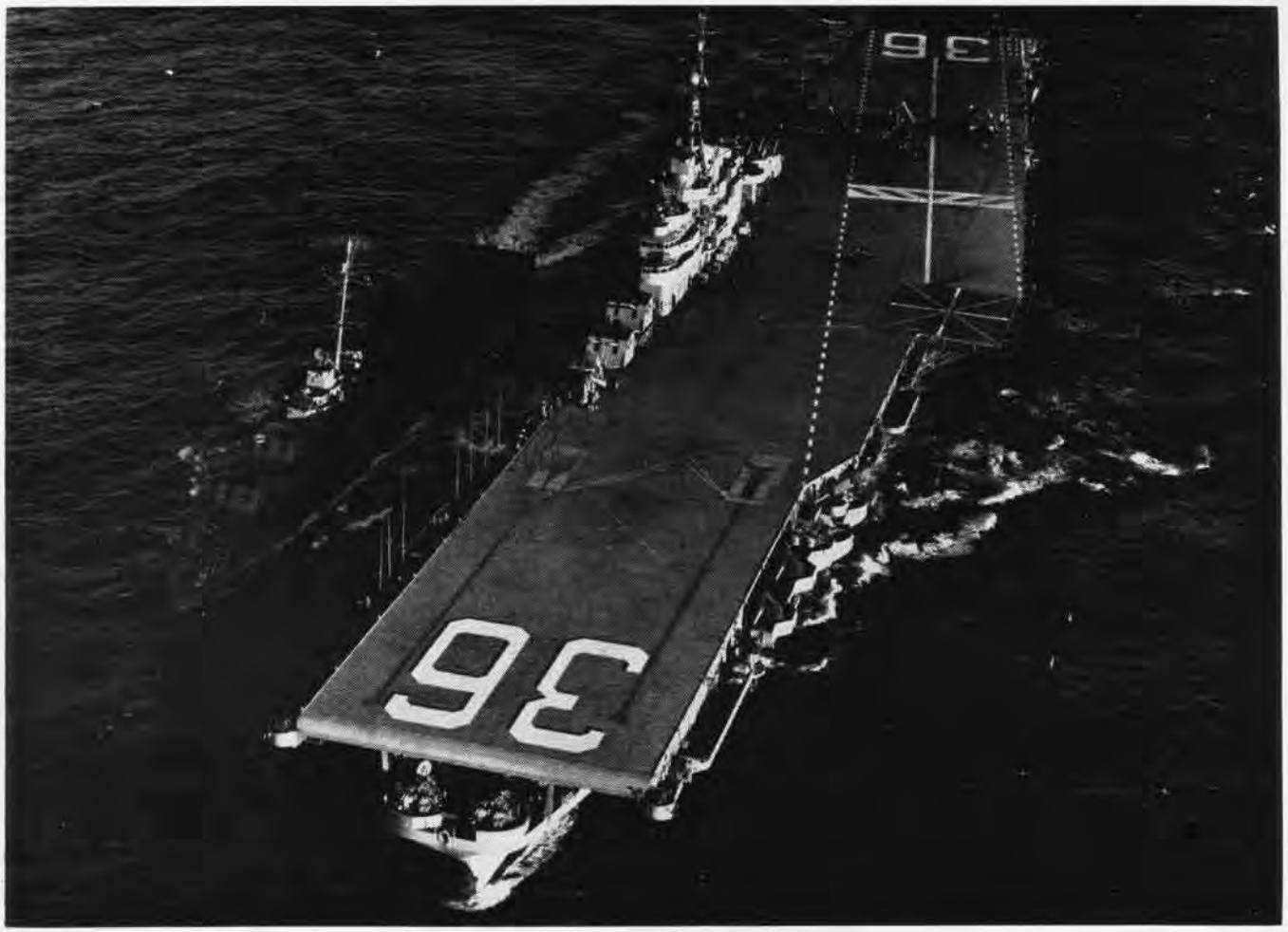


CANTED DECK SPEEDS CARRIER OPERATIONS

Navy carriers can launch planes and recover them at the same time with the new canted deck, shown here on the **Antietam.** Above an AD takes off aft while on the bow a **Panther** jet prepares for catapulting—a picture which marks an important milestone in naval carrier aviation. With both ends of the ship operating at once, far speedier landings and take offs are possible than with the old World War II system of land-spot-respot-launch. In the upper photo, the small additional deck space required for the canted launching area can be seen. Note the absence of barriers. If the hook misses, the plane keeps right on flying and the pilot comes around for another try.

DON'T BE A SORE-HEAD!

A CORSAIR fighter roared over the ramp of the *Coral Sea.* Although he saw the LSO give him a "cut", the pilot held off. Still airborne, the plane's landing gear snagged the #3 barrier.

Above, we see what happened next. The plane flipped over on its back so forcibly the fuselage cracked near the cockpit. The pilot's head struck the steel deck hard. As the heavy plane skidded down the deck, his head was dragged about 10 feet across the sandpaper-rough deck covering. See the photo to the right.

The pilot escaped from the accident without a scratch—only a slight stiff neck. It is almost certain that he would have been killed had his shoulder straps not been tight and his "hard hat" well anchored in place. The rough deck wore almost through the helmet—had he been without it, it probably would have honed down his skull!

When the damaged helmet was shown to him, the pilot remarked: "Boy, my head would have been really sore!" The flight surgeon thought, "Might have been real sore—but not for long and it wouldn't have hurt much!"

Here was one naval aviator who did not need to be sold on the value of the Navy's protective helmets. But there still are people who think they are superfluous pieces of equipment. As planes' speed goes up, so does the need for more protection.

The Navy has been using protective helmets for its jet and dive-bomber pilots since 1948. A close check was made of major fighter and attack aircraft accidents in the first three years thereafter. There were 39 cases where protective helmets, had they been worn, would undoubtedly have reduced or prevented serious or fatal head injuries. After five years of use, the helmet has a circle of friends among naval and Marine aviators. The moral of this story is: "If you don't want to be a 'sore head', better wear your 'hard hat'."

THIS TV-1 *plowed up a farmer's patch when 2nd Lt. McCracken had a flameout but pilot was unhurt, thanks to his hard hat*

McCRACKEN'S *head hit the Mk 8 gunsight, knocking it off, but his protective helmet had only this dent after absorbing blow*

THE BIGGEST fan for helmets today is the pilot who walks away from a crash with only a dent in his helmet. A jet was making touch-and-go landings when an engine failed. The plane plowed through trees, tearing off the tail and shearing the wings.

The pilot said his head was thrown violently against the left side of the canopy. He crawled out of the upside-down cockpit and ran from the plane as fire broke out. His jet broke into five major pieces *(see photo below)* and was gutted by fire. Had it not been for his harness and helmet, he probably would have been knocked unconscious and burned to death.

Out in Korea, Lt. (jg) Carl B. Austin, AD pilot from the *Princeton,* was hit by an exploded 37 mm shell while he was attacking Communist artillery positions. His fuselage, tail section and canopy were riddled by shell fragments.

He made it back to a friendly airstrip and inspected his plane. He found fragments had grazed his neck and imbedded themselves in his hard helmet—instead of his head.

Navy flight safety records are full of accidents that would have been fatal but for this five-year-old protective device. Take a look at the picture above. It's all that was left of a TV-1 which had a flameout at 2,000 feet and plowed up 200 yards of a farmer's potato patch. On the initial impact, 2nd Lt. McCracken's head struck the Mk 8 gunsight, knocking it completely from its mount. The aviator's protective helmet and harness saved his life. He climbed out of that "open air" cockpit with only an injured ankle.

Then there was Ens. Harry W. Wright, flying an F4U on a CIC exercise with the *Bon Homme Richard.* He made a bad landing and the barrier flipped his plane on its back. He ducked his head in the cockpit. On impact, he got a hard blow on the head, cracking his crash helmet but leaving him unhurt.

His testimonial: "I firmly believe that the crash helmet saved my head from very severe injuries."

ESPECIALLY in water landings, where unconsciousness would mean drowning, is the hard hat paying off. An AF-2S pilot went into the water when the bridle broke on catapulting. Although his head hit hard, no injury or unconsciousness resulted, thanks to the H-3 protective helmet.

A pilot flew into glassy water with his wheels down. The plane nosed over on its back. The pilot escaped under water. Inspection of his helmet revealed a gouge in the top about an inch long and half inch wide. The sponge rubber lining was visible through a hole.

When his tanks ran dry, an FH-1 jet pilot crash-landed at 85 knots. His plane broke into many pieces and he suffered broken arms and legs, but his hard hat showed only a dollar-size broken area and his cranium none at all.

Sometimes a jet canopy will strike the pilot upon jettisoning. One TV-1 pilot was in a flat spin when he ejected the canopy. As it flew back it struck him a sharp blow on the left side of his helmet. He retained consciousness, however, and used his ejection seat safely. He had a lacerated scalp from the canopy blow but he was alive, thanks to the helmet's

THIS F2H-2 *broke into five pieces when it ploughed through woods after an engine failure but the pilot crawled out alive, thanks to his protective helmet, and escaped the flames*

shock-absorbing powers.

Other times a helmet will save a pilot's life when he isn't even in his plane. A TBM-3N pilot bailed out over mountainous country. Hitting near the top of a cliff, he tumbled head over heels some 300 feet over rocks before his parachute caught and checked his fall. "I believe the protective helmet saved my life while falling down hill", he said in his accident report.

Another flier, not so lucky, lost his helmet when he bailed out over a town. Wind caught his parachute when he landed, pulling him down a street. His unprotected skull hit a curbing, killing him.

HELMETS can be dangerous too. Take the experience of Lt. R. R. McFarland. He found himself in the unenviable position of making a night landing without visual contact owing to an oil-spattered windshield and canopy. On his fourth pass his hook broke and the *Skyraider* overturned and crushed the canopy, pinning the pilot inside with his seat in "up" position.

McFarland, an over-six-footer, was pinned in a flexed position with his head at an acute angle. After 10 minutes in this awkward position, during which time his engine caught fire, the hot-suit man freed him from his parachute and harness and McFarland squirmed out from under the plane.

And here is the payoff. He was uninjured by the rugged crash—except for a minor abrasion to his cheek when his protective helmet was removed to facilitate getting him out of the overturned plane.

When the H-3 helmet was first brought out by Bureau of Aeronautics a couple of years ago, it had a releasable connector strap which permitted the helmet shell to tear loose from its inner cloth helmet. Designers had thought this feature might help prevent neck injuries on bailouts. As it turned out pilots reported their helmets tore loose during crashes, when they needed them most. Canopy blowouts sucked the helmets from their heads. Inasmuch as there were no reported neck injuries in bailouts, BUAER has substituted a web strap which now holds the outer "hard hat" to the inner liner. Eventually, the Navy hopes to bring out a one-piece protective helmet which will have the earphones and snap fasteners for the oxygen mask incorporated in it.

TOMORROW'S *pilot in his high altitude pressure suit will still wear his protective helmet to protect him from buffetting inside the "fishbowl"; LCdr. Harry Peck models the new suit*

Although the helmet has been in use by Navy pilots for five years, BUAER is working continuously to improve it and shake out "bugs" which showed up from heavy use. Pilots complained the helmet was uncomfortable and hot, that it pressed on some points of their heads and was difficult to fit snugly. During catapulting and arrested landings, the helmet would jerk backward or forward over their faces. BUAER fixed that one by issuing *Technical Note 7-52* which showed how to install snap fasteners in front and back, to hold it more closely to the inner liner.

Other things about the helmet assembly bothered pilots. Their old 1944-

LT. G. K. MENZIE *flipped his* F8F *over on its back during a landing, trapping himself inside the flaming Bearcat; his helmet and foam sprayed by crash fire crew saved his life*

MARKS ON *Menzie's hard hat indicate helmet saved him from serious hurt in crash*

issue goggles did not fit, they complained —they did not integrate with the oxygen mask. BUAER is working on some new goggles to replace them.

Another study is looking into the possibility of having a neutral density gray face visor to protect pilots' eyes from the sun, to act as a guard in flash fires and shield them from windblast in bailouts. Known visors were found to be too heavy and shattered during crashes. The visor would replace goggles.

When flying at high altitudes, pilots complained they got poor reception on their headphones. New dynamic earphones are being produced to replace the magnetic ones now installed in inner helmets, to give better reception. They will be wired in parallel instead of series so that one earphone can operate without the other.

Oxygen masks—another feature of the helmet assembly—sometimes are hard to fit so they are airtight. Improved mask suspension systems are under development which will improve the seal for pressure breathing at high altitudes.

There is a prevalent misconception as to the designed function of today's H-3 protective helmet. Most popular among the comments heard is: "It should be more like a football helmet." The H-3 was designed differently from a football helmet and gives far greater protection. A football helmet is designed to reflect any blow it receives—forces in sport are low compared to those sustained in a plane crash.

On the other hand, the H-3 helmet was designed for "controlled destruction". Simply, that means the destruction of matter requires expenditure of energy. As the energy of a blow is decreased or absorbed, so is its destructive power. Thus, if a blow on the head, sufficient to crack the skull, is forced to destroy or damage an object in its path —like a helmet—before it hits the skull, the blow may be of insufficient force to crack the skull by the time it reaches it.

The helmet has a strong outer Fiberglas shell. On the inner surface are small sections of energy-absorbing plastic which offer further protection in the event of a blow to the head. This explains why pilots climb out of crashed planes with gashes or grooves dug in their helmets, but no fractured skulls.

The aviator's protective helmet did not spring full-grown from the football helmet. Many years of fundamental research went into the design and materials in today's H-3. Much of this scientific research was done by the Cornell Aeronautical Laboratory under contract with Office of Naval Research and Bureau of Aeronautics. Findings from this study were used in designing of helmets by private corporations and these helmets in turn were evaluated for the Navy by Aeronautical Medical Equipment Laboratory at NAMC PHILDELPHIA.

Before a designer could sit down and dream up an aviator's protective helmet he needed to know such basic things as:

1. What parts of the head were particularly vulnerable and needed protection?
2. How strong should the helmet shell be?
3. What kind of padding (suspension) should it contain?
4. How much force applied to a spot on the helmet would be cushioned by various suspension systems?

Researchers took several different kind of helmets used in football, industry and by the armed forces and found out their good and bad points. Just testing the helmet alone would give some valuable data on their durability under impact. But it would not tell how well they protect human beings wearing them. After all, it would be valueless to have the helmet remain in fine shape while the skull of the pilot was fractured. This was a definite possibility with certain types of headgear studied by Cornell Lab.

Naturally the researchers could not use human guinea pigs for these life-and-death experiments. So they built a head form to simulate the real thing—a complex problem in itself since skin, muscle, bone and brain all had to be imitated by synthetic materials which would be about as susceptible to damage as the human head. They wound up using high-viscosity silicone oil to represent the brain. Polyvinyl foam was a good imitation of skin. Hair cushions the head in accidents so the scientists were stumped for a while as to what to put on the dummy. It all turned out to be simple—they merely used various toupees. Some pilots are bald headed.

Duplicating combat conditions also was a problem. A 12-pound catapult car with a ram was thrown against sample helmets mounted on the plastic dummy head. A plastic neck capable of supporting about as much as the neck muscles held the dummy. A battery of instruments measured the various physical properties in which they were interested when the ram hit the helmet.

Researchers already knew pretty well the most vulnerable parts of the skull, but they had to find out how much helmet was needed to protect them. Photos of various men wearing the eight types of helmets tested showed the parts of their heads which were unprotected. Some gave better protection than others

EARLY H-1 *protective helmet was given rigid test by AMEL, Philadelphia scientists*

ANOTHER *type of helmet, an Air Force model, was given tests to find good, bad points*

INNER *view of* H-3 *shows web suspension system, plastic pads to protect cranium*

from side blows, others did not cover enough frontal area.

NEXT THEY had to know about helmet shell stiffness. Human skulls were put under presses and hydraulic forces used to find out how much weight was required to crack them. Helmets then were tested. Four of the helmets were good until 75 pounds or more was pressed against them—then they deflected too much to the skull. Today's H-3 helmets are made strong enough so they will not crush under weights up to 600 pounds.

All the early helmets showed good strength to turn back pieces of shrapnel. Studies showed all could be penetrated by a blunt-pointed anvil at impact energies of 48 foot pounds. Headgear with rivets for fastening in the sweat band were found to be dangerous.

Most comprehensive tests were those which measured the performance of the helmet under impact. Various sharp and blunt-nosed rams hit them from the front and side at various velocities. Padding in the helmets was extensively tested. Researchers wanted to know which materials had the best cushioning effects and how it should be placed for maximum protection. Foam rubber and felt, long favorite cushioning materials, were found to be inferior to a trademarked plastic material. The H-3 helmet has a web suspension system inside it for supporting the helmet on the head and further aiding in the absorption of energy.

It was found the helmet should be stiff enough to allow the impact load to be transmitted to the suspension system without having the shell bend inward to contact the skull. Adequate space should be maintained between helmet shell and head.

Additional protective features were found to be needed for the back of the neck when the head and helmet were tipped forward. Helmet design should eliminate hard fittings and projections from the helmet shell for attaching padding or webbing, to prevent injury to vulnerable head areas.

All of these scientific data were considered by designers before early model Navy protective helmets, and finally the H-3, were produced. New features described earlier will help make helmets safe and more comfortable for tomorrow's Navy pilots.

● MCAS CHERRY POINT—The heavy deer population has always made night driving rather hazarodus at this station. Major James Payette reports that night flying is dangerous too. Landing on a runway, his F9F-5 bumped "something" as it touched down. It was a 150-pound deer, killed crossing the runway.

JET PILOT GETS 98% GUN HITS

MORRISON, WAITS, ROESNER DISPLAY RIDDLED TARGET WITH 86 HOLES PUT IN IT BY WAITS

TWENTY thousand feet above a scorching ordnance range, a Navy F9F fighter streaked through the skies of Southern California's Imperial valley.

In the cockpit was Lt. Jack E. Waits of VF-191 who had just established what is believed to be a modern air-to-air Navy fixed gunnery record. His score—98.8% hits. The bullet that would have made it 100% pierced the tow strap of the banner a bare four feet ahead of the target. Most pilots think 10% is good.

Waits was undergoing instruction with the Fleet Air Gunnery Unit at NAAS EL CENTRO when he set the high mark.

Waits wasn't alone in his sharpshooting, either. With him in the same flight were Lt. (jg) R. J. Morrison of VF-24 and Lt. C. W. Roesner of VF-191, who made creditable 34.5% and 25.5% hits respectively. The three of them together got 206 hits of 487 rounds. Waits fired 87 times and got 86 hits, Rosner fired 200 rounds with 51 hits and Morrison got 69 hits out of his 200. Their scores bear out the claim jet planes are extra-stable gunnery platforms.

(Highest scorer in aerial gunnery ever reported to NAVAL AVIATION NEWS was Lt. C. R. Brown, now a rear admiral. Late in the fall of 1930 while attached to the old VF-6 *Krazy Kat* squadron, a Saratoga outfit, Brown flew an F3B firing .30 cal machine guns through the propeller. He registered 120 hits out of 120 shots for 100%. NANEWS, August, 1947)

A typical Fleet Air Gunnery Unit class of five jet pilots from Carrier Air Groups 2, 11 and 19, completed the four-week course with a high overall average of 23.7 hits in air-to-air gunnery while expending almost 10,000 rounds of ammunition. These same five pilots scored 55.8% hits in strafing runs our of 4,000 rounds expended.

"This is only the beginning," promised Cdr. M. C. Hoffman, CO of the FAGU, which was made an independent command only last summer.

The FAGU has been the dream of many naval aviators for the past 20 years, according to Cdr. C. F. Vossler, air ordnance officer on ComAirPac staff.

The Unit combines 175 hours of ground instruction with 45 hours of actual air work. To date, 46 pilots, Navy and Marine, have successfully completed the course.

The mission of the Unit is to train experienced pilots in standardized methods and advanced techniques in air gunnery, bombing and rocketry. They then return to their squadrons and pass on their knowledge to their squadron mates.

Sooner or later, nearly every carrier-based squadron in the Pacific Fleet goes through a period of training at El Centro. This base probably has the finest flying weather in the U.S., with clear skies almost every day of the year. It is also one of the nation's hottest spots. Surrounding areas are mostly desert, ideal for target practice.

During the two weeks of bustling activity at El Centro, pilots practice rocket and gunnery fire at ground targets, air-to-air gunnery, field carrier landings, night flying, ground control intercept missions and air support hops.

The Navy's Parachute Unit, where new types of chutes are tested under all conceivable conditions, is located also at NAAS EL CENTRO. It is commanded by Cdr. William Shockey. It cooperates with an Air Force unit also located there.

GRAMPAW PETTIBONE

Really in the Dark!

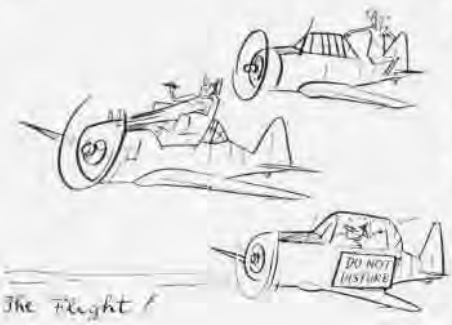
A flight of three SNJ aircraft departed NAAS WHITING FIELD, PENSACOLA, at 1505S on a VFR flight plan direct to NAS MEMPHIS. The weather was good except for smoke and haze which restricted visibility from four to eight miles. The flight leader experienced radio trouble shortly after takeoff but the difficulty was corrected prior to reaching Meridian, Miss.

The flight proceeded according to plan past Meridian and took up a heading of 320 degrees toward Memphis. About 30 minutes before the Memphis ETA and while receiving an "N" signal from the Memphis range, the flight let down from 6000 to 3000 feet. During the let down the flight passed through a leg of the Memphis range to an "A" quadrant. This occurred at approximately 1720. The flight leader thinking that he had crossed the east leg of the Memphis range turned west and after a short time turned south. By this time, it had become dark.

Approximately one hour later after numerous changes of heading and wandering all over the SW "A" quadrant of the Memphis range, the flight came to an abrupt end approximately 80 miles SSW of Memphis. The flight leader ran out of gas and bailed out at 1820 not wanting to land dead stick at night.

One wingman, running low on gas, pulled away from the formation a few minutes before the leader bailed out and landed on a highway after dragging the area twice with his landing lights on. Just prior to touchdown the aircraft struck four telephone wires, hit a telephone pole and came to rest in an adjoining cotton field.

The other wingman saw the flight leader's plane crash, but didn't see the pilot bail out so he zoomed the crash



and a small airport at Cleveland, Mississippi to attract attention to the crash. He then made a wheels up landing in a field near the crash at approximately 1825 with 20 gallons of fuel remaining.

Grampaw Pettibone Says:

Great balls of fire! These three lads were really in the dark in more ways than one. Maybe there were a few more mistakes that could have been made, but I doubt it. The only kind words the accident board had to say about these accidents was that the shoulder harnesses and safety belts were properly used and prevented any injury.

Here are three experienced pilots, a lieutenant commander and two lieutenants, none with less than 1400 hours of flight time and none with less than 260 hours in type who allow themselves to get lost in spite of the fact that the weather was good and the visibility fair. The flight leader and one of the wingmen had recently qualified in all respects for a standard instrument card! I wonder who gave them their checks?

Just for the books, let's take a look at some of the most obvious errors that led to this fiasco:

1. Common sense alone would indicate that a compass heading of 320 degrees from Meridian to Memphis would direct the flight across the south rather than the east leg of the Memphis range.

2. When the flight leader crossed a leg of the Memphis range and became uncertain of his position, a 90 degree turn from the flight path either to the right or left would have identified the quadrant in short order. No constructive effort was made at this point towards orientation.

3. The flight leader obviously made little effort to conserve fuel since he ran out of gas in approximately three hours though his wingmen had between 15 or 20 gallons of fuel remaining.

4. Each pilot in a formation should track the flight when he is not leading and should be capable of assuming the lead at any time. In this case, neither wingman kept an accurate track of the flight and couldn't take over the lead when the flight leader became lost.

5. Both wingmen used mighty poor judgment when they elected to make a landing at night when they were unable to determine the contour of the land.

6. A satisfactory explanation was never given as to why one wingman did not land at the small airport at Cleveland, Mississippi, but elected to land four miles to the west in unknown terrain—even though he had 20 gallons of fuel remaining.

These lads are probably going to need a lot more help from their guardian angels when they try to explain this one to the Aviator's Disposition Board.

Dead Stick Approach

Prototype aircraft cost several million dollars apiece, and the pilot assigned to ferry one often feels like he has been told to move all the gold in Fort Knox without an escort. Here's a recent incident that occurred during the ferrying of the original F7U prototype which had just been fitted out with new afterburner engines to run performance tests.

The pilot picked the plane up at Dallas for delivery to the Naval Air Test Center at Patuxent. The first leg of his flight was from Dallas to Maxwell AFB. Near Monroe, Louisiana, the secondary fuel transfer system went out of commission leaving him with 1300 pounds of fuel which he couldn't use. At the time he was at 30,000 feet and had approximately 1200 pounds of fuel in

the primary system.

When he discovered this, his first intention was to land at Jackson, Mississippi. However, he learned from a passing Air Force plane and a commercial airliner that the ceiling at Jackson was down to 400 feet. By the time he received this information, he was over Jackson and down to 700 pounds of fuel. He was informed that Meridian had reported 6500 feet on their last weather sequence and he elected to alter course slightly to land there. He shut down one engine over Jackson at 30,000 feet and throttled back on the other. He arrived over the Meridian cone at 16,000.

He was at once informed that the weather was deteriorating and the ceiling was down to 2000 feet. At this time he was down to 150 pounds of usable fuel. In addition, he realized that his ADF was unreliable.

He immediately secured *the other engine* and commenced a dead stick radio range approach entering the overcast at 11,500 feet. With both engines secured

and an airspeed of 165 knots, he found that his rate of descent was 800-900 feet per minute. Realizing that he would have about 15 minutes gliding time in which to complete his approach, he rechecked the high cone before proceeding outbound on the let-down leg.

The approach was completed as planned and the pilot broke out of the overcast at 1700 feet over the field. He then fired off one engine and landed on a 3000 foot runway without incident.

Grandpaw Pettibone Says:

I predict that this lad will be able to entertain his grandchildren with many tales of his days as a naval aviator. When he found himself in a tight place, he didn't panic, but took advantage of a lot of spare altitude to get down safely despite a shortage of fuel.

Incidentally, I hear that more than one jet in Korea has been faced with the same problem after stretching a combat mission a little longer than the book allows. Quite a few pilots have "coasted" home.

When you're short on fuel, altitude is just like money in the bank—so plan to make the best possible use of it.

Gobbledegook.

Instrument conditions prevail. Much traffic is moving, communications between planes and the radio stations are normal, everything is fine. Suddenly Dilbert comes on the air:

"Memphis Radio, Memphis Radio, this is Navy 5678, Navy 5678, calling Memphis Radio. Come in please Memphis Radio. Navy 5678. Over . . ."

"Roger, Memphis Radio, this is Navy 5678 calling on Able Channel. We have a position report to give you. Are you ready to copy? Over . . ."

"Roger, Memphis Radio, this is Navy 5678, Navy 5678, a Roger four Dog . . . uh . . . we were over . . . uh . . . uh . . . Jackson, I think it is, Jackson radio range station at . . . uh . . . 20, two zero minutes past the hour. Our altitude at the present time is . . . uh . . . 6000 feet. 6000 feet. We departed NAS COLUMBUS, NAS COLUMBUS. Our . . . uh . . . destination is . . . uh . . . NAS PENSACOLA, destination NAS PENSACOLA, Florida. At the present time, we are cruising Item Fox Roger. We estimate . . . uh . . . Memphis Radio Range Station at . . . uh . . . just a minute . . . uh . . ." (holds mike button down for 30 seconds) . . . "We estimate Memphis Radio Range Station at three six, three six. Did you get all that, Memphis Radio? This is Navy 5678."

Grampaw Pettibone Says:

Well, certainly Memphis Radio "got all that." The operator probably finished a game of solitaire, ate his lunch and finished his second cigar while he was taking the message. The plot is always the same and runs on into many, many unnecessary words. Therefore while Dilbert monopolizes the air, other pilots can't make their radio contacts, give their reports and receive instructions. If you think you can't give all the information in 10 seconds that Dilbert took a half a day to say, try it. The secret is to make your calculations, plan what you are going to report and then say it. The sample report below is the procedure directed on the inside back cover of your Radio Facility Chart.

"Memphis Radio, Navy 5678, Jackson Radio, two-zero, six thousand, IFR to Pensacola, Memphis three-six." The range station operator will get the information as he is merely filling in the blanks on the form provided for recording position reports.

Another good way to remember the sequence of reporting when giving a position report is "*PTA*—position, time, altitude."

Smooth Landing?

A JG, pilot of an AF-2W returning to Norfolk after a night cross country flight, received clearance to land. At the 90° position, the pilot observed another aircraft below him on a long straight-in approach, and elected to take a wave-off. He retracted his landing gear and started a short 360° turn for his second pass.

In the words of the pilot. "I put the wheels down this time just before reaching the 180° point. The 360° turn did not give me time to complete the second landing checkoff list. The tower cleared me to land and the approach to the landing was normal in every way.

"Shortly after touching down, the prop dug into the runway and the plane came to a stop. I can't say whether the wheels or the bottom of the radome hit first. I made a rapid survey of the switches, immediately placing my hand on the wheel lever. It was either all the way down or nearly all the way down. The landing was so smooth that the tower cleared me for a left turn off the runway after I had come to a complete stop."

Grandpaw Pettibone Says:

Great heavenly day! How many planes are we going to bang up this year in unnecessary wheels-up landings? This is the *twenty-ninth* in just three months time.

In almost every case the pilot tells a similar story. Something happens in the landing pattern to distract him or cause him to take a wave-off, and he assumes that the wheels are down rather than making a positive check.

Don't be in too much of a hurry to land. It's a lot better to go around again, if you aren't sure that you have completed the landing check-off list. If you don't think so—ask any pilot who has tried to explain a wheels-up landing to a disposition board.

KOREAN AIR WAR

AS DAY *begins to dawn, rockets are loaded on AD Skyraiders aboard the Oriskany in preparation for an early-morning launching over enemy territory in North Korea*

Eyes in the Night

Marine pilots, flying the deadly jet night fighter, the Douglas F3D *Skyknight*, are raising the tally of Russian-type planes downed in night action over Korea.

The fast, high-flying *Skyknight* twin-jets are patrolling *Mig*-Alley at night. In performing the "night watch", *Skyknights* fly out in single missions to search out enemy aircraft. A Marine pilot and air interceptor operator (radar operator) operate the plane and its sensitive all-direction radar gear. The F3D is the Navy's first jet plane fundamentally designed for night or all-weather fighting.

First "kill" took place near midnight 2 November 1952 when Major William T. Stratton, Jr., and MSgt. Hans Hoglind, radar operator encountered a YAK-15. Hoglind told Stratton he had made the contact and directed him to the enemy plane. The pilot was able to establish visual contact with the *Yak* by the orange glow of the target's tailpipe. He nosed the *Skyknight* into a dive and closed in.

His first burst exploded in the *Yak's* left wing. The second hit the fuselage and engine. Immediately afterward, the two Marines flew through a smoke cloud and debris and saw their target falling earthward out of control. The two men later were awarded Distinguished Flying Crosses for the action.

A week later Capt. O. R. Davis and Warrant Officer Bramus F. Fessler were on a routine night patrol flight. With the aid of the plane's radar eyes, they maneuvered onto the tail of a MIG-15 and destroyed it with a burst of 20 mm. cannon fire.

Next *Skyknight* to score against the Reds was piloted by Lt. A. J. Corvi and MSgt. Dan George on a December night air patrol mission. Lt. Corvi's victim was a Russian-type PO-2.

There have been other Red victims as the *Skyknight* pilots continue to perfect their night aerial combat tactics. Three more Russian-type planes, probably *Migs*, were downed in January, although details are lacking. The *Skyknights* also are being used as fighter escort for B-29's on night missions over North Korea.

Another Marine was added to the list of jet-baggers since the beginning of the Korean conflict. Word was received from LCol. John S. Payne who served as an exchange pilot with the Fourth F. I. G. 5th Air Force in Korea from 28 February to 26 April 1952. Payne was credited with one MIG-15 destroyed in aerial combat on 16 March and one damaged on 1 April before his tour ended.

Out on First

It was a different kind of game the former Boston Red Sox slugger was playing when he suddenly found himself out on first. Capt. Ted Williams, a Marine Reserve pilot, on his first Korean combat mission, was forced to crash-land his burning *Panther* jet at a forward air base after taking part in a plane strike against North Korea.

Williams' pass over a sprawling troop and supply center near Pyongyang went smoothly enough. He went in on a run at approximately 45° and started to pull out and climb at 350 knots. As he approached 5,000' his stick started to shake violently. He hadn't felt anything hit him.

Williams tried to call his flight leader but couldn't get any response. Lt. Lawrence Hawkins answered and told him he was leaking what appeared to be fuel. It was hydraulic fluid. Between 10,000 and 15,000' Williams cut his radio transmission. Just then, his aileron boost went out, and he turned it off. Lt. Hawkins took over and guided the Marine to K-13 landing strip. His fuel indicator was zero and he could hear a violent rumble in the rear of the jet.

Approaching K-13, he broke over the field at 300' after dropping low and scaring some Koreans in the village below. He started a wide sweep toward the field, using both hands on the stick on the final approach. Thinking he was making too fast an approach, he looked at his airspeed indicator. It registered zero.

By this time, Capt. Williams was really in trouble. His wing flaps weren't working and his wheels wouldn't go down. There was nothing for him to do but belly in. The ground came up and he hit pretty hard. The plane skittered along as though it would never stop. He almost struck a fire engine which swerved away just as he hit the deck.

He finally got the canopy off, tumbled out of the cockpit and ran, expecting an explosion any minute. The crew was there to fight the fire.

Ted Williams flew his second mission the next day. His comment was, "It sure was better than the one yesterday!"

Making the Bombs Count

One of the most successful close-air-support strikes for UN troops occurred on the western half of the battle line. It was a strike in which the pilots really made the bombs count.

An enemy ridge 15 miles west of

Chorwon, honeycombed with bunkers, trenches and gun positions was attacked by 11 Navy planes from the USS *Kearsarge*. Eight *Skyraider* dive bombers, led by LCdr. Ralph Zecher, and three *Corsairs*, led by LCdr. Bill Duncan, dropped over 35,000 pounds of bombs on the enemy positions. The Army Airborne Artillery Observer who selected the targets for the Navy planes reported 100 per cent effective use of the bombs and 100 per cent coverage of the target area.

The attack relieved a tense situation for Army troops defending positions on the front line. The Army Regimental Commander was so impressed with the performance of the *Kearsarge* pilots that he sent to CTF-77 his "compliments on a very good strike."

Reds, Reds Everywhere

The Reds are going to have to determine a safe method of rotating their line troops or the Marines are going to keep on having easy pickings.

Leatherneck pilots of MAG-12 had a real turkey shoot on the central front when they surprised an estimated two regiments of Communist troops on the open slope of Papa-san Mountain. The *Deathrattlers, Devilcats* and *Wolfraiders* strafed and bombed their unexpected target, killing an estimated 120 troops and leaving an unestimated number wounded.

Capt. Harry O. Taylor, who led one flight of the *Deathrattlers* said the surprise attack apparently caught the enemy in the act of rotating two regiments of line troops. With the Commies spread all over the place, the Marines just couldn't miss that day.

Unarmed Marine Guides AF

Marine Major James N. Bathrick probably calls himself an unusual fellow. A photo pilot, he led a flight of four AF fighter-bombers on a successful train strike near Sinmak in North Korea.

The *Leatherneck* pilot was returning from a lone photo mission for MAG-33 in his unarmed *Banshee* jet when he spotted a string of boxcars thinly camouflaged against the track embankment. He made a low pass along the tracks to make certain it was not an illusion or that the train had not already been hit. Flak and small arms fire convinced him the target was "for real." Piles of stacked supplies indicated the train was "alive."

He immediately radioed the position of the previously undamaged target and four F-80 jets were scrambled and directed to the area. The flight leader contacted Major Bathrick and decided that his flight would follow him in.

The Red troops guarding the train had increased their fire power. The Marine photo pilot buzzed the string of boxcars and the AF fighters followed him in for the kill.

While orbiting above the target, the major watched two near misses and a direct hit splinter the boxcars and cut the rails. The AF jets were finishing off the supply train when Major Bathrick nosed back to his base with just enough fuel to land.

Too Much Breeze

As Ens. David L. Brenner, *Oriskany Corsair* pilot, laid a low-level rocket attack on a rail bridge south of Songjin, flak ripped into his plane. He managed to glide back over the sea and ditch.

A helicopter from the heavy cruiser *Los Angeles* arrived at the ditching scene in a few minutes and Brenner was carried to safety in the sling hanging below the craft. Commenting on his five-mile ride in freezing weather, Ens. Brenner said, "I'll stick to regular flying after this, especially when I'm wet. There's nothing wrong with the method, but the air conditioning is too much for me. All kidding aside, though, I sure was glad to see that helicopter."

Piercing a Disguise

A Navy photo pilot with "X-ray eyes" fooled the North Koreans who thought they had succeeded in fooling the Americans.

The North Korean village of Chungbojur-ri appeared from the air to be an apparently harmless village and aerial observers couldn't see anything different about it. However, an alert Navy photo reconnaissance pilot noticed an unusual amount of activity and the presence of heavy vehicle tracks in the center of the village.

A special photo mission was flown and intelligence data obtained about the area. It was discovered that the village was a complete sham, used to house Communist vehicles. Even the walls in the houses had been pulled down and a complete maintenance center set up. The North Korean citizens had been forced out of their village, and the military had taken over.

When the disguise was finally pierced, the area was slated for destruction. The two pictures below show what happened when the *Red Rippers*, VF-11, flying from the *Kearsarge* hit the area.

SHAM *village is shrouded by dense smoke pall after Red Rippers from Kearsarge drop fragmentation bombs on maintenance area*

COMPLETE *destruction of the cleverly-disguised vehicle area is clearly shown after Red Rippers bombed and strafed town*

Oriskany Honored

A new home for some 100 Japanese orphans will preserve the name of an American aircraft carrier and its crew in the hearts of the Japanese. The new building in Shizuoka, Japan will be called "Oriskany Hall."

Its title was selected by the orphanage directors in appreciation of a substantial gift of over 1,000,000 Japanese yen from the carrier's crew. They had heard that a group of Salesian Sisters needed financial help for an orphange addition and put an organized drive over with rousing success.

When the ship docked in Yokosuka for a temporary rest period, Capt. Courtney Shands, CO of the *Oriskany*, presented the check to a little Japanese boy. It was then the crew learned the building would be named for the ship.

The little group that took part in the ceremonies was invited to lunch aboard the carrier. The "strange Americans" were the first the children had ever seen. When the visitors prepared to leave the ship, the crew presented them with one more gift for remembrance, a new American delicacy which little Oriental taste buds had found quite pleasant. More than once during their meal that day, they had asked for the vegetable that "talks" when eaten—celery.

Leatherneck Papa-sans

Everyone fighting in the Korean conflict admits this is a screwball war. Whoever heard of the Marines taking the whole day off in any other war just to play with a bunch of kids?

The kids were a group of round-faced, almond-eyed moppets from three orphanages. They've all been restored to health and are being cared for by contributions from MAG-12.

The get-together was arranged so that 450 *Leathernecks* could get a chance to see the results of their good work. Every Marine laid down his tools and picked up a clinging child for the day. First there was dinner, which the men offered to forego for the kids. Then cartoon movies followed with all of them splitting their sides laughing.

When it was time for the kids to go home, the Marines bestowed 1350 toys, 150 gloves and 50 scarves on the kids. It was an awkward moment for the men with the tender hearts and the tough manners. Although none of them had colds, most of them blew loudly into their handkerchiefs.

All Lit Up

Koreans living near the *Flying Nightmares* of MAG-33 think maybe they've discovered another kind of nightmare in the vicinity and are steering clear of the crazy *Leathernecks* for a while.

It all began when a building was under construction for the electronics section. Volunteer Korean help was plentiful, so plentiful in fact that much of the time the men were just getting in the way. MSgt. George A. Perry thought he had the solution, so he placed two light bulbs in his ears and stepped in front of a radar antenna.

The bulbs lit up, the Korean laborers looked and then ran. Not one returned and the Marines finished their building. What the Koreans didn't understand was that the radar antenna gave off a fairly high electrical charge so that every time the antennae made a sweep, the lights in Sgt. Perry's ears burned.

Slipped his Mind

Marine Capt. W. S. Anthony was spotting fire for the last mission of a highly successful day's firing by the USS *Los Angeles* when his pilot, a Korean from the Fifth ROK Division, headed the plane out of the area under attack. Capt. Anthony asked why they were leaving in such a hurry. The pilot pointed to the oil pressure gauge and the captain watched the needle drop from 60 pounds pressure to a point somewhere between five and 10 pounds.

Unpleasant memories began to stir for the Marine captain. Just two days before, when returning from a similar spotting mission, the helicopter in which he was riding had crashed landed on the fantail of the cruiser from which it was operating. He wasn't looking forward to a repeat performance.

Capt. Anthony held his breath while the pilot made a safe landing by gliding the plane for the last minutes of the flight. It was only then that he remembered he had forgotten to report the results of the unfinished mission.

IT'S HARD *to tell who's having the best time—the Oriskany sailors or the Japanese orphans who were entertained for a day*

THE TINY *Corsair model painted with the markings of the Checkerboard squadron is replica of Mig-killer Folmar's own plane*

Mig-Killer and his Corsair

Capt. Jesse Folmar, the *Leatherneck* who blasted a *Mig* from the skies with a prop-driven *Corsair*, will always have a constant reminder of the veteran plane in which he made his kill.

He was guest of honor when Chance Vought Aircraft held an open house in Dallas. Chance Vought's General Manager, F. O. Detweiler, presented the Marine with a scale model of the F4U in which he scored his triumph. The tiny plane was exact in every detail, right down to the markings of the famed *Checkerboard* squadron. LCol. William Crowe, WW II Marine ace, watched the proceedings.

Pyrotechnic Display

It may have been a little early in the season for a Fourth of July celebration, but seven dive-bomber pilots from the *Oriskany* staged an early preview.

Flying in close air support of UN troops on the eastern half of the front lines in the Punchbowl area, they struck several installations. LCdr. William E. Chitty, flight leader, hit the center of a big ammunition dump. A spectacular explosion resulted, sending smoke, fire and debris more than 4,000 feet into the air. It was visible for miles and set off other explosions in a pair of smaller dumps.

Pilot's Best Friend

A *Corsair* pilot had just taken off from the *Valley Forge* for a strike on vital installations on Korea's east coast when the thing all aviators dread most happened to him. At 1800 feet, a few minutes after becoming airborne, his engine quit and he was forced to ditch. In Korean winter weather the winter ocean temperature is low enough to kill an unprotectd person within minutes.

The flier jettisoned his bomb load, checked his safety belt and shoulder straps and concentrated on his landing. The seas were rough, and he made a hard landing which not only stunned him momentarily but ripped his survival suit.

The pilot regained consciousness under water, managed to get out of the cockpit, surface and inflate his raft. By this time his flying mates had alerted the Navy's modern breed of lifeguards, carrier-based Navy helicopter pilots who safeguard the lives of pilots caught in just such a predicament.

Helicopters from the *Kearsarge* and *Valley Forge* raced to the scene. The *Kearsarge* chopper reach him first and began rescue efforts immediately while the *Valley Forge* 'copter stood by.

The pilot had been exposed for about ten minutes to the freezing air and water which rushed into his ripped survival suit. Weak from the effects of the buffeting he had taken during the landing, together with the numbing effect of the cold, the flier was barely able to hook his arms and upper body into the sling which had been lowered from a winch.

Before he could be hauled into the cabin, he lost consciousness. The 'copter pilot and crewman were unable to get him into the protected cabin. His position in the sling was such that he was being choked, so he was released from the sling and his life jacket was hooked to the 'copter's life jacket hook.

Dangling below the "whirlybird", he was brought back to the *Valley Forge*. He was rushed to sick bay where he later recovered consciousness and, except for bruises and shock, was unharmed.

Diamonds may be a girl's best friend, but in the Korean combat zone the carrier pilots all say the Navy's "winged lifeguards" are a man's best friend.

COMING *aboard the hard way! Valley Forge men await return of pilot downed in icy water*

KEARSARGE *'copter pilot, Lt. (jg) Ray McMillan is Navy's idea of a "winged lifeguard"*

Local Skirmish

A gray Korean dusk was settling over the first snowfall at a forward air base of the First Marine Aircraft Wing. The fresh snow covered a sand-bagged emplacement where a squad of Marines crouched, planning an attack.

"They really caught us by surprise. Never thought they'd turn on us. But now we'll give them a dose of their own medicine."

"How many of us did they hit?"

"About a dozen, I guess. We weren't armed like they were. They just walked up and let us have it."

"We've got enough ammo now, though."

"Yeah, we packed plenty of it."

"O.K., let's go! Grab your ammo and move out. Make every one count. Let's hit those guys!"

With that the Marines grabbed armfuls of snowballs and delivered a smashing attack on the Seabee area.

The Class Didn't Meet

Pilots of the *Red Rippers*, VF-11, slowed down military training of North Koreans when they hit a military training school in the city of Anchon on the east coast.

Aerial photos had revealed the presence of several buildings, a drill yard and an obstacle course. Making the most of their opportunity, the *Kearsarge* pilots struck just as morning classes were convening. Four *Banshees*, led by Lt. W. B. Barrow, made the attack and heavily damaged the entire establishment.

North Koreans are now advertising for a new military school.

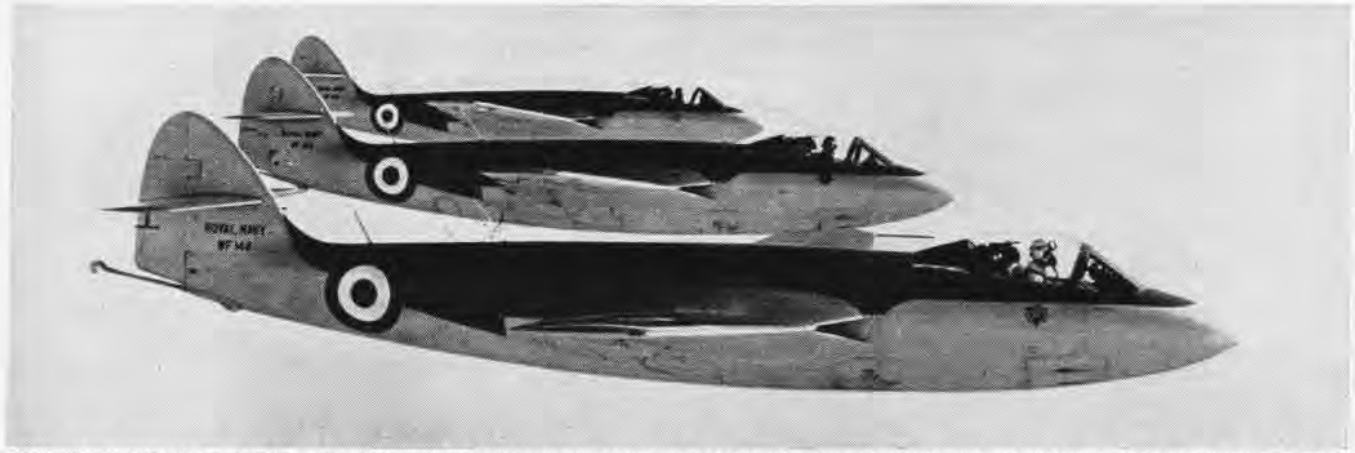
A Peek at Communist China

A 21-gun salute from the five-inch batteries aboard the aircraft carrier *Kearsarge* heralded her arrival at the British Crown Colony of Hong Kong. It marked the first time since the start of the Korean conflict that a United States carrier had entered the port.

EAGER *Chinese merchants cluster around Kearsarge landing craft as ship visits Hong Kong*

Liberty-bound sailors were welcomed with open arms on the scenic island of Hong Kong which houses the city of Victoria and in the adjoining city of Kowloon on the mainland. Hoards of camera addicts discovered a photographer's paradise in the steep green hills, the thronged thoroughfares and the sampan-dotted sweep of the teeming harbor. The myriad shops and cafes in the two cities proved no less popular with other receation-bound sailors.

The crowning highlight of the week-long visit for many officers and men was their first view of Communist China. By taking a 15-minute ride on the "Peak Tram" cable car up the sheer slopes behind the city of Victoria, they were rewarded with a breath-taking view of the harbor, neighboring islands and the Chinese homeland behind Kowloon.



THREE NAVY EXCHANGE PILOTS WITH ROYAL NAVY TRY THEIR HANDS AT FLYING HAWKER SEA HAWK JETS: 16 PILOTS A YEAR FLY WITH RAF OR RN

EXCHANGE PILOTS FLY ROYAL NAVY'S JETS

ORDERS to the HMS *Peregrine,* Ford, Sussex!" exclaimed Lt. Charles J. Deasy, "Now can anyone tell me where I might find Ford, Sussex, and what type of ship is the HMS *Peregrine?*"

Assured that he would find it somewhere in England, Lt. Deasy left St. Louis, Mo., where he was in the office of Bureau of Aeronautics Representative at McDonnell Aircraft Company, and sailed for England.

Lt. Deasy was not the first, nor will he be the last to receive such orders. An agreement between the British and the U. S. Navy to exchange pilots was formulated in 1948. The program was established whereby 16 U. S. Marine and Navy pilots each year would serve a one-year tour with either the Royal Air Force or Royal Navy.

The exchange pilot program is, as its name implies, an exchange of pilots; for every U. S. pilot assigned to a British Naval or RAF unit, there is a British pilot doing like duty with a U. S. Navy unit.

Lt. Deasy arrived in England in July 1952, and as all exchange pilots do, reported to his new commanding officer, in his case Captain J. C. Cockburn, DSC, Royal Navy, of HMS *Peregrine,* Ford, Sussex, where he was assigned to a squadron. At this point Lt. Deasy began his education in the British Navy, the HMS *Peregrine* was not a ship as he first thought, but the name of the naval air station. The British name all of their naval stations as if they were ships.

Squadron 703 to which he was assigned was a jet squadron, but jets were nothing new to Lt. Deasy. He had tested jets at Patuxent River during his stay there as a test pilot from 1946 to 1948; he was flying *Panthers* from the USS *Valley Forge* in 1950 and as a member of VF-52 was one of the first Navy pilots over Korea. When the Chinese entered the war, Lt. Deasy was present and had three tussles with *Mig's* before returning to the states.

In the exchange pilot program, the stations involved endeavor to assign men to units similar in type to their previous duty stations, fighter pilots to fighter squadrons, patrol plane pilots to patrol squadrons, etc. By placing a U. S. pilot who has, for instance, been trained in ASW operations, in a British ASW squadron, he will not only add to his knowledge by learning British methods and procedures, but will necessarily convey to his British squadron members information which will be of value to them.

In Lt. Deasy's case, he not only had jet experience but had done considerable test work, so rather than ignore his capabilities he was assigned to a squadron which does test work.

Squadron 703 is now running tests on the Hawker *Sea Hawk,* Britain's latest Navy jet fighter. In his work of testing everything from aviation cameras to the arresting gear of aircraft carriers, Lt. Deasy flies all types of aircraft including the *Vampire,* the *Meteor* and the *Attacker.*

Carriers coming out of the yard after overhaul or as a new ship are visited by Squadron 703. The squadron recently

YOU CAN *tell the English from the Americans by the beards; Mix stands beside LCdr. Hearsley and Morris beside LCdr. (Jack) Glaser*

U. S. NAVY *pilots serving as exchange pilots with Royal Navy, Mix, Morris and Deasy, check weather waiting for British fog to lift*

ROYAL NAVY'S *new jet fighter, the Hawker Sea Hawk, is due for a wringing out as Deasy climbs into cockpit for a test flight*

SEVEN *horses under the bonnet (hood) of Deasy's English convertible take Morris, Deasy and Tom Mix to the air station for duty*

spent a week on board HMS *Eagle* (this time it was a ship), Britain's newest and largest aircraft carrier. They checked the arresting and communications equipment before the regular squadrons came on board to spend eight weeks in the Mediterranean.

During this operation two other exchange pilots flew from the *Eagle* with their *Attacker* squadron, Lt. Leroy R. (Tom) Mix, with jet *Attacker* squadron 800, and Lt. (jg) Max K. Morris with jet *Attacker* Squadron 803. Squadrons 800 and 803, when not on board ship, are based at RNAS, Ford.

Exchange pilots get plenty of flying time. During December, eight pilots of Squadron 800, of which Lt. Mix is a member, flew an average of 3.2 aircraft 407 hours averaging 41 hours per pilot.

Reasons for the exchange pilot program are pretty obvious. It is to the advantage of our Navy, as well as the British, to have men who understand the organization and the training which goes to make up the units of different services. In the case of pilots with the RAF, they serve with units of the coastal command which is responsible for ASW and sea patrol operations. The squadron commander of Britain's only P2V squadron is a former exchange pilot who served with a U. S. Navy P2V squadron in the States.

The organization of a British squadron is considerably different from our own. A squadron is composed of a squadron commander, the equivalent of our commanding officer; a senior pilot, who might be considered the executive officer, and seven pilots. As all the administration of personnel, such as leave, discipline and records, is handled by the station or ship commanding officer, a squadron officer has little to do but fly.

As to the aircraft, no particular plane is assigned to one pilot, pilots use planes as they are available, and there is no one mechanic or group of mechanics assigned to service one plane, the responsibility of making sure the plane they are to fly has been serviced is entirely up to the pilot. Mechanics work on a "where-needed" basis.

As to who has the best jets, our pilots feel that the British have the best engines, but they prefer the U. S. jets for design and performance.

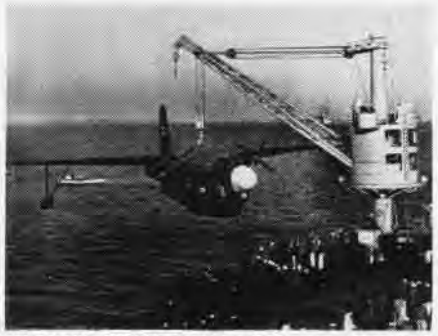
Working hours at a Royal Naval Air Stations are from 0800 to sundown. The three pilots stationed at Ford all have their wives with them and live in a little channel coast town about four miles from the station.

As many items of food are rationed in England, pilots who are stationed within a hundred miles or so of London, make it a point to get to London every couple of weeks to take advantage of the Navy commissary and exchange.

After their one year tour in Britain, the pilots receive orders back to the States. They all admit they have a warmer spot in their hearts for their English comrades-in-arms.

by C. R. Post, JO1.

'BEWARE *of the sting' says the motto on Royal Navy Attacker Squadron 803's insigne; LCdr. Max Morris, Navy exchange pilot, and squadron skipper, LCdr. (Jack) Glaser inspect emblem*



STRONGER TENDER CRANE PICKS UP BIG MARLIN

Marlin Boards 'Currituck'

Crane Strengthened to Pick up P5M

FLEET AIR WINGS, ATLANTIC—The seaplane tender *Currituck* recently hoisted aboard a 30-ton P5M *Marlin*, marking first use of the tender's newly-modified crane to pick up one of the big seaplanes.

The extended hull and greater weight of the *Marlin* necessitated conversion of the crane, which was primarily used for the smaller PBM *Mariners*. The P5M was from VP-44, a unit of Fleet Air Wings, Atlantic, based at Norfolk.

Cdr. Francis J. Grisko, CO of VP-44 and LCdr. Albert Rasmussen, squadron maintenance officer, piloted the seaplane.

The PBM and P5M have the same wingspans, but the gross weight of the *Marlin* is 4,000 pounds more.

Whaleboat Saves VC-8 Pilot

Men of Crew Cited for Atlantic Feat

USS BACHE—"The happiest moment I have ever experienced," was the way Cdr. W. Wright, commanding officer of VC-8 described it when he was pulled out of the rough and frigid Atlantic at 0300 by a whaleboat from this destroyer escort.

The *Bache* was acting as plane guard for the CVA *F. D. Roosevelt* during its early-morning operations on 22 January. Another man from Wright's plane was rescued by the USS *Beale*, also on plane guard.

The seven enlisted men and one officer who made the rescue from the Bache were given special citations for their skill. They are shown in the accompanying photo, left to right, Frank G. Medina, SN; Gene Cole, SN; Lt. (jg) Kenneth M. Henderson; Calvin C. Jones, BM3; Thurman W. Jones, EN1; Dennis J. O'Connor, SN; Gene W. Hales, QM3, and Mitchell J. Rycus, HM3. Jones was former fleet light heavyweight boxing champ.

THESE MEN MANNED WHALEBOAT IN SEA RESCUE

Small Jet Powers Firebee

High Thrust Engine Built by Fairchild

A new, small turbojet engine to drive the 600-mph *Firebee* robot target drone has been developed for the Navy by Fairchild Engine & Airplane Co.

The J-44 engine develops 1,000 pounds thrust, weighs 300 pounds and is 72 inches long. It is described as the most powerful for its size ever developed in this country.

An outer sheet metal cowl on the engine forms both a pressure chamber and a frame structure connecting the two main bearing supports. With it, the *Firebee*, built by Ryan Aeronautical Co., and ordered for Navy use, is expected to hit the 600 mph class. It is controlled by radio and features a drag chute and larger delayed parachute which will enable it to be salvaged at speeds higher than ordinary chutes now permit. Personnel chutes work up to 250 mph.

RYAN FIREBEE TARGET DRONE HAS STRONG JET

● NAS JACKSONVILLE—VF-32, a Fleet Air Jax unit, is the first fleet operating squadron to be equipped with the Navy's newest jet fighter, the F9F-6 *Cougar*.

THE LAST CORSAIR. *In this picture is the 12,571st and last piston-engine Corsair fighter built by Chance Vought Aircraft Co. The plane, an F4U-7, went to the French Navy under MDAP. Capt. C. M. Jett, BAR at Dallas, hands flight papers to Lt. R. C. Wear, a ferry pilot, who flew it to Norfolk. LCdr. A. P. Stockebrand, member of the BAR staff, (center), made the Navy acceptance flight on the final Corsair.*

SOMETHING *new in welcome-home signs was sprung at Cecil Field when CAG-3 returned from six months in the Mediterranean. Wives and kids decorated this Valentine to welcome Lt. Larry B. Stephens, Lt. (jg) Nelson E. Hechert and Lt. (jg) Porter Clemens, of VA-35. The other two pilots are with VF-34; all glad to be home.*

Squadron 'Buries' Corsair

VF-174 Honors Prop Plane, Gets Jets

COMFAIR, JACKSONVILLE—As the strains of "Taps" filled the air, pilots and crewmen of VF-174 solemnly bowed their heads in a final silent minute of tribute to an old comrade—the bent-wing F4U.

A special ceremony was held to mark the cessation of duty for prop fighters with LCdr. John H. Iarrobino's fighter squadron, which had received its F9F-6 *Cougar* jets.

"Gentlemen, we are gathered here to honor and commemorate a gallant war bird of the Navy, the battle-hardened *Corsair*," Iarrobino said. "Here before you stands the last of VF-174's F4U-4 *Corsairs*. Let us never forget this durable workhorse and its golden age in the annals of naval aviation."

In spite of quips and jokes, a note of sentimental nostalgia was detected among the men who placed their caps over their hearts and with heads bowed paid tribute to the plane. Taps was played on a harmonica by Roger A. Wright, AEAN.

Following their return from *Operation Mainbrace* in the European waters, VF-174 members received their new jets, which meant the end of duty for the versatile *Corsair*. Over in Korea, however, the F4U is still going strong, although the last plane of the line has been built by Chance Vought Aircraft.

IARROBINO READS CITATION AT F4U'S 'GRAVE'

NAVY'S SPACE SUIT

ALL NAVAL aviators should take a close look at the flying suit pictured on the left—the Navy's new pressure "space suit" in which some of you may be flying around in a few years.

It looks like something out of a Buck Rogers comic strip, but it is the latest word in protection for a pilot flying in the extreme upper atmosphere—or even in outer space. It is the first full-pressure suit, which permits pilots to fly above 50,000 feet, where death occurs only seconds after loss of cabin pressure.

Made of rubber, it has a plexiglas helmet that zips open and shut and contains its own oxygen and pressure systems. The suit was developed for the Navy by B. F. Goodrich Co., and has been demonstrated successfully at a pressure chamber altitude of 70,000 feet. LCdr. Harry Peck, a naval aviator on the staff of the Aero Medical Lab at Naval Air Material Center, Philadelphia, was the first man to give the suit a thorough checkout. It weighs under 25 pounds.

The need for pressure suits which, in effect, gives the pilot his own oxygen at altitudes where he would otherwise perish, long has been recognized. Previous attempts developed suits which gave only partial protection, exposing hands and feet to freezing, or were so bulky and cumbersome the pilot could not fly his airplane while wearing it.

HEAD-ON *view of pressure suit which permits pilot to move so he can fly plane and still be safe if cabin is depressurized*

PILOT *models the Navy's full pressure flying suit in low-pressure altitude chamber. Note the zipper fastening the 'fishbowl'*

The Navy suit solved both of these difficulties, offering complete self-contained protection, and a much higher degree of mobility. Semi-rigid accordion pleats allow movement of important body joints, such as shoulders, knees and elbows. Wrist joints permit rotation of the hands. The suit has slide fasteners which seal as they close.

Wearers of the suit are given near perfect protection against lack of oxygen, blood boiling low pressure and temperature variations. No matter what happens at altitude to the plane's pressure system, whether at 100,000 feet or even higher, the pilot is safe to complete his mission.

In the event his plane's oxygen supply is damaged, he has enough pressure and oxygen in his suit to fly down to lower altitudes where atmospheric pressure is high enough for him to survive. In case of such an emergency, the suit takes over automatically, pressurizing itself and furnishing oxygen without any action on the pilot's part. The suit will be produced in three sizes to fit all pilots.

Another full pressure suit has been developed by the David Clark Co., Worcester, Mass. This suit will be worn by Scott Crossfield, NACA test pilot, in flights in the D-558-II.

Snow Fights in Key West

Pilot Flies Load Back from Michigan

NAS KEY WEST—Almost everybody in this locality would accept the statement, "There never has been any snow in Key West," as a matter of simple fact. Almost everybody, that is, except Lt. (jg) Frank J. Bardecki and those who saw the unusual way in which he compensated for this weather deficiency.

It all started in snow-clad Michigan

BARDECKI PELTS PLECHA WITH MICHIGAN SNOW

where Bardecki was staying recently, prior to returning to Key West on a routine cross-country instrument training flight. It suddenly occurred to him that his fiance, a native Key Wester, had never seen any snow.

"Why not," he thought, "take a box of it back with me and surprise her?" With the aid of the Selfridge AFB operations officer, he boxed up half a bushel of snow and stowed it in the nose section of his Lockheed TV-2 jet trainer.

The plane was flown at 40,000 feet altitude on the return trip and, in consequence, the snow was well preserved after the 1106-mile, 2 hour and 47 minute long flight. Bardecki was instructing Ens. J. E. Mancill, a student in the jet instrument course at Fleet All Weather Training Unit, Atlantic, during this hop.

The first thing Bardecki did upon alighting from the plane in hot Key West was to pepper Lt. Zigmund Plecha, the defenseless flight duty officer, with freshly made snowballs. Realizing his snow would soon melt, he then sped to his fiance's home. They were soon engaged in a snowball skirmish in front, while neighbors gaped.

Additional snow fights took place before disbelieving onlookers at the Aeropalms officers' club. The snow was gone within two hours but it left many memories with residents who were seeing snow for the first time in their lives.

● NAS PATUXENT—Personnel of VR-1 took part in the filming of "The Navy Nurse," a training film to be used for Navy nurse motivation and indoctrination. Some of the movie "stars" were Lt. (jg) Jane Hillaire, Lt. (jg) Jeanne Milles, Lt. Bob Jagger, Edley Strickland and Ed Bachman.

FOREIGN *navy and air officials who toured the Naval Academy in October were shown the intricacies of a turbojet engine by Cdr. James H. Smith. Viewing it are Air Vice Admiral J. D. Breaky, RAF; LCol. E. de Vicq Cumptich, Belgium; RAdm. Erling Hostvedt, Royal Norwegian Navy and Col. Jose Kahl of Brazil. Air and naval attaches of 46 nations visited Annapolis.*

Marlin in Lengthy Testing

Flies Day and Night for 639 Hours

NATC PATUXENT—A P5M *Marlin* seaplane recently completed 639 hours of service testing during which it was flown day and night by two crews, stopping only long enough to refuel and be serviced on the water.

For the several weeks of the gruelling grind, the seaplane went into the water on Monday and was either airborne or waterborne until it had to come in for the 60-hour check on Thursdays. The test proved that continuous water-based operation was possible where ship or land facilities were not adequate.

Most of the flying was done in the Patuxent-Baltimore-Norfolk triangle, with several trips to Boston and Jacksonville, Fla., later in the operation. In daytime two pilots flew the plane, with a third pilot added for night flights, which lasted an average of 13 hours. Enlisted men in each crew serviced and maintained the *Marlin* when it was down as well as flying with it.

Pilots who participated in the test included Cdr. P. H. Speltz, Cdr. P. F. Stevens, LCdr. A. E. Mix, LCdr. C. A. Richmond, Coast guard liaison officer; Lt. L. C. Ihrig, project officer, and Lt. J. O. Horn. Crewmen included V. B. Wright, ADC/AP; S. F. Norman, AL1/AP; E. M. Taylor, AD1/AP; J. R. Miller, AD1/AP; E. A. Perez, AD1/AP; C. Coughlin, AD1; H. P. Zupp, AD1; J. N. Zouric, AD2; F. Yerchin, AD2; W. W. Jackson, AD3; L. C. Curry, AD3; D. L. Moore, AD3; D. A. Folk, AD3; W. T. Budlong, AL1; and R. D. Gillespie, AT3.

Pilots Learn to Fly R7V-1

VR-8, VR-1 Men Get Lockheed Training

VR-8, PACIFIC—Sixteen pilots and flight engineers from this squadron and VR-1 went to Lockheed plant to learn how to fly the squadron's new turbo-compound R7V-1 transports.

About three weeks were required for flight training at Burbank, Calif., followed by intensive indoctrination of flight engineers and pilots at their respective squadrons. Ground school of several weeks preceded first flights.

Classrooms for the flight course were the first production models of the R7V-1, military version of the *Super Constellation*, which has a speed of about 400 mph. First planes were to reach the squadrons in April.

Blimp Training Will Move

Lakehurst Loses School to Glynco, Ga.

Lighter than air training, which has been based at NAS LAKEHURST since time immemorial, passes a milestone in its history when it moves to NAS GLYNCO, Ga., in July.

Lack of space at Lakehurst is given as the major reason for the move, although the better flying weather at Glynco will contribute. The move will involve 20 officers, 180 men, one civilian and four blimps.

Lakehurst will not be denuded of LTA activities by the shift, however. The experimental phases of blimp operations still will be there, ZP-3 will still be based at the station and three squadrons of LTA Reserves will still operate from the Naval Air Reserve Training Unit there. Also at Lakehurst are the aerographers and parachute riggers schools and Helicopter Squadron Two.

Lakehurst always has been the "home" of naval airships in the minds of most naval aviators, altho blimp training was at Pensacola during World War I. The Goodyear plant at Akron did some training during the last war owing to overcrowded conditions at Lakehurst.

Glynco at present has ZP-2 operating from its hangars as well as a detachment of ZX-11, the experimental blimp squadron based at Key West. A section of the Combat Information School at Glenview, Ill., also is moving to Glynco. During WW II, CIC school was at St. Simon's Island, a few miles from there.

MISS CORAL SEA, *first selected by that big carrier, was crowned at a holiday ball staged by the ship at Norfolk. She is Miss Bobbie Mathis of Baltimore, Md. Selected from pictures entered by crew members of the ship, she reigned for two nights of dancing—the ship's crew being too big to get in the hall the same night. With her is Ralph Flanagan, dance band leader, and Pfc. Walter C. Miller, escort.*

BLUE ANGELS' HAWKINS, RICH, ASLUND AND MURPHY REALLY PLAY THIS ONE CLOSE AS THEIR PANTHERS ALMOST TOUCH IN THIS CLOSE FORMATION

BLUE ANGELS' LEADER WAS AN ACE AT 21

EVER SINCE he reached his 21st birthday, the new leader of the *Blue Angels* claims nothing very exciting has happened to him. LCdr. Arthur R. Hawkins, one of the Navy's most decorated fighter pilots, was credited with shooting down 14 enemy planes at that age.

Hawkins succeeds LCdr. Roy M. (Butch) Voris as the *Blue Angels'* leader. During WW II he served aboard the aircraft carriers *Cabot* and *Belleau Wood*. He flew 142 combat missions and was three times awarded the Navy Cross. In addition, he was awarded three Distinguished Flying Crosses, four Air Medals and numerous campaign ribbons and battle stars. He is credited with a direct hit contributing to the sinking of the Japanese battleship *Ise*.

Hawkins was with the *Blue Angels* from 1949 until it was disbanded at the outbreak of the Korean conflict. After returning from Korea, he was reassigned to the Navy's top exhibition team at NAS CORPUS CHRISTI.

TRAILING STREAMS OF COLORED WATER, TEAM DEMONSTRATES PRECISION TACTICS

RICH, ASLUND, HAWKINS, MURPHY END DAY'S WORK

MAINTENANCE CREWMEN WATCH THEIR TEAM COMPLETE LOW-ALTITUDE BARREL ROLL

MARINES USE HELICOPTERS IN ARCTIC

BUNDLED AGAINST THE ARCTIC COLD, MEMBERS OF HMR-262 WORK ON ONE OF THE BIG CHOPPERS

FROM AN aircraft carrier in the icy waters of the North Atlantic to the snow-covered Labrador shoreline, Second Marine Air Wing helicopters whirled their way to another first for Marine aviation.

Adding another innovation to the list of 'copter accomplishments which already included vertical envelopment, rescue work, airphibious assault, communications line work, salvage operations and transporting of rocket batteries, the men of HRM-262 were climaxing *Operation Noramex* with the first ship-to-shore attack under near-arctic conditions.

Scoring the first at the cold weather maneuver with HRM-262 of MAW-2 at Cherry Point was *Dog* Company of the Second Marine Division's 2nd Battalion, 6th Marines, reinforced, from Camp LeJeune.

Aboard the big HRS 'copters, the Leathernecks making the hop from carrier to the beachhead cradled their rifles and adjusted their combat packs with an awareness that they were the envy of their comrades taking the chilly water route by landing craft. The 10-minute flight brought the men to the landing zone fresh, dry and as warm as possible considering the frigid climate, to prove that airphibious attacks are as practical near the Arctic circle as in the tropics.

The 'copter phase of *Operation Noramex* was the work of a squadron well-versed in carrier-based airphibious landings. Four times previously HMR-262 flew such operations in the Caribbean and along the Carolina coast during *Helex I* and *II*, *Traex I* and *Phibex I*.

Flying their third assault from the decks of the USS *Kula Gulf* (CVE-108), the Marines from the Second Wing squadron found that their previous experience aboard that carrier contributed much toward the success of the mission. Previous trials had led pilots, line personnel and Navy carrier men to become a smooth-working team which handled the spotting of aircraft on deck, launching, landing, fueling and cargo pick-ups with maximum speed and ease.

Awareness of operating procedures during takeoffs and landings meant that the Marines and sailors were able to maintain a high degree of safety even during high winds which made caution a necessity when the large rotor blades were swirling.

Although the carrier operation was not a new experience for the men commanded by Major R. L. Rathbun, the climate and terrain did bring on new problems as the squadron operated in conjunction with the ground troops in carrying on training and evaluating equipment.

Gusts of wind up to 50 miles per hour blew across the flight deck at times during the operation but the airlift of Dog Company was accomplished without a mishap. At the opposite end of the ship-to-shore hops, the big "eggbeaters" faced still other problems. The largest available landing zone in an area covered with small lakes and hills could accommodate only three or four aircraft at once. It was fairly level tundra covered with a mass of thick Arctic moss over a base of 20% solid rock and 80% half-frozen marsh.

From the lowest-rated enlisted man to the ranking officer, *Dog* company was enthusiastic about its assignment to the helicopters instead of landing craft for the five-mile trip from ship to the beach. Being dry and warmer, they felt far more confident of their ability to meet an enemy in establishing a beachhead during actual battle.

The day after the landing, squadron personnel were flown to a bivouac area adjacent to the ground troops' command post for continuing the maneuver. A flight line and office area were established, and the men of the squadron pitched the lightweight Arctic tents which during their days ashore were to replace the brick barracks of Cherry Point and the comfortable quarters aboard the *Kula Gulf*.

Keeping warm inside the tents was no problem because of the ample heat provided by gasoline-burning Yukon

MAJ. RATHBUN POSES BESIDE SNOWY 'COPTER

stoves, but the wind and spongy layer of ground moss did cause trouble. Because of the moss, the men found no way to assure secure tent tie-downs and several tents were blown down when the wind velocity reached as high as 60 miles an hour. Each tent received an extinguisher as a protection against fire, but there was no trouble on that score.

PARTICIPANTS, many of them veterans of the bitter Korean cold, in the operation found that the wearing of Thermo-boots at all times along with the regular cold weather clothing blocked cold feet and frostbite. For test purposes the *coldbar* suit was issued to some of the pilots and enlisted men. Their reactions were mixed, with most reporting that the suit's lightness and ability to keep the wearer warm as long as movement occurred made it ideal for cold weather activity. The major complaint was that it was not suitable for sleeping because the wearer perspired continually.

While high winds and snow made flying a risky proposition, the 'copter pilots made the most of it for training pur-

poses. The nearness of high mountains gave them a chance for flights not possible in the Carolina tidelands, and the Leathernecks logged many hours of mountain flying, with only one mishap despite treacherous conditions.

The one accident was caused by a sheared transmission mounting bolt which forced the crippled helicopter down on a mountain top, but here again the ability of 'copters to reach otherwise inaccessible spots paid off. A flight brought a repair crew to the snowy mountain top where it fixed the damage so that the plane could return to the landing area.

DIFFICULT working conditions could not keep the enlisted engineering personnel from maintaining an average availability of 93% of the squadron's helicopters. The work of the men on the line made possible the logging of 592.5 pilot hours during the 10-day period in the objective area.

The men on the flight line developed many gimmicks for working in the cold and snow. Routine checks were pulled on all aircraft and, in some cases, major repairs were made. Much of the work was done in the open, using arrangements of canvas for windbreaks, while during the worst weather the work moved into tents.

The fuel situation was handled by building a temporary dump in the squadron area. Two LCM's brought gasoline to the beach where 2nd Battalion amtracs picked it up and transferred the drums of fuel to two large holes dug in the tundra at the flight line where it was easily accessible.

Almost as important as the ship-to-shore landing, in the opinion of mail-hungry Marines on the maneuver, was a flight made by the 'copters after the squadron was established ashore. That 11-plane flight to Goose Bay, Labrador —125 miles southwest of the operation area—returned to the snow-covered tundra carrying more than 12,000 pounds of morale-boosting mail. Daily mail hops, possible in that region only by 'copter, were flown to Goose Bay with the letters being sorted aboard the carrier and distributed to Task Force units ashore and at anchor by small boats.

MORALE was kept high throughout *Noramex* by many means. Before the mail flights began the Leathernecks could count on movies for entertainment during the carrier's cruise. Here again the versatile helicopters proved useful, for they made several flights to the carrier USS *Cabot*—which had the F4U *Corsairs* that flew close air support for the landing—to swap films.

The deck of the carrier was converted into volleyball courts when not in use for flights, and fishing enthusiasts were given both opportunity and equipment for angling. While the ship was at anchor, simple hand lines were used to catch codfish which were cooked in the galley and wardroom. Ashore the anglers successfully sought trout in the many small lakes and streams on the Labrador mainland.

Although the near-Arctic airphibious assault was the main objective of the squadron's cruise, the helicopter men took advantage of the maneuver in many other ways. Besides the mountain flying, four pilots gained carrier qualifications during the cruise, qualified pilots took familiarization work and air-sea rescue routines were rehearsed.

In one of the maneuvers on the Labrador mainland, the helicopters carried a detachment of Leathernecks 10 miles to the interior where they were to work toward the coast, simulating guerrilla warfare. Then two more waves of ground troops, less heavily-equipped which permitted seven and eight men aboard each plane instead of the five or six-man capacity with full combat gear, were flown inland in a move to rout out the guerrillas.

Use of the carrier-based Helicopter Direction Center (HDC) was practiced thoroughly during the maneuver. While operating in the carrier area, radio control of planes was by the land/launch frequency aboard the *Kula Gulf*. While operating in the beach area, control was handled by the HDC; at the landing zone, control was transferred to the beachhead with more of it being visual than by radio.

Before the *Kula Gulf* reached the operation area, the members of HMR-262 thoroughly indoctrinated the "Heliteams" which were to take part in the assault. The teams were briefed and rehearsed on getting in and out of the aircraft quickly, seating arrangement and emergency procedures.

But the success of the varied training was not the reason the 24 pilots and 114 enlisted men of HRM-262 stepped proudly ashore for three days in Boston on their return from the frozen North. Instead they moved on to their hard-earned liberty conscious that they had, by making an airphibious attack in near-Arctic conditions, earned another first for the Marine Corps and Leatherneck aviation.

by Sgt. Roy Johns,
MCAS Cherry Point.

LATEST *and most spectacular photo of the Navy-Convair XF2Y-1 Sea Dart is this shot of the radical new twin-jet seaplane sitting on its tail and hydroskis after taxiing out of the waters of San Diego bay. The plane has a small tail wheel and casters on the back of the skis which are holding it in this extreme-looking nose-high attitude. The plane has a high angle of attack similar to the F7U-3, but the distortion caused by a low photo angle gives the Sea Dart an even "snootier" appearance. The plane has no big wheels but uses its hydroskis to get off the water quicker and for easier water landings.*

NOW YOU'VE BECOME A READY RESERVIST

"WE'RE MIGHTY *glad you're here," Cdr. A. L. Petijean, Columbus exec, tells LCdr. Orenge, LCdr. Baldridge and Capt. Collins as they deliver jets from NAS Grosse Ile*

CHANCES are, if you are affiliated with the Naval Air Reserve Training program, you aren't quite sure just what your status is now that the Armed Forces Reserve Act has gone into effect.

One of the biggest questions facing Reservists is just how vulnerable for recall to active naval service they become under the new law. Under section 21 of the Universal Military Training and Service Act, as amended, you are still subject to orders to active duty until 1 July 1953. After that date, when the Reserve law is fully implemented, your Reserve status will determine your priority for recall to active duty.

New terminology will indicate your Reserve status. Such designations as O1, O2, V2 and V6 are being replaced by five Reserve categories which are:

USNR-R	Ready Reservist (Active Status)
USNR-EV	Ready Reservist (Active Status) (Six years obligated service under the Universal Military Training and Service Act)
USNR-S1	Standby Reservist (Active Status)
USNR-S2	Standby Reservist (Inactive Status)
USNR-Ret	Retired Reservist (Retired Status)

All Reservists are liable for active naval service either in time of war, in time of national emergency declared by Congress or when otherwise authorized by law. However, if you are a Ready Reservist, you are also liable in time of national emergency proclaimed by the President of the United States.

Generally, all Reservists on active duty and those in "active status" on inactive duty will be assigned to the Ready Reserve. Those of you who still have obligated service will be designated USNR-EV. All other Ready Reservists will be designated USNR-R.

THE NEW law gives you an opportunity, through the duration and nature of your service on active duty and on inactive duty training, to qualify for transfer from one category to another. For example, if you are not on active duty but are assigned to the Ready Reserve, you may request transfer to the USNR-S1 category of the Standby Reserve providing you have a total of five years' active duty in the Armed Forces.

You are also qualified for transfer if you have not less than 12 months' active duty between 7 December 1941 and 2 September 1945 and not less than 12 months' active duty since 25 June 1950. Other Ready Reservists who may request transfer to the Standby Reserve are those with a total of eight years' service as a member of one or more Reserve components subsequent to September 1945 or those with a period of active duty which, when added to satisfactory participation in an accredited training program of one or more Reserve components totals not less than five years.

Officers on the Officer Inactive Status List will be assigned to USNR-S2. Enlisted personnel in Suspended Status for reasons of physical disability will also be designated USNR-S2. All retired Reservists will retain their status in the Retired Reserve.

The terms "Organized" and "Volunteer" become obsolete under the new

THIS IS *the "enemy." LCdr. H. M. Anderson conducts enlisted members of VS-872 on tour of Parche to give them close-up of the ship they'll be seeking from the air*

RUSSELL *Wright (Hen Sa Gli Ska) presents his painting to Capt. Drew. Brother Harvey (Ok Seela Hunska), was model for picture*

MARCH OF *Dimes money helped Janet Jenkins walk with braces and crutches. Parker, Hill, Scruggs and York watch results*

law. Units will be either pay or non-pay and will be known by a four-segment title. The first segment will be "Naval Reserve," the second gives the program name, the third gives the organizational type and the fourth indicates the number of the unit within NARESTRACOM or the Naval District. For example, if you are in a pay unit, it might be designated as Naval Reserve Aviation Air Wing Staff 72. A non-pay unit would be known as Naval Reserve Aviation Company 3-4.

The concept and number of associate volunteer drill and non-drill pay billets and of appropriate duty pay and non-pay billets will be retained. Ready and Standby Reservists may be assigned to them. The billets will be known as associate pay and non-pay billets and appropriate duty pay and non-pay billets.

YOU, AS a Ready Reservist, may be assigned to a billet in the Standby Reserve quota of a unit's allowance, if you are fully qualified for the particular billet and there is no vacancy for you in the Ready Reserve quota. However, you retain your Ready Reserve designation and obligations even though assigned to a Standby quota. Within the Ready Reserve quota of a unit's allowance there is room only for Ready Reservists.

As a Standby Reservist, you may request assignment to a billet in a unit's Ready Reserve quota. You must be fully qualified for the billet and request permission to have your designation changed to that of Ready Reservist. Such requests will normally be approved, provided you are qualified in all respects, a Ready Reserve quota is available and you will sign an agreement to remain a Ready Reserve not less than one year.

Seeing Is Believing

Four sailors from NAS COLUMBUS inspected the facilities of the Columbus Children's Hospital to find out personally where March of Dimes money goes. All of them were visibly moved as they watched pretty four-year-old Janet Jenkins cover ten feet to plant a kiss on the cheek of one of the sailors. During the whole painful process she wore a big, determined smile.

NAVCAD *Charlton trades football helmet for pilot's helmet with Cdr. Herrold at Spokane*

The men were convinced that the drive was more than just O.K. When they returned to the station and reported what they had seen, ticket sales for the Columbus March of Dimes Military Ball began to soar.

So You Want to be a Blimp Man?

Heavier-than-air pilots who have a hankering to learn how to fly Navy blimps may get their chance to do just that.

In order to increase the number of aviators in the Organized Naval Air Reserve lighter-than-air squadrons, HTA aviators who are currently in a non-pay unit will be offered the opportunity to transition to LTA. Many of these non-pay aviators live within commuting distance of LTA Reserve training facilities.

HTA pilots who volunteer for this training will spend four months at NAS LAKEHURST, learning the ins and outs, ups and downs of the Navy's airships. Upon completion of the transition training course, they will be transferred to Reserve LTA pay units.

Reserve Roundup

● NAS LOS ALAMITOS—A pastel painting, produced by Russell O. Wright, AD1 and stationkeeper, was presented to Capt. E. J. Drew. Model for the painting was younger brother, Harvey L. Wright, RMN3 of FASRON 775. Both men are Sioux Indians. The picture reflects the versatility of American heritage. In the background is a Sioux on his faithful horse standing in the past, while a Sioux of this generation faces the future with vision and certainty.

● NAS SPOKANE—A new twist has been discovered in the Korean conflict. The first NavCad born in Korea has enlisted in the U. S. Navy and someday may return to fight in the air over the land of his birth. NavCad Albert K. Charlton was born in Taiyudong, a mining village north of the 38th parallel, where his father was a mining engineer for a west coast corporation in the Orient. Charlton declined an opportunity to play professional ball with the San Francisco *Fortyniners* to enlist in the NavCad program.

● NAS OAKLAND—Enlisted members of VS-872 now have a first-hand knowledge of the elusive underwater target they seek out and kill from the air. They were taken on a group tour of the submarine *Parche*, a training sub docked at the Alameda Estuary.

● NAS COLUMBUS—The first four of eight FH-1 *Phantom* jets were delivered to Columbus by four NAS GROSSE ILE pilots. Reserve pilots will get a chance to fly the new jets as soon as they are qualified.

● NARTU JACKSONVILLE—*The Blue Angels* were one of the biggest attractions at the air show given during Open House.

● NAS WILLOW GROVE—The 1953 National Model Airplane Championship Contest, sponsored by the National Exchange Club, will be held at NAS WILLOW GROVE.

San Diego Publishes Annual

Air Station Features Writers, Beauties

NAS SAN DIEGO—A heavily pictorial, 84-page magazine-style annual has been placed on sale by this air station summarizing 1952 accomplishments.

Edited by Chief Journalist John R. Samuelson, it features a specially-posed picture of Marilyn Monroe, who acts. Each department of the station, as well as squadrons, divisions and major news stories of 1952 were "by-lined" by professional writers and columnists. Among them are Max Miller, Earle Stanley Gardner, Dale Clark, Duncan Hines, Neil Morgan and retired Marine general H. M. "Howlin' Mad" Smith. San Diego's mayor and chief of police also contributed articles.

A few copies of the 75-cent annual are still available to former NAS personnel upon request to the station's public information office.

Army Choppers Visit Point

Marines Loan Equipment to Khaki Unit

MCAS CHERRY POINT—Six khaki-colored helicopters settled down on the ramp here before the wondering eyes of Second Marine Aircraft Wing personnel.

The visitors turned out to be part of the 13th Helicopter Company of Ft. Bragg and they dropped in to visit Marine Helicopter Group 26 to borrow some needed equipment for a forthcoming exercise.

The Army pilots flew Sikorsky HRS-1's, so Marines were interested in comparing them with their own HRS-2 models. LCol. Frank H. Collins, CO of MAG-26, greeted Capt. William J. McCarthy, leader of the Army visitors.

PUZZLE: *Find the mechanic repairing this AD-3 engine on the Oriskany. Behind the prop is Gordon W. Scott, airman, in a rather crowded working position inside the Skyraider cowling. Scott is with VA-923, commanded by Cdr. J. C. Micheel. It has been operating from the carrier off Korea.*

Navy Announces New Rates

Guided Missileman is Aviation Title

BUPERS has announced that action is underway to put new rate changes into effect.

In the aviation group there is evidence of the increasing importance of guided missiles in warfare. "Aviation guided missileman" will be added to the general service ratings. Sailors qualifying for this rate will handle guided missiles designed for air-to-air or air-to-ground combat.

Although BUPERS has not yet specified duties involved, another general service rating, aviation fire control technician, is being added. It will probably pertain to both guided missile fire control from aircraft and present aviation fire control systems. The AOF rating is being dropped in its favor.

A new emergency service rating, aviation boatswain's mate (airship rigger), will replace airship riggers (ESA) and transport airmen (EST). The general service rating of aviation electronicsman (AL) will be absorbed into the aviation electronics technician rating. All of the emergency service aviation electronics technician ratings will be abandoned for the general service rating of AT.

WITH A *little spare time on their hands VC-61's Fox unit on the Kearsarge off Korea decided to test out their exposure suits for leaks. An engine container was filled with cold water and the men jumped in. A sign on the outside proclaimed: "Poopy Suit Dunker—For Writing Under Water with Fountain Pens and Checking Watches."*

Nurse Leads in Mars Time

VR-2 Pilots Rack Up Plenty of Hours

VR-2, ALAMEDA—Lt. (jg) M. C. Brunner, a flight nurse on the big *Mars* seaplanes, holds the flight time record for this squadron with 149.9 hours of flight in one month.

Flying the *Mars planes* from Alameda to Honolulu nightly helps many squadron pilots to get in plenty of flight time. Top men who were long on hours for a month include Lt. (jg) R. C. Slusser, 148.8 hours; Lt. W. I. Perry, 138.6 hours; Lt. (jg) M. W. Stratton, 137.6 hrs., and Lt. (jg) H. H. Allen, 134.3 hrs.

Spot Fires from Helicopter

Coast Guard Pilots Spread Warnings

NAS BROOKLYN—Two Coast Guard helicopter pilots were flying along over Long Island recently when they spotted flames in a large dairy barn below them.

Lt. (jg) Charles Lockwood landed the pinwheel on the lawn of the estate and called up a nearby fire department. Aloft again, he located the nearest fire hydrants, then hovered over highway intersections to direct fire engines to the shortest route to the scene.

Then he landed and with James Boone, ADC, helped the volunteer firemen lay 3,000 feet of hose, following which the fire was quickly controlled. Damage would have been greater without the helicopter's warning.

OLIVER PRESENTS FIRE HATS TO CG PILOTS

Lockwood turned in a similar fire alarm when he noticed smoke curling from upper floors of a Bayonne, N. J., school. Boone assisted in helicopter rescue of 19 plane crash survivors in dense woods near Gander, Newfoundland, in 1946 two Marines in the Virgin Islands.

In the photo, Lockwood and Boone receive "fire chief" hats from their commanding officer, LCdr. David Oliver of the Coast Guard Security Air Detachment at this station.

NAS CORPUS CHRISTI—A new use for helicopters has been discovered at this station—spotting plane fires.

The helicopter, piloted by Lt. B. W. Brender, had just been asked to assist in a possible rescue operation 20 miles south of Kingsville. An F6F *Hellcat* from NAAS CABANISS was in trouble there.

Just as Brender was about to take off from in front of the NAS control tower, he overheard a Beechcraft pilot report on the radio that his port engine was on fire on a runway about 500 yards away. Brender saw the fire truck had not arrived, so he took off toward the Beech.

Within a few seconds after he heard the call for help, Brender landed and handed a small hand fire extinguisher from the helicopter to a crew member from the SNB. The plane in distress already had used its own fire extinguisher. The chopper's put the fire out.

N.A. NEWS VISITS

MCAS
MIAMI

MARINE FLIERS RETURN TO OLD MIAMI HAUNTS

3D MARINE *Air Wing pilots take advantage of Miami's ideal flying weather to get in plenty of hops; Miami was Marine aviation's first home back in the post World War I 'crate' days*

MARINE aviation, full grown now, has returned to Miami . . . its first home.

In the same clear skies where *Jenny's* and de Havillands once flew, *Corsairs* and *Panther* jets now train for combat.

It is a scant five miles from the site of the ". . . almost entirely wild and uncultivated" Curtiss Field which, its name changed to Marine Flying Field, was the first aviation base in the history of the Corps. Today's Marine Corps Air Station is a bustling hive of intense air activity with more than 6,000 officers and enlisted men aboard.

Like the station that houses it, the Third Marine Aircraft Wing has a colorful history. Commissioned 10 November 1942 at Cherry Point, N. C., the wing had squadrons leaving San Diego for combat as early as 3 December 1943. The remaining components of the wing were ordered to the Ewa Mooring Mast Field (10 miles west of Pearl Harbor) in April of '44. Their work there was to train pilots in specialized combat tactics such as night fighting and radar bombing.

In 1944, after having committed its own squadrons to combat and training the flyers of others, the Third Marine Aircraft Wing, its mission accomplished, was deactiviated.

In February, 1952, as the Corps again fought in the Orient, the 3rd Wing sprang back to life at Cherry Point. Its units began moving to Miami in March when MCAS was commissioned.

Today the wing is well into its training program with a full aircraft wing complement of transport, attack, photographic and reconnaissance and fighter squadrons.

Most of the fighter squadrons flew conventional propeller-driven aircraft during their first hectic months here.

VMF-314, for instance, was flying *Corsairs* until the end of 1952. The new year found them completely converted to sleek F9F-4's. Like most of the squadrons here, VMF-314 finds itself high on the performance list of Fleet Marine Force, Atlantic. In July, '52 it was tops in instrument flying time for the entire FMF, Lant. In August it led in total pilot hours. It has consistently won honors in the field of safety.

TWO VMR-353 *Mechanics, Pfc's Claude A. Gant and Ralph E. Wallace, adjust R5C engine during winter Traex III maneuvers*

MARINE *enlisted men at Miami find liberty at "The Beach" pretty interesting; duty at that Floridan station is much in demand*

MSGTS. *Murphy, Winfield view Haitiian voodoo drums, one of few sets in white hands*

MSGT. *John Stone of VMR-353 claims more hours than any other Corps enlisted pilot*

MARINE *HRP, with "skin" removed, goes on civilian rescue with MSgt. Leonard Mounts*

Under the guiding hand of LCol. Homer S. Hill, veteran Marine pilot of World War II, VMF-314 has achieved steady progress despite the fact that when it arrived here many of its flyers were inactive reservists who had been away from flying for several years.

That it is now a combat-ready squadron is a tribute to the training program set up by Col. Hill and his executive officer, Maj. Charles H. Carr; and to the sprinkling of regulars in the squadron who have conducted the intensive ground classes. Lectures by such veteran flyers as Capt. Gordon Gardner get the boys back in the groove rapidly.

Capt. Gardner served with VMF-314 on Okinawa during the last war. The squadron holds a Presidential Unit Citation as a result of its work in the Pacific campaign.

Despite its high volume of flying, the squadron possesses an enviable safety record. Not one accident has been recorded since its recommissioning. Much of the credit for this impressive record is due the squadron engineering chief, MSgt. Edward Meirta, and his crews.

With them safety is more than a matter of occasional concern. "It's almost a fetish," one mechanic explained. The flyers maintain this intense squadron interest in safety with regular meetings devoted exclusively to the subject.

The story of VMF-314 is the story of men from all walks of life joining to reform a proud squadron. Capt. Jack Boice is a former professor of English at Columbia University. Second Lt. Ray Shinkle jumped to the cockpit of a Marine fighter from that of his auto racer. Capt. Gardner, now busy with gunnery and bombing runs, once worked for the government as a soil conservationist.

In all the squadrons aboard the station morale is high. MCAS boasts comfortable living and working quarters. Its swimming pools, theater, library and Marine Corps exchanges are popular with the men. Off-duty hours in Miami and Miami Beach are rated number one on the liberty list. Miami businessmen in many instances offer special rates to Marines. Many Miami Beach resorts have special rates that make an occasional week-end on the beach well within the average Marine's budget.

Although facilities were admittedly primitive, Curtiss Field seems to have been a pleasant duty station, too.

Existing reports mention the high morale factor here during the 1918 period; and the newspapers of that year make glowing mention of the "snappy" Marines and their choir, which seems to have serenaded most Miami organizations at one time or another.

The rivalry between the 1918 Marines' baseball team and that of the naval air station at Dinner Key was a major sports topic of the day.

Aiding the development of the pleasant relationship be-

PROUDLY *showing their "Flying Bobcat" helmets are VMF-314's pilots—Capt. Pytke, Lt. Saari and Capts. Hodson, Parmenter*

MILITARY *policeman at Miami practice their .45 cal. pistol qualification course on firing range used by Marines and Miami FBI*

tween the Marines now stationed here and local civilians has been the intense interest the Marines have taken in local civic affairs. When the Dade County Blood Bank set up an Armed Forces Blood Donation Center on the base a few months ago, the Leathernecks began supporting it enthusiastically. More than 3,000 pints of blood have already been given.

MIAMIANS appreciate this community spirit. For example, when the MCAS cooks, on their own time, prepared a huge cake for the young patients of the Variety Children's Hospital on the 177th anniversary of the founding of the Corps. The station has been active in the Boy Scout movement as well. Several tours of the base have been conducted for the youngsters, and last summer the air station furnished "lost parachutists" in a giant Explorer Scout operation in the Everglades. Recently, VMJ-3, a photographic squadron, laid plans to "adopt" a Cub Scout pack. Other outfits hope to follow suit.

The large part played by the Marines in the Orange Bowl activities of 1952-53 is proof of their standing in the Miami area. Marine units participating were: the combined Parris Island (S. C.) and 3rd MAW bands, Marine drill team and drum and bugle corps from Washington, D. C. and 1,000 marching Marines from MCAS.

The result of this constant interest in local affairs is a friendship between Miamians and Marines that is genuine and lasting.

Adding to the activity at MCAS MIAMI is a Marine Air Detachment and a Naval Air Reserve Training Unit.

With ideal flight weather common to MCAS (less than one percent of normal operational time is lost owing to bad weather at the air station), MAD frequently is host to Reserve squadrons from all over the country, anxious to realize as much flight time as possible during their two-week cruises.

NARTU is busy retraining Reserve flyers recalled to active duty. The well-knit outfit has a complement of 34 officers and 225 enlisted men. Capt. C. C. Howerton is commanding officer of the unit.

After the deactivation of the naval air station here in 1946, MAD and NARTU retained the Master Field portion of the base. The other areas on mainside became the scene of great industrial activity. Such diversified products as furniture, hosiery and vitamins were manufactured here. With the establishment of MCAS, most of the industrial buildings were restored to their original use as barracks and offices.

THE JOB of rebuilding the newest of Marine aircraft wings and its station fell on the shoulders of two of Marine Aviation's outstanding officers.

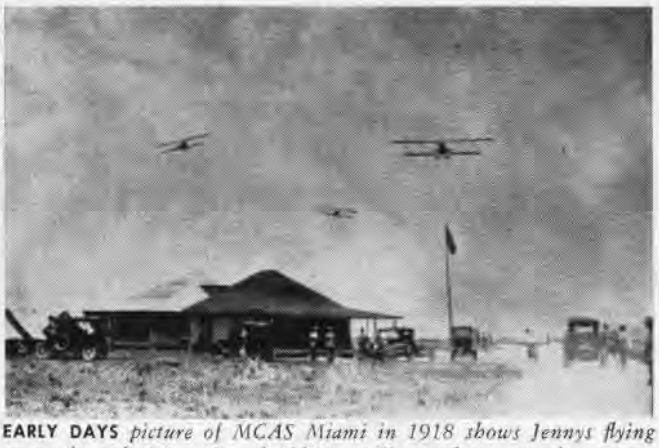
BGen. A. D. Cooley, commanding general of the Third Marine Aircraft Wing, is the holder of the Navy Cross for heroic services at Guadacanal where he led a group of dive bombers and fighters against enemy destroyers, scoring a personal hit. In a later attack two cruisers, 12 transports and seven planes were similarly blasted.

Gen. Cooley, who began his colorful career as a Marine private thirty-two years ago, was assistant director of Marine Aviation before assuming command of the wing in May, 1952.

Col. T. G. Ennis, commanding officer of the MCAS MIAMI, is also a former enlisted man having enlisted in the Marine Corps in September, 1922. He is a graduate of the U. S. Naval Academy at Annapolis.

Col. Ennis was awarded the Legion of Merit twice during World War II, the first while serving on Guadalcanal and the second for his part in the disarming and repatriation of the Japanese in the Tsingtao, China, area.

by Pfc. James H. Runyon.

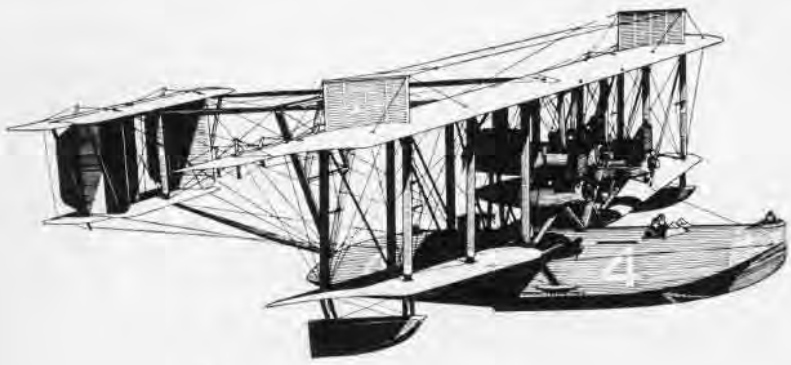


EARLY DAYS *picture of MCAS Miami in 1918 shows Jennys flying over the administration building, still standing on the station*

THIS IS *the way the MCAS barracks looked back in March, 1952, when the civilian industries vacated and the Marines took over*

PLENTY OF *elbow-grease and paint by the Marines soon transformed the barracks; fireproofing of all exterior surfaces helped*

NEARLY *65 years of Marine Corps service are reflected in work of BGen. Cooley, head of 3d MAW, and Col. Ennis, CO of MCAS*



Yesterday

Four Liberty engines, one a pusher, each developing 400 hp, drove the NC-4 at 71 mph. It weighed 28,000 pounds gross, had 125′ wingspan, bigger than a PBM. The NC-1 once held the world's record by carrying 51 passengers for a short flight.

TODAY

Progress in the design of seaplanes is demonstrated in this artist's drawing of the Convair *Betta* jet seaplane design, which resembles the XF2Y-1 *Sea Dart*, which remade taxi tests at San Diego, Cal.

VP-772 Beats Bad Weather

Crews Fire Air-To-Air Gunnery Record

When VP-772, affectionately known as "Victor Peter Double Natural Snake-Eyes," returned to NAS SEATTLE from NAS BARBER'S POINT, they ran into the worst of Pacific Northwest weather, making their air-to-air gunnery training a long-drawn-out, hit-or-miss affair, frequently interrupted by fog, rain and nearly constant IFR conditions. Cdr. R. L. Dahllof came up with the solution to the problem.

Three crews at a time were dispatched for a two-day stay at COMFAIR ALAMEDA'S Black Rock gunnery range, 80 miles from NALF FALLON and 690 miles from Seattle. They each completed three one-hour gunnery flights working with VU-7 from San Diego. Round-the-clock operation to and from Seattle permitted the whole training phase to be complete in eight days.

Each evening Fallon, Nevada, rolled out the red carpet for the returning aerial skeet-shooters with "Welcome Victor Peter Double Natural Snake-Eyes" sign in each casino window. Squadron nimrods proved to be sharp-shooters on the ground as well as aloft.

Aloft 12 crews made this score: 36 firing flight-hours in eight days, 85,600 rounds of .50 cal. ammunition, 80 Mk 20 Mod 2 targets towed, of which 58 were destroyed or shot down and 22 returned for the count. The top two crews brought back sleeves with 61 and 59 hits, but many targets disintegrated completely leaving only the ring for the trophy.

No record was kept of ground scores but many returned to Seattle richer by many silver dollars, supporting the squadron motto, "Illegitimis Non Carborundum!"

How to be Thin tho Strong

VR-21 Muscle Builders Chop off Lard

VR-21, PACIFIC—The scourge of pilots everywhere—"transport pilots' spread"—is being brought under control, thanks to more will power with body-building exercises and more "won't power" at the dinner table.

This insidious malady is first brought to the pilot's attention when he can't squeeze into the R5D cockpit seat. When the discovery is made, a daily one-hour session in the squadron exercise room is usually added to the toast-and-orange-juice routine.

A survey of the squadron showed some 200 men interested in body building, so a barracks reception room was converted into a gymnasium, with 1,600 pounds of weight-lifting gear. It has been busy from 1000 to 2100 every day since.

The care and feeding of bulging biceps is not achieved without some discomfort on the part of non-exercisers. As the muscle-benders perform their strange rituals with the weights, a chorus of grunts and groans resembling sound effects of a Roman galley at full speed or a Greek chorus heralding the hero's death, reverberates across the Ewa cane fields.

Proof of the efficacy of the exercises is demonstrated by seven faithful exercisers—Lt. (jg) A. L. Moore, Harry L. Bachman, AN; Gene C. Townsend, AD3; Glen Terhune, AD3; Virgil McDowell, AM2; Duke Liedtke, AN, and Thomas Counter, AN.

Those seven have added an average of 2½″ to their chests while losing an inch in the waist. Their weight went up 8½ pounds and they wear collars half a size larger. Biceps and forearms swelled 1½″. Their seat-spans went down 1½″.

St. Andrew Calls Out Haggis

Navy Plane Bears 'Great Chieftain'

The Navy played a part in ancient Scottish rituals just before St. Andrew's Day. A Navy plane took off from a London airport bearing 24 pounds of Haggis Scotch pudding to United Kingdom personnel on duty at HAFSE.

Any Haggis, which Bobbie Burns called "the great chieftain o' the puddin' race," destined for military forces rates military honors when boarding a ship or plane, so the piper was routed out early in the morning to observe the necessary rituals.

For the benefit of those not of Scottish ancestry, Chambers' Encyclopaedia says that Haggis is "usually made with a large stomach bag of a sheep, also one of the smaller bags called the king's hood, together with the lights, the liver and the heart. After the stomach bags have been well cleaned, the small bag is boiled along with the pluck (or viscera). A quarter of the liver is now grated down and the heart, lights and small bag are minced very fine along with a large onion and enough beef-suet to moisten the meal. Two small teaspoonfuls of oatmeal, previously crisped, are added with salt and black Jamaica pepper. The whole is stirred together and put in a large bag, which however must not be more than half filled. It is boiled for about three hours."

After they read the recipe for Haggis, none of VR-23's pilots wanted to try it.

MONTEREY BUILDS AVIATION EXPERTS

GREAT teachers, earnest scholars, a mild climate—such were John Henry Newman's requirements when he described his *Idea of a University*. This ideal would appear to be achieved in great measure at Monterey in the Navy's Post-graduate School.

Climate, accommodations, study conditions and curricula have been so favorably reported upon that when BUPERS Instruction 1520 is released, many a braintruster should seize the opportunity to enrol. But before a naval officer finds the doors of Monterey opened wide for him, there are the usual lengthy and essential preliminaries, however.

The first step is to put in your request for postgraduate work. Let us suppose you want to take "Aeronautical Engineering". You prepare your request in accordance with the Instruction and send it through official channels long before 1 July, the final deadline for your letter to reach BUPERS.

During August or September, you take a special test designed to disclose your latent ability. In November, the boards—there is a board for each specialty—meet at BUPERS for the selection of candidates.

There is nothing casual about the study of each applicant's record. The board members pay particular attention to the previous fitness reports of each candidate (since the Navy prefers to invest this education in officers who show good probability of being promoted), his academic background, his aptitude test score, the date of his original commission and his flight experience.

They are also interested in his total sea duty, sea duty in present rank (minimum sea duty in grade should be completed before date of enrollment if promotion is likely prior to completion of the course), his present location, and whether he is due for sea or shore duty.

Then they make a list. On it are the candidates recommended in order of preference. Some may not meet all requirements, such as date of original commission or amount of flight experience; but if the board considers these officers otherwise well qualified, it may recommend a waiver. The board submits its report to the Chief of the Bureau of Naval Personnel for approval. It is usually approved as written, but the requests for waiver may or may not be granted.

When the report is approved, both OP-54 and the Postgraduate School are given lists of those who have been selected, and the School prepares *refresher courses* to be sent to the nominees who request them.

THE ADMINISTRATION *building of the United States Naval Postgraduate School at Monterey displays architecture and landscaping appropriate to its beautiful California background.*

If you are selected, you will receive your orders sometime in May to report to the school. When you arrive at Monterey, the "fun" really begins.

AT PRESENT there are approximately 500 students in the Engineering ing School, and approximately one-half of those change each year. In other words, you and about 249 other officers are reporting in about the same day. The first few days are spent in drawing books, (yes, the textbooks are provided by the school, all you need to purchase is an engineering handbook and slide rule); getting class schedules, finding classrooms, locating professors, reporting to the officer-in-charge of your curriculum, and locating the naval auxiliary air station. You are also getting the medical check-out and finding housing for yourself and your family. In short, it is not much different from any other change of station or duty.

The housing situation in the Monterey area is fairly bright, at the present time, and it will probably improve as time goes on. There has been a great amount of private building by personnel already in the Monterey area, by the engineering school faculty and even by some of the present students.

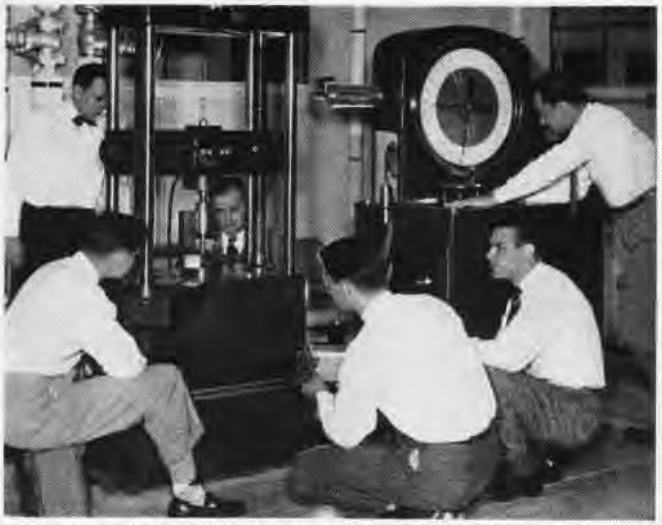
In addition, the School authorities have seen to it that Wherry Housing was obtained for this area. Approximately 135 units were well underway even before the move of the school was started, and after the move, construction of an additional 384 units was begun.

Monterey, the first capital of California, is noted for its charm and culture. Its climate is delightful and relatively even, lacking the extremes of bitterly cold winters and stiflingly hot summers for which the School's previous location was notorious. It is within two to three days auto drive of all the Western National Parks, including Glacier, Yellowstone and Carlsbad. The recreational possibilities within one day's drive are tremendous; Big Sur is less than 40 miles away; San Francisco, about 100 miles, and Yosemite and Sequoia Parks, less than 300. All in all, "life can be beautiful".

Monterey itself is an interesting mixture of fishing fleets, canneries, marine supply shops, historical museums, famous eating places, educational institutions, beautiful homes, active art groups, busy shopping centers, magnificent scenery and some of the most famous golf courses in the world.

Facilities for flying are away ahead of what they were at Annapolis. NAAS MONTEREY, located about one mile from the school, has 60 aircraft—SNB's, JRB's, SNJ's and F6F's—to provide pilot time for all the aviators in the Postgraduate School which includes both the General Line and Engineering School.

CAPT. G. K. *Frazer (l) relieves Capt. J. S. Tracy as Director of Line School. Bas relief shows bit of early California history.*



PROFESSOR *A. K. Schleicher (standing left) works with first year aeronautical engineering students in stress analysis laboratory.*

All groups of students are divided into flight wings, each wing having one half day each week for flying. The flight program is well organized and starts off with one-half hour of ground school lectures for familiarization with local flying rules, civil air regulations, instrument qualifications, etc. It is possible to get in approximately three hours actual flight time in each flight period.

Night flying is readily available and is scheduled practically every night. The program is so arranged as to facilitate obtaining or renewing instrument cards. Cross-country flights up to the allowed maximum of 1,200 nautical miles are encouraged in the interest of airways, instrument and night training, after pilots have obtained the proper instrument ratings. GCA practice is readily available through local arrangement with NAS MOFFETT and Castle AF Base.

BUT THE main thing is the school, and for the first days, it may be rugged. It's hard to get back to books after having been occupied primarily with operational duties which did not require actual studying. But you stick with it and after the first day's work it seems a little easier. After the first week's work, it seems easier yet. Not that the work itself is getting easier, but you are getting into the proper frame of mind and renewing sound study habits. Also your interest in the work itself increases by leaps and bounds as you get into the details of these specialized courses you are taking and begin to get some idea of the whole pattern of learning in which you are engaged.

The routine of the school is not too rigorous. The day begins at 0830 and continues sometimes as late as 1630 with one hour out for lunch. Classroom sessions are 55 minutes long. Classes are held Monday through Friday.

The academic year is divided into four terms of approximately 10 weeks each with an intersessional period of a few days to a week between terms. The academic year terminates with the graduation ceremony about the middle of June. The time between academic years is spent in field trips of approximately six weeks duration followed by two or three weeks leave. Field trips give each curricular group an opportunity to inspect certain military and civilian industrial activities appropriate to their branch of study.

Because the Postgraduate School catalogue is couched in terms not always easy to understand, outlined below is a brief description of each curriculum in simple terms.

Aeronautical Engineering (A)—The general aeronautical engineering curriculum is designed to provide officers with advanced aeronautical engineering knowledge necessary to meet the technical requirements of the Navy in the supervision and direction of, as well as liaison with, activities concerned with research, design, development, test, production, utilization and modification of Naval aircraft and associated components. It consists of a two-year program at the Postgraduate School, Monterey, and opportunity is provided for those who are well qualified and who desire, to continue for a third year of further advanced work in a particular phase of aeronautical engineering at a civilian university. The program at the Postgraduate School includes: mathematics, through ordinary and partial differential equations; vector analysis, and functions of complex variables; mechanics; chemistry (general, petroleum, and plastics); metallurgy; structures and stress analysis; electricity, from AC to DC circuits through servomechanisms; aerodynamics; aerodynamic performance; thermodynamics; airplane design; flight analysis; hydro-aero-mechanics; compressibility; aircraft engines; aircraft dynamics and gas turbines.

During all this time, and over and above the classroom work just outlined above, there are lectures by recognized outside authorities on such topics as BUAER programs, plans, and developments; new weapons; industrial organization and business administration. Also there will be a flight program over and above that previously mentioned, emphasizing performance characteristics, test methods, stability and control; in other words, in-flight laboratory work for some of the topics above mentioned.

To complete this rounding-out phase of the course, there are the previously mentioned field trips between the first and second academic years. Also, at the completion of the second year all students attend a specially tailored summer course in engineering administration at a civilian university—at present, the Duluth branch of the University of Minnesota.

By the end of the fifth term (first term of the second year), each student must decide whether or not he is interested in continuing a third year at a civilian university. Those who take the three-year program will be given a slightly different course during their last three terms in Monterey. The regular program is modified to include further work in mathematics (matrices and numerical methods), vibrations, advanced stress analysis, internal flow in aircraft engines, physical chemistry, qualitative analysis, and atomic physics. Selections depend on the university to which the student desires to go and the field of study in which he expects to specialize during that third year.

General aeronautical engineering is given at the University of Michigan; structures and compressibility at the California Institute of Technology and the University of Minnesota; flight performance analysis at Princeton University; seaplane design at Stevens Institute of Technology; propulsion systems at the Massachusetts Institute of Technology, gas turbines at Rensselaer Polytechnic Institute; jet propulsion at California Institute of Technology, University of Minnesota, and Princeton; nuclear propulsion at Oak Ridge and Iowa State.

At the end of the two-year course at Mon-

terey, all students who have maintained an academic quality point rating of 1.0 (equivalent to a C) or better, will receive the degree of Batchelor of Science in Aeronautical Engineering. In some cases, students may be able to qualify for the degree of Master of Naval Aeronautical Engineering. Upon completion of the third year's work, if the student's academic record has met all the requirements of the university concerned, he will receive the degree of Master of Science, Master of Science in Aeronautical Engineering, Master of Engineering, Master of Aeronautical Engineering, or the professional degree of Aeronautical Engineer.

Aeronautical Engineering (Armament or AR)—This curriculum is designed to provide officers with aeronautical engineering and electronics engineering knowledge to meet the technical requirements of the Navy in the field of airborne armament, fire control devices, and guided missile control. The specific program undertaken in this curriculum is quite similar in scope to the "A" curriculum described above, but includes additional work in mathematics, electricity, electronics, exterior ballistics, and guided missile guidance, and excludes all work in propulsion systems. At the end of two years the degree of Bachelor of Science in Aeronautical Engineering is awarded.

The third year for those who continue is conducted at the Massachusetts Institute of Technology where they receive additional work in the fire control instrument laboratory. Upon the successful completion of this year, the degree of Master of Science in Aeronautical Engineering is awarded.

Aeronautical Engineering (Electrical—AE)—This course is designed to train officers in advanced aeronautical engineering and electrical engineering knowledge to meet the requirements of the Navy in the field of airborne electrical equipment and systems. The program undertaken in this curriculum is similar in scope to the "A" curriculum, but includes additional work in mathematics, electricity and electronics, and emphasizes servomechanisms and electrical machine design. The Postgraduate School awards to those who qualify the degree of Bachelor of Science in Aeronautical Engineering at the end of the second year and the degree of Master of Science in Electrical Engineering at the end of the third year.

MR. E. G. *Stout of Convair explains operation of the dynamically similar flying models used in flight research, to a group of aeronautical engineering students on field trip.*

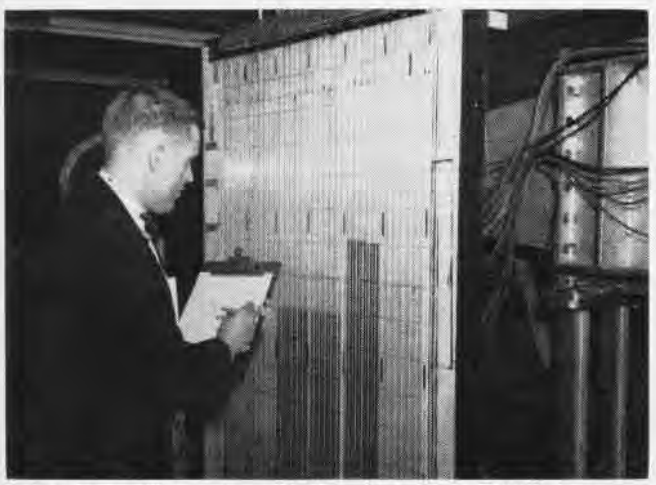
Engineering Electronics (E)—This course includes mathematics; geometric and physical optics; dynamics; electrostatics and magnetostatics; AC and DC electricity and machinery; electron tubes and circuits; circuit analysis and measurements; electromagnetics; acoustics (fundamental, applied and underwater); antennas; sonar systems and developments; and special systems.

The third-year work is conducted at the Postgraduate School, Monterey, or at the University of California at Los Angeles for those who wish to specialize in underwater sound. In addition, one full term of the third year's work at the Postgraduate School is spent in an industrial electronics laboratory such as Bell Telephone, RCA, or General Electric, on a project related to the student's thesis work. Bachelor of Science and Master of Science degrees in this field are awarded to those who qualify.

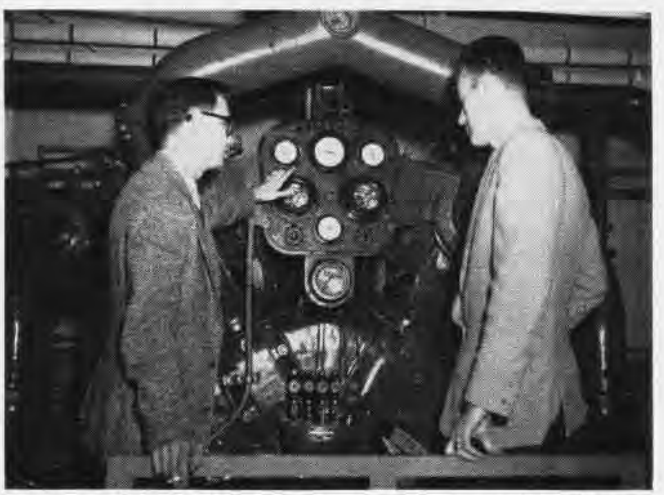
Ordnance Eingineering (Jet Propulsion—OJ)—This curriculum is similar to the aeronautical engineering curriculum except that the third year work is conducted entirely at the California Institute of Technology. The field trips for this group are under the cognizance of BUORD.

Ordnance Engineering (Aviation—OE)—This curriculum is similar to the AR curriculum except that officers are under the sponsorship of BUORD, rather than BUAER.

The foregoing account outlines the curricula most aviators and AED's would take except for aerology, which is self-explanatory, comptrollership, law, management and industrial engineering, naval intelligence, operations analysis, and nuclear engineering (effects), these curricula require less time and have only small numbers of aviators enrolled. Complete details of these courses are contained in the annual BUPERS Circular Letter (or Instruction) and the Postgraduate School Catalogue.

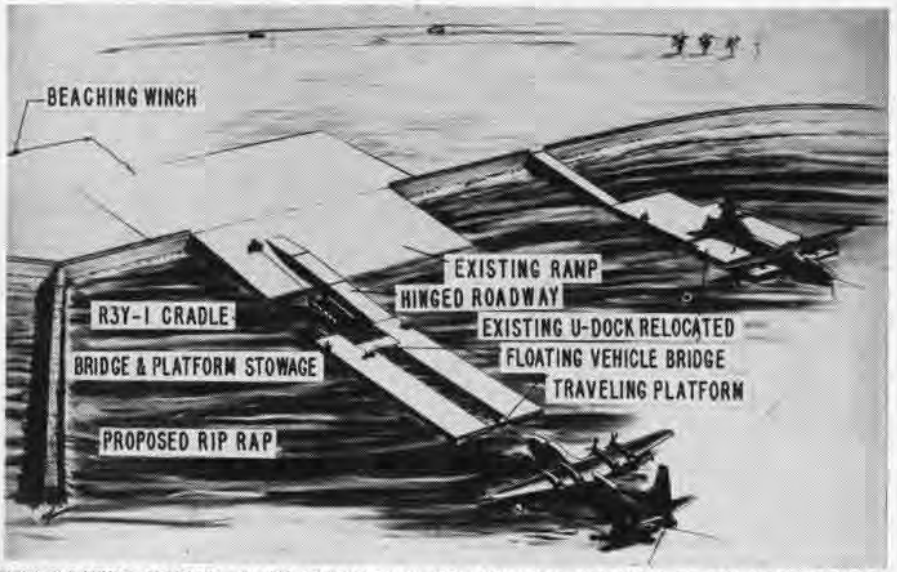


LT. JOHN F. *Wester is carefully taking down initial manometer readings prior to commencing a test in transonic wind tunnel.*



STANDING *before panel of compressor for transonic and supersonic wind tunnels are Prof. R. W. Bell and Lt. R. F. Roche.*

NEW DOCK FOR R3Y SEAPLANES



NEW FLOATING SEAPLANE DOCK AT HONOLULU TO FACILITATE BEACHING OF R3Y MARS AIRCRAFT

A NEW larger seaplane dock to handle *Mars* and the new Convair R3Y which will join the Alameda-Hawaii run later this year is being constructed in Keehi lagoon, Honolulu.

Capt. E. J. Peltier, 14th Naval District public works officer, reported the revamping work would cost more than $300,000. The new dock will provide more efficient seaplane docking, requiring fewer men and doing the job more speedily.

Both the proposed dock and the existing one now used by the four *Mars* planes are three-sided U-shaped structures that float in the lagoon. When the new unit is completed, a seaplane may be towed directly from the dock onto the beach for repairs when the end is opened.

The opening end, a floating bridge, connects two floating wharves and is one of the main departures from the present dock. Planes now have to be towed out of their dock and up an adjacent ramp for repairs.

The work will involve construction of two new concrete floating wharves, each 180′ long and 34′ wide. The floating bridge (*see drawing*) will be 30′x30′ and can accommodate trucks to load and unload the bow-opening Convair seaplanes. Construction of the dock will take about nine months. A dock of similar design is proposed at Alameda.

The new R3Y's have four T-40 turboprop engines which will give them a top speed around 350 mph. The Alameda-Honolulu trip is expected to take only about seven hours in this seaplane since they are rated at better than 100 mph faster than the *Mars* seaplanes.

JET PILOT CHASES ODD OBJECT

MCAS CHERRY POINT—A favorite ready room conversation for Second Marine Air Wing pilots has been the story of the "flying saucer" which recently outsped an F9F *Panther* jet flying more than 500 mph.

The jet pilot, 1st Lt. Ed Balocco, was on a local night flight from ALF EDENTON when alerted by Norfolk Navy tower to watch for a silver object sighted from the ground near the North Carolina-Virginia line.

Over Washington, N. C., the VMF-224 pilot said, "I saw what looked like an airplane with red lights which appeared to be below me . . . . It moved from below me 10,000 feet vertically in a matter of seconds.

Balocco said he poured on the coal and could not close on the object at first, then closed rapidly. At a distance of 10 miles, it looked about a quarter of an inch wide and three inches long to the lieutenant's vision. From that he considered it a "big" object, the color of white heat and throwing out a glow. It had what appeared to be two red lights on the left-hand side, flashing and bouncing off the end, inscribing an arc.

As the object began pulling away again, the pilot radioed other planes in the area to help track it. Diving toward the spot where the object disappeared, Balocco thought he saw a flash but was unable to see it again. By then he was joined by Capt. Thomas W. Riggs of the same squadron, who sighted an object flying near the coastline but could not identify it.

Similar flashes were reported by a Navy pilot from Norfolk and Gerald Midget of Oriental, N. C. Midget told of the flash being followed by a ground fire but no explosion. Marine helicopters later searched the area and found a small forest fire but no traces of a crash.

The object was first reported by a helicopter at 1747. Ground control intercept radar failed to pick it up, but Balocco sighted it about 1800.

Balocco, a veteran of 550 jet hours and 1,000 flying hours, said visibility was so good that from 20,000 feet at Washington he could see the lights at Norfolk and the Cherry Point beacon. He had the object in sight three or four minutes.

"CAN'T SEEM TO GET BY THAT SUPERSONIC BARRIER!"

Carrier Has College Classes

Monterey Enlisted Men Are Teachers

NAS PENSACOLA—The aircraft carrier *Monterey* probably is the first flattop in the Navy that can call itself a floating university, with fully-accredited instructors.

So that the carrier's personnel could advance their education, two members of the ship's company have been accredited by Tulane-Pensacola University to act as instructors. Al Romernshauser, RD3, a Louisiana State University graduate, teaches college algebra while Edward Cortese, SN, a Fordham graduate in journalism teaches English I.

Classes are held on the base Monday nights and aboard ship Wednesday evenings. The idea minimizes the time the men are away from the ship and is believed the first time the Navy has made such courses available. Reaction to the course was extremely warm, with many men taking a total of six college credits by enrolling in both classes. Heretofore, the only way men could get such credits was through correspondence courses.

● NARTU SANTA ANA—A new K-type Navy blimp has been erected by a civilian crew from NAS LAKEHURST. It is being used by LTA Reserve pilots in their training.

● COMAIRPAC—The Pacific Fleet VP-VU quarterly safety award flag was awarded to VP-22 for a commendable 100 percent flight safety record during the first quarter of the fiscal year. VP-22 accumulated an impressive 2,463 flight hours without mishap.

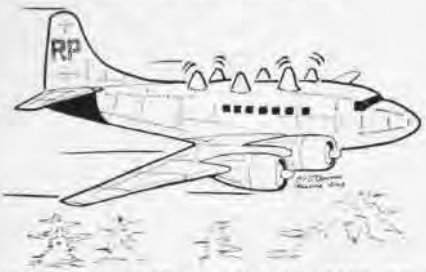
Buddy, Can You Spare A Pint

Navy Man Gives 8th Gallon of Blood

Over the years Warrant Boatswain L. W. Livingston, Class "A" Catapult and Arresting Gear Officer of NATTU PHILADELPHIA, has been giving a good imitation of a one-man blood bank. Boatswain Livingston has given his sixty-fourth pint of blood, making him eligible for the Gallon Club for the eighth time.

While attending Arkansaw High School in Arkansaw, Wisconsin, a lifetime buddy of Livingston's was in a serious automobile accident and bled to death. Livingston started making his donations after the accident.

While Livingston was the flight deck boatswain of the *Essex*, operating in Korean waters, a serious deck crash occurred. Several men lost their lives and many were burned seriously and needed immediate blood transfusions. One of the men needed the rare AB type blood. This was Livingston's blood type and he gave 3 pints in the emergency.



"SAY, FOWLER, BETTER HAVE THE PASSENGERS FASTEN THEIR SAFETY BELTS."

Ferry Pilot in Rough Trip

Takes Seven Days to Transit Country

VR-31—Aviation Pilot F. M. Howell had a long slow look at the country while ferrying an OY-2 to the West Coast. The trip took seven days and involved 28.1 hours of flying.

Howell's preceding trip to the coast was in an F9F with a total flight time of 7.4 hours. He prefers the faster plane.

On his OY flight, Howell was held in Spartanburg, S C. three days by weather. Rain, ice and cold plagued him nearly all the way cross country. Ground speeds averaging 55 to 65 knots for a large portion of the trip soon discouraged Howell from racing with cars and trucks on the highways—it always seemed to be a losing game.

In New Mexico, severe carburetor icing made the use of full carburetor heat necessary and limited his ceiling to 8,000 feet. Down drafts on the lee side of Hilltop (elevation 8,000 feet) forced him to make a 180° turn and fly through the pass east of Wilcox, Ariz., at 5,500 feet with heavy turbulence making the small plane's limited progress most uncomfortable for the pilot.

ON THE FLYING TRAPEZE?

HIGH over the tail of this JD over NAAS El Centro is Carp. L. T. Vinson, jumpmaster at the Navy parachute unit. He has been ejected with his seat in flight to test the automatic release which frees him from his seat after it clears the tail of the plane. Note the wide margin of safety the ejection seat gives a pilot. The ejection seat is the pilot's best ally in case of trouble in high-speed planes; many pilots' lives have been saved by its use.

CHUTES VALUABLE IN DEEP SNOW

MCAS CHERRY POINT—Parachutes are good for more than just bailing out of airplanes, nine officers and 19 enlisted men from here learned recently on the snow-covered slopes of Pickle Meadows, Calif., in the Sierra Nevada mountains.

They went through the Marine Cold Weather Training unit course to learn the tricks of staying alive in Arctic conditions. Going into the mountains with waist-deep snow, the extra weight of the parachute seemed at first an added burden to the men starting the week of training. But the Leathernecks soon were glad they had them.

Before the exercise ended every man on the maneuver was convinced that he never would discard his parachute after bailing out over desolate areas. The Marines, using every part of their chutes, improvised shelters, slingshots for hunting, foot and leg wrappings, moccasins, caps and packs.

The slingshots were supplemented with rabbit snares and fishing lines. One previous group caught 32 rainbow trout in Pickle Meadow streams. Officers going overseas with the replacement draft were especially interested in the parachute's use in snow-covered area because the Meadow is nicknamed "Little Korea" because of its similar terrain and climate.

Working in teams of three men to a parachute, the Marines learned the value of nylon canopies in building snow huts or caves for their camps. They also found that cut-up nylon made good camouflage in the snow.

In teaching the pilots and aircrewmen how to survive in cold weather if forced to bail out over enemy territory, the course covered the proper use of foul-weather clothing, hunting for, butchering and cooking deer meat and the importance of "snow watches" to guard against the danger of being buried at night by drifts.

From the personnel at the training unit, the Marines learned this key to cold weather survival, built around the word C-O-L-D:

Keep it *C*lean
Don't Get *O*verheated
Wear it in *L*ayers
Keep it *D*ry

The Cherry Pointers, led by Col. Clyde T. Mattison, found that key valuable when the time came to break through the "enemy" lines maintained by training unit's permanent personnel. Struggling through the deep snow, the Marines returned to the main "friendly" camp over a seven-hour period at night.

Back at the comfortable main camp, the Marine aviators were quick to agree they were miserable most of the time during the exercise. But they also agreed that battling the snow, cold and "enemy" was worthwhile for the added confidence it gave them in their ability to survive in enemy territory in winter.

● CINCNELM—A new Navy Air Command has been established with headquarters in Naples, Italy. Headed by RAdm. E. A. Cruise, it is known as Fleet Air Command, Eastern Atlantic and Mediterranean.

● USS MONTEREY—Civilians who want to see what a carrier looks like will get the chance at NAS PENSACOLA. This carrier will be open to the public between 1400 and 1600 on Saturdays, Sundays and holidays.

LETTERS

SIRS:

I notice in the February issue the reporting of the very commendable new 1st MAW record by the *Wolfraiders* for tonnage of bombs dropped in one day. The big question that arises, however, is how much tonnage was actually put on pin-pointed targets.

There appears to be a growing desire to establish new records for increased tonnage lifted off flight decks and airstrips. Using such a yardstick merely increases the logistic problem. Re-supply and storage are already formidable factors in naval warfare. A far better claim to fame would be to increase the percentage of direct hits. This would, concurrently, do more damage to the enemy with a reduced expenditure of ordnance.

Pre-strike photographic reconnaissance for accurate and specific briefing followed by post-strike damage assessment photographs to determine definitely the extent of damage is the only way to assess effectiveness accurately. The strike pilots should study thoroughly such before-and-after photographs. They can increase accuracy only by knowing the extent of previous errors. Bombs or rockets that do not hit the target might just as well have been dropped in the ocean.

The foregoing is not intended to deprecate in any way the outstanding work being done by the Navy and Marine Corps pilots in Korea, but is only a plea for a more realistic measure of damage inflicted on the enemy.

A. D. FRASER, CAPT.

SIRS:

In the January issue, an A2C of the USAF, one Myles J. Ports, sent in a query regarding the reason for propellor blades being bent forward on crashed aircraft . . . the answer given was wrong, dead wrong.

Enclosed is one of our accident photos showing, rather conclusively, all blades bent forward. Furthermore a study of other accident photos will show others. It also happened to me. I ran into a large tow reel on takeoff (didn't get off)—all three blades were bent forward, even more than the enclosed photos.

ADRIAN O. HUDLER, LCDR.

NAS SPOKANE

¶ The News told Potts it never had seen a picture of prop blades bent forward, which is correct.

We thank Hudler for sending in proof it does happen, but are still in the dark as to what causes the freak bending forward.

NOW HEAR THIS!

All Waves, past and present, active and inactive, USN and USNR, are invited to attend the eleventh annual national Wave reunion to be held July 31st, August 1st and 2nd, 1953, at the Brown-Palace Hotel, Denver, Colorado. For information, send a self-addressed, stamped envelope to

Nat'l Wave Reunion Committee
Post Office Box 622
Denver, Colorado

SIRS:

Enclosed is a tearsheet containing an article which I did about your lively character, P. S. Pettibone. You can see how liberally I borrowed or stole from the NAVAL AVIATION NEWS article, but since it was all in a good cause, I am sure that you won't object.

Even though I am just a civilian and never had any Navy service, I have been reading and enjoying Pettibone for some time, and so I took this opportunity to introduce him to the general public. As someone who has been trying to make dry reading interesting to an uninterested public, I want to express my admiration for both Capt. Warner and Cdr. Osborn. They certainly do a first rate job.

ROBERT W. SMITH

THE MINNEAPOLIS STAR

¶ Thank you very much for the editorial feature with its three-column head. We are glad to have Gramp introduced to an ever-widening public.

SIRS:

I am pleased with the interest being shown by the Navy, and in particular NAVAL AVIATION NEWS, on MIG-15 destructions in Korea by pilots of their command.

I have been gathering data on *Mig* kills ever since the Migs made their appearance in Korea in November, 1950, and now have probably the most complete list of victors that can be found outside of official records. This is due mostly to the kindness of FEAF PIO and your own USN historical office.

To bring your list of MIG-15 victors by USN and USMC pilots up to date, the following information is offered:

First, LCdr. Paul E. Pugh did not get those two *Migs* in 1951—they were gained in 1950 and he was among the very first pilots to bag a *Mig* while flying a Saber.

The dates for Maj. Alexander J. Gillis' victories are as follows: one on Sept. 15, 1952, and two *Migs* on Sept. 28.

FEAF headquarters' official report of October 1952 does not give credit for a destruction of a *Mig* to Lt. Walter M. Schirra. They list this claim as a "probable". Schirra was flying an F-84 with the 136th Fighter-Bomber Wing, not an F-86.

A. E. FERKO

1076 N. ELLSWORTH
SALEM, OHIO

¶ A personal letter from LCdr. Pugh says his kills were in 1951. Schirra was an exchange pilot in October, 1951, when he got a *Mig* and the Wing got its F-86's later.

CONTENTS

● THE COVER

Third in Naval Aviation News' Series of cover photos on "Faces of Naval Aviation" is this month's aerial photographer. Model is Harry L. Ryan, AFAN, of Naval Photographic Center, Anacostia. Photo by E. M. Phillips, AF3.

● BACK COVER

John R. Samuelson, JOC, of NAS San Diego shows a copy of Naval Aviation News to two of Hollywood's Finest, Jane Russell and Marilyn Monroe, who recently teamed up in a movie about gentlemen preferring blondes. (20th Century-Fox photo).

● SUBSCRIPTIONS

An unclassified edition of Naval Aviation News, containing special articles of interest to Reserves, is available on subscription for $2 a year through Superintendent of Documents, Government Printing Office, Washington 25, D. C. Changes of address for this edition should be sent to the above address.

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WINTER HITS NAVY OFF KOREA

THE three carriers attacking Communists off Korea fight Old Man Winter on the side. Above, a gun captain on the "Oriskany" surveys his ice-choked gun mount. Below, the flight deck crew shovels ice and snow off the slippery and frigid deck after a sudden storm deposited load on CVA-34, commanded by Captain Courtney Shands.

FIGURE ALL THE ANGLES

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