FEBRUARY 1953
NavAer No. 00-75R-3

SHARE THIS COPY

ACTION IN KOREA

Spectacular action pictures taken by Ens. M. J. Barnes of VF-71 of Bon Homme Richard show Lt. R. P. Yeatman rocketing, bombing Korean bridge. Lower photo shows second bomb dropping away. Picture taken with K-25 camera capsule on bomb rack, 1/500th sec. at f 4.5.

WHERE DO WE GO FROM HERE?

EVERY PIECE of equipment a naval aviator uses and all the services which speed him on his way were at one time only ideas—as ephemeral and less substantial than a summer's puffy cumulus cloud.

Be it an F7U or a *Charley* pattern, somebody had to think of it first.

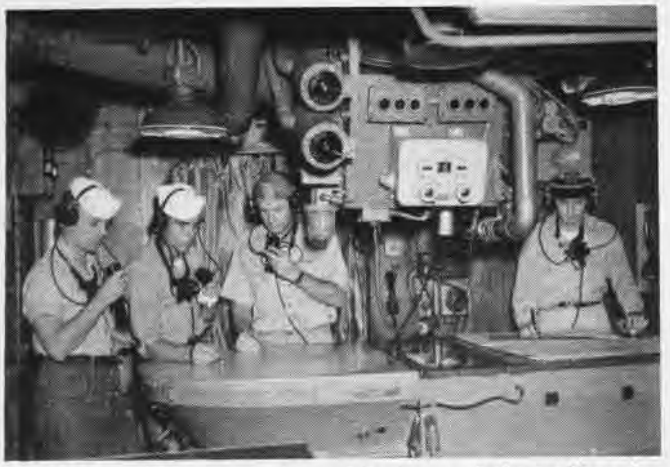
In naval aviation, no brain has a monopoly on original thinking. The idea might be in the head of a fleet pilot, an engineer in BUAER or a scientist in ONR. Circumstances, however, have concentrated the planners in Washington. Consequently, pilots flying the machines often have felt their voices were raised for naught.

But there is a place to be heard. No longer need they feel that their ideas are lost in thin air, for there is an agency whose function is to listen to them and to peer into the nebulous future. It pools information and knowledge evolving new and unheard of systems and equipment to fulfill future needs of naval aviation. After applying scientific methods to research, it determines what should be developed further and what should be discarded.

Now six years old, that agency is the Air Branch of the Naval Sciences division of Office of Naval Research. It sponsors a broad program of basic research in selected scientific fields bearing on naval problems. In addition, ONR supports a major applied research program, and is constantly looking for new ideas or principles that will lead to development of new weapons or warfare techniques. The field is as wide as the horizons, and just as challenging.

Air branch is one of five branches dealing with military operations, armament, amphibious warfare, undersea warfare and developments dealing in aviation.

By Lt. C. A. Mobley, Air Branch, ONR.



CLUTTERED-*up CIC room in Navy ships is one of the problems being studied by ONR Air branch; machines will replace more men*

PILOTS OF *supersonic planes will have little time to look at complex instrument panels, so simplification is order of day*

IN MANY instances aircraft and control systems, like Topsy, just "growed". For example, wartime CIC. With the first practical radar, control centers were fashioned around what equipment was available. With every new development a little was added until the result was a hodgepodge.

The Air branch is in business to avoid such situations. Although its finger is in such research as aviation medicine (human engineering), high altitude balloon airlift, fixed wing low speed flight, helicopter performance, all weather flight control and the air aspects of anti-submarine warfare its primary mission is the coordination of basic research in aviation with an emphasis on planning.

Planning in the Air branch aims at making use of the best present day knowledge in originating research on methods of air warfare which will be the mode when the trim waistlines of present pilot trainees bulge over their belts. Its secondary aim is to investigate ideas for development groups to carry through to completion to provide the fleet with new and better weapons.

The language of scientists is replete with ten-dollar terms—scientific method, planning processes, development program objectives, decisions on quantitative basis—but don't let it scare you.

Scientists, by applying the analytic method, break down a question into its tiniest parts and place each one under a microscope, then back off for a look at the whole, finally reaching a conclusion far removed from guess work and personal opinion.

In the past, application of the scientific method was limited to the field of weapons technology. That produced such World War II weapons as the atomic bomb, proximity fuze and radar. Now it is applied more fully to the field of warfare problems in general where it is termed operational research.

The Air branch, following both lines of endeavor, has a continuing program of projects, each under a section head. Some projects are of practical use in the near future; some are strictly in the "dream" department. In their more than 40 different projects, the Air branch is sponsoring research expected to lead to new developments in air vehicles including airplanes, helicopters and balloons; in air weapons, including missiles and projectiles; and in the equipment needed to operate them. The program includes the search for new knowledge about the medium through which we fly as well as the vehicle in which we fly.

Physically located in Washington, the Air branch is following projects in laboratories and plants all over the country. At the present time they are working with aircraft manufacturers such as Lockheed and Cessna; universities such as Princeton and Wichita; equipment manufacturers such as Minneapolis-Honeywell and Collins Radio; independent engineering consultants such as A. D. Little and Sanders & Thomas; and many others.

Headed by a captain who is a naval aviator, the naval personnel in the Air branch represent current operating experience in all phases of naval aviation. Naval aviators, LTA pilots, AEDO officers and a flight surgeon combine their efforts to make certain that sufficient researches of scientists throughout the country are channeled into activities which ultimately will prove useful to Naval Aviation.

Most of the Air branch work is of a classified nature. However, the following descriptions of a few of the non-classified projects will serve to illustrate the scope

WITH POLAR *navigation by Navy carrier planes in high latitudes coming more frequently these days, need for automatic devices to aid trainees like these at Pensacola is becoming vital*

TODAY'S *high speed jets have to use longer and stronger runways or carrier decks; research points to problem of stronger catapults or reducing the plane's take-off or landing speeds*

of the Air branch's activities.

Everyone recognizes the problems faced as aircraft reach higher and higher top speeds. One of the most apparent difficulties is that of take-off and landing within the confines of present day airfields and carriers. Since increasing the length of the runway is an obviously impractical solution, some of the top institutions in the country, under the direction of the Air branch, are working on other possibilities.

There are two avenues which seem to be most feasible. One might be characterized by the question, "Is one solution a futher improvement of catapults and arresting gear?" The other avenue is in the question, "How about reducing the take-off and landing speeds without sacrificing performance?" Investigations are proceeding to determine the answers to both these questions. The basic research on the catapults and arresting gear phase is concerned with the transmission, storage, and delivery of high energies. Some of the answers obtained in this project may be reflected either in future improvements in catapults and arresting gear, or in completely new methods of launching and retrieving airplanes.

To answer the question about reducing the landing and take-off speeds, work is being coordinated with other groups throughout the country. All of us recognize that the problem facing these scientists is that of reducing the stalling speed. Normally this is done by adding wing area, increasing the flap area, or thickening the wings to provide high lift at slow speeds. Unfortunately, these methods add weight and increase the drag, thus reducing the high speed flight performance.

Something is needed to enable the airplane to fly at comparatively low speeds for take-off and landing, and also to perform satisfactorily at the high speeds required by present day and future combat. To find possible answers, the aerodynamicists have been looking at the airflow past typical airfoil sections in wind tunnels.

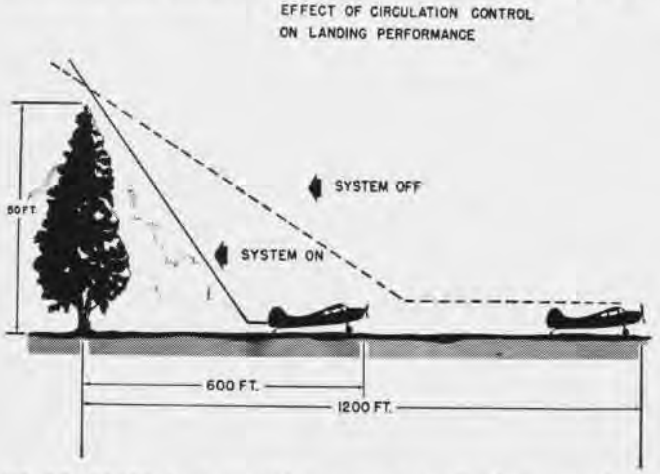
In normal flight the air flows smoothly over the wing producing the necessary lift. However, when the stick is pulled back and the angle of attack is increased too greatly, the airplane stalls. During this stalling condition, a great deal of turbulence is produced on the upper surface of the wing, destroying the necessary lift. Actually the air which was formerly flowing smoothly over the wing, has "broken away" from the upper surface and is whirling around in eddies and burbles.

To prevent this stalling, we can introduce a vent along the upper surface of the wing. If we create a strong suction in this vent, it tends to pull the flowing air downward into the vent and thus reduces the tendency to stall. Or we can relocate the vent and blow air out. This air fills the gap between the wing and the external air and also reduces the stalling speed.

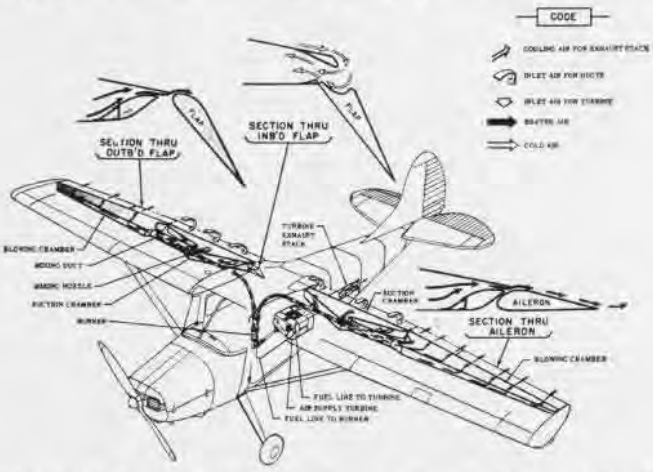
These methods are called circulation control and seems to be most promising, since they add little weight and do not increase the external drag. Used mainly at low speeds (take-off and landing), the system has no effect at high speeds when not in use because the necessary installation is entirely internal. Flight tests on a small research aircraft have shown very promising results and translation of this experience to practical applications in modern fighters is being accomplished.

NOW THAT the sonic barrier has been penetrated, knowing the limitations of flight personnel physiologically and psychologically becomes even more important. The flight surgeon attached to the Air branch is also the aviation medical liaison officer between ONR, BUMED and BUAER. It is his job to coordinate research activities toward determining just what a man can take, then to start the ball rolling in the development of devices to aid the pilot or to simplify his tasks.

The flight surgeon works in close conjunction with the other officers of the Air branch, emphasizing the medical aspects of any research. He also maintains close liaison between the Aviation Medical Acceleration Laboratory and the Air branch. Many of the human engineering and flight safety problems brought out



AIR BOUNDARY *layer control system on small plane proved extremely beneficial in short field operation, ONR test showed*



BOUNDARY *layer air control system in suction flap on inboard part of wing and blowing flap outboard, to shorten the landing*

HUMAN SIDE OF FLYING SPEEDY JETS TODAY IS INVESTIGATED BY ONR AIR BRANCH WITH IDEA OF FREEING PILOT OF ITS COMPLEXITY

through research on the high speed aircraft of tomorrow are referred to him. The answers to many of these problems will come from experiments carried out at the human centrifuge at Johnsville, Pennsylvania (NAVAL AVIATION NEWS, August 1952).

The Navy's programs relating to air vehicles also include work in the development of free balloons. For example, the Air branch is assisting the Nuclear Physics branch of the Office of Naval Research in its cosmic ray research program. The purpose of the Air branch project was to get an extremely light weight vehicle to carry recording and telemetering equipment to the highest possible altitudes for long periods.

The balloons evolved are a radical departure from previous practice in constructing the high fliers. A very efficient, cheap, plastic balloon capable of ascending to over 100,000 feet was developed. Many flights have been made—in Minnesota, the western deserts, the Caribbean, and more recently off the coast of Greenland. These flights have materially aided the research efforts of many universities in their investigations of the mysterious cosmic rays.

Naval ships make ideal launching platforms for balloons, since they can readily select the geographical point of launching and, by steaming down wind, zero relative wind for launching is available. For this reason the Air branch is continuing to keep abreast of research in free balloons.

Among the many Air branch projects of particular interest to the Marine Corps is the work being done with the so-called roto-chute. One of the difficulties with present-day parachute air drops is the lack of accuracy. In an attempt to solve this problem, work is progressing on the roto-chute, which is a collapsible helicopter-like device for air drops. The advantages of the rotochute are immediately apparent particularly if it would be possible to incorporate some sort of a simple control mechanism.

Of special interest to the Navy's fliers is the project in aircraft instrumentation. For years the control panels of modern airplanes have become more and more complicated. As speeds have increased, the pilot has less and less time to look at the various dials, gages and indicators; to assimilate the information; to make a decision; and to act on that decision.

Unfortunately we cannot redesign the pilot to reduce his reaction time so it seems logical that progress must be made in presenting information to the pilot more rapidly than we now are, and in a form which can be most easily acted upon. Consider the situation of a pilot in the future as he is accomplishing a mission in his supersonic aircraft. Is he going to have to read and integrate more than a score of instruments considered necessary for today's instrument flight? Will he have time to do this? Will we be faced with the situation of not being able to utilize maximum speeds because the pilots cannot control the aircraft when flying them?

These and similar questions have prompted the Air branch projects in air-

NEWLY-FINISHED *human centrifuge at Johnsville whirls men in gondola to check on effects of high G forces on the human body; scientific instruments attached to man record data.*

craft instrumentation. BUAER is investigating the improvement and simplification of instrument panels on planes which will be operating in the near future, while scientists working with the Air branch are carrying on instrumentation research with a long range view in mind. Throughout these endeavors the basic considerations are founded on the effect of the human element in cockpit design.

With the advent of supersonic speeds in tactical aircraft, this approach is necessary. To fly at supersonic speeds using existing cockpit design would be impractical, if not impossible, for the average pilot. Test pilots who have grown up with these so-called man-carrying missiles can cope with them but not under operational conditions.

To fly an airplane over a test course to determine top speed is one thing, but to fly that airplane through a tactical mission is an entirely different story. In the latter instance, the pilot is forced to do in seconds what he is now taking minutes to accomplish. Therefore, human reaction time must be a prime consideration in designing the cockpit of any supersonic aircraft.

There was a time when the pilot's main mission was to keep the aircraft in the air and get it back safely on the ground. Today's military pilots, for example, spend scores of hours on initial and refresher instrument flight training. This cannot be permitted when we are thinking in terms of supersonic flight for military aircraft. It is difficult to conceive, but the pilot of the future can be provided with only a comparatively few hours of actual flight training. Most of his time will be spent in military tactics training in order that when he is confronted with a condition requiring a decision, he will be able to make that decision almost instantly.

The question facing the designers of high speed aircraft is "How do we design an instrument panel which will permit this type of operation?" The answer to this question is fairly complex because it must combine the efforts of the instrument engineers, the aviators, the aircraft engineers, the psychologists, and the medical men. Here is where the Air branch is making its contribution, for they are equipped to focus on the problem the experience and knowledge of the experts in each of these fields.

BALLOONS *to carry scientific instruments to upper air have been launched under ONR sponsorship from Operation Skyhook ship off Greenland; Coast Guard cooperating in the project*

At a recent briefing to OPNAV officers, the head of the Air branch described the activities of his group as follows:

"The Air branch, as a branch in the Naval Sciences division, considers itself primarily responsible for the application of the products of the basic research program to the specific needs of naval aviation and the Navy in the development of the air aspects of naval warfare. Secondly, we feel that our job is to coordinate research and development for naval aviation within the ONR organization, the material bureaus, and CNO. Specifically we try to be the representative of naval aviation in ONR.

"In connection with coordination with material bureaus, we think that it is our job to be sensitive to promising research that will fill a gap or result in a significant advancement in air vehicles and in how they should be employed. We further feel that we should continue to promote effort, through the applied research area and on through development, if this need be, until the material bureau has become convinced of the potential value of the idea and initiates development to carry it forward. As soon as a material bureau has picked up a project we then taper off our work, to avoid duplication of effort, and select other promising or needed research to nourish."

EXTENDING *the range and effectiveness of airships for antisubmarine warfare by refueling from carriers one of many lighter-than-air problems given research study by the Air branch*

AIR BRANCH personnel emphasize that they are not gadgeteers. Their mission, before tackling anything material, is to sift all ideas which come in and to think up new ones themselves. They welcome fleet correspondence.

Since they know what has been, and is being done in the many fields affecting naval aviation, they are in a position to know if a particular problem has been considered before and just what the result was. In that way their job is one of labor saving. By visualizing new ways to conquer the regions in and above the earth's atmosphere with an eye to application to air warfare, the Air branch will affect your future in naval aviation from your flights of next year to the time ahead when you may be retired.

GRAMPAW PETTIBONE

Dear Grampaw Pettibone:

In a recent issue you stated that it is a good practice to pump your brakes before landing to be sure you have pressure. A few pilots in this command have had their brakes lock, unknown to them, while using this procedure causing the aircraft to flip over on its back, or in the case of an F7F grinding the wheels down to the hub. These pilots believe that instead of pumping your brakes in the air it is better to land with the thought in mind of making a touch and go if your brakes fail. An arrested landing could then be accomplished.

In some pilots' handbooks it states propellers are to be pulled through by hand while in others it is recommended that the propellers be inched through with the starter. The Air Force has recommended in their "Aircraft Accident and Maintenance Review" that intermittent starter pull-through be used on the propellers of all planes.

We would appreciate any new views you may have on these subjects.

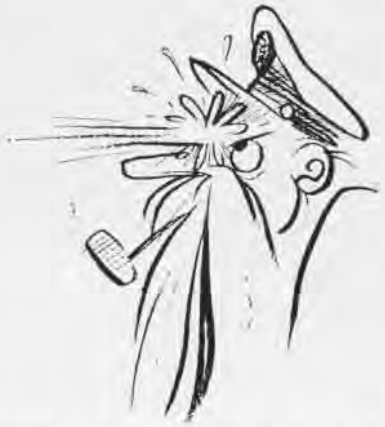
LCDR, USN

Grampaw Pettibone Says:

There have been a few cases of planes flipping over on their backs due to brakes being locked on landing, but I doubt if any were locked due to testing brakes prior to landing. Most frozen brakes are the result of excessive use while taxiing out for takeoff. The hot brakes freeze when the wheels are braked just after retracting.

The brake experts still recommend pumping the brakes on "smaller aircraft" which have a master brake cylinder rather than power brakes. It's the only way of knowing whether or not you are going to have any braking power after you touch down. If the brakes are already frozen, it won't make any difference, and, if they aren't frozen, they will be cool by the time you're ready to land and won't freeze because of the test pumping.

As far as using starters for pull through of propellers, the best advice is to check the recommendations in the handbook for each model. This procedure is O.K. provided the starter is equipped with a slip-type friction clutch incorporated to prevent damage in case of an oil lock. Most of our newer aircraft and some of the older models have this provision. However, a few do not, and in these planes, it is possible to shear the starter shaft or even damage a connecting rod by using the starter rather than the hand pull through method.



Stay Out of My Air Space

(Excerpts from the investigative report in the case of the death of A. Seagull.)

A. Seagull departed Pelican Base at 1032R. He was the number two man of a section scheduled to make a routine fishing flight. The ceiling was unlimited, but visibility was restricted to one and one-half miles in smoke and haze. The flight plan, filed with Pelican operations, indicated that the flight was well planned:

Duration of flight—one hour;
Fuel—20 grains of wheat aboard, estimating 10 grains/hour at a power setting of 60 wing flaps/minute;
Destination—Fire Island lighthouse;
Distance—20 miles;
Speed—40 miles/hour;
Clearance was given to maintain a maximum of 75 feet with no minimum required.

In the words of the seagull section leader, "We arrived at destination on time, but because of the low visibility I decided to split the section so that more search area could be covered. I sent A. Seagull to 50' (the visibility down was good) while I stayed low for the attack. After about five minutes with little success, I heard A. Seagull open up with 'Awwk,' and then his transmitter went dead (I thought at the time he had made a live contact). I turned my head just in time to see A. Seagull collide with one of the biggest birds I ever saw. I searched the area for a trace of A. Seafull for some time, but my wheat grains were running low, so I departed the area and returned to Pelican base."

Grampaw Pettibone Says:

Yipes! What a mess! That "big bird" that the seagull section leader mentioned just happened to be an F9F-5 which was on a scheduled and authorized low level flight. The pilot, who fortunately fared somewhat better than the seagull, was flying at a relatively low airspeed (280 knots) and at about 50 feet when the collision occurred. He was only slightly injured and landed at a nearby airport without further incident.

The accompanying photo shows damage to jet.

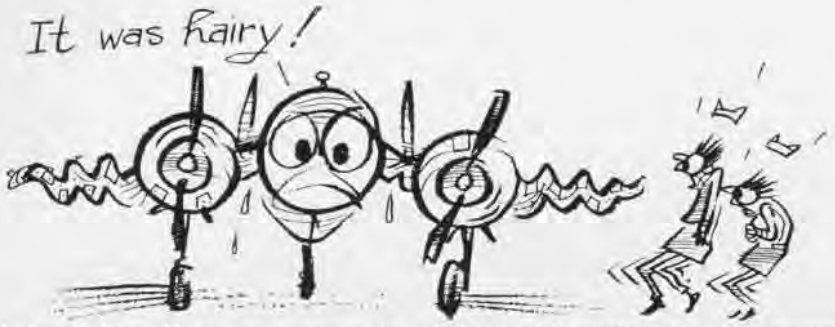
We've had lots of bird collisions in the last few years, including one that did strike damage to a *Corsair*, but I think this is the first head-on-bird-collision involving a jet—at least the first one where the bird ended up in the pilot's lap.

In this case the pilot was in the clear because he was on an authorized low altitude flight where the possibility of such a collision is one of the calculated risks. If you have a choice in the matter, leave the altitude below 1000 feet to the birds—except for landings and takeoffs.

Whoa! Dobbin

The pilot of an SNB cleared from NAAS CORRY FIELD, on a VFR flight to Dallas. Take-off was normal and the pilot climbed to 10,000 feet on course. Enroute the pilot entered an area of drizzling rain, falling from a higher overcast. He was flying above broken clouds, tops generally at 8,000 feet with base of the clouds approximately 2,000 feet.

Shortly after entering the rain, the co-pilot got out of his seat and started aft. At this moment the pilot noticed a dark cumulus cloud ahead and started a fairly abrupt turn to the left in order to avoid it. He lost altitude in the turn



and found himself in the overcast in what appeared to him to be a gentle left bank!

In the words of the pilot: "At this time I called to my co-pilot who had stepped to the rear, to get back into the co-pilot's seat but he didn't make it. The rate of descent increased to 1,000 feet per minute and then to 2,000 feet per minute. During this period the gyro-horizon indicated a gentle turn to the left and then tumbled suddenly. With power off and steady back presure on the yoke, the aircraft continued to descend through the broken clouds.

"Sometime during the descent, the windshield cracked in many places, the co-pilot side window blew out, but the pilot's side window was half open and did not blow out although I lost my headphones through it. I blacked out for about five seconds and then regained vision.

"At approximately 3,000 feet altitude I saw the water and realized I was diving toward it with my wings level. I then applied full back pressure and held it. The aircraft recovered level flight at about 1,500 feet altitude. During the entire descent, the 'G' pressure was terrific and my co-pilot was unable to move until the aircraft was in level flight."

The pilot landed at a nearby airport to check further on the damage. Later detailed inspection of the aircraft showed the right wing and left wing skin wrinkled at the wing formers, both engines forced downward during the high "G" pullout which wrinkled both wings to the port and starboard of each engine nacelle, aft compartment door pushed inward approximately 2 inches, and the port and starboard side of the fuselage wrinkled.

The pilot in this accident had a standard instrument rating and considerable instrument experience during the previous 12 months. However, the reviewing authority recommended that he be given a recheck with special emphasis on partial panel flight and recovery from unusual altitudes.

Grampaw Pettibone Says:

Wow! This bucking bronco was tamed in the nick of time. In a situation of this sort, it's mighty easy to concentrate on one instrument and ignore the rest . . . but that sort of instrument flying has put a lot of pilots six feet under.

When the gyro tumbled, this chap went to needle-ball and got his wings level and throttled back in time to save his life if not the airplane.

Let's take a look at a few of the items that might have prevented this hair-raising experience:

(a) Check all flight instruments for proper operation prior to entering an area of adverse weather.

(b) Don't start into "the stuff" while the co-pilot is off on an errand.

(c) Most important of all—use all your instruments—don't freeze your eyes on the turn and bank indicator.

A little foresight, lots of planning
Everything set, both pilots scanning,
That cloud may pack a jolt or pitch
But you won't need the panic switch.

P.S. I'll bet the co-pilot *really* needed that trip after the recovery.

Not You, You!

The SNJ pictured below was the victim of considerable confusion on the part of two cadets, a tower control officer, and a runway signalman. The cadets were making their final night landings after some touch-and-go practice.

The cadet in SNJ number 6 made a slightly rough landing and practically brought his plane to a halt in the process of getting it under control. The tower control officer noticed how slowly he was moving and transmitted "Plane on Runway, keep it rolling", since another SNJ was about to land.

The cadet who had made the rough landing didn't respond promptly and so the message was repeated. This time it was heard by both cadets. To complicate matters, the cadet in the second SNJ saw the green blinking light with which the signalman was trying to speed up the first SNJ and interpreted this to mean that the runway was clear. Hence, he kept rolling along at a good clip.

When the signalman saw that a collision was imminent, he tried to give the overtaking plane a red light. Both cadets saw the red light and applied brakes. Since the second SNJ was moving at greater speed than the first, this didn't help matters much. The first SNJ came to a quick halt while the second pilot was still braking and the collision occurred a couple of seconds later.

Grampaw Pettibone Says:

This accident reminds me of that war-time gag from the days of black-outs and bomb shelters—the one where the young London lass was heard to say, "Take your hand off my leg," and then after a slight pause, "Not you—you!"

There may be a lot of ways to stop accidents of this sort, but I'm afraid the only sure way is to allow only one student on the runway at a time during night landings. Of course, this slows things down, but probably doesn't cost as much in time as will be required to repair these two planes.

If this rule can't be followed, then the next best bet is positive tower control *by plane number*. In this instance, the planes were not required to report turning on the base leg and therefore the tower operator didn't know the side number of the plane that he wished to "keep rolling."

Economy Rears Its Figure

Squadron Appoints Officer as Bird Dog

FLEET AIR WING 11—Something new has been added to squadron organization—an economy officer.

VP-741 at Jacksonville established a first by designating an officer to look up ways to save money—not just a junior officer new to the squadron, but one fairly senior who has been around for a while and can see where shortcuts can be taken and expenditures cut. Experience in operating procedures and the ways of the Navy are essential qualifications.

The squadron stands head and shoulders among Atlantic Fleet patrol squadrons for economy-mindedness. Piling up 5,063 hours during the past six months, VP-741 did it to the tune of 183 gallons an hour and an NSA cost of $37.08.

● NAS WHIDBEY ISLAND—VP-29, formerly known as VP-812, a Reserve squadron, has relieved VP-1 of its duties at Atsugi, Japan.

THE WAR

STREAM *of gas flows from wing tanks as Lt. J. Harris, photo pilot of VC-61, releases fuel load over Tokyo Bay prior to landing F9F aboard carrier. Note mud flats, fish trap below the Panther's nose*

Lucky Five

"Attack Squadron 55 has another pilot down." Five times the word has been passed aboard the *Essex* and five times *Skyraider* pilots have returned to tell

THANKSGIVING *guests on Bon Homme Richard watch air launching with RAdm. Johnson*

their stories. Their luck has given their squadron an aura of invincibility.

Lt. John Page, his prop blown off while on a close-air-support mission over the central front, crash landed a scant hundred yards behind UN lines. Lt. Jim Norton, hit by flak while on an armed reconnaissance mission, limped out to sea, ditched and was picked up by the destroyer *Ozbourne*. Lt. Tom Davenport ran into enemy AA fire over Tanchon, ditched off the North Korean coast and was rescued by the destroyer *De Haven*.

Two amazing escapes by *Essex* pilots from behind the enemy lines would fit into any best seller on the Korean conflict.

Ens. Peter Moriarity was the first *Essex* pilot to bail out over North Korea and return. While on a rescue mission for another downed pilot, his plane was hit and he parachuted into the hands of two North Koreans. Unbelievingly poor markmanship saved him. One of the Reds emptied a revolver at him from only five feet away but all six shots missed their target. A UN helicopter hove into view, Moriarity broke from

CHEATING *death over North Korea, the lucky five of VA-55 are ready to fight once more*

his captors, ran into the middle of a field criss-crossed by rifle fire from approaching Commie troops and jumped into the 'copter. A half-dozen bullet holes were later counted in the "chopper's" thin skin.

Lt. (jg) John Lavra seemed doomed to a fiery death when a burst of flak turned his plane into a flaming torch over the Kojo hydro-electric plant. His fellow pilots watched, horrified, as the orange ball of flame spun earthward for 4,000 feet. They screamed to him to bail out. With only a thousand feet remaining between him and certain death, Lavra finally fought free and jumped. He landed safely behind enemy lines. Despite painful burns, he successfully hid from troops searching for him until the 'copter arrived and whisked him off to safety.

For the helicopter pilot, Lt. Jim Franke, who rescued both of them, the two men will be eternally grateful. Franke has been recommended for the Silver Star for his heroic saves.

They Prayed For Rain

A special Navy airflight brought four soldiers from the front lines in Korea aboard the *Bon Homme Richard* just before dinner time on Thanksgiving day. Compared to life at the front, the men found shipboard life a real treat. They were treated to a turkey dinner with all the trimmings, a visit with RAdm. W. D. Johnson, movies and most delightful of all, a good, clean bed to sleep in for a change from front line mud.

Just before turning in, one of them breathed a prayer that the weather might take a turn for the worse, so they could stay aboard for a month. Sure enough, during the night a cold front moved in and the next morning the rain was pouring down and all planes were kept on deck. Such luck couldn't hold out forever, though, and the magic flying carpet which had brought them aboard returned them to the front on the following day.

The "up front" boys, M/Sgt. A. C. Willis, M/Sgt. K. R. Roberts, SFC R. L. Moore and PFC D. Shlemon, felt like Cinderella returning to the ashes after her night at the grand ball.

Record Smashers

First Marine Aircraft Wing record for tonnage of bombs dropped by a single squadron in a single day was smashed not long ago by the *Wolfraiders*, flying the only land-based AD *Skyraiders* in Korea. With each airplane carrying 2,000 pounders, the squadron bettered the record of 218,000 pounds of high explosives set by the *Deathrattlers* squadron.

The *Wolfraiders* in setting the new record handed Communist front-line positions a terrific beating. Said Col. John P. Condon, commanding MAG-12, who observed the last strike of the day from an accompanying plane: "The day's operation was expertly carried out. MAG-12 can be proud of its *Wolfraiders*."

Sharpshooting Red

A Communist infantryman gave an assist to Lt. John W. Topliff of VA-702, flying off the *Kearsarge*.

Topliff was flying a railway bridge-busting strike near the eastern coastline of North Korea. He dove his *Skyraider* on the target and dropped his bombs.

Upon recovering from the dive, Topliff's wingman radioed that the tailhook on Topliff's plane was down. Having completed the mission, the AD's flew back to the carrier and made a normal landing.

Investigation showed the *Skyraider's* tail hook had been hit by what appeared to be a .30 cal rifle bullet. The bullet hit the toe piece of the hook, causing it to drop sans the pilot's assistance.

Topliff said he liked the idea of not having to extend his tailhook when he went over the check-off list prior to landing. He wasn't so sure the method of extension was satisfactory to use on every hop, particularly when the toe of the tailhook broke off after engaging the wire.

AD'S FROM *Bon Homme Richard go into a dive bombing run over Tanchon as bombs hit*

Chowdown

Keeping *Leathernecks* of the First Marine Aircraft Wing fueled up and topped off for each day's combat is a job which calls for air transportation. Ruminating upon the vast stores of chow consumed each day by men of the Wing's 14 units, the officer in charge of rations, Capt. Ben E. Wall, Jr., observed that the Marines "sure are big eaters". "We fly 1,560 pounds of fresh bread in from Pusan daily, and do the rest of the baking ourselves," he said.

The Gyrenes are not tough enough to eat tin cans, but if you figure in the can's weight with everything else, then each man consumes 198 pounds a month. "The chow in this war is so much better than that of World War II, there's no comparison," Wall said. "We have biscuits every day, and some sort of cake, pie, or home-made ice cream for dessert."

First-Hand Knowledge

One man in the newly elected Congress is going to know what he's voting for when it comes to appropriating money for the Korean war.

When William S. Maillaird was elected Congressman from the Fourth Congressional District of California, he decided he wanted some first-hand knowledge of the war. A commander in the Naval Reserve, he asked for a short tour of active duty in the Korean area. Aboard such Navy carriers as the USS *Kearsarge*, he watched air strikes being launched over North Korea and learned about the workings of our airplanes from company representatives like Mr. Frank Finnell of Westinghouse.

Although entitled to pay for his tour of active duty, Cdr. Maillaird paid for it from his own pocket.

Thanks for a Dud

Marine Capt. Richard Francisco of VMA-212 took a direct hit from a Communist 90-mm. shell in the belly of his *Corsair* and flew home to tell about it.

He had started his bomb run over the Haeju peninsula when he felt something hit the underside of the fighter-bomber like a giant sledge hammer.

"I knew I'd been hit, but I didn't know what hit me," he said. "The plane would still fly so I finished the run."

On return to base, ordnance men found a huge dent in the belly and part of the radio gear carried away. They decided the *Corsair* must have taken a direct hit from a dud 99-mm. shell right under the pilot's seat.

"I guess my number wasn't up," Francisco said. "If that shell had gone off, it would have blown the plane to bits. I'd never have known what hit me."

CHRISTMAS *trees and wreaths to be distributed to all Navy ships in Korean waters are checked by Chief Warrant Officer Moore*

RED RIPPERS *pilots, Lts. Cowell and Barrows, head for VF-11 ready room on Kearsarge after successful North Korean mission*

Operation Christmas Tree

The Navy units operating off Korea weren't forgotten when Christmas greenery was distributed. Every unit had its own Christmas trees and wreaths.

Distribution of some 1,250 Japanese pine and fir trees and 900 holiday wreaths was begun well in advance of Christmas Day, so that most ships could pick up their trees and wreaths during an in-port period. Trees and wreaths were delivered at sea to those ships not scheduled for an in-port period.

Aircraft carriers, cruisers and battleships received 12 trees and nine wreaths. The Navy's smallest combat units, the minesweepers, each received two trees and one wreath. Hospital ships, including the British *Maine* and the Danish *Jutlandia*, received 12 trees, 10 wreaths.

Flies Out, Bikes Back

Capt. Charles A. Willis with the 1st Marine Aircraft Wing in Korea will remember his first Korean combat mission for a long time to come. He started on it flying a *Corsair* and arrived back at base on a bicycle.

Willis' plane ran out of gas as he was returning to his base, and he was forced to parachute over friendly territory. He landed in a rice field near a schoolhouse and was immediately surrounded by about 200 Korean children. A policeman came along, rescued the pilot from his youthful admirers and insisted that the flyer take his bicycle to get home, seven miles away.

Leatherneck Luck

Marine Major Norman L. Hamm calls himself one of the luckiest pilots in the *Wolfraider's* squadron.

While on a strike against power plants in North Korea, a 37 mm anti-aircraft shell tore through the tail section of his *Skyraider*, leaving the horizontal stabilizer dangling and useless. He was just pulling out of his dive when the shell hit the tail section. Fortunately it failed to explode or it would have destroyed the entire tail section. In spite of the damage to his aircraft, he completed his flight and returned safely to his home base.

No Sad Songs For Them

A tragedy started the rite of nailing caps above the door of the Officers' Club at one of the Marine Ground Control Intercept Squadrons in Korea.

The tradition started when an Air Force Captain, flying B-26 light bombers against the Communists, asked the Marines to nail his cap to the wall. He was about to take off on his last mission before returning home. Fate willed otherwise, and he was shot down by Red anti-aircraft fire.

His hat with the shiny Captain's bars still hangs above the door with over 50 more caps nailed around it. They range from baseball caps to full dress jobs with patent leather peaks. That first one was the only cap ever to go up before the last mission was completed. The other pilots have completed their missions and have their orders for home in their hands before their caps are nailed to the wall.

SMILING *at his luck, Major Norman L. Hamm displays horizontal stabilizer damaged by AA*

"No One Argued"

Lt. Donald D. Hillan, Navy doctor with the First Marine Aircraft Wing, finished a tour of combat duty in Korea and went home. Back in the States, "Things seemed rather dead," he said, "so I extended until June, 1953 and volunteered to return to the battlefront. No one argued."

So, six weeks after completing 11 months as flight surgeon with the First MAW Transport Helicopter Squadron, he's back—this time as flight surgeon for Aerial Observation Squadron 6.

During his first tour of duty in Korea, Lt. Hillan was awarded the Bronze Star, Commendation Medal, and Air Medal.

Marine Orphanage

There are many orphanages in South Korea, but the Marine Memorial Orphanage at Pohang is well on the way toward becoming one of the few self-supporting ones there.

Protestant Chaplain Richard D. Cleaves of Marine Air Group 33 got the idea less than a year ago. Today the orphanage has clear title to six buildings and rice land valued at more than 38,000,000 *won*. That's equal to $6,500.

The Rev. William B. Lyon, a veteran Presbyterian missionary, together with other ministers of Pohang organized and incorporated the orphanage. Money

donated by Marines of the First Aircraft Wing bought the land and constructed the buildings. Wing Chaplain Joseph F. Parker took over control of the orphanage when Chaplain Cleaves was rotated.

Much of the food the children live off will be harvested from their own paddies. By winter of next year, there should be enough rice left over to sell.

Hands Across The Border

There's one strange navy blue uniform aboard the *Oriskany* these days, but none of the men aboard the carrier seems to find it out of place.

Lt. Joseph J. MacBrien of Toronto is the first Canadian naval pilot to take part in combat operations against the Communists in Korea as an exchange pilot serving aboard the *Oriskany*. After six months in various training assignments, he joined other VF-781 pilots and flew his *Panther* jet in combat.

For his first combat sortie, Lt. MacBrien drew an armed reconnaissance mission along a heavy Communist supply route, 150 miles north of the front lines. After landing safely back aboard, he was asked in the debriefing room what he thought of his first sortie. Nonchalantly he remarked, "We encountered a little anti-aircraft fire, but managed to cover our route."

Got A Match, Bud?

Marine Major George A. C. Hanna was trying to land a TBM at a forward air base in Korea. An overcast had forced him to circle the field for a couple of hours.

Darkness was closing in and his fuel was almost gone, so the tower ordered him to make a GCA landing. Turning to his approach instruments, he discovered his panel lights were out of order. With characteristic Marine ingenuity, he dug out a box of matches and lit one after another, making enough light to see his instruments.

EXCHANGE *pilot, Lt. Joseph MacBrien, mans his jet before flying first combat mission*

He made the landing and turned to his lone passenger, Capt. Jack Lewis, who had sweated it out with him. "We made it O.K.," Hanna laughed. "What were you worried about?"

"Nothing much," Lewis assured him. "I was just wondering what would have happened if you'd run out of matches."

By Light of the Moon

Communications men of MAG-12 recently installed 102 telephones and two switchboards in 22 hours with a 15-man crew—a job comparable to setting up phone facilities for a town of 1,000 people. Because of a power failure, they had to work by the light of matches and flashlights.

The job was directed by MSgt. David S. Kelley, who allowed the crew time out only for chow. He said putting in all those wires by match light was a job to end all jobs.

How to Make Friends

Three Marine Corps transport helicopter pilots from HMR-161, overnighting at an Army base, paid off their hosts' hospitality in a way that made friends with the foot soldiers.

The pilots noticed a pack train of soldiers and Koreans staggering up a steep hill nearby to set up a radar station. There would be no road up the hill for two months.

Within 20 minutes, in a lifting job similar to one in California last summer which made possible the first televising of an A-bomb explosion, the Marines lifted a ton of gear up the peak.

Little Lost Sheep

It wasn't a case of mistaken identity, just a case of prudent airmen who found themselves running short on gas. That's the alibi of four *Oriskany* pilots who landed on the *Kearsarge* and they're stuck with it.

Returning from a strike, Lt. Charles E. Guthrie, Lt. (jg) Henry W. Egan, Ens. Roy Taylor and Ens. Jack Carter landed on the wrong aircraft carrier. Moments before Lt. (jg) Egan got his cut, he heard Capt. Courtney Shands, CO of the *Oriskany*, radio the *Kearsarge*, "Do you have our jets?" and the reply was, "Yes, three, and one in the groove!" By then Egan had no choice but to follow his three fellow pilots.

The jets came back from the mission low on fuel. Even the Admiral, who greeted the pilots after they landed, wondered how they could stay up so long. One of the pilots said he asked them where they hid all their gas.

The flight deck crew and maintenance men of the *Kearsarge* claim the pilots were just plain lost. They decorated the planes with signs saying, "No excuses," "Where am I?" "Which way did they go, George?" and "Eenie, Meenie, Miney, Mo; I should have landed on the O'."

THE WORKING *of a jet engine is explained to Cdr. Maillaird (center) by Frank Finnell. Cdr. Boyle, RAdm. Hickey listen too*

SHEEPISH *Oriskany pilots, Egan, Taylor and Carter, pose by one of planes they landed on Kearsarge seeking "any port in a storm"*

TWO VIEWS OF THE NAVY'S NEW DELTA WING SEAPLANE, THE XF2Y-1, TAXIING AT SAN DIEGO

XF2Y-1 SEAPLANE IN TAXI TESTS

THE LONG-awaited XF2Y-1 *Sea Dart*, the Navy's first jet-powered seaplane fighter, has made its preflight taxi runs in San Diego Bay. It is the first delta-wing seaplane in the world and will expand the air defense perimeter of fleets at sea and installations ashore.

The plane, whose nose section resembles the 1200-mph D-558-II *Skyrocket* in appearance, is a blend of high speed land-based airplane performance with the water-based airplane's inherent versatility and mobility.

The experimental delta wing seaplane has no horizontal tail, but is equipped with a high triangle-shaped vertical fin and rudder. Elevons on the wing trailing edge replace conventional ailerons and elevators for control action.

To provide better rough water landing and takeoff, the XF2Y is equipped with hydroskis (NAVAL AVIATION NEWS, December, 1952). This marks first application of the hydroski to a combat-type airplane in this country and probably the world.

Pilot for the trial runs of the *Sea Dart* and flight tests to follow is E. D. Shannon of Consolidated Vultee Aircraft Corp. Shannon flew the world's first delta wing fighter, the XF-92A, in September, 1948, and also was chief test pilot for the XP5Y-1.

Two Westinghouse turbojet engines power the new seaplane. Airscoops for engines are on the plane's back, behind the pilot canopy. As can be seen from the upper picture, the plane taxis with the airscoops well above the spray, thanks to its hydroskis.

El Toro GCA Sets Record

Brings in 337 Planes in Bad Weather

MCAS EL TORO—What is believed to be a record number of GCA instrument landings for one month was racked up by the radar unit here during October when it brought in 337 planes under actual instrument conditions.

Out of the total 146 single pilot planes were "saved," and the rest were multi-engine aircraft. Officer-in-charge of the GCA unit here is Maj. O. W. Millenbine and Capt. D. L. Hayden approach controller. Maintenance officer of the unit is 2nd Lt. H. R. Elliot.

The unit normally has a staff of three officers and 18 enlisted men. Three enlisted controllers who assisted in amassing the new record were MSgts. Eldon E. Grebey and Alfred J. Hansli, Jr., and TSgt. Robert E. Nash.

Mercy Flight Wins Gratitude

Stricken Child Saved by Marine Pilot

Marine TSgt. E. M. Cupples and his wife will stand by the Marine Corps as something less than a hard-boiled organization because they are grateful for the quick action taken to save their newborn daughter. If a mercy plane hadn't taken off from MCAS CHERRY POINT for Washington, their little girl, born with an opening in her trachea, would have died.

Doctors at the Naval Hospital at Camp Lejeune discovered the opening soon after the little girl was born. They didn't have the equipment necessary to save the child. The only answer was a mercy flight to Washington.

MSgt. Thomas E. Rose, who had just landed after a routine engine-check flight, was ordered back into the air. The child was waiting at the runway at Camp Lejeune when he landed.

A Navy nurse and corpsman accompanied the child, in an incubator, aboard the transport. An hour and 45 minutes later, the plane arrived at NAS ANACOSTIA where an ambulance from Bethesda Naval Hospital rushed the child to the hospital and a successful operation. The mission was profitable.

COOK, CENTER, INSPECTS HIS WINNING SCORE

Marines Use Ancient Gun

Turkey Shoot Uses Old Muzzle-Loader

MCAS CHERRY POINT—Firing one of the rifles which helped win the West is quite a change from the M-1 Garand rifle to which Marine sharpshooters are accustomed. Rifle range personnel found that out at a Thanksgiving turkey shoot using a .30 caliber, muzzle-loading Tyron Plains rifle.

Twenty entrants, all Marine weapons experts, peppered a one-inch bullseye from 50 yards, with a 30-pound turkey for a prize. Sgt. J. W. Cook, NCO in charge of the pistol range, was winner.

There was one point on which everyone present was in general agreement—that a muzzle-loader would be of little help in a Korean fire fighter.

In the photo, MSgt. W. R. Williams and TSgt. P. L. Brady look over Sgt. Cook's winning target. Cook holds the muzzle-loading rifle used in firing.

NAVAL AIR STATION TYPES

TODAY'S FAST JETS REQUIRE LONG RUNWAYS, LIKE THE NEWLY-EXTENDED ONE AT DALLAS

JOHN Jones, seaman apprentice, lounged in his seat as his train sped across the snow-covered Kansas prairies. Seated next to him, a curious farmer asked: "Where you headed, son?"

Jones sank lower into his seat and murmured, "The Navy aviation technical training center at Norman, Oklahoma."

"What you going to learn about the ocean way out here in the middle of the country?" the farmer persisted.

The sailor's memory flitted back over the visions he'd had of life aboard a speedy Navy flattop, and what he would see as his ship put in at faraway ports in the Mediterranean and the Orient—things he'd seen on the recruiting posters.

Then he snorted disgustedly and looked out of the window. Half to himself and half to the farmer, he replied, "I don't know, but that's where they're sending me. It doesn't make any sense to me either."

Jones was only voicing an age-old query of Navy men who have been sent to training stations ashore to learn to be a sailor.

The aviation training program requires a carefully planned shore establishment. It cannot be a hodgepodge of stations, placed wherever a flat landing strip could be laid down. These shore activities are heavily occupied in training, equipping, supplying, repairing and many other essential tasks to teach the Navy's men how to keep the planes flying and fighting for control of the sea.

The Navy has four general types of air stations today—those devoted to training cadet pilots, Reserve bases, Master Jet Complexes and special stations like Patuxent River and Point Mugu, Calif.

TRAINING AIR STATIONS

At Pensacola, Fla., and Corpus Christi, Tex., are located the Navy's two major training commands where the raw material is poured into the mill and finished naval aviators and aircrewmen come out. The older "Annapolis of the Air" at Pensacola is the headquarters for basic training. From there, pilots go to Corpus for advanced training.

Naval aviation cadets are selected from the nation's pool of college students and the enlisted ranks of the service in a ratio of four-to-one respectively. Also, officers interested in flying, who can pass physical and mental tests, are sent to flight training.

Before they actually climb into airplanes and go out flying, cadets are put through an intensive course at the preflight school at Pensacola. After that they get primary flight training at nearby Whiting field, instrument training at Corry field, tactical training at Saufley field and then they return to Corry for further training to qualify in carrier landings and takeoffs.

BASIC training finished, the student moves down to Corpus Christi for advanced training. Auxiliary airfields at Kingsville and Cabaniss field aid in the training. Here the prospective aviator learns the tricks of using an airplane as a weapon. He specializes in fighters, attack bombers, antisub warfare aircraft or in multi-engine patrol or seaplanes. Recently, NAS HUTCHINSON, Kansas, was reactivated to take care of P4Y-2 training formerly at Corpus.

In addition to the Pensacola and Corpus training stations, the Navy has a number of other training installations, such as the airship training base at Lakehurst, the combat information center school at NAF GLYNCO, Ga., and the joint parachute training facility at El Centro, Calif.

RESERVE AIR STATIONS

LONG before the outbreak of Communist aggression in Korea, the Navy placed great emphasis on training its Reserve airmen. Twenty-seven air

HELICOPTER TRAINING AT PENSACOLA CREATED A SPACE REQUIREMENT

CORAL SEA'S ORDNANCEMEN LEARNED TRADE AT TECH TRAINING BASES

By LCdr. P. E. Wanous, Shore Establishments Section, DCNO (Air).

EARLY-DAY SEATTLE AIR STATION NEEDED NO LONG, HEAVY RUNWAYS

TODAY'S SEATTLE RUNWAYS ARE SHORT AND CANNOT BE MADE LONGER

stations were kept on active status and "Weekend Warriors" kept up their proficiency in flying close to home against the day when they would be needed at sea.

That day came with unexpected suddenness and the Navy's wise policy paid off. Reserve squadrons were sent to Korea with little delay. Thus, the first stages of the post war effort to systematize and provide modern air facilities for its Reserve forces was given great impetus.

AIRFIELD design criteria established by BUAER 1946 were modified in October, 1950. In addition to other improvements, runway length standards were upped to 8,000 feet to handle slow-rising jets. Sites were required to be capable of handling expansion to 10,000 feet. The lengths thus established compare favorably with the 8,400-foot runway lengths recommended by the President's Airport Commission for use by the largest types of commercial aircraft.

With standards thus modified, a number of runway extension projects at Navy-owned Reserve stations were included in the Navy's public works projects presented to Congress.

The major Reserve training stations slated to have runways extended were at Los Alamitos, which serves Los Angeles area Reservists; Glenview, which draws trainees from Chicago; Grosse Ile, near Detroit; New York; Olathe, Kansas, near the heavily-populated Kansas City metropolitan area; Willow Grove, which is used by Philadelphia Reservists, and South Weymouth, Mass., which will replace Squantum as a base for Boston Air Reserves.

Because it is close to highly-concentrated residential areas, the congestion of air traffic over Boston, and the impossibility of expanding the landing areas to Navy standards, all flying at Squantum is expected to cease in 1953. It will move to South Weymouth, 11 miles south in a less-settled area.

Another air station, Grosse Ile, was similarly, hemmed in by residences and factories. That, plus the rising water level of nearby Lake Erie and the unexpected high cost of extending runways caused the proposed expansion program there to be eliminated.

At those Naval Air Reserve installations on which construction is either completed or now in progress, both persons on the ground and Navy fliers will get added protection by the extended parallel or single runways. Adequate glide and approach paths result in a safety factor never before incorporated in the design and construction of naval airfields.

Another feature of the Navy's aviation base plan has been the establishment where practicable of joint-use Reserve training bases, to be used by Reservists of all services. These would reduce conflict of interests in airport landing areas with commercial and private aircraft. Typical of such a center is the projected Alvin-Callendar base across the Mississippi river from the present small naval air station at New Orleans.

MASTER JET COMPLEXES

SEVERAL regular Navy aviation bases also have either been expanded or are slated to be, in accordance with rules laid down by BUAER. Among bases affected are those designed as stations in the Navy "Master Jet Complex system". There are eight of these complexes about the country, selected because there is room to expand and for their strategic locations. Examples of these are found about such places at San Diego, Jacksonville, Norfolk, Quonset, Cherry Point and others.

Each complex consists of a master jet airfield, a seaport industrial air station, several auxiliary landing fields and a number of outlying fields. Each of these stations is manned and equipped to handle fleet aviation training and operations. All, with the exception of certain seaport industrial air stations, can be expanded if a need arises.

The Master Jet Complex system was developed in 1949 by Capt. R. W. D. Woods, formerly of BUAER shore establishments division and now BAR at Burbank, Calif. The "Woods Plan" set forth the proposed master jet complex system to provide a long range base development program for peacetime naval aviation needs. It was capable of immediate and orderly expansion in case of general mobilization.

PARADOXICALLY, Capt. Woods devised his plan at a time of reduction in the naval base system during the economy cutbacks of 1949 and 1950. It was so flexible, however, it could be used either for demobilization or mobilization, an unusual kind of a plan.

Two of the Navy's eight master jet complexes are the Marine Corps stations at Cherry Point and El Toro. While their design and layout are generally the same as Navy systems, some differences exist to fit into the organizational structure of the Marine Corps.

Current development of master jet airfields in more sparsely-populated regions soon will permit deployment of a number of jet squadrons away from the older seaport industrial air stations like Norfolk or San Diego. For example, Jacksonville long has been an important Navy training center and support base for Atlantic Fleet air units. Under the master jet complex plan it will henceforth be a seaport industrial air station. Less emphasis will be placed on flight operations at NAS JACKSONVILLE and more on aviation logistic support such as overhaul and repair, supply, and communications.

Fleet squadrons will do most of their tactical training flying from the master jet field at NAAS CECIL FIELD and the major auxiliary landing field at Mayport. Both of these fields are in sparsely-settled areas and are getting 8,000-foot runways for handling jet traffic.

CORPUS TRAINING FACILITIES SO CROWDED, P4Y'S MOVED TO KANSAS

MASTER JET COMPLEXES ARE NEEDED TO HANDLE 1953'S SWIFT JETS

Another example is at San Diego. North Island is the hub of this complex. San Diego will be the seaport industrial air station and its field will serve primarily transport, patrol and administrative aircraft. Most jet and fleet operations will divert to Miramar, the master jet airfield. Runways 8,000 feet long are already being constructed there. Miramar is in a remote area, and free of fog that hits North Island.

SPECIAL AIR STATIONS

IN ADDITION to Reserve stations and master jet complexes, the Navy has certain bases where research and development, experimental flights, technical training, equipment and ordnance developments are tested.

Number One among these, of course, is NATC PATUXENT. Here, new aircraft, engines, propellers and a host of new gadgets are put through a battery of in-flight and laboratory tests to check their durability and adaptability to needs of naval aviation.

From the operations building, one can see the new F7U *Cutlass* jet fighters, Douglas *Skyknights* and a number of other types being put through their paces on one section of the landing field. On another, carrier planes and patrol bombers are being given sudden stops during tests of runway arresting gear equipment of various types.

Here, too, the Navy's test pilot training division is located. Navy pilots get an exacting flight and ground course check-out to qualify them in the technical and exceedingly dangerous job of scientific analysis of the Navy's latest warplanes.

Across the continent from Patuxent is another test station, Pt. Mugu, Calif., which handles testing of guided missiles. Here, Navy missiles like the Loon are launched at targets miles away and guided to their destination by electronics, or other means. "Buck Rogers" weapons of all types are tested, rejected, accepted, launched and improved at Point Mugu to keep the U.S. in the forefront of the world against the day when push button warfare becomes a reality.

NAMTC PT. MUGU'S FACILITIES TEST VARIOUS GUIDED MISSILES LIKE THIS PULSE-JET FOR NAVY

To keep tab on the human element in operating modern high speed aircraft and the complex electronics devices used in modern naval warfare, the Navy maintains a highly-specialized aviation medical laboratory at Naval Air Development Center at Johnsville, Pa. Other activities there include armaments laboratories, development of pilotless aircraft, an aeronautical electronics and electrical lab, and other scientific analysis and development.

Many other specialized air stations contribute their part to naval aviation, also, including the ordnance test station at Inyokern, Calif., and the ordnance and drone station at Chicoteague, Va. Blimps are based at Lakehurst, Glynco, Ga.; Santa Ana and Oakland, Calif. NAS KEY WEST, Fla., conducts many types of ASW tests with helicopters and blimps to develop new techniques.

ALL OF the four broad types of naval air shore installations have one great goal in common—to advance the fighting abilities of men such as the recruit sent to Norman, the NavCads at Pensacola, the jet fighters on Navy's fast carriers or the aircrewman huddled in a gun turret on a long range patrol plane.

Some parts of the aviation shore establishment work on the individual directly through training. Some do research on his health and ability to cope with dangers inherent in his natural surroundings. Some are engaged in countering threats poised against him by new weapons created by his foes. Others preserve the skills and capabilities of his buddies in the Reserve, who will be called on to help when more help is needed.

Whether the approach is direct or otherwise, the final goal of the entire naval aviation establishment is to increase the combat effectiveness of the fighting members of the Sea-Air Power team that is so necessary to our safety upon the sea and in the air over it.

CHINESE COMMUNIST AIR FORCE

THE CHINESE Communist Air Force has one of the largest jet fighter forces in the world. Since the CCAF is a relatively young force, both in age and experience, it is apparent that in attaining this strength it is almost entirely a creature of the Soviet Air Force.

While initial development of the CCAF is obscure, an embryonic force was formed sometime before 1937 when a small number of reliable Communist youths were selected to receive pilot training under Soviet tutelage.

A later phase of its development occurred in 1946 when the Chinese Communists again attempted to establish an air force. During the latter part of this phase, the air force began to take form, and soon after the establishment of the People's Government on 1 October 1949, in Peiping, the General Headquarters of the CCAF was established.

It can be seen, therefore, that prior to 1950 the CCAF existed only as an embryonic force equipped with a varied selection of discarded American, British and Japanese World War II aircraft. The true development of this nucleus into the force as it is composed today did not begin until immediately following ratification of the Sino-Soviet treaty of 1950.

This treaty with the USSR resulted in aid being provided the CCAF in the form of training and sale of a large number of aircraft, both World War II piston types and modern jets like the MIG-15.

The Commanding General of the CCAF is Liu Ya-lou, whose headquarters is in Peiping. Air divisions are the main tactical organization in the CCAF. The division is divided into three air regiments, with around 40 aircraft to each regiment.

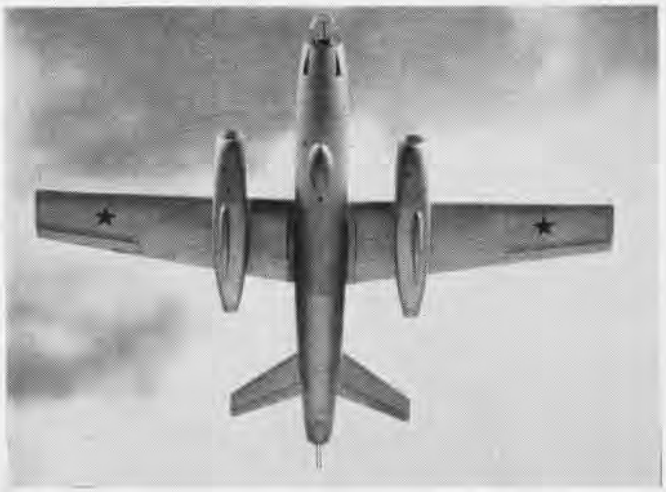
SOVIET LA-11 FIGHTERS ESCORTED TU-2 BOMBERS ON RAID IN WHICH F-86'S BAGGED MANY

Owing to the Korean war, followed by entry of China into the conflict, a portion of the CCAF's jet fighter strength has been allocated to the southern Manchuria area. Using the boundary of the Yalu as a sanctuary line, fighter units based in the Antung-Tatunkou-Takushan complex are supported by additional aircraft staged through these fields from the Mukden complex. They dispatch flights of MIG-15's into North Korea to engage UN fighters and fighter-bombers.

The Chinese Communist Air Force is credited with having more than 1500 combat aircraft of all types. This total is said to include about 900 jet fighters, predominantly first-line Soviet-built MIG-15 jet fighters as well as a few second-line MIG-9 jet fighters for training. In addition to these jets, the Communist forces in the Korean area have received a number of Soviet-built IL-28 twin-jet bombers.

Included in the tactical units of the CCAF are IL-10 *Stormovik* attack bombers for support of ground troops. This plane is well armored to protect its vital parts and two-man crew from ground fire at low levels. The IL-10 prop-driven airplane is relatively slow and would be unable to defend itself against modern jet fighters.

The IL-10 carries two 23 mm cannons and two 7.62 mm machine guns in the leading edges of its wings, and a 12.7 mm machine gun in the rear cockpit. Beneath the wings and fuselage, it can



COMMUNIST TWIN-JET COUNTERPART OF U.S. B-45 NOW IN KOREAN WAR

BELLY PICTURE OF FAMED MIG-15 SHOWS LOCATION OF 3 NOSE CANNON

CHINESE COMMUNIST PILOT TRAINEES FLY IN SLOW MIG-9 JET PLANES

CAPTURED IL-10 STORMOVIK GROUND SUPPORT PLANE WITH U.S. MARKS

carry several 132 mm rockets and about 900 pounds of bombs. The IL-10 ground-attack plane, however, is now obsolescent and may be replaced with modern jet types such as IL-28 twin-jets.

Augmenting the IL-10's in the ground attack role are TU-2 light bombers. The TU-2 is a twin-engine, conventional, all-metal, shoulder-wing monoplane of World War II vintage. It proved itself time and again in the light bomber job during the last war, and was perhaps one of the Soviet's best bombers.

These light bombers are available for operations in the Korean theater. Its armament consists of two 20 mm guns in the wing roots and three 12.7 mm guns in turrets. Because of its obsolescence, the plane has not proved successful in Korea.

One instance in which escorted TU-2's were encountered over Korea saw them operating with LA-11 prop fighters providing close cover with MIG-15's giving high cover. The subsequent interception by F-86 *Sabres* resulted in heavy losses to the TU-2 forces.

MIG-15's in operation against United Nations forces in Korea are capable of speeds in excess of 580 knots. The ceiling of the *Mig* is around 50,000 feet. While the *Mig* will carry about 330 gallons of fuel internally, some models are fitted with external wing-drop tanks.

In the construction of the Soviet jet fighter, steel is used where highly concentrated loads are encountered. The 33-foot wing has a 42° sweepback and features conventional control surfaces. Stressed metal skin covers the semi-monocoque fuselage.

Armament of the MIG-15 consists of one 37 mm automatic cannon on the lower right side of the nose and two 23 mm automatic cannon located on the lower left side of the nose. These guns are slower firing but considerably heavier than those UN jet fighters pack.

In addition to MIG-15 jets, the CCAF has many piston-type fighters. These are LAV-9's and LA-11's. They are postwar variants of a line of Lavochkin fighters, which are believed slightly inferior in performance to F-51 *Mustangs* and British Hawker *Furies*. In addition to Lavochkin fighters, the CCAF reportedly acquired by defection or capture a number of F-51 *Mustangs*.

Some transport types were acquired through defection from the Chinese Nationalists. These include twin-engine, U.S.-built C-46's and C-47's. In addition, a number of twin-engine Soviet-built IL-12's and LI-2's (C-47) have been supplied by the USSR. These transports are used for civil air transport as well as satisfying CCAF requirements.

Training emphasis is on producing combat units in the shortest possible time by stressing the flying and technical schools and operational training within the tactical air divisions. Cadets for the Chinese Communist pilot schools in general are required to have high school education, or pass an equivalent examination.

Preflight lasts around a year. Basic training normally lasts four months during which flying experience is gained in Soviet-built YAK-11 trainers, comparable to the Navy's SNJ trainer.

In advanced training, the Communist cadets specialize in ground-attack, fighter, or bomber aircraft.

The Korean air war undoubtedly has presented the enemy with an invaluable opportunity to gain actual combat experience. In general, the combat efficiency of enemy pilots has progressed steadily. Although the degree of individual pilot aggressiveness has fluctuated periodically, the caliber of enemy pilots now being encountered is considerably higher than that of one year ago.

The haven offered the Communist by the air sanctuary in Manchuria has enabled MIG-15 units to operate from bases immune from attack; to elect the time, place and tactical conditions under which they engage United Nations fighters; and to break contact from unfavorable combat conditions merely by running away across the Yalu.

BY OPERATING over Communist-controlled territory, the *Migs* have operated close to their home bases. This advantages allows the *Migs* to remain in the combat area for longer periods. On the other hand, while the F-86 has a longer range, it is at a disadvantage because its bases are farther from the combat zone. A favored Communist tactic is to time their takeoff to put them over the combat area at the precise time that the F-86's have a minimum of fuel left to keep them over the area. These advantages have been exploited by the Communists and have influenced their combat formations and tactics.

With the continuation of the Korean air war, the Communist pilots have displayed flexibility in frequently changing their formations and tactics to better cope with the F-86 *Sabre* fighter. This ability to adapt tactics has been apparent since December, 1950, when the *Mig* jet was first used in combat against the F-86.

Although the Navy has been limited by higher authority to operating its planes below the usual "hunting grounds" of the *Migs*, several air battles between *Panthers* and *Migs* have taken place with the F9F's shooting down five of the Red planes. F3D *Skynight* Marine night-fighting jets have shot down two Communist jets in Korea, a MIG-15 and a YAK-15 and another *Mig* was bagged by a sharpshooting Marine F4U pilot.

TWO ORISKANY PILOTS BAG PAIR OF MIGS

FOUR NAVY F9F PILOTS WHO TANGLED WITH MIGS: ROWLANDS, WILLIAMS, MIDDLETON, ELWOOD

(Editor's Note: Following is a squadron account of how two Navy *Panther* jet pilots outmaneuvered and shot down two Communist *Mig-15's* over Korea on 18 November. They were the fourth and fifth *Migs* bagged by carrier-based jets.)

IN AN encounter with seven aicraft, three F9F-5 *Panther* jets from VF-781 shot down two and damaged two more. The action took place 18 November 1952. The *Panther* jets were from USS *Oriskany* and were engaged in flying combat air patrol over Task Force 77.

Since the force was operating off the North Korean coastal city of Chongjin, it is presumed that the enemy is operating out of a new air base or the MIG-15 has a longer range than previously estimated. The fight occurred approximately 265 miles from their nearest known base.

The four CAP pilots from the *Pacemaker* squadron had descended from their assigned altitude to 13,000′ as Lt. Claire R. Elwood, the division leader, experienced engine trouble, a fuel boost pump failure. The *Oriskany's* air controller, Lt. Billy S. Franklin, warned them of approaching "bogies", closing fast, altitude unknown, and vectored them out to intercept them.

Detaching his section Lt. Royce Williams took the lead. At angels 15 he gave a Tallyho for seven vapor trails, positively identified them as *Migs,* and estimated their altitude at 26,000′. CIC ordered them to investigate.

The *Migs* were flying a loose abreast formation and as they came approximately overhead made a descending turn splitting into two groups. At this point the *Pacemakers* lost contact as the *Migs'* vapor trails had vanished. Owing to his engine trouble, Lt. Elwood and his wingman, Lt. (jg) John D. Middleton, remained at 13,000′. Meanwhile, Lt. Williams and his wingman, Lt. (jg) David M. Rowlands, continued their climb at "gate" (maximum power) and at angels 26 leveled off and commenced a gentle orbit.

The two *Panther* jets had no sooner picked up a comfortable speed when four of the enemy swept-wing jets initiated a flat side firing attack from the 10 o'clock position. Williams broke his section "hard left" spoiling their run, although he couldn't bring his own guns to bear. Frustrated, the *Migs* recovered to the right in a strung out position with the "Tail End Charlie" especially far back.

Williams continued his wrapped-up turn and brought his section around for a tail-end shot on the last MIG-15. His first burst of 20 mm put the enemy jet into a smoking uncontrolled diving spiral. Rowlands followed the crippled *Mig* down to 8,000′ where he last observed it smoking in a steep graveyard spiral. Gun camera film confirmed the kill.

It was at this time that Elwood, despite his engine trouble, and Middleton started up to give assistance. However at 20,000′ they were again forced to descend. After escorting his division leader to 13,000′ Middleton was dispatched to climb and help Williams who was engaging the three remaining *Migs* by himself.

Apparently the *Mig* pilots had not been using the performance of their aircraft to advantage, since when the straggler was shot down they promptly advanced throttle and pulled away very rapidly in a climbing turn. When out of ranged they spit and once attempted to bracket the lone *Pacemaker.* The single bandit was lost in the sun and was forgotten as the other enemy section had separated slightly and initiated a high side attack.

Since they made practically simultaneous runs, Williams had time only to roll into his counter and get a head-on burst at the second attacking *Mig.* As before, the Communist pilots seemed to fire from away out and hesitated to press home a head-on attack. In the ensuing dogfight that followed, Williams had several opportunities to exchange, with the enemy, head-on shots and short bursts at various degrees of deflection.

His second opportunity for a damaging blow came when he closed on an unsuspecting *Mig* from astern, immediately after he fired the *Mig* dropped his dive brakes and Williams had to break sharply to the right and pull out.

BY THIS time Rowlands had rejoined the fracas and the air battle had turned into a melee. Rowlands, upon reaching the action, was confronted with a *Mig* making a head-on run. The enemy jet firing from a far distance broke off to the left in a steep climbing turn. With planes all around him, Rowlands found himself in an advantageous position with a *Mig* in his sights, firing a long burst he started it smoking but was immediately diverted by another enemy

Navy, Marine Jet-Baggers

1. **LCdr. W. T. Amen, F9F, Mig-15 on 9 November 1950.**
2. **LCdr. W. E. Lamb, Lt. R. E. Parker, F9F's, Mig-15 on 18 November 1950.**
3. **Ens. F. C. Weber, F9F, Mig-15 on 18 November 1950.**
4. **Lt. Simpson Evans, F-86, Mig-15 on 1 June 1951.**
5. **Maj. Alexander J. Gillis, USMC, F-86, three Mig-15's, no dates available.**
6. **Lt. Walter M. Schirra, F-86, Mig-15 on 23 October 1951.**
7. **Capt. William F. Guss, USMC, F-86, Mig-15 on 4 November 1951.**
8. **LCdr. Paul E. Pugh, F-86, two Mig-15's on 6 and 22 December 1951.**
9. **Capt. V. J. Marzello, USMC, F-86, Mig-15 on 5 March 1952.**
10. **Capt. Jesse G. Folmar, USMC, F4U, Mig-15 on 10 September 1952.**
11. **Maj. William Stratton, USMC, F3D, Yak-15 on 3 November 1952.**
12. **Capt. O. R. Davis, USMC, F3D, Mig-15 on 6 November 1952.**
13. **Lt. (jg) John D. Middleton, F9F, Mig-15 on 18 November 1952.**
14. **Lt. Royce Williams, F9F, Mig-15 on 18 November 1952.**

Editor's Note: The above list of Navy and Marine pilots who have shot down Communist jets is as complete as public information records in Washington, D. C., permits. The *News* will welcome information of any omissions.

MIDDLETON'S GUN CAMERA CONFIRMS MIG KILL

jet attacking him. The *Mig* and the *Panther* jet, piloted by Rowlands, ended up in a "Lufbery circle" with neither jet gaining the advantage. Tiring of this, the *Mig* leveled his wings and climbed away very rapidly.

The apparent ability of the MIG-15 to turn easily with the F9F-5 was illustrated when Williams wound up with an enemy jet on his tail, despite a steep, high "G" turn the *Mig* pilot turned inside of him and damaged his *Panther* jet with a 23 mm shell. The high explosive shell severed his rudder controls, threw his aileron boost out of commission and was responsible for a heavy left wing down force which required full opposite trim tab plus additional stick pressure.

Thinking of escape, as the *Mig* was still right behind him, Lt. Williams dove at mach for a cloud bank 10,000' below him and approximately 10 miles away. Every time he attempted an evasive turn his plane tended to snap roll, so he settled on violent longitudinal zooming to throw off the *Mig's* lead. Rowlands tailed in very closely on the MIG-15, flying almost a wing position. Even though he was out of ammunition, he hoped to frighten the *Mig* by his presence.

Middleton's indoctrination to aerial combat was a head-on run by one of the Communist's swept-wing jets. The *Mig* had started his attack from the two o'clock position, Middleton had countered into him. It was then that he witnessed the strange parade of Williams' evasive maneuvers. Williams asked over his radio whether the *Mig* was still on his tail. Middleton answered in the affirmative and then dove down to give aid. At this time another enemy jet, perhaps the one he had made his original head-on pass with, broke away from attacking the other *Pacemakers* and pointed his guns toward Middleton.

After the first head-on pass, in reversing, the *Mig* apparently lost Middleton in the sun and thus the *Pacemaker* pilot ended up in a perfect position for a 90° deflection shot. Middleton started firing from away out and as the *Mig's* superior speed caused the *Panther* jet to tail in behind him, continued firing all the way. The enemy caught fire and began smoking. Then all of a sudden it slowed up tremendously just as if its pilot had dropped his dive brakes. Middleton had to nose over violently to avert a mid-air collision.

Not realizing that this was to be the end of the day's action, Middleton spotted a silver object which he started to make a run on. When in range he held his fire, for upon closer scrutiny it turned out to be the enemy pilot that has been forced to bail out. Looking around he saw the smoking *Mig* crash into the sea. He then orbited the Communist airman and requested that the Task Force send some means of rescue to pick up the downed pilot.

WHILE this was going on, Williams was making good use of his rear view mirror. He could see the *Mig* firing at him as his *Panther* jet raced for the protection of the clouds. All three planes of this strange procession entered the solid overcast where they were met with zero visibility and snow showers that immediately put them all on instruments.

The "friendlies" stayed in the "soup" for five minutes and then after receiving a steer from the Fleet and permission to approach the force they let down individually until they broke out in the clear at 1200 feet. Upon approaching the Task Force under CIC control, the crippled *Panther* jet piloted by Williams, was fired on and missed by a destroyer in the screen until visual recognition brought a cease fire.

It was here that the use of the combat hydraulic manifold paid off as his hydraulic fluid tank had been ruptured by enemy fire. After getting a positive landing gear and tail hook check by the *Oriskany*, Williams was given a "Charlie" and waited for the ship to turn into the wind. To his consternation Williams found that his F9F-5 was becoming increasingly difficult to fly, while indicating 140 knots it took him a six-mile circle to complete a turn.

Being talked in on his approach, as well as receiving paddle signals from the landing signal officer, Lt. Robert MacKenna, he was still unable to line up with the wake of the carrier. Captain Courtney Shands, commanding officer of the *Oriskany*, realizing the emergency turned his carrier 15° out of the wind which was the necessary amount to line up the *Panther* with the *Oriskany* flight deck. The other three pilots from VF-781 landed without incident.

This ended the dogfight with the MIG-15. There were several reasons why this aerial battle turn out so favorably. Only one stoppage was experienced in the 20 mm guns of the three *Panther* jets, this occurred after the jet had fired over 700 rounds (apparent cause, too long a burst). The APG-30 radar ranging gunsight equipment functioned properly.

Fighter Squadron 781 had been dubbed the *Pacemakers* when they became the first reserve fighter squadron to volunteer 100 percent for active duty at the outbreak of the Korean conflict. This was in July of 1950.

The *Pacemakers*, now in their second tour of combat in Korea, are commanded by LCdr Stanley Holm.

Wetbacks Halted by Marine

'Copter Pilot Subs for Border Patrol

A Marine pilot, quick to take advantage of a situation, has found a new use for helicopters.

While Capt. Harvey E. Wendt of HMR-362 was on a routine flight from MCAF SANTA ANA to Camp Pendleton, he spotted four illegal immigrants trudging northward along a back road of the big Marine base.

Within a few minutes, Wendt had set his 'copter down by Pendleton's shore patrol headquarters, picked up two SP's and was on his way back to capture the four *wetbacks*. In less than 10 minutes the four were rounded up and on their way back to headquarters where they were turned over to Federal Immigration authorities for deportation to Mexico.

Harassed officials, plagued by the never-ending stream of *wetbacks*, believe this was the fastest roundup.

THERE IS *always someone who doesn't get the word. Take, for instance, Stanley Keller's draft board back in San Jose. Stanley was aboard a ship which stopped off at Midway Island, returning him to the U. S. after he had served nine months in Korea. The letter he received at Midway notified him he had been drafted by the Army. Keller will frame his letter. He'll point out the wrong colored shoes which would keep him out of the Army.*

RED TARGET DRONES BUZZ AT 'CHINCO'

RED F6F DRONE WITH SAFETY PILOT IN COCKPIT PREPARES TO TAKE-OFF WITH FOX CONTROL CART

DRONE safety pilot, Lt. T. D. Brown of VX-2, was sitting snugly in the cockpit of his Richthofen-red F6F. The *Fox* ground controller had just completed a smooth radio-controlled takeoff down the runway's dead-center. The engine was purring contentedly, and Brown's future looked bright.

All of a sudden, all hell broke loose. The F6F's electronically-controlled stick popped back in his lap. At 50 feet off the deck, the red *Hellcat* groaned into a loop. The already-slow air-speed fell.

Brown frantically pawed the "panic button" radio-control, throw-out switch on the back of the stick, but couldn't reach it with his thumb. It was jammed tightly against his safety belt, and was as immovable as the Rock of Gibraltar. Through an eternity of seconds sweat flowed like bourbon at a squadron party and the airspeed dipped below the critical point. At the 11th hour, Brown managed to reach an alternate switch and brought his drone back under control.

This routine isn't normal for the drone workers at Chincoteague's Naval Auxiliary Air Station and Naval Aviation Ordnance Test Station, but it happens. It leaves no doubt as to who earns his flight pay the hard way.

It was the same type of F6F drone which the Navy loaded with bombs and television cameras and sent out to destroy North Korean railroad tunnels as a combat test recently.

Ordnance testing operations at Capt. M. P. Bagdanovitch's NAAS-NAOTS CHINCOTEAGUE are a four-ring circus, with four separate activities carrying the ball. VU-4 under Cdr. R. E. Breen, Jr., flies targets, drones and banners to sharpen up the gunnery shooting eyes of the ships of the fleet. VX-2, commanded by Cdr. R. L. Willett, uses the same tools but its targets are shot at by special weapons or new guns to see how they function.

A couple of "Gumtoo's" carry the ball when it comes to testing out guided missiles to see if they will measure up to Navy combat needs. Guided Missile Test Unit Eleven, has Cdr. E. W. Brodie as officer in charge, and GMTU-3 is headed by Cdr. J. H. Huff. Their work is mostly confidential but it can be revealed they put such early missiles as the *Gorgon IV*, KDN and KDM target drones through their paces some time ago.

GMTU-3, for example, has a number of "irons" in the fire. Its big P4Y-2's and P4Y-1 carry various kinds of fire control gear, aviation stores, guided missiles, aircraft flares, radar countermeasures gear and experimental installations for Navy planes. They fly out and drop them, give them rigid tests or otherwise try to wring out the bugs to see if they measure up. Its pilots fly many other types of planes as well as the four-engine bombers; in fact they could easily step into a ferry pilot's shoes, as they are checked out in many types.

Few small auxiliary air stations, or large bases for that matter, have as many types of planes on their landing aprons as "Chinco". A look down the flight line discloses the following: F2H-2, F9F, TV-1D, PBM, PBY-6A, P4Y-2P, P4Y-1, R4D, AD, JD, TBM, F6F-5K, F8F, SNB, P2V, F6F, and HRP-1. The number of wrinkles on maintenance and supply officers' brows can be imagined.

When the *Gumtoo* is checking out new-type guns or rockets, its pilots use an old grounded Liberty ship in Chesapeake bay as a target. Frequently they go out in the jets to chase guided missiles in flight, using cameras installed in the planes to photograph them.

VX-2, being an experimental squadron, is handed all kinds of aviation ordnance testing jobs to do. Its most interesting activity, of course, is the red F6F drone flying. When it goes out with a banner, it is for evaluating some new electronic system on a ship down below, not primarily to be shot at by its gunners. It was VX-2 which did evaluation tests air-to-air and from air to ground on ultra high frequency radio before the Navy decided to substitute UHF for its VHF radios in planes.

Some time back, VX-2 supplied F6F drones to serve as targets for the high altitude air intercept project in Florida to check the nation's defenses against air attack.

Most of the *Hellcat* drones launched at Chincoteague are catapulted from one of the shorter runways away from the buildings of the station. There are three *Fox* operators who fly their own F8F "chase planes" and simultaneously control the F6F drone by means of buttons on the stick of the *Bearcat*.

These three *Foxes* are LCdr. R. W.

Grissom, Lt. (jg) W. J. Burton and C. L. Brammeier, air controlman chief aviation pilot. Because of the catapult location, 80% of the takeoffs and landings are done crosswind, with 8 to 10 knots of wind.

All of the red Culver drones have been expended and VX-2 now uses only F6F's. About 85% of the losses in drones are from fleet gunnery. Some of the drones coming home are so shot up their wheels cannot be lowered and they have to be crash-landed, repaired and flown again. The average life of the *Hellcat* target drone is about 2.75 gunnery flights, altho one was shot up and came back six times, was repaired and went out for more.

THE RECORD for long life at Chincoteague in the drone clan was a Culver TD2C which made 18 "nolo" (no live operator) flights without being clobbered. The Naval Air Missile Test Center at Pt. Mugu reportedly had one F6F drone that went out and flew through big and little flak 21 times without being shot down and VU-3 at San Diego had one with 18.

Men learning to be drone controllers get their check-outs in two-man F7F's. *Tigercats* work out better as control planes when a drone has to be flown at minimum altitudes since one pilot is too busy to fly his own plane at treetop level and watch out for the drone too.

Experiences such as Lt. Brown's takeoff can sometimes happen during landings or level flight in drone operations. Grey hairs sometimes find their way into otherwise youthful scalps of safety pilots when the *Fox* ground controller starts breaking the glide about 300 feet over the runway with the nose up, no power and 70 knots on the F6. Similar sensations are observed in too fast approaches. On occasions when the *Fox* thinks the chase pilot has control of the drone, and the chase pilot thinks vice versa situations can get "hairy" too because the drones don't think.

Utility Squadron Four flies the red drones too, but its hops are to sharpen up the shooting eyes of the gunners on ships, not to test new-type guns or shells. Its pilots also go out and fly around the skies to give the Combat Information Center crews on ships a chance to track them and work out intercept problems.

Although the fliers may be towing the banners with four to seven thousand feet of cable an occasional shell bursts close to the JD tow planes. One took off the radio antenna of a JD—and it was a perfectly clear day too. The tow-plane pilots maintain that the destroyers are the best shooters in the pack.

Gunnery exercises are usually conducted with ships in the various operating areas off the Virginia capes. Tow planes navigate out to the prescribed area by dead reckoning, but are usually given a vector to steer by the ships who have picked them up on radar long before the planes reach their vicinity.

F8F CONTROL PLANES LINE UP AT CHINCO RAMP

VU-4 sometimes is called on to do extra-curricular rescue work with a helicopter. Once the HRP went out to Cobb's Island to get some confidential gear out of an AD-4 that had crashed in the marsh so abundant around Chincoteague. Sick seamen on ships offshore have been taken off by helicopter.

Probably the most fantastic rescue was made by Lt. (jg) K. C. Scholl, flying a JD tow plane. He was 70 miles out in the Atlantic off Oceana when he spotted a tiny private plane heading out to sea. Scholl figured the pilot was lost so he herded the plane back to land despite lack of radio communications.

Aboard the plane were a man, his wife and two children. They had left Richmond for New York and when Scholl found them they were headed in the direction of the Bahamas to the south, When it landed at Oceana, the plane had five gallons of gasoline left. The pilot maintained he was not lost.

Another of the jobs of VU-4 is to send out planes to spot shore bombardments at Bloodsworth Island target area. The PBM photographs the fall of shot and calibrates the accuracy of the fleet 40 mm; 3" and 5" gunners or rockets from landing craft.

When the job is to give the gunners antiaircraft practice, the ship selects the type run it wants the drone plane to make—step dive, straight dive, or perhaps a torpedo run. Dummy runs usually are made the day before to give all hands a chance to get their signals straight. One day the ship gunnery officer got his mixed—he announced over the radio the guns would open fire on the F6F drone on the next run. Unfortunately, the safety pilot was in its cockpit. Some frantic radio messages went out to cancel the firing until the next day.

TBM's and JD's also are supplied by VU-4 to chase down torpedoes which have been fired by Atlantic Fleet ships for practice, to run intercepts for air controllers or check out radar countermeasures.

Chincoteague was only a marshy farmland, haven of oyster growers and duck hunters, back in 1942 when the Navy took it over and made it into a base for PB4Y operations. In those early days, little Stinsons and Piper's of the Civil Air Patrol landed at "Chinco" to take on such depth bombs or other armament as they could carry on antisubmarine patrols a few miles offshore. In April 1946 it became a naval aviation ordnance test station, but the oyster growers and duck hunters have not let this hinder their operations.

Since the NAAS-NAOTS skipper wears two hats, he has one executive officer, Cdr. A. H. Willis, to look after the air station and Cdr. P. W. Jackson as exec of the ordnance test station.


TARGET DRONES LIKE GORGON IV ARE TESTED BY CHINCOTEAGUE 'GUMTOOS' TO SEE IF THEY WORK

R4D BY FLOGWING TERMINAL AT ATSUGI DECORATED WITH INSIGNE AND JAPANESE ARCH

ATSUGI, THE LAIR OF U.S. PILOTS

VISITORS to NAS ATSUGI would hardly recognize the base today if they had visited it only two years ago.

Today it's one of the best stations in the Far East, boasting one of the finest officers' clubs in the world. Only two short years ago, it was a run-down, bombed-out air strip that had been used by the Japanese Imperial Navy to hurl almost everything under the "Rising Sun" at our Pacific fleet.

When Korean hostilities broke out, NAS ATSUGI was selected to be one of the major naval air facilities in the Orient. In October of 1950 an advanced echelon of Seabees of Naval Mobile Construction Battalion Two got their first look at the station, lair of the famous Japanese *Kamikaze* pilots.

The station spread over more than 1200 acres with over 200 buildings and utility structures. There was evidence that the United States had visited there previously. The strip, a runway of 5,000 feet and the hangar facilities the Japanese used to train their *Kamikaze* suicide pilots had been bombed into complete disuse. Many of the buildings bore marks of the unerring accuracy of our pilots during strafing runs.

Atsugi was built by the Japanese Imperial Navy in 1943 and served first as a school for the training of carrier pilots. Later, it was used as a base of operation in the air defense of the Japanese mainland against B-29's. Many of the *Kamikaze* planes which harassed the fleet in 1945 were launched from Atsugi. It was at Atsugi that General MacArthur first landed on August 30, 1945, when he drove to Tokyo to make arrangements for the Japanese surrender.

On November 5, 1950, the parent command of FASRON 11 moved to Atsugi to help prepare the new station for operation. To execute its assigned mission and offer real support to UN efforts in Korea, a landing strip had to be built immediately. This was the most important project in rehabilitating Atsugi if the Navy's large patrol aircraft were to carry on all-weather operations. The existing asphalt and marston matting strip was rooted out and a 6,000-foot runway was built.

NAS ATSUGI was commissioned in December, 1950 by Capt. R. C. Sutliff. There was no Christmas spirit on that day, since Korea had become a brutal reality. The Navy was mobilizing for an evacuation at Hungnam and the UN command was mustering its full transport capacity to fly wounded survivors to havens of safety.

Today patrol squadrons based at NAS ATSUGI operate over Korea and its surrounding waters in daily missions. ComFair Japan has its headquarters there. Fleet Logistic Air Wing Pacific has a big terminal on the station and all damaged planes of carriers operating in Korean waters are repaired at Atsugi's aircraft repair facilities. The hustle and the bustle, as Atsugi fulfills its role of supporting UN naval forces, is a far cry from the desolation of the station such a very short time ago.

TWIN PRZYLEPAS MAKE IT TOUGH AROUND VF-13

Twins' Navy Life Parallel

VF-13 Mechs On Same Duty 10 Years

COMFAIR, JACKSONVILLE—Confusion doesn't run rampant in VF-13 at Cecil Field, it gallops when new men in the outfit are told to find Przylepa and he turns up in duplicate.

The reason is that Pryzlepa is two people, twin brothers John and Joe, AD1's who are so similar that even friends are perplexed.

Not only are they alike physically, but their Navy careers are remarkably matching in that they've never been separated in 10 years of service.

During World War II they were aboard the *Saratoga* and ended up on the CVE *Takanis Bay* on the *Magic Carpet* run. Since then they have had duty in Alaska with VP-1, at Alameda and later Patuxent River. They came to VF-13 in December, 1951.

Corry Sets Safety Record

94 Days Go Without A Single Accident

NAAS CORRY FIELD—Ninety-four days and 19,514.6 flight hours with no accidents of any type gives this field an all-time high safety record in NABTC.

From 16 September to 18 December, under a vigorous safety campaign launched by LCdr. V. W. Lydston, safety officer, BTU-2, all hands attached to the unit were made safety conscious, enabling them to set the new record.

BY THE FLIP *of a coin, R. W. Newton, AMAN, became the 10,000th man and L. C. Urbanovsky, AM3, became the 10,001st man to donate blood at NAS Corpus Christi. Both men are Korean War vets. They are shown here with Lt. Mary Warner and 31 pints of blood representing their total donations. The large bottle also holds 31 pints of blood.*

LCDR. NATWIG RECEIVES AWARD FOR HIS FEAT

Pilot Wins Heroism Award

Coast Guard Flier Saved Crash Victims

Heroism in rescuing a small Puerto Rican survivor of an airline crash has won for LCdr. John Natwig of the U.S. Coast Guard detachment at Naval Station, San Juan, P. R., the award as "Airman of the Year in Puerto Rico."

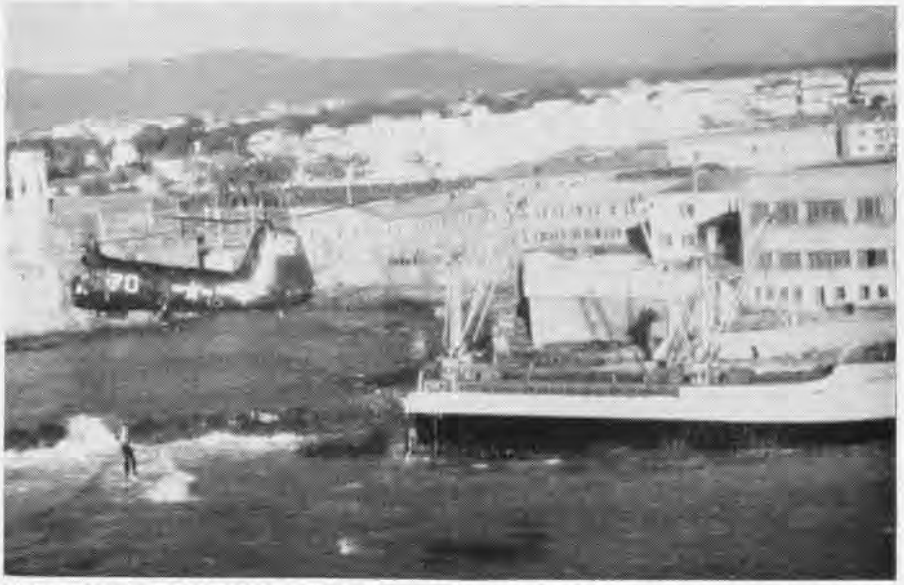
Natwig went out in a Coast Guard PBY rescue plane to pick up survivors of a large airliner crash a few miles out in shark-infested waters off San Juan. One engine of the plane was out after it landed in the water, so Natwig leaped out to save two boys struggling in the water. One was able to swim to safety. Natwig supported the other 40 minutes, kicking and fighting off large sharks until he could release his repellent packet.

Natwig was graduated from naval flight training at Pensacola in October, 1945. In the accompanying photo, Juan Garcia, commander of the Puerto Rico chapter of the Air Force Assn., hands the trophy to Natwig.

● USS TARAWA—The *Tarawa* soccer team, men who had never played together before, played the Haitian All-Stars during a visit to Port-au-Prince. Defeated by a score of 11-0, the men learned the All-Stars are the soccer champs of the Caribbean League. The Haitians thought the loss was a deliberate gesture of goodwill.

THIS LITTLE *feather merchant is learning to fly wingman to his owner, 1st Lt. P. A. Manning,* VMF(*n*)-114 *fighter pilot aboard the Tarawa. The bird was found in a director tub one night off the Florida coast. It is thriving on raw meat, rides around on Manning's gloved hand and stares back at gawkers with a complete lack of concern*

'COPTERS HELP IN LEGHORN RESCUE



WITH GROMMET REEFER BEING POUNDED BY HEAVY SEAS, NAVY HELICOPTER RESCUES CREWMAN

FOUR helicopters from the *Pittsburgh, Midway* and *Leyte* bucked winter winds to rescue the last survivor aboard the stricken vessel, *Grommet Reefer,* grounded in Leghorn, Italy, harbor.

The merchant refrigeration ship, under contract to the United States Navy and manned by 39 civilians, crashed on the rocks in Leghorn harbor and split in half. The stern of the ship with the crew aboard was lodged fast on huge rocks about 200 yards off the shoreside home of the Italian Naval Academy. The bow half was wedged solidly aground 50 feet off the beach.

Air Repair Division Two, consisting of the USS *Chloris* ARVE-4, USS *Megara* ARVA-6 and USS *Menelaus* ARL-13, plus the USS *Mattabessett* AOG-52, was in Leghorn when the *Grommet Reefer* went aground with its cargo of 13,500 pounds of frozen turkey destined for U.S. forces in Austria. Working under the worst weather conditions, they assisted around the clock in efforts to rescue crewmen either by highline or small boat. Midshipmen from the Italian Naval Academy Seamanship class also met on the beach for a practical lesson in rescue work.

Winds up to 60 miles an hour churned the seas and hindered rescue operations. Only three of the crew were removed in the first rescue attempt because of the difficulties encountered in effecting a 400-yard span of wire rope. The morale of the men aboard the *Grommet Reefer* remained high. Personal mail was passed to them by highline.

With heavy seas battering the ship and jeopardizing the lives of the crewmen, VAdm. John Cassaday, Commander Sixth Fleet, ordered Carrier Division Four to proceed to Leghorn and render all assistance required, including helicopter lifts.

Following a high-speed run of 150 miles in extremely rough seas with winds up to 60 knots, four helicopters were launched from the decks of the three ships to assist in the rescue operations. By this time highline and small boats were being utilized and over half of the crew had come ashore, some in swaying canvas breeches buoys and others by jumping into the rolling seas to be picked up by a small boat.

The helicopter crews from the *Midway* and *Pittsburgh* consisted of Lt. T. Harden, P. Teitmeyer, AD2, Ens. J. Jones and W. K. Crough, AD1. Flying the choppers from the *Leyte* were Lt. J. J. Culotta, A. G. De Russo, AD2, Lt. (jg) C. Stuck and C. M. Russell, AD3. Teitmeyer was lowered to the *Grommet Reefer* to instruct and assist survivors in the use of the helicopter hoist sling. The last 15 crewmen were plucked from the ship by helicopters. Total elapsed time after the 'copters rescue operation and return to the carriers was one hour and 45 minutes.

The whole rescue effort took 36 hours. Last man to leave the ship was Latvian-born Henry P. Saukant, the ship's captain. With all the crew safely ashore, the three Navy ships rejoined the Sixth Fleet to continue fleet exercises which were in progress.

● NAS KWAJALEIN—People who lay over at this garden spot of the Pacific no longer will have to fight the Portuguese men-of-war and poisonous jellyfish on the swimming beach. A new pool has been completed.

CNARESTRA HAS HIS SAY

On one busy weekend, RAdm. Dan Gallery, new CNARESTRA and capturer of the Nazi U-505, inspected NARTU ANACOSTIA's *Weekend Warriors* and presented the Davis and Conway Trophies at NAS WILLOW GROVE. The Admiral paused long enough to report to NANEWS readers the status of today's Naval Air Reserve.

No More Recalls Now

"There won't be any more recalls of Naval Air Reservists this fiscal year unless the world situation changes drastically. The 1800 Reserve pilots recalled this year takes care of present fleet needs. Since the start of the Korean war 42 Navy squadrons, and all the pre-Korean Marine Air Reserve have been brought to active duty. The Marines are now rebuilding to their former strength. They're making excellent progress."

We've Got a Problem

"The biggest problem facing Naval Air Reserve today is replacing World War II trained pilots with younger men. New Reserve aviators come from the NAVCAD program. After 18 months flight training at Pensacola and Corpus Christi, Cadets are commissioned, and then get flight experience in the fleet before transferring to the career Navy or returning home to the Reserve. Young men should look into this."

I'm Selling Insurance

" 'Life insurance for America in one of its best and lowest priced forms', is the way to describe the Reserve. As I see it, patriotism is the only thing that makes the Reservist find time from his civilian tasks to train one weekend a month and take his annual two-week training period. He could easily make more money than his drill pay at other occupations without risking his neck in the process of doing it."

Are Reserves Any Good?

"In my experience, more years than I like to remember, I've seen plenty of good outfits. The Reserves stack up with the best of them. It takes the same time for a Reserve squadron to transition to modern fleet aircraft as it does a regular squadron. Korea has proved beyond any doubt the effectiveness of Naval and Marine Air Reserve. At one time they were flying every third U. S. combat air strike against the Reds."

NRL Probes High Altitudes

Viking 9 Rocket Soars to 135 Miles

The Naval Research Laboratory's *Viking 9* rocket, travelling at 3,900 miles an hour, soared to a height of 135 miles, equalling the altitude gained by the *Viking 7* at the Army's White Sands Proving Grounds.

The 7½ ton, 42-foot rocket carried instruments to measure sunlight in various X-ray and ultra-violet regions, including a spectograph automatically pointed at the sun, three arrays of photon counters and photographic film detectors. Photon counters are similar to Geiger counters except that they count individual light particles or photons.

In the nose of the *Viking 9* were photographic emulsions to detect cosmic radiation. Six cameras determined how the experimental equipment stood up and obtained wide-area infra-red photographs of the earth's surface and atmosphere and cloud formations. Although most of the scientific data was sent back during flight to a ground radio station by means of a radio transmitter, radio signals detonated explosives in the nose of the rocket so that equipment could be recovered.

The *Viking 9* carries a payload of 2,000 pounds of scientific equipment. It was designed and built by NRL, Glenn L. Martin Company and Reaction Motors, Inc. The *Viking* program, under direction of Milton W. Rosen, aims at furnishing the vehicle to extend measurements of the upper atmosphere up to 200 miles.

Marines Honor Wright Bros.

Fly-Past of Jets, Fighters is Feature

MCAS CHERRY POINT—Nine planes from 2nd Marine Air Wing participated in a sizeable fly-over of military planes at Kill Devil hill on 17 December, commemorating the 49th anniversary of the Wright brothers' first flight.

The fly-over was celebrating the opening of aviation's Golden Anniversary year, which will be observed by various fetes throughout the next 12 months.

Three F3D *Skyknights*, three AU *Corsairs* and a trio of big HRS-1 helicopters made up the Marine contigent in the fly-over. Army, Navy and Air Force planes also joined the aerial parade past the sand-dune monument to the Wrights.

Marine pilots participating were Maj. Gordon L. Allen, Capts. Daniel C. Johnson and Henry Covington from VMA-225; Maj. Herbert J. Hartman, 1st Lt. Raymond A. Cameron and 2nd Lt. William R. Coleman of VMF(N)-531, and Capts. John Dodge, Dwain L. Readlen and A. A. Kanusas from HMR-262.

Sicily Finishes Third Cruise

Korean Veteran Brings ASW Unit Home

COMAIRPAC, SAN DIEGO—The escort carrier *Sicily*, first CVE to complete three combat tours of duty off Korea, returned here 4 December to finish off her last seven-months cruise in the Far East.

A Queen Mother, Mrs. Fremont Bowman, and a Queen Wife, Mrs. Edward S. Colby, were selected by the *Sicily* crew while off Korea to preside over the festive homecoming scene. Mrs. Bowman was flown from Pennsylvania to be present when her son, John, a seaman, got home. Mrs. Colby and her husband, Edward, a chief radioman, will spend a "second honeymoon" in Las Vegas, all because of the generosity of the *Sicily* crew. It will be their 14th wedding anniversary.

During her tour in Korea under Capt.

WILSON DOWNS GETS WELCOME FROM TEXAS KIN

Almon E. Loomis, the *Sicily* conducted ASW exercises with VS-931 and had VMF-312, the famed *Checkerboard* squadron, aboard. VS-931 was aboard when the ship docked.

Midway Survives Tidal Wave

B-29 Crash at Night Enlivens Island

VR-21, MIDWAY—Life anywhere else in the world will seem dull to VR-21 personnel after a few months' duty on this crossroads of the Pacific.

A tidal wave struck the tiny island on one hour's notice. Low spots on the station were flooded, water rushing a thousand feet up a runway. Buildings were moved, picnic grounds uprooted and a large barge driven a hundred yards from the beach through a clump of trees.

Worst of all, the annex to the officers' club which held the package stores was washed out. The wave was estimated at six feet in height as it roared past at a speed of 400 knots true wave speed.

One dark and rainy night the dit da of an emergency broke the routine in the radio shack. A B-29 600 miles at sea, had lost an engine, with a second one running rough, and requested an intercept. The Coast Guard rescue plane was underway and rendezvoused successfully.

Disaster rode the wing as the large bomber touched down on runway six, hot and with faulty brakes. The emergency system held on one side, putting the plane in a skid as it passed over the seawall into the Pacific. As it went, one main gear mount caught on the seawall and kept it from going into 10 fathoms of water. Crew members got only minor cuts and slight shock. The plane was strike damaged.

WHEN TRAILING *wires from ZP-1 airship tangled in gun installations below the ramp on the CVE Kula Gulf 100 miles off Cape Henry, Va., the resultant strain damaged the blimp so badly it folded in the middle and was lost at sea. The accident happened during carrier qualification tests. Pilot was LCdr. Charles Napier. All crew members were picked up by the USS Bauer, DM-26, with only one receiving a fractured wrist in the accident.*

Navy Tender Fetes Ethiopians

Haile Selassie, Court Pay State Call

USS GREENWICH BAY—This AVP has returned to the states after a cruise as flagship for the Commander Middle East Force, RAdm. G. C. Towner.

The "GB", nicknamed the *Galloping Ghost of the Persian Gulf*, was engaged in making good will calls throughout the Middle East to countries including Saudi Arabia, Kuwait, Iraq, Iran, Pakistan, India, Ceylon and Ethiopia.

On 8 October, the "GB" paid a 21-gun salute to His Imperial Majesty Haile Selassie at Massawa, Eritrea during a good will call to celebrate the Federation of Eritria into Ethiopia. Following a state dinner on board the "GB", the Empress and His Majesty's cabinet accompanied the Emperor on a 2½ hour cruise to a nearby Ethiopian island.

TROPICAL 'SURVIVAL SUITS' ON BOARD TENDER

The ship served primarily as flagship and secondarily as a seaplane tender. Aviators on board maintained their flight proficiency and instrument cards in the flag R4D. In the photo, they are: LCdr. D. C. Richardson, air officer; Cdr. Robert H. Wood, exec; Capt. G. O. Gjoerloff, commanding, LCdr. R. J. Beaudine, operations, and Lt. C. D. Cunningham, navigator.

B-17 Starts R4D's Engines

Slipstream Saves 12-Hour Chitose Halt

VR-23, ATSUGI—His new nickname is "Windmill", and this is how Cdr. M. P. MacNair explains it.

During preparation for a return flight from Chitose air base in northern Japan, MacNair's plane had a malfunctioning port starter. After exhausting all alternate methods of starting the engine, the crew morale sank to a low level.

Chitose air base is an all-jet activity, and the apparent solution was a dispatch to Atsugi squadron headquarters asking air delivery of another starter. About this time an Air Force B-17 happened along. The pilot was persuaded to taxi the bomber to position forward of the R4D.

Upon prearranged signal the #1 and #2 engines of the B-17 were turned up to 2400 rpm, creating enough airstream to windmill the R-1830. A flick of the switch and the R4D roared to life, cutting a potential delay of 12 hours to only 60 minutes. Excellent cooperation!

RESERVES WILL FLY LATE-MODEL PLANES

VS SQUADRONS *throughout the Naval Air Reserve Training Command are trading their old-model TBM's in on this later model AF2S for anti-submarine warfare training*

THERE'S welcome news for many Naval Air Reserve stations throughout the Reserve Training Command. Many of their WWII vintage planes are being replaced with newer models that will make "weekend" flying an adventure all over again.

Out at NAS OAKLAND, a VS squadron has already traded its old-time TBM's for the late-model AF-2S Grumman *Guardian*. The AF-2S made its first appearance in the fleet back in 1949 and will be as cherished by Reserve pilots as a 1952 automobile. Carrying a three-man crew, the *Guardian* is designed for carrier or land-based operations against submarines. Next on the list to receive AF-2S's is NAS LOS ALAMITOS.

Reserve VP squadrons are slated for a change from PBY's to the more up-to-date P4Y2's. NAS SEATTLE, NAS BIRMINGHAM, NAS GLENVIEW, NAS MEMPHIS, NARTU MIAMI, NAS NEW YORK and NAS OLATHE have the new patrol planes on board or will receive them in the near future.

Reserve Transport Squadrons have abandoned their R4D's in favor of training in larger R5D's. By the end of March, the larger aircraft will have made their appearance at NAS COLUMBUS, NAS DALLAS, NAS GLENVIEW, NAS LOS ALAMITOS, NARTU MIAMI, NAS MINNEAPOLIS, NAS NEW YORK, NAS OAKLAND, NAS OLATHE, NAS SEATTLE and NAS ST. LOUIS.

Nine stationkeepers from NARTU SEATTLE have already been checked out in two weeks of comprehensive training in R5D maintenance by VR-5 at NAS MOFFETT FIELD. Their training included an extensive study of R5D structures, electronics equipment and power plants along with practical application of maintenance functions. This detachment will support the transport phase at NARTU SEATTLE and will provide ground maintenance for VR-891 and VR-892 on their summer cruises in fiscal 1954.

Marine Fliers Wanted

Leathernecks who want to fly are getting their chance in the Marine Corps Reserve program. Flight training has been opened to Reserve officers under 26 years, including college graduates who have entered the Officer Candidate Class program.

These college graduates must complete successfully at least 14 of their 20 weeks Special Basic Course at Quantico, Virginia before applying. All Marine aviators must know ground warfare, in order to perform the coordinated air-ground teamwork they developed in World War II and carried into Korea.

Those accepted for flight training will be sent to NAS PENSACOLA to get their wings. Flight training is also open to qualified Marine Reserve officers on inactive duty.

The Birds Pass in Review

A helicopter from NAS NEW ORLEANS was sent on a cross-country jaunt to take part in ceremonies at NAS BIRMINGHAM. The pilot, Lt. Best, and his mech, Thibodeaux, had quite a trip.

They departed NAS NEW ORLEANS one morning at 0930 and had to make at least six different stops for refueling. The stops were at about 55-mile intervals. Time and time again the head winds were so strong that it seemed as though they were standing still. Automobiles, trains and sometimes even people seemed to be making faster time than the "whirlybird." They had to keep the birds from passing by and damaging the rotary blades.

The navigation problem was easy. By their airspeed indicator they averaged about 55 knots and stayed at about 300 to 500 feet altitude in order to enjoy the scenery and spot railroad tracks and highways. People signing their clearance papers thought they were trying to be funny because their time in the air averaged an hour and 20 minutes.

They made one stop at an old abandoned civilian airport with grass runways. The facilities were so bad that they had to ask an old negro attendant to find an automobile service station and buy 15 gallons of gasoline for them. When they arrived at NAS BIRMINGHAM, they discovered that their efforts were in vain. Foul weather ruined the ceremonies in which they were to participate during their stay.

Six days after they began their trip, they finally arrived back at their home station.

Atlanta is a Long Way Off

The loyalty and enthusiasm of Naval and Marine Air Reservists has been shown time and time again by the records of long-distance trips they make to attend their monthly drills. The latest claim to top drill mileage has been made by Lt. Col. Leland W. Smith, commanding officer of Reserve MGCIS-15 at NAS ATLANTA.

Living near Washington, D. C., the Marine flier commutes once a month by car, train or plane to his squadron headquarters. His round-trip mileage totals 1300 miles every month.

VP-741 Gets Ready for Civvies

Jacksonville's Reserve squadron, VP-741, which served as a "guinea pig" squadron after recall to active duty, is getting ready to don civilian clothes again. Cdr. Charles W. Rogers has turned over the squadron reins to Cdr. James W. Hardy and has assumed administrative duties with the staff of COMFAIRWING 11 until his release from active duty.

After its activation, VP-741 served as an experimental unit, being immediately assigned fleet-type aircraft without benefit of refresher training. Normally after recall and prior to reporting to the fleet, most pilots are given numerous familiarization flights at training bases under the guidance of experienced instructors to brush up their ability.

IT TAKES *"Wings of Gold" to rate with Rosemary Gowan at NAS Dallas. Two willing "Weekend Warriors" pose with her for TV*

"YOU TAKE *it from here." Cdr. Charles W. Rogers outlines to Cdr. James W. Hardy areas in Florida in which VP-741 operates*

Since reporting to active duty from NARTU JACKSONVILLE, VP-741 has flown a total of 12,334 hours or the equivalent of 1.45 years. In a six-month period the squadron had the greatest number of hours of any Atlantic Fleet VP at the lowest gasoline consumption and at the lowest hourly operating cost. They completed five months of intensive training in the Mediterranean where they operated with the Sixth Fleet and several NATO countries. Highlighting the foreign duty while operating from the British Island of Malta was the logging of approximately 5,000 flight hours and the maintaining of an over-all 90 percent plane availability.

Of the 37 Reserve officers who were with VP-741 when it was activated in March 1951, 14 will be released with Cdr. Rogers. The remaining 22 who prefer to stay in the Navy will be transferred to shore duty.

Where There're Sparks, There's Fire

When a caretaker at Veterans Village near NAS DENVER lost control of a trash fire as a heavy gust of wind scattered sparks through tall dry grass, the men at the station got a chance to put their fire-fighting techniques into practice.

All hands at NAS DENVER dropped their work for 45 minutes and fought the grass fire with fire-fighting equipment, shovels and blankets. The fire raged over nearly 100 acres of Navy-owned grassland before the sailors could bring it under control. Gusts of wind up to 50 miles per hour hampered the men fighting the fire.

Smoke and flames covered such an extensive area that a low-flying Navy TBM circled the area, while Capt. H. W. England, Reserve pilot in VMF-236, radioed directions to the fire-fighting crews.

Columbus Adds that Homey Touch

The old saying that it takes a woman to really make a home home-like has been tossed in the round file by a group of he-men at NAS COLUMBUS. The parachute riggers at the station got together and whipped up some dandy beige monk's cloth drapes.

"Operation Curtain" was carried out by John Talley, PR2, SSgt. Dallas Warren, C. L. Hudson, PR3, and James Prickett, PRC. They used 152 feet of cloth for the "big stitch" and wound up with drapes for 24 windows in the station's mess hall.

By trade, parachute riggers can make anything from a parachute to a seat cushion, but this is the first time they've tried anything on the domestic side. Talley is afraid to let his wife know about the project for fear she may have him making baby dresses.

WAVE Virginia Winkler dropped in one day to kibitz the detail and needle them about their talents. Her scorn turned into amazement and she left without saying one uncomplimentary thing.

This was no Laughing Matter

Capt. Eugene White, Marine Reserve pilot at NAS DALLAS, didn't see anything funny in the situation when a power failure occurred as he was bringing his *Phantom* jet fighter in for a landing. He came down a full hundred yards short of the runway.

The plane bounced along on some tracks of the Texas and Pacific Railway, skinned over a ten-foot fence, then continuing on its erratic course, barely cleared a heavy stream of traffic on one of Dallas' main streets, made it past another fence bordering the station and came to a halt on the runway.

Neither the plane nor the pilot was damaged and Operations called it a perfect landing.

MIAMI SHOW *Boat Queen, Norma Foster, listens to a briefing from Buz Burwell, AO1*

Station Roundup

● NAS MIAMI—NavCad Procurement has found the answer to the problem of attracting young men to their booth at local shows. Not only do they maintain a display of the latest in survival equipment, but pretty girls who visit the booth do their bit to catch the boys' fancy.

● NAS DALLAS—Miss Rosemary Gowan, "Miss NavCad" of Dallas, is doing her share for recruiting by posing for television film clips and TV slides booming the NavCad Procurement Program.

● NAS NIAGARA FALLS—On 15 days' leave, Thomas F. Williamson Jr. flew to Miami to do volunteer work for the Red Cross. Ever since the Red Cross helped him as a serviceman during World War II, he has repaid their kindness by spending all his leaves doing volunteer work for them. In 10 days Williamson put in over 90 hours as a volunteer driver in the motor corps. He distributed Community Chest material to factories and chauffered disabled veterans to football games and on fishing trips.

● NAS MINNEAPOLIS—When it became apparent that Donald Beckstad, AN, who suffered third degree burns over a third of his body in an accident, would be unable to lose any of his own skin in a grafting operation, Eugene Gunerson, SN, agreed to donate his skin to his buddy.

THE OTHER SIDE OF THE HIGHLINE

CHOURRE SENDS SUPPLIES ACROSS LINE TO THE ORISKANY DURING RESPITE FROM KOREAN FIGHTING

LOGISTICS is a stuffy word defined by Webster as "the military art which embraces transport, quartering and supply." Personnel of Task Force 77 striking the Communists in Korea would probably be surprised to learn that some of the ungraceful ships of the train furnishing them logistics—in other words, keeping them supplied for fighting—not only have aviation personnel aboard, but have some lively sea stories of their own to tell.

One of these "logistic" ships is the *Chourre,* commanded by a carrier aviator, Capt. F. F. "Red" Gill. She was recommissioned a year ago and claims to be the only ship or her type in the fleet. She is an aviation repair ship doubling as an aviation supply ship. The "Hip Hip *Chourre*'s" beat is between Japanese supply ports and Task Force 77 operating off Korea.

During one day's operations supplying Task Force 77, she transferred 1108 items of aviation spare parts weighing 76,000 pounds to beat an earlier 36,000 pound record established by the *USS Jupiter* in a similar operation. In addition to her supply mission, she provides repair facilities for aircraft stationed in the Far East.

The *Chourre*'s "Mighty Mechs" aren't claiming any speed records, but they'll stack their hook-up time with carriers underway alongside anybody's. Recently the elapsed time between the first line over and the first load over was only two minutes with the *Kearsarge,* and only three with the *Essex.* This was done by the regular steaming watch without the assistance of special sea details. Because so much of her work is close in and piloting, all ship control people pick up a lot of ship handling know how.

Not to be outdone by the *Bataan* which "threaded the needle" of the tricky passage through Japan's Inland Sea (NANEWS *Aug. '52*), the *Chourre* went through in November without the aid of a Japanese pilot. The trip was planned so critical points could be passed in daylight. This required passing through Kurushima as late as possible, then loafing through the Bingo Nada for a daylight passage of Bisan Seto.

Kurushima is a tough passage because it is both narrow and twisting. As an added headache to ships' captains, vessels proceeding against the current pass through the western channel where opposition traffic is sometimes encountered.

During the passage through Shimonoseki, the slim strait between Honshu and Kyushu, the "Hip Hip *Chourre*" found a small Jap and a big Swede charging down on her as she approached the narrowest part of the channel. Three abreast in there was like the New York subway at rush hour, but she made it. Her tightest scrape came while entering Tokyo Wan. Tide, poor visibility and blowing rain made the use of full rudder and all the power her single screw could muster necessary to get through.

Lumbering logistic ships like the *Chourre* don't have poets and artists making over them like some of their trimmer sisters in the attack force do, so they're dependent on home-grown talent in these lines. The *Chourre* is building her cruise book around the efforts of an anonymous bard in her Seventh Division. One of his meters sums up like this.

"The *Essex,* the *Kearsage,* the *'riskany* too,
Send *Panthers and 'Raiders* ahead,
To range o'er Korea and strike at the Red,
But ships like the *Chourre* with only one screw,
Work like the deuce so they can come through."

VF-32 First to Get F9F-6

Cecil Field Unit Replaces Its F4U's

NAS JACKSONVILLE—VF-32, a Fleet Air Jacksonville unit based at Cecil Field, has become the first fleet operating squadron to get the new swept-wing F9F-6 *Cougar.*

It has received more than 12 of the speedy jets, described by SecNav Dan Kimball as being one of several Navy jets which will out-perform the Russian *Mig.* VF-32 pilots were flying the F4U *Corsair* before switching to the *Cougar.*

Several of them are Korean veterans,

PILOTS OF VF-32 INSPECT NEW F9F COUGAR

having served with CAG-3 aboard the *Leyte* late in 1950 and early 1951. Lt. (jg) Thomas J. Hudner, former VF-32, won the Congressional Medal of Honor when he crash-landed his *Corsair* in enemy territory to aid a downed companion.

CAG-3 was based at NAAS *Sanford* until October. LCdr. Roy Reed is commanding officer of VF-32. In the accompanying photo he is shown in the F9F-6 cockpit, with Lt. Wm. H. Koenig, Lt. Joseph L. Coleman, LCdr. Jack Kenyon, LCdr. Edward Praete and LCdr. Eduardo M. Capolla, executive officer.

Corpus GCA Passes 50,000

Unit May Have Set New World Mark

NAS CORPUS CHRISTI—The GCA unit here on 21 November logged its 50,000th approach to set a new high in GCA for the Navy and possibly the world. GCA-16 leads all other GCA units by more than 9,500 landings, according to LCdr. I. L. Trittipo, officer in charge of the unit.

One of the All Weather Flight School's Beechcrafts, piloted by Ens. J. C. Koen, with Ens. R. L. Mueller as copilot, made the 50,000th approach. The unit passed its 40,000th mark last March. Training units contributing to the GCA outfit's 50,000th mark were ATU-700, ATU-600, NSAWF and ACTRU.

Leyte Helps Underprivileged

Donations Are Token of Friendship

Throughout the Mediterranean area, the USS *Leyte* is rapidly gaining the reputation as a ship which takes care of the underprivileged.

On a mission of good will to Palermo, Sicily, the crew distributed old clothing which had been donated and collected by officers and enlisted men. Months before the visit, a canvass of the ship was made and personnel were encouraged to donate clothing for future distribution. Everything from white dress shirts to serviceable dress shoes was soon appearing at designated collecting stations. The ship's laundry went to work, cleaning and pressing the garments.

MAN WITH PATCH WAITS FOR CLOTHING ISSUE

When the carrier arrived in Palermo, men from the ship took the clothing to a charitable institution for distribution to the needy of the war-torn city. Capt. Ford N. Taylor, CO of the *Leyte*, made the official presentation to the Mayor of Palermo. He explained that the clothing was a token of friendship.

Pilot Sees Flying Saucer

VC-3 Flight Leader Is Only Observer

VC-3—Four *Corsairs* from this squadron were flying down to San Diego for a qualification cruise abroad the *Valley Forge* when Lt. C. A. Johnson saw something that made him come alert.

Like a dutiful flight leader he called his three squadron mates to say "plane 12 o'clock about 20". Shortly after he noticed the "plane" was much nearer and heading straight for the flight on an opposite course and below.

He called the flight again, and while thus occupied the object passed directly below them "like a bat out of ----!"

Before he could stutter, "Hey, look at the flying saucer!" it was gone.

Johnson swears it was a saucer, about 30′ in diameter, clam-shaped, of a dull aluminum finish and with no visible means of propulsion.

The rest of his flight, consisting of Lts. Crowley and Henke and Lt. (jg) Overton, saw nothing, heard nothing and ain't saying a word.

JOHN F. FLOBERG, *Asst. SecNav for Air, gives congratulations to Lt. (jg) Charles A. Lindbergh Swanson for making the 45,000th landing aboard CVB-43, the Coral Sea. Floberg visited the Coral Sea in the Mediterranean. In the picture with him and Swanson to his right, are VAdm. John H. Cassady, Com6thFleet, VAdm. J. Wright, CincNelm, and Lt. D. I. Davila, PIO of the ship. Swanson and the famous Atlantic flier are no relation, the jaygee admitted.*

VP-6 Wins Navy Citation

Korean Area Exploits Gain Recognition

NAS BARBER'S POINT—VP-6 has been awarded the Navy Unit Commendation for its operations in the Japanese-Korean theater from 30 July 1951 to 16 January 1952, Secretary of Navy Dan Kimball has announced.

"In addition to carrying out its regularly assigned mission with diligence and competence, VP-6 expertly planned and implemented a vitally important project which resulted in acquisition of information affecting tactical and strategic operations of naval warfare," the commendation stated.

VP-6, a rotating patrol squadron, was based at this Hawaiian air station during the early part of 1952 and is now operating in Aalska.

15 Years of Blimp Building

Early L-Ship Now Used for Advertising

NAS LAKEHURST—Fifteen years of development in Navy blimps is mirrored in the photograph below of three types of airships from the latest ASW model to the tiny L-ship.

Procured in the late 1930's as the Navy's first modern training airship, the 150-foot L-ship displaces 123,000 cubic feet. It is completely dwarfed by the 265-foot K-ship with 527,000 cubic feet capacity. On the left hand side is the still-larger, new *Nan* ship—324 feet long and 875,000 cubic feet displacement.

The tiny L-ship is no longer in service use, being employed now mainly for commercial advertising. The K-ship was the type used widely during World War II for ASW patrols, escorting 89,000 ships without a single loss to enemy subs, 50,000 of them in areas where U-boats were known to be on the prowl.

K-ships now are the workhorses of the LTA organization, being used for training, experimentation, research and development, utility and photography purposes. With the advent of modern high-speed submarines, improved ASW airships were necessary and the *Nan* ship was produced to carry the latest search and attack weapons.

The ZPN-1 is now undergoing Board of Inspection and Survey service acceptance trials.

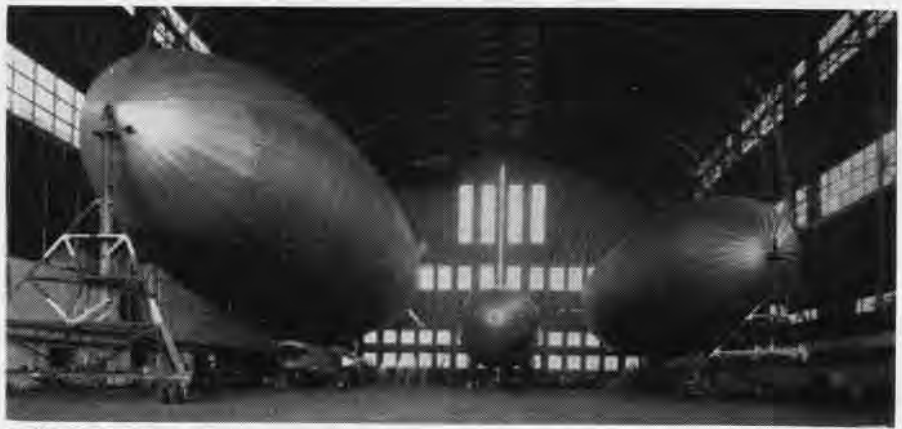
New S2F-1 Plane First Hop

Twin-Engine Plane Replaces Guardians

The Navy has announced the first flight of the Grumman S2F-1 antisubmarine warfare plane which will replace the hunter-killer team of AF-2S and AF-2W, carrying both the radar search gear and armament in a single plane.

Its equipment includes the most modern detection gear to hunt out enemy submarines, plus bombs and other devices to sink them. It has a crew of four. Containing late navigational and weather equipment, the S2F-1 can operate under severe weather conditions.

The aircraft is powered by two R-1820 engines. Some of the Grumman *Guardians* which it replaces are being assigned to Reserve squadrons. The *Guardian* is the world's largest single-engine plane and has been operating with fleet squadrons for some time.



15 YEARS OF BLIMP GROWTH—NEWEST NAN SHIP, L-SHIP IN MIDDLE AND WORLD WAR II MODEL

JET SUCKS MARINE INTO INTAKE

SPRUNK AND FRALEY RE-ENACT RESCUE OF BERG

2ND MAW, CHERRY POINT—A near tragedy was averted here recently when two quick-thinking Marine jet mechanics save the life of another Marine who had been sucked into the air intake of an F2H.

Marine Corp. Ronald Berg slipped from the nose of the photo plane as it was turning up at 98% power during a run-up on the flight line. As he was falling, and before his feet had reached the ground, the power of the inrushing air grasped him and sucked him head first into the intake opening toward almost certain death.

In a split second another mechanic, Corp. Raymond Fraley who was standing nearby, dived on the body of the luckless Berg at the risk of being sucked into the engine himself. He grasped Berg's shoulder with one hand and wrapped his other arm around his legs.

The rescuer could then neither pull Berg from the intake nor withdraw his own arms. The deafening wail of the jet made it useless to call for help. MSgt. Robert Sprunk, who was working under the plane, saw what had happened, reached up under the engine and jerked the throttle linkage to idle position, cutting the engine's power. A few seconds delay probably would have killed one or both men in the intake.

The plane captain in the cockpit then cut both engines and Berg, bruised and battered and suffering from shock was rushed to the infirmary. Examination showed he sustained two broken ribs and black eyes.

Fraley has been recommended for the Navy-Marine Corps Medal for heroism, and Sprunk has been given a letter of commendation for his alertness by LCol. Luther R. Siebert, commanding officer of VMJ-2.

Navy Cuts on Plane Orders

AD, FJ-2, F9F-6 Reductions are Set

The Navy has cancelled a portion of its contracts for new aircraft as follows: AD-5 *Skyraider*, cut 13%; FJ-2 *Fury* cut 33% and F9F-6 *Cougar* cut 18%.

These cuts affect only the final and production orders for those models scheduled for delivery in 1954 and will not affect production of planes on which work has begun. The aircraft will be replaced by modern aircraft but not necessarily by planes in the same category.

The reductions were made following a Department of Defense request to cut back contracts for planes which would have relatively short life as "first line aircraft" owing to their late scheduled delivery dates.

VP-49 Gets New P5M Marlin

Martin Seaplane Replacing Older PBM

COMAIRLANT—The first extended overseas flight by the new patrol seaplane, the P5M *Marlin*, was made 7 December when the first plane assigned to VP-49 flew from Norfolk to Bermuda.

Pilot of the 660-mile flight was Lt. Paul Parks of VP-49. On hand to welcome the new plane was a large contingent, including VAdm. J. E. Maher, Commander Service Force, Atlantic Fleet; Capt. Allen Smith, commanding officer of the Naval Station, and Cdr. James P. Lynch, CO of VP-49.

Two of the squadron's old PBM's flew out 50 miles to escort the *Marlin* to Bermuda. They were flown by Lt. Jesse Taft and Lt. (jg) Theodore Newark. VP-49 has won three Battle Efficiency awards for seaplane squadrons in the past four years.

Safety Record of 30 Months

FASRon-117 at Barber's Point Active

FLEET AIR HAWAII—With admirals and generals using FASRON-117's planes to get in flight time, not to mention scores of other pilots, the squadron logged 12,445 accident-free hours during the 31 months ended 31 July 1952.

In addition to the "one day a week" fliers, carriers passing through Hawaii use the Fasron's planes to maintain flight proficiency among ship's pilots. A considerable number of hours logged are instrument and night qualification flights. As high as 150 different pilots a month use the squadron's planes, which helps explain the Fasron's pride in its safety record.

Among its customers are Admirals Radford, Martin, Hedding, Williamson and Marine Major Generals W. O. Brice and Christian Schilt.

Chopper Saves Baby's Life

Ring in Throat Perils Marine Infant

MCAS CHERRY POINT—A helicopter and Marine transport plane teamed up here to save the life of Corp. William W. Hampton's six-months-old son who had swallowed a baby ring which caught in his throat.

The baby was rushed to Camp Lejeune hospital where it was determined it could be treated only at Navy hospital in Bethesda. Because the ceiling was so low, a helicopter from MAG-26, piloted by LCol. Frank Collins, its commanding officer, landed in the Lejeune hospital grounds, picked up the child and flew it to Cherry Point.

As soon as the helicopter landed, the child and its father were rushed aboard an R4D which was ticking over at the operations tower. Maj. E. K. Griswold had his other passengers loaded when the helicopter landed 25 feet away. Seventy-five minutes after the original plea from Lejeune was received, the R4D was airborne taking the child north.

SIX EAGLE-*eyed gunners from VF-43 at NAS Jacksonville pose beside riddled banner targets which they filled with 269 holes for 15% hits in a recent gunnery exercise. They are, left to right, Lt. Joe I. Thoms, LCdr. Laughan Barker, Ens. Bobbie D. Williard, Lt. George S. Schanback, Lt. (jg) Lobert J. Ceremsak, and Lt. (jg) Coe M. Anderson. Below them in VF-43's newly adopted insigne, from which they get their "Fighting Falcons" nickname. It features a globe-girdling falcon armed with Neptune trident and arresting hook.*

TWO NEW *Navy planes are presented herewith for recognition experts. Above is the first in-flight view of the A3D attack bomber, the Navy's first all-jet in this field, powered by two J-40 engines. It joins two other operational-type carrier planes with swept wings—the F9F-6 and FJ-2—and will be joined soon by the F4D. The plane was built at Douglas El Segundo plant. Below is the new S2F-1, the successor to the AF antisubmarine twins. Note resemblance of nacelles and wings to Grumman's F7F and the R4D-like nose. This one plane will carry the radar and the weapons for ASW work now packed by the AF-2S and AF-2W's.*

NEW NAVY CRASH-FIRE FIGHTER

A NEW aircraft crash fire-extinguishing system which produces twice as much foam as previous systems has been developed by Naval Research Laboratory for Bureau of Aeronautics.

Mounted on a conventional crash truck, the system can throw out 15,000 gallons of thick sticky fire-smothering foam, thanks to new-design nozzles and pumps.

Air, water and foam concentrate are whipped together and the resulting foam shot out of two nozzles on the front fenders of the truck. The nozzles are pivoted and adjustable by the Navy crash crew chief who rides atop the truck.

Two pumps supply all the foam. Tanks hold 1,200 gallons of water and 80 gallons of foam concentrate, sufficient for two minutes of high-capacity operation. The crew chief directs the truck driver over a loud-speaker system. Using dual joy-stick-type controls, he raises and lowers the nozzles and adjusts the foam pattern.

The speakers enable him to direct the ground fighting crews. As the truck nears the fire, fixed low nozzles spray foam ahead of it to quench burning gasoline flames on the ground. The new system can be installed in trucks now in use without any weight penalty. Before ordering the system into production, BUAER has asked industry to offer suggestions for improvements.

Conventional fire trucks carry 1,000 gallons of water and appropriate foam-forming liquids and can produce only about 7,000 gallons of foam.

CREW CHIEF ATOP TRUCK DIRECTS TWO NOZZLES

Ramp Spans Wide Gullies

MCAS CHERRY POINT—A new piece of eqiupment, prompted by inaccessibility of an aircraft crash earlier this year, now enables crash crew vehicles to cross streams and ditches which formerly handicapped rescue activities.

The device is a portable 14-foot bridge constructed from two aircraft loading ramps such as used on the R4Q. Light enough to be carried atop a regular fire truck, it can be spanned across the ditch by four or six of the crash crewmen. Carrying capacity is 20 tons, twice the weight of the crew's heaviest vehicle. Graded approaches of aluminum were added to both ends of ordinary loading ramps, with steer bars assuring proper spacing to align with wheels.

Need for a portable bridge was seen by TSgt. William E. Kane, NCO in charge of the crash crew, when his fire trucks had trouble reaching a burning aircraft downed near a highway.

CRASH TRUCK CREW UNLOADS DITCH-SPAN RAMP

Truck Transport for Corsair

MCAS EL TORO—Lewis E. Mantonya has devised a system of loading a damaged *Corsair* on a truck for transportation in California which will make it unnecessary to use the present method which requires a permit from Sacramento and a police escort. Mantonya's plan has been approved under the Navy Awards and Incentives Program.

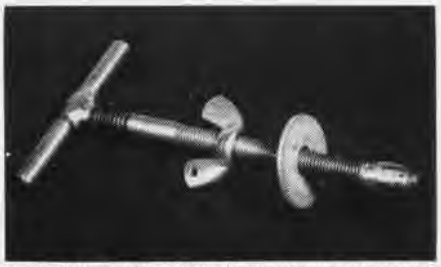
It is suggested that the cockpit or forward fuselage section of F4U aircraft be loaded on trucks for transport by taking off the landing gear if the wrecked condition makes it impossible to close into position. Then the fuselage is placed in a cradle with the nose down. This method of loading makes the width of the load eight feet, the height 13 feet 6 inches, well within the California highway load limits.

Dzus Fastener Spring Tool

ALF EDENTON—A tool that is used by MAW-2 has been found very satisfactory, according to 2nd Lt. E. M. Kasica, assistant engineering officer. It is called the Dzus Fastener Spring Realiner.

It is manufactured by getting a 5/16 24 stud 3½ inches long, a Dzus fastener, a large flat washer, a wing nut, and a ¼ inch diameter 2½ inches long bar stock.

Grind one end of the stud approximately ¼ inch back and 3/16 inches in diameter. Weld small bar stock for "T" handle on opposite end of the ground stud. Cut Dzus fastener head off; screw wing nut and washer on and weld Dzus fastener to stud.



TOOL HAS BEEN FOUND VERY USEFUL BY MAW-2

LETTERS

SIRS:

I have endured misspelling of my name for so many years that small matters of orientation no longer bother me. This time, however, you have disoriented the insigne of the hottest squadron that ever came down the pike, and I am forced to protest.

If you will take the inside back cover of your December issue, and rotate it about 95 degrees counter-clockwise, you will see the VC-7 insigne in its correct light. The symbolism is that of "a telling blow delivered in fair contest" against surface targets, rather than that of just slugging it out with some unseen something or other whose nature is left to the imagination of the viewer.

J. A. JAAP, CAPT.

EX-C.O. OF VC-7

¶ The Art Department and the Editorial Department of the **News** had a long, heated argument about which way VC-7's boxing glove should be punching. The latter declared itself winner by pointing out no boxer struck down at his fallen opponent, so we ran it hitting horizontal. We now stand corrected by one who knows what the insigne was trying to portray.

SIRS:

It seems that everywhere I go, there is some controversy as to the wearing of the aviation green uniform after 1800 as formal wear. Will you please inform me where, when and how it is stated that the green uniform can or cannot be worn for formal occasions.

LT. RAYMOND E. KEITHCART

VX-2, CHINCOTEAGUE

¶ Whether the uniform can or cannot be worn at formal occasions rests with the commandant or other authority who sets the uniform of the day. However, the new uniform regulations issued by Naval Uniform Board state, Article 0204: "The green uniform may be worn when engaged in work at an aviation activity, flying or on board vessels servicing aircraft, or at advanced bases, when prescribed." Navy practice always has been against wearing the greens at any kind of formal occasion since it is a working uniform, like a sailor's dungarees, not a dress uniform.

BUT, SIR, THEY TOLD ME ON THE LANGLEY I'D BE UNGROUNDED BY NOW!

SIRS:

I read with interest your article regarding insignia on early naval aircraft.

Being one of the few "old timers" still on active duty in naval aviation, I thought you might be interested in an early insigne used back in 1919 or 1920 in the old "Atlantic Fleet Air Detachment."

This was before we had any designated squadrons, to my knowledge. We had six old F-5-L flying boats attached to the USS *Shawmut*, an old minelayer that then was the flagship of the Atlantic Fleet Air Force.

The *Shawmut* later was renamed the *Oglala* and was sunk at Pearl Harbor on 7 December. Capt. George Steele was CO of the *Shawmut* at the time, I think. Anyway, we decided that we needed an insigne. We had a first class AP in the outfit that drew this insigne, a grey Canadian goose in flight, on the skid fins of these old F-5-L's.

This is the earliest insigne that I remember seeing in naval aviation.

S. V. BOGGS, ADC.

NAS ANACOSTIA

¶ Earliest known squadron insigne unearthed by the **News** in its research for the article was the "penguin" or "duck" used at the Marine air station at Miami in 1918. The emblem recalled by Boggs may be #2 in history.

Pilot Passes 10,000 Hours

Neale Served with Many Squadrons

VR-8, HAWAII—One of the Navy's flyingest pilots is LCdr. Raphael A. Neale, chief pilot for this MATS squadron, who recently completed his 10,000th hour as pilot, mostly in R5D's.

With VR-8 for 16 months, LCdr. Neale has been flying planes since 1935. He joined the Navy in 1941 and served with VR-1, VR-3, VR-11, VRE-1, and VR-6. He served as flight instructor in R5D plane commander school at Moffett Field with VR-44. During the *Berlin Airlift* he was with VR-6, following this with instructing at Corpus Christi until released from active duty in February 1951.

He was with the *Flying Tiger* airline when the Navy called him back.

Teachers Operate the Link

All Weather Flight Hit by Draft Call

NAS CORPUS CHRISTI—Instructors at the All Weather Flight School have been doing double duty, serving as Link trainer operators in addition to their flying duties.

Several instructors volunteered for the Link duty after the draft began depleting the civilian instructors who had been operating the trainers. The Links are a vital part of the school's ground training. All weather pilots practice proper instrument flight procedures in the Link before they go out and try them in the air.

NAVAL AVIATION NEWS

Published monthly by the Chief of Naval Operations and the Chief of the Bureau of Aeronautics to disseminate safety, training, maintenance and technical data. Address communciations to Naval Aviation News Op-501D, Navy Department, Washington 25, D. C. Office located in room 5D628 Pentagon. Phones 73685 and 73515. Op-501D also publishes the quarterly Naval Aviation Confidential Bulletin.

CONTENTS

● THE COVER

Typical of the night fighter pilot is Lt. Frank S. Wikenheiser, night intercept pilot, ready to take off in a nocturnal prowling hop. Photo by ComFairHawaii.

● 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.

● THE STAFF

LCdr. Matthew H. Portz
Head, Aviation Periodicals Section

LCdr. Arthur L. Schoeni
Editor

Izetta Winter Robb
Lt. Dorothy L. Small
Cdr. Charles A. Collins
Richard G. Fuller
Associate Editors

James M. Springer
Art Director

● **The printing of this publication has been approved by the Director of the Bureau of the Budget, 31 March 1952.**

DOWN DOWN DOWN

FROM the joint parachute testing facility at El Centro, Calif., comes this spectacular aerial photo showing parachute jumpers in three stages. Closest to the camera in the C-119 is Obert J. Vattendahl, PRAN, with his drogue chute just leaving his pack. Phase 2 shows SSgt. James E. Taylor, with his drogue chute pulling the main chute out fully, just before final opening. The main chute nears complete opening in Phase 3, with TSgt. Claude C. Brooks as the jumper. Both Navy and Air Force jumpers collaborate in testing new types of chutes at the desert air station.

NAVAL AVIATION

NEWS

TAKE A "LOOK-SEE"

Day after day, Navy pilots in helicopters take off for a "look-see." Sometimes it's to search for a cracked-up plane on a mountainside—or maybe for a man adrift on a liferaft. But sea-air rescue work is only one of the many jobs for a naval aviator.

If you're a young man, between 18 and 27, with two years of college, take a "look-see" now at *all* the opportunities Naval Flight Training offers you. For details, visit your Navy Recruiting Station today—or write to: NAVCAD, Washington 25, D. C.

BE A NAVAL AVIATOR