

NAVAL AVIATION

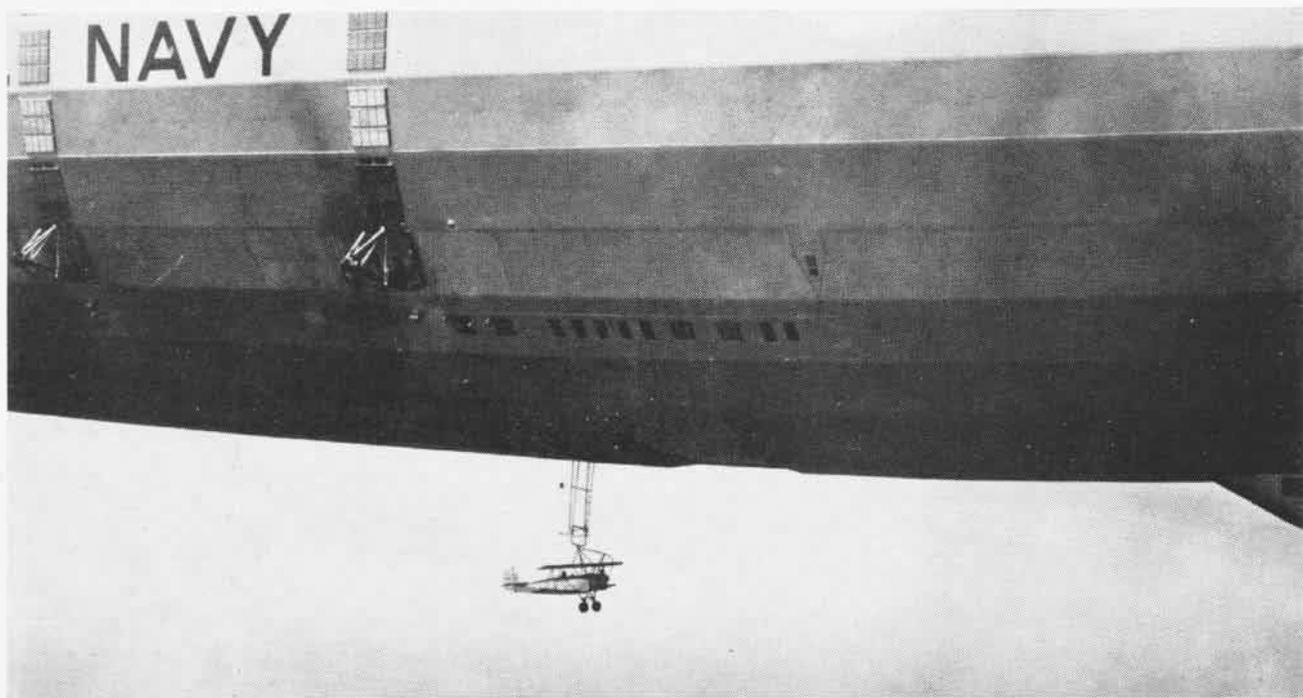
NEWS



MARCH 1955

NavAer No. 00-75R-3

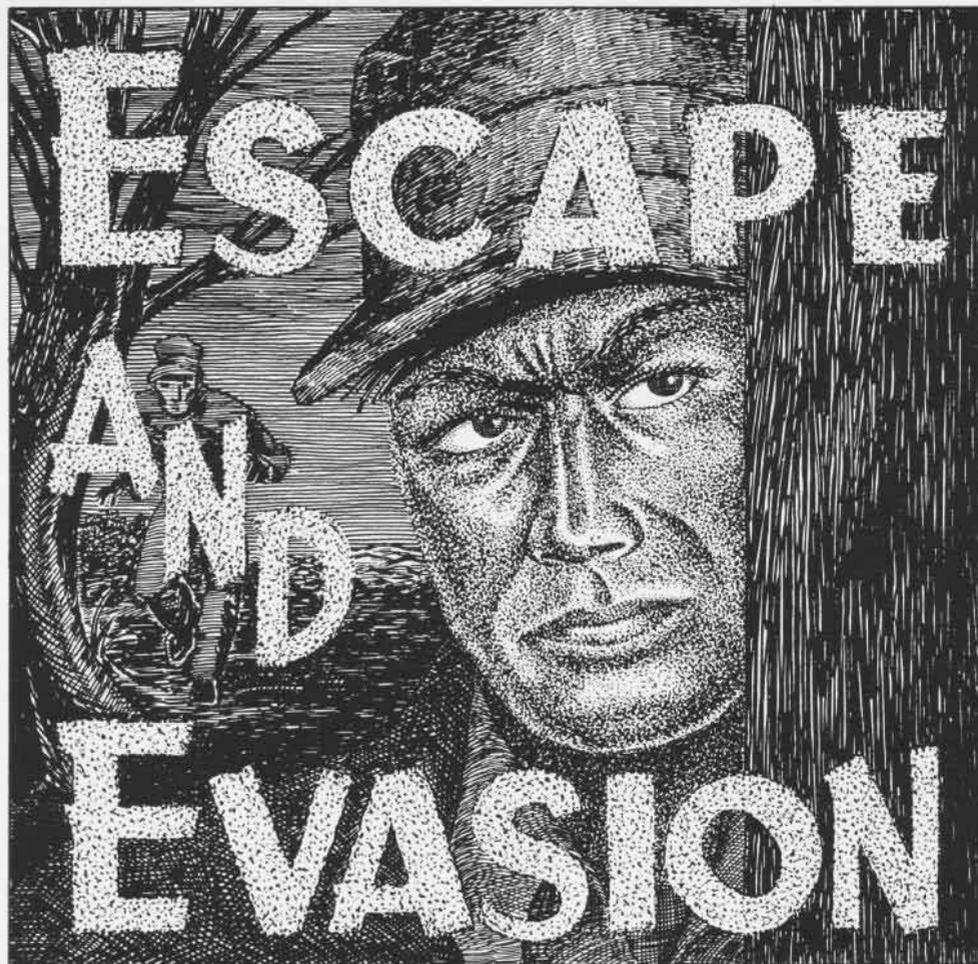




PARASITE FIGHTERS—THEN AND NOW

Since Lt. A. W. Gorton made the first successful mid-air "hook-on" landing in 1929, planes and techniques have changed. Bygone days saw the N2Y-1

hooked on to the rigid airship USS Akron's retrieving gear, while modern version of the same technique is carried on by a ten-engined RB-36D and a YRF-84F.



GAME OF HARE AND HOUNDS NOW PLAYED FOR BIG STAKES AS THE NAVY TRAINS MEN IN SURVIVAL

HARE and Hounds, played as a child, is a fine game; it's lots of fun. If you're the hare, you pit your wits and your ability to elude, against the hounds' superior numbers, and their knowledge of the hunting ground. You try to be where they think you aren't, while they make every effort to outguess you, and to be there waiting for you to make your appearance.

But the game that is so much fun in childhood becomes serious, deadly serious, when played as an adult. In fact, it isn't a game any longer, and it isn't played. It now becomes a matter of survival,

of living, or of dying. The hare is still the hunted, and the hounds are still the hunters, but the hare is no longer merely hoping to *play* another day; he is now hoping to *live* another day. His survival depends upon his success or failure to evade the hunters, and to escape from their enemy territory to friendly land and people.

In this 20th century adult world, childhood's Hare and Hound game has become Escape, Evasion, and Survival, engaged in, in time of war in the event of capture by the enemy, or of evading would-be captors if forced down in enemy-held territory.



RAFT BUILDING IS PART OF SURVIVAL PHASE OF TENDERFEET

LIVING THE HARD WAY IS LEARNED IN THE NAVY'S TENDERFEET EXERCISES

THE INSTINCT of self preservation is common to all, but unless it is tempered with sound knowledge of evasion and escape techniques, the possibility of avoiding capture is very remote.

In the Navy, aviators are the ones most liable to need skill in escape and evasion. Only a small number have been given any training in 'E and E' so far, but recognition of its value is growing. More and more, Navy airmen will be offered the opportunity of gaining this valuable life insurance. The underlying principles of this training endeavor to teach the techniques of escape and evasion, and to combat demonstrated Communist tactics in interrogation and treatment of captured personnel.

AirLant has, up to now, been the leader in this training, which has been developed into an exercise designated *Tenderfeet*, staged at Camp Mackall, N. C., in cooperation with the U. S. Army. First in the *Tenderfeet* series was held in July 1953. The fifth is being conducted this month.

An average of 62 naval aviators and airmen, including



GUARD'S COCKED HAMMER INDICATED SERIOUSNESS OF CAPTURE



COOKING IS RAPIDLY LEARNED WHEN MEN LIVE OFF THE LAND

10 Marine pilots, participated each time, along with approximately 100 army troops from the 77th Special Forces Group from Ft. Bragg, who acted as aggressors, POW compound guards, interrogators, and friendly forces.

Tenderfeet IV, in October '54, which has set the pattern for subsequent exercises, was broken into three phases, the initial being the two-day Strike Phase, during which pilots made air strikes against Mackall Airfield, and reconnaissance flights over the area.

Three days devoted to conditioning and survival comprised the Survival Phase, followed by a four-day problem termed the Evasion and Escape Phase.

Conditioning included instruction in map reading, in day and night ground navigation and route planning. Participants were briefed on POW conduct, and on provisions of Navy Regulations and the Geneva Convention concerning prisoners of war.

Practical demonstrations taught survival techniques to be followed in fire making, shelter building, snaring and outdoor cooking. Methods of scouting, raft building and concealment of person and of camp site were emphasized.

This was all put to use in two days of camping, of day and night forced marches in the densely wooded, swampy area around Camp Mackall, in crossing bodies of water, and in camouflaging themselves and their places of hiding.

Promptly at 1000 on 11 October the evasion and escape operation began. Trucks rolled out from Camp Mackall, dropping in teams of two, throughout the exercise area, the evader pilots who had been "forced to bail out over enemy-held territory."

Forty-five minutes free time was allowed the evaders before aggressor patrols, deployed throughout the exercise area, began efforts to effect capture. During this time, the first moves were to get clear of the drop area and to take cover. Quick thinking and speed were necessary. It is imperative that the initial reactions of evaders be both instantaneous and well planned. Speed may decide whether good cover can be reached before the arrival of enemy patrols.

Suitable cover being gained, two of the basic principles of evasion next entered the picture—self control and patience. The urge to be up and on the way must be overcome until orientation is accomplished, and a route to travel is planned.



POW TREATMENT WAS REALISTIC AND GRIM NAME, RANK AND SERIAL NUMBER, THAT'S ALL THIS CAPTURED EVADER WOULD REVEAL

A large enough percentage of evaders captured were taken in the early hours of the exercises to prove that the period immediately following a bailout in enemy territory is extremely critical. Most of those caught were trying to travel too far and too fast in the initial stages of their evasion.

Equipped only with his blood chit, which was to be surrendered in the event of capture, a map of the area, survival rations and gear, ten cents and a telephone number to be used only in case of a real emergency, each evader faced the problem of Phase III.

They were to proceed on foot, without detection, a distance of 10 or 15 miles across terrain which alternated among cultivated, wooded, and swampy, to a designated "safe house," or else to a "contact point". Here, contact was to be made with the underground net which was to furnish assistance in further evasion, and eventual escape.

If the pilot missed his first contact, he had an alternate which was some distance away.

It was absolutely essential for the evaders to make their contacts before they could filter through to the final "safe house." This was done to force them to get into the Escape and Evasion net, in order that they might learn how such a net operates.

The 27 September Korean edition of *Stars and Stripes* makes the flat statement: "Not one Allied flyer shot down in the Korean war escaped the Communists on his own and returned without outside help."

The article, datelined Chinhai, Korea, site of the Air Force Evasion and Escape School, continues: "Of the approximately 2,000 United Nations men downed by Red planes or gun [who escaped to safety], Allied intelligence sources know of no man who made it back alone."

Stars and Stripes quotes Capt. Keith Young, head of the school, himself a WW II escaper from the Nazis: "Nobody escaped out of North Korea on his own. Nobody evaded."

These statements are being substantiated by the accounts which have appeared in the public press of the exploits of escaped Korean prisoners of war.

Members of the 77th Special Forces Group made up the *Tenderfeet* underground organization, who manned the "safe houses" and assisted the evaders to escape. In their role as indigenous personnel, they wore civilian clothing.

Many and ingenious were the deceptions carried out by the Escape and Evasion net in cooperation with the evaders. One example was the outfitting of five evaders in actual state prison uniforms, stripes and all, procured for them by the underground net. These men were then worked along the roads, posing as a road gang under guard by an underground agent, dressed as a typical constable, and armed with a sawed off shotgun.

For an added touch of realism, the guard even had the use of a regulation prison vehicle, also loaned by the cooperative local law enforcement authorities. So complete was the deception that the guard, who actually was an army sergeant, was not recognized when approached by some of his own men, acting as aggressors.

The 'road gang' got through safely.

The story goes that one airman, in another exercise, who had been captured and, following the usual Communist practice, had been deprived of all possessions but his shorts, socks, and a blanket, managed to escape from the "enemy" jail. Using part of his blanket for "sandwich" pads for the bottom of his feet, and strips from the blanket as wrappings to hold the pads on, he was making his way in the cold frosty weather over the 40-odd hazardous miles that lay between him and the line, beyond which was safety.



CAPTURE AT NIGHT, AND BLINDFOLD, WAS THIS EVADER'S LOT

BY DAY AND BY NIGHT, MISERY IS A CONSTANT COMPANION OF THE PRISONER

GOING more than ten miles out of his way, he walked back from the guardhouse to the spot where he had hid his map, just before he had been captured.

Scrambling down the side of a hill, and holding his precious map, he ran into a farmer. The farmer saw him first. Not wishing to turn and run, or to startle the citizen too much with his strange regalia, the evader merely pulled the remaining portion of blanket around his shoulders, clutched his map as though it were a Bible, and through the stubble growth of beard said to the farmer as he held up his benevolent right hand, "Peace be with you, my brother."

Psychological warfare also entered the *Tenderfeet* exercise, though not too successfully. Hundreds of leaflets, plenteously illustrated with exhausted, emaciated escapers, were showered down in all areas where the evaders were thought to be. These leaflets, while warning of dangers certain to be met during prolonged stay in swamps, offered safe conduct passes to all "American pilots" who would give up. Tempting pictures were painted of hot meals, cold beer and clean beds, waiting only to be claimed. In a "canned," limited-time problem, this type of propaganda does not prove to be too effective.

From the moment they were dropped off the first day until they finally worked their way through to safety, or the exercise ended, the survivors were given no rest. Everything the aggressors could do to add realism to the hunt, they did. No holds barred, and all stops out was the way the game went.

Constantly harassing the evaders, the aggressors stalked their prey day and night. Any moment of haste or carelessness could, and usually did, result in capture. "Halt and up," came the dreaded words. "Put your hands over your head."

Prisoner of war treatment was quite severe and very realistic. As LCdr. J. W. Fairbanks, CNO representative on one exercise, said, "No practice is needed to learn how to be miserable, but no one who has not been a POW could ever understand just how miserable a prisoner can be." These words reflect the unanimous opinion of all those who were captured and held as prisoners.

Immediately upon being captured, the airman found indignities began to be heaped upon discomforts. Initially he was deprived of his shoes and socks, his blood chit, and water bottle. Once the blood chit had been surrendered, the prisoner could not make any effort to escape until it was returned to him at the POW compound. Barefooted, he was marched miles to the aggressor outpost. Once there, he was tied and blindfolded, to wait further marching to the POW compound. In this barbed wire enclosure, he was stripped and searched. His underclothing and flight suit were returned to him, he was again blindfolded and was then given a preliminary interrogation.

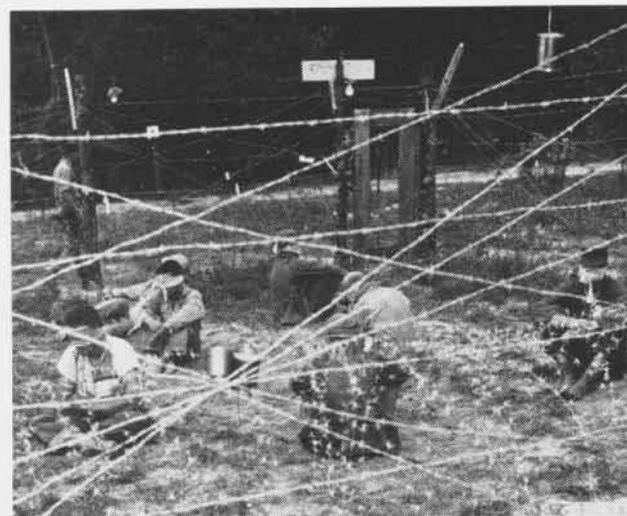
Information yielded in this first meeting was usually only name, rank and serial number. But whether he talked or not, the captive was then given "the works." As in Communist POW treatment, he was subjected to strenuous exercise in the sun, given no food and little water for 12 hours, and allowed no sleep, all the while blindfolded.



TIED TO GUARD, POW'S WERE FORCED THROUGH HARD EXERCISE



ON YOUR FACE UNTIL I SAY 'UP,' WAS PART OF GRIM GAME



POW'S WERE KEPT BAREFOOTED AND BLINDFOLDED IN COMPOUND

Questioning this time was somewhat less "considerate." As one observer phrased it—"Interrogation was only a wee bit on this side of controlled." Any means, including mild physical abuse, was used to push the captives into giving valuable intelligence.

THE CONSENSUS of the POW's was that "mild physical abuse" is a misnomer for it—for innumerable push-ups, for a forced, back-breaking bend over, for being chained hours in a cold, damp magazine, clad only in shorts.

Hour after hour, prisoners were made as miserable as possible, and were weakened by lack of food and water. Their nerves were rubbed raw by strict compound rules, by propaganda blared forth from loud speakers, and by glaring lights and pistol shots throughout the night.

And always, every night, was the questioner to be faced. With lights blazing into eyes scratchy from lack of sleep, the groggy prisoner was forced through the entire range of persuasion.

His interrogator might first smilingly offer him a cigarette—the prisoner had had none since capture. Next might come casual conversation, and promises of a few ordinary comforts. Only one refusal to answer a question was all that was necessary for such cajoling friendliness in the interrogator to change to wild rage, shoutings, table pounding and threats.

In some cases of "especially non-cooperative prisoners," the black box was used—a three by five foot box, lined with barbed wire, in which the prisoner could neither lie, sit or stand except in acute discomfort. The theory was that after several hours of confinement in this painfully uncomfortable, dark and dirty hole, the prisoner would not be inclined to hold a tight rein on his tongue.

Stone walls did "not a prison make" in the time of the poet Lovelace, "nor iron bars a cage." But the *Tenderfeet* barred black box was very definitely considered a cage, mentally as well as physically, by those detained therein.

Escapes from the barbed wire compounds were virtually impossible. The numerous and alert guards, stationed every few feet around the enclosures saw to that. A night-time aid to the guards were the flood lights that blazed every ten feet. Electrical wires, plainly seen coming from a large



CAPTURED EVADER IS BEING DRAGGED AWAY FOR 'EXECUTION'

generator were still another deterrent to escape. These actually were dummy leads, but they added to the unpleasant realism of the place.

Another of the hard-to-believe stories comes from experiences of evaders in an E and E exercise in another country. There, local Civil Police officers were being used, in addition to the military forces, for apprehending the personnel isolated behind the "enemy lines."

A party of five flyers had been captured by the civil police and incarcerated in the local jail. It so happened that the constable lived, with his family, in a dwelling which was located over the jail.

Upon assuring themselves that the local bastille was far too secure to break out of, the aviators began singing the lustiest, most ribald songs in their repertoire of barracks ballads. This went on and on. Finally, the members of the constable's family complained so bitterly that the five evaders were removed from the jail and transported to the nearest POW compound.

There, using their combined strength, they managed to tear the heavy metal netting off the window of their cold cell, climb down a blanket-strip rope, and make their escape.



BARBED WIRE, GLARING LIGHTS AND MANY GUARDS MADE THESE POW COMPOUNDS ALMOST ESCAPE-PROOF BY DAY AND BY NIGHT



ONE FIGHTING POW LANDED HAYMAKERS



ARMED GUARD LED HIM TO QUESTIONING



'ARMS OUT,' AS GUARD GETS MORE ORDERS

EXERCISES HELP ANSWER QUESTION — 'HOW WOULD I ACT AS A PRISONER'

ONLY ONE even moderately effective resistance movement among *Tenderfeet* prisoners is recorded. One group of officers refused to exercise unless they were given food. Successful to only a slight degree, they were issued a few apples!

An indication as to the seriousness with which both sides took their jobs was given on the fourth day of one exercise. An evader, having been captured once, and having escaped, was not successful in eluding his pursuers. Upon being faced with recapture, he threatened a trooper with a knife he had "procured." The soldier, using the "right technique" disarmed him, while two aggressor buddies pounced upon him to subdue him. In the ensuing melee, the evader suffered a cracked rib, while the aggressors came out with various bruises and contusions.

It is gratifying to note that in all the exercises, the feelings of bitterness and resentment over the realistic and severe

POW treatment were quickly dispelled at the end of the exercise, when the ex-POW's had an opportunity to talk on a more friendly basis with their former captors, interrogators and "physical culture trainers."

During the post-exercise critique, the interrogators were swamped with questions by the pilots regarding conduct expected of them when undergoing interrogation.

Every potential captive asks himself, "What would I do under those circumstances?" The intense interest on this subject pointed up the need every man felt for rules of conduct that would assist in answering that pregnant question.

In addition to those airmen who have been able to take advantage of AirLant's evasion and survival training, other Navy men and Marines have experienced this rugged course of indoctrination.

One 12-man *vr-5* crew "took the course" at the U. S. Air Force Advanced Survival School, Stead Air Force Base, Reno, Nevada. Returning from the four days of conditioning, and nine days' exercise in California's Plumas National Forest, the survivors were a little thinner (they reported an average loss of 15 pounds) but a lot wiser in vital survival know-how.

"If they had told us a month ago that we could survive in the wilderness with but meager supplies, sling shots, traps and snares, we wouldn't have believed it," was the consensus. "We were able to survive, thanks to the excellent training. Every airman in the U. S. Navy would benefit from training," the patrol squadron crew echoed.

High in the Sierra Nevada mountains north of Yosemite National Park, there flies openly a Communist type white flag, centered with the bold red star. This banner, used for the psychological effect, waves over the camp of the Aggressor Platoon, a unit of the Marine Corps' Cold Weather Battalion at Pickel Meadows, Calif. This platoon is composed of mountain trained riflemen who are as agile on skis and snowshoes as they are on their feet, and who know every inch of the mountainous terrain there.

Bivouacked a few miles away from their "enemy" were 100 Marine pilots and air-crewmembers, drawn from the Fleet Marine Forces, both Atlantic and Pacific. These



TOTALLY UNCOMFORTABLE BLACK BOX CAGES RECALCITRANT POW

"downed" airmen had made the rugged trek up to the snowy 9,000 foot height for three days of field training, a part of a thorough indoctrination course in Cold Weather Survival, and Escape and Evasion. Culmination of the exercise was the attempt of the survivors to escape capture by the red-starred "aggressors" who had most of the advantage on their side.

This is a part of a program of training in Cold Weather Survival for Marines which was initiated in 1951. It is designed to provide Marine airmen with the knowledge of how to survive under hazardous and unfamiliar circumstances, in the event they are forced down in any one of the many frigid parts of the world in which the Marine Corps may be operating.

Prior to the actual field exercise, the Cold Weather Training School at Marine Corps Air Station, El Toro, gives the trainees a series of indoctrinational lectures and demonstrations on how to survive in actual encounter with the rawest of the elements—cold.

During the three days in the field, in deep snow and in near zero temperatures, all hands put into practice what they had learned in the El Toro classrooms. Foraging for food included ice fishing and rabbit snaring. An exercise in mirror signals and emergency signs tramped out on the frozen lake, successfully executed with a "friendly" AD-4, was rewarded with an airdrop of a large bag of apples—a welcome addition to a diet furnished by cans of survival rations.

ZERO HOUR was 1500 on the third day. Gear was stowed into the 40-pound Alaskan packs. Each camp site was broken, leaving no single trace.

The problem was to continue for the next 12 hours, and each individual group of four airmen was to get down to main base, six miles away, avoiding capture by the aggressors.

All night the aggressors patrolled the snow-packed roads in their mobile Snow Otters, taking prisoners or driving their quarry into the pre-arranged ambushes. Whenever they captured a man, he was subjected to a realistic prisoner interrogation, and then taken back to start the problem over again.

The final count revealed that 75 men had eluded the "enemy" and 25 had been captured. Most of those taken the first time had made it down safely on their second attempt.

Twenty East Coast Reserve Marine flyers got more than a taste of survival practices when they participated in an Escape and Evasion problem in the Santa Ana mountains of coastal Southern California.

Conceived and staged by Anacostia's VMF-321, this mid-summer exercise was another war game played in dead earnest. The 20 Marines, tossed down from helicopters into the rugged, blazing hot, rattlesnake-infested ranges with a minimum of survival gear, and a maximum of enemy infiltration, were pointed in the general direction of friendly lines some 20 miles away.

For those hapless ones who were captured, the exercise involved imprisonment, little food, solitary confinement, and according to one of the captives, "some of the most rigorous, controlled interrogation ever put to American servicemen as a peace-time practice for war."

The value of these exercises is inescapable. Nor do we need look only at the spectacular rescue records piled up in WW II, and in the Korean conflict by those trained



SUCCESSFUL EVADERS AWAIT GUERRILLA GUIDE FOR FINAL MARCH

in the techniques of evasion and survival. The magnitude of that success is clearly proved by figures on file.

Looking toward the future, we are met with the stark need for answers to questions being asked in increasing numbers. As we hear more and more of the shocking experiences of former POW's, every single serviceman faces the problem of his own possible conduct under similar circumstances. Several brutally hard, cold answers to those questions were drilled into the minds of the evaders in those realistic training exercises. American fighters, strengthened by their will power and guided by this priceless training, will survive under very harsh conditions—survive and return to fight again.



FREEDOM AT LAST! THESE EVADERS RUN TO WAITING 'COPTER



GRAMPAW PETTIBONE

I Was Shook

An F2H-4 pilot was grounded temporarily for an Anxiety Reaction which followed when an aircraft he was joining on struck the water, and the pilot was killed. A week later he was scheduled for a night hop and, although he felt very uneasy about taking it, he forced himself to go ahead. After flying around the area until landing time, he returned to the field and switched to tower frequency. At this point we take up the pilot's statement:

"As I was entering the break, I called the tower and they cleared me to follow the plane ahead of me. This I did, giving myself what I considered a good interval. This was the last I recall seeing the aircraft while I was airborne. I made a normal but fast approach and touched down on the right hand side of the runway, slightly right of centerline. My speed at touchdown was 140 knots, full flaps, and approximately 500 feet from end of runway.

"During the roll-out, I noticed an aircraft ahead of me on the right side of the runway. I started to brake my aircraft and saw that I was closing very



happened and he taxied off to the side of the runway.

"This accident could have been prevented in my estimation in a number of ways. First of all I used very poor judgment in flying this hop in the mental condition I was in at the time. Secondly, I landed fast. Last of all, I should have known exactly where any aircraft ahead of me was."



Grampaw Pettibone Says:

Son, I agree with you 99% on the ways you could have prevented this accident, but I think you should have reversed the order. After all, you did take the flight, so you must have thought your mental condition would not affect your flying too much. Your saying that you shouldn't have flown reminds me of a fella who claimed the best way to keep from getting killed in his car on the way to work was to take the bus. The next day he was running across the street to catch a bus and . . . well, when he gets out of the hospital, he is going back to driving his car.

Some pilots have a bad habit of flying when their physical or mental condition isn't normal, and most of them get away with it. But the ones who don't get away with it usually find themselves in a much worse physical or mental condition. The first thing that enters their minds is that this wouldn't have happened if they hadn't taken off. They are just as right as the bird who wouldn't have spun in if he had kept on flapping his wings or the dog who would have caught the rabbit. The only fallacy in this excuse is that the physical and mental condition are known BEFORE

take-off, and the pilot is his own best judge of whether or not he should fly. Here is how the situation looks to me.

If you KNOW how you feel before a flight, you do one of two things. You fly or you don't fly. If you don't fly, you don't crash. If you fly, you do one of two things. You find yourself more alert because of your condition, or you don't give a hoot. If you are more alert, you don't crash. If you don't give a hoot, you do one of two things. You get down O. K. or you crash. If you get down O. K., you are mighty lucky. If you crash one of two things happens; you get killed or you don't. If you don't, you are probably all shook up



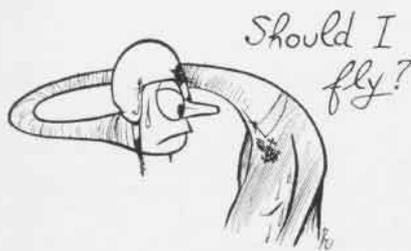
about it. If you get killed, your next of kin are all shook up. Either way someone is shook and it all goes back to the fact that you flew and weren't alert.

This just about has me convinced that no one would have been shook in this case if the pilot had kept the airplane ahead of him in sight. It wouldn't have hurt matters either if he had requested a day flight to kinda condition himself before going up at night.

'Four to Go'

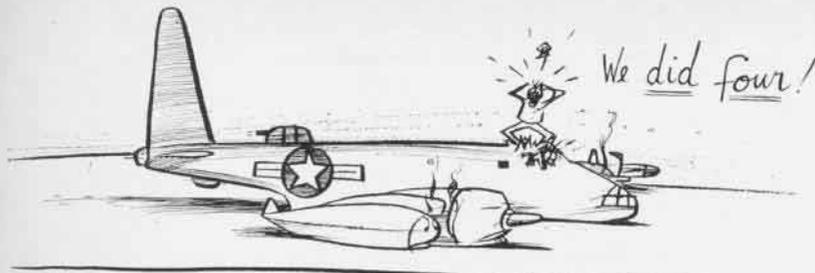
Shortly after dark a F2V-6 was letting down for a landing. The co-pilot started the pre-landing check in accordance with the standard squadron check-off list, using the "challenge and reply" system. The check was completed through item 18, and the co-pilot announced "Four to go," (wheels, flaps, props, and boost pump).

The aircraft was cleared for a straight-in by the tower to call five miles out on final. The pilot called five miles out, and he was cleared to land. At this time the tower cautioned him to land beyond the flare pots on



fast. At this time I applied the brakes very hard and elected to try to pass the other aircraft on the left side. Next, I applied left brake as hard as I could, putting my plane into a skid and blowing both tires.

"At the same time I started the left turn, the aircraft ahead of me also went to the left and we collided. My right wing struck his left wing. I stopped dead on the runway. The other pilot called the tower to tell them what had



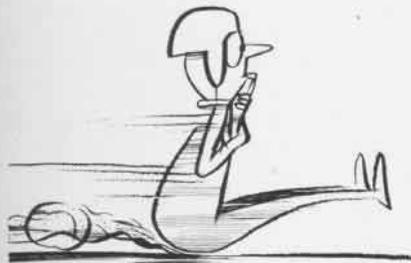
the end of runway, that the first 400 feet of runway was under construction. The aircraft touched down 1000 feet down the runway . . . wheels up. It seems that the four things done to complete the check-off list were: props, flaps, boost pump, and landing lights.

 *Grampaw Pettibone Says:*

Well, if that wouldn't frost the punkin off the vine! I reckon this lad didn't read the little poem in the January issue of Naval Aviation News. If he did read it, then I made a mistake. It should have gone something like this:

Dilbert said, as he clenched his fist,
"Dad-burn it, I went over the check-off list!

When all complete I had four to go,
Wheels and flaps and props full low,
Boost pumps on, we're in like Flynn,
What's that, Tower, you cleared us in?



"ROG, Tower . . . J. B., slip us a flap,
Pete, flick the boost pumps and hide
that map.

Ta, De, Da! I'll just wiggle this
switch,
And there's the landing lights, not a
hitch!

Diddle-de-dum! What's next, J. B.?
We had four to go and we've done
three.

Ah yes, men, and whaddaya know?
A little shove to get the props in low.

"A little old turn and we're in the
slot.

Is there anything we coulda forgot?
Well, how could we? We ain't missed
yet—

A one, two, three, four . . . you can't
forget!

We grease her on, how smooth she
feels?
Oh, oh!, J. B., what rhymes with
heels?"

Dear Gramp:

We have an accident report that we can't sell, loan, or give away. We thought you might be interested since it could be classified as "pilot error," "error of other personnel," "material malfunction," and "miscellaneous." It resulted in Class B injury.

Here's what happened. This bird was flying in the French Grand National under the flag of old Erin, ya see. Fuel aboard was 10 plus 00, winds aloft averaging 50 knots from 340 degrees, sure and it was a foine day. Shortly after take-off the ADF went out (malfunction), compass started deviating 360 degrees (same), altimeter went haywire (ditto). Rather than return to base, he elected to dead reckon to his destination (pilot error).

To make a long story short, a few hours later, short on fuel, and 300 miles out over the Med, he spotted our carrier (miscellaneous). We were recovering aircraft at the time so he entered the traffic circle (pilot error) and made an approach. He didn't call turning base, so the LSO waved him off (error of other personnel).

Not having enough fuel to go around

again, he took his own cut (pilot error) and dived for the deck (ditto), missed a wire as he had no hook (miscellaneous), and wound up in the barrier with a broken landing gear (Class B injury).

By this time you have probably guessed why we can't get rid of the accident report. You're right. Anyway, after contacting the Irish Homing Pigeon Union, we managed to get the bird back to its owner.

You got it, Gramp. There must be a moral in it somewhere.

Respectfully yours

CDR USN



Grampaw Pettibone Says:

Bub, this is what is commonly called a left hook. I've been getting "the bird" right frequent of late, but this is a new approach. Howsomever, the way it looks to me it is incidental how the pigeon got to the ship. Maybe he stumbled onto a copy of "Pilgrims' Progress" while in France and new horizons looked good.

Maybe he got discouraged by the Dior styles for women pigeons and was headed for greener pastures. The fact is that he was three hundred miles at sea, too low on fuel for a wave-off, and anxious to get aboard.

The moral to this story—
At least, it's plain to me—
Is ne'er to lose your bearings
On a trip across the sea.

But if an unfamiliar landscape
Perchance becomes your lot,
Stay with "Lost Plane Procedure,"
Or you'll find the water hot.

If low on fuel and a speck appears,
'Twixt the ocean and the sky,
And you find your choice is nip and
tuck

For a deck that's wet or dry,

My advice is now presented
And it's the best you'll get,
Use the last remaining nip
To tuck it on the wet.



BTU-1 Prevents Accident Gramp Pettibone says 'Well Done'

Well, it's happened again and you should see the smile on the face of Grampaw Pettibone, Naval Aviation's sage old sentinel.

For heads-up action on the part of BTU-1's personnel, Gramp passed along a "well done" and a pat on the back to Ens. P. C. Ropp, A. Eckert, AM3, E. O. Anderson, AN, T. R. Flannery, AD3, J. W. Seal, AD3, R. P. Robertson, AD1, L. C. Seabolt, ADC, W. E. Rogers, BM3, J. T. Milburn, ADAN, A. W. Andrews, AN, S. Carattini, AN, and T. G. Livingston, SA, of the maintenance and crash crew at South Field, NAAS WHITING, for saving an SNJ Texan trainer.

Ens. Ropp had the intersection watch when the trainer, piloted by Ltjg. L. D. Tennyson, with a student, British Midshipman E. S. Billett, approached the field for a landing. The hop, up to then, had been routine, but on the landing rollout and taxiing through the hub, the starboard landing gear began to give way.

Ropp signaled Tennyson to stop, and the first two on the scene, Eckert and Anderson, put their backs under the wing and held the plane up until the other men arrived.

Robertson pushed the wheel into place, locked it and the aircraft then continued to the line, un-scratched.



POWERED by a P&W J-57 engine with afterburner, Convair's modified version of the Air Force F-102 delta-wing all-weather interceptor, was flown supersonically six months after design and manufacture. It's designated F-102A.

'Copter Plays Fire Engine HOK Lends Hand to Lady in Distress

Traffic along the New Jersey turnpike was light. Traffic above the turnpike was light too. Going south on the pike was a speeding automobile which appeared to be on fire. Above

the pike, going north, was a Kaman HOK helicopter.

Chief test pilot Al Newton and crew chief Bill O'Donnell of Kaman Aircraft were on their way home to Bloomfield, Conn., from NATC PATUXENT RIVER. Newton turned the 'copter south in order to lend a hand when he saw the flaming car.

Suddenly the car stopped beside the road, and a woman jumped from behind the wheel. Landing the helicopter nearby, Newton and O'Donnell leaped from it, grabbed a fire extinguisher and put out the fire.

The lady driver was so concerned with pulling her belongings from the trunk of the car that she failed to notice where her benefactors had come from.

After putting out the fire and making sure the driver had help from other motorists, the airborne firemen climbed into the HOK and took off.

VX-6 Commissioned at Pax Scheduled for Antarctic Program

A new air development squadron, VX-6, has been commissioned at NAS PATUXENT RIVER.

The ceremonies and the reading of orders formally commissioning the new squadron were conducted by Capt. H. R. Nieman, Jr., Commander, Fleet Air Detachment, Patuxent River. The orders were read to Cdr. E. M. Ward, squadron operations officer, as the prospective commanding officer and executive officer, Cdr. W. M. Hawkes and LCol. H. R. Kolp, looked on.

Primary mission of the squadron will be test and development of air weapons in the Navy's Antarctic program.

Legion of Merit to Byrne Almost Everyone is 'Matey' to Him

Chief Boatswain Patrick J. "Pappy" Byrne wasn't using his familiar term "Matey" recently when he was greeted by the Honorable James H. Smith, Jr., AstSecNav for Air. Mr. Smith was at NAS LAKEHURST to award Byrnes the Legion of Merit to one of Naval Aviation's "old timers." Byrne has been in the Navy 37 years.

The citation read in part: "Throughout a notably successful and distinguished naval career, Chief Boatswain Byrne has logged over 22,000 flying hours in more than 140 different types of aircraft, establishing an enviable record in the field of aviation.

The Legion of Merit is awarded to personnel of the Armed Forces of the United States who have distinguished themselves by exceptionally meritorious conduct in the performance of outstanding services.

Byrne began his flying career in 1915 in a Burgess-Dunne seaplane with the late Gen. Howard S. Borden of Rumson, N. J. Possibly the most notable achievement of his long years of service was test-flying the *Mars* in 1942. He was selected for the test because of his ability to fly and his knowledge of seaplanes. Capt. D. L. Mills, CO, NAS MIRAMAR, summed it up well when he said: "ChBsn. Byrne is without peer in the field of flying boats."

When he was informed he was to be stationed at NAS Lakehurst, near his home in Rumson, Pappy said, "Matey, it's my first tour ashore in 26 years, and it all counts on the second thirty."



RE-DESIGNATED HUP-4, this production model Piasecki HUP-2 with a new engine installed has passed its first flight successfully at Philadelphia International Airport. Powered by a Wright R-1300-3 engine, the HUP-4 will have higher payloads, speeds, and ranges than its predecessor.



MACFARLANE ESCAPED UNDERWATER FROM A BRITISH TURBOPROP-POWERED WYVERN PLANE

UNDERWATER ESCAPE FROM A WYVERN

A RECENT report from London tells how a British Royal Navy lieutenant performed a miraculous feat. Lt. B. D. MacFarlane ejected underwater from a crippled *Wyvern*—Britain's latest strike aircraft.

The incident occurred aboard HMS *Albion* during catapult launchings. MacFarlane had taxied his turboprop *Wyvern* onto the catapult and the slings had been cinched. While in irons, he gave the plane full turn-up in preparation for the launch. On signal, the catapult man actuated the 'cat!'

MacFarlane's plane chose this instant to conk out, but continued its travel along the rails at about 70 knots. His plane dove over the bow of the *Albion* at an angle of 30° and hit the drink. He was momentarily stunned upon impact, and the plane began to sink.

His ejection seat was the Martin Baker Mark IIB and his clothing consisted of a string vest, ventilated suit, flying overalls, Mae West III, crash helmet, inner liner, and oxygen mask. His canopy was shut tight and he was receiving a normal flow of oxygen. Wheels were down and locked; flags, in the take-off position.

His first instinct upon impact was to escape from the plane. He pulled the jettison knob, and water began to pour in around the canopy edges. He reached for the face curtain and snapped it down, but nothing happened. Then he remembered that occasionally the curtain requires an extra pull. He tried again and was ejected from the crippled plane. He blacked out for a short time.

MacFarlane isn't sure whether or not he ejected through the canopy, but the left sleeve of his flying overalls and his

Mae West had a long tear in them. His left arm was also slightly scratched. Although he did not have his feet in the stirrups of the ejection seat when he ejected, he did not lose his shoes or suffer any leg injuries.

When the aircraft hit the water, the *Albion* passed directly over it and sheared the fuselage of the *Wyvern* in half. MacFarlane did not recall the impact and assumed that he was already free of his plane.

During the turbulence created by the ejection, he lost his helmet, helmet liner and oxygen mask. It is believed that he was underwater for about 40 seconds. MacFarlane probably would have drowned had he not pulled the lanyard of his Mae West, which popped him to the surface like a cork.

A rescue helicopter picked him up for return to the *Albion*. His injuries were superficial—bruises along the right side of his body.

A reviewing Naval officer said, "It is important to note that the air bubble created by the closed canopy undoubtedly saved the pilot from the extremely harmful compressibility effects of the ejection seat cartridge explosion."

MacFarlane's comment after recovery was a masterful understatement: "I was in a highly nervous state, for catapulting is a very startling experience."

Heroic Deed Saves Pilot Marine Pulled from Burning Jet

Marine Capt. D. M. Perkins owes his life to Mr. Len McIntosh, a small, retiring gentleman with plenty of courage, out in Imperial, Calif.

Perkins was serving with the Fleet Air Gunnery Unit as an air-to-air gun-

nery instructor at NAAS EL CENTRO. Soon after take-off on a recent hop, his FJ-2 *Fury* experienced a compressor explosion with resulting power failure and fire.

Perkins could have ejected, but he chose to crash-land the plane at nearby Imperial County Airport where McIntosh is airport manager. Perkins' approach was described as ideal for a flame-out landing, but just short of the runway, the plane nosed over and



CDR. CROCKETT CONGRATULATES MC INTOSH

plowed into the ground. At that point, it went skidding down the runway towards the airport administrative offices.

A severe blow on the head had knocked Perkins out on impact, and he was still strapped in the flaming jet. McIntosh grabbed a small CO₂ hand type fire extinguisher and ran to the Marine's aid. He jumped upon the wing of the burning plane, unbuckled Perkins' safety harness and parachute latches, and pulled the still unconscious pilot to safety.

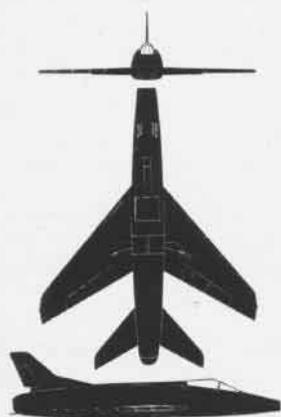
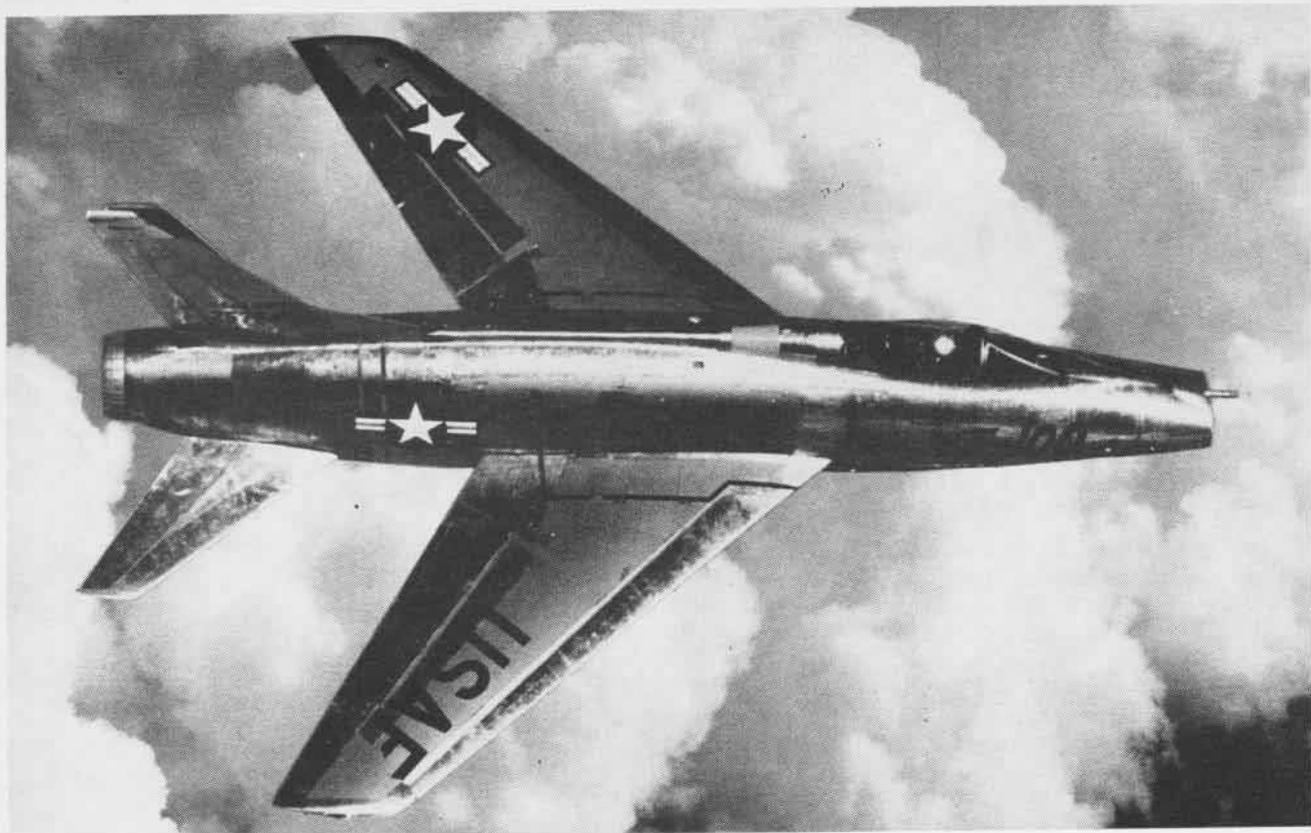
McIntosh has been recommended for the coveted Civilian Medal of Honor.

Fairey Rotodyne Ordered New Machine Will Fly This Year

A new British helicopter of advanced design, the Fairey *Rotodyne*, has been ordered by the British Ministry of Supply. Combining the principles of forward propulsion and vertical lift, the *Rotodyne* may provide the answer to the problem of providing a more practicable inter-city helicopter.

Designed for such service, the *Rotodyne* has a cubic capacity of 3,300 feet and is able to carry 50 passengers or 11,000 lbs. payload. Power for propelling the new 'copter is supplied by two Napier 2,800-hp Eland Turbo at the tips.

The *Rotodyne* will cruise at 150 mph with a top speed of 200.



SUPER SABRE

The North American F-100 is the USAF's first operational jet fighter to exceed the speed of sound in level flight. With a wing span of 36 feet, it is 45 feet long. Its combat radius is over 500 miles; its service ceiling, above 50,000 feet.

The Super Sabre gives the appearance of a flying arrow. It features a 45° sweepback in both wing and tail surfaces which are set low on the fuselage. The tail pipe extends well behind the angular tail section. The canopy is long and shallow, ending in dorsal fairing which extends to the tail. From below the aircraft presents a very flat appearance.

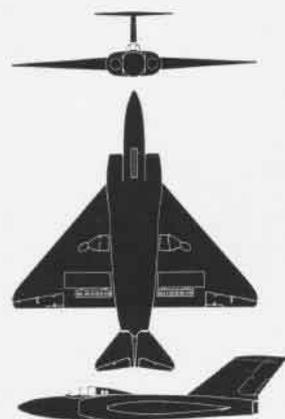




JAVELIN

The Gloster Javelin, the Royal Air Force's all weather fighter, is reported to be in the supersonic speed range. It presents a unique appearance, a pure delta wing and an outside tail plane. Very large for a fighter, the Javelin has a wing span of 52 feet and a length of 57 feet. Horizontal tailplane is high, resting on top of the vertical fin.

In the head-on view, the fuselage, oval in shape, appears extremely bulky, and the twin air scoops present a striking appearance. The wings appear thick at the fuselage and then taper sharply to the tips. The wing plan has been modified in later prototypes by blunting tips.



Almost FORGOTTEN EVENTS



OFFICERS, MEN WORKED AS A TEAM. NOTE SMALL GOAT MASCOT AT CENTER

SUCCESS OF A FIRST MISSION

ON 17 DECEMBER 1912, Acting SecNav Beckman Winthrop forwarded orders transferring the Aviation Camp from Annapolis, Md., to Guantanamo Bay, Cuba, "to fully exploit the capabilities of aircraft."

Once the detachment led by Lt. J. H. Towers arrived, the Aviation Camp became a beehive of activity preparatory to Fleet maneuvers.

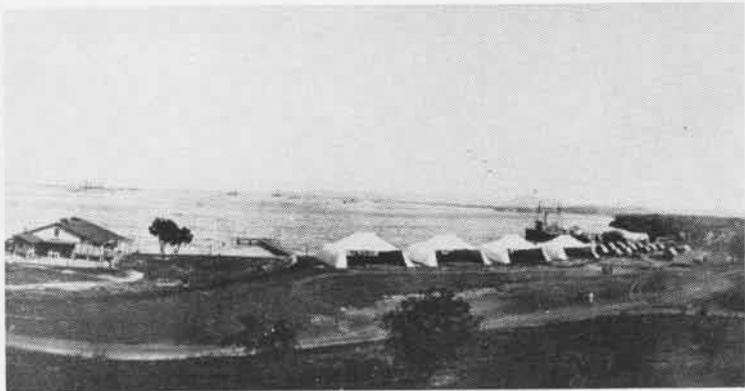
On 6 March 1913, Towers, with Ens. G. deC. Chevalier as observer took off to locate the "enemy".

At an altitude of 1,150 feet, Chevalier spotted the "aggressors" about 10,000 yards away.

After plotting the location, speed and course of the "aggressors", Towers headed back to base and reported to the Commander, who ordered the "enemy" destroyed.

The fact that the Curtiss Flying Boat could scout the enemy without detection in atmospheric conditions which precluded success by any other means, furnished substantial proof of the value of Naval aircraft.

And so another wedge was driven into the crumbling skepticism held by many Navy men who vowed that "them flying machines just ain't no good." That early operational mission was certainly a complete success.



FAR CRY FROM MODERN BASE, TENT FACILITY MADE HISTORY IN FLEET ACTION

New Steam 'Cat' in Action Ticonderoga Launches First F9F-8



The USS *Ticonderoga's* new steam catapult got a workout recently when Cdr. John LaCouture, CAG-6, piloted a Grumman swept-wing F9F-8 *Cougar* from the port catapult for the first launch in what was described as "the smoothest cat shot I've experienced."



The *Ticonderoga* is the third *Essex* type carrier to have the steam catapult installed during a modification period. The steam catapult, a British innovation, enables the "Big T" to launch the heaviest of carrier planes in virtually all kinds of foul weather.



The launching was part of the first air operation off the famed WW II carrier since her mothballing in 1946. Her return to service with the Navy was climaxed recently after she had completed a 21-month modernization period at the New York Naval Shipyard.

NAS Gets Training Unit Transitional Unit Forms at Olathe

A new jet transitional training unit will be open for business on 1 April at NAS OLATHE, Kansas. The crew of 23 officers and 158 enlisted men commenced forming on 10 February.

Commanded by Cdr. James B. Cain, the unit—JTTU—will turn out about 200 officers annually. Refreshing prospective air group commanders, commanding officers and executive officers of jet squadrons in the latest jet tactics and operational procedures will be the mission of the new organization.

The TV-2 jet trainer and the *Cougar* will be used in the refresher course.

Aviation Step-up Planned No Air Officer Releases Foreseen

Current and planned increases in naval aviation units have resulted in an increased requirement for naval aviators. It is not planned to involuntarily release any aviation officers with satisfactory performance records during fiscal year 1956, according to the Aviation Personnel Distribution Control Branch.

It is further anticipated that this increased requirement in naval aviation will project well beyond fiscal year 1956, which may be welcome news to many career-minded Reserve officers.

BuPERS Instruction 1120.22, which outlines procedure for applying for an Active Duty Agreement, takes on increased importance as a result of this announcement. Applications are to be submitted to the Chief of Naval Personnel prior to 21 March. Not all applicants received an agreement when this program was initiated last year. This was due to the fact that the issuance of agreements had to provide the phasing

which would automatically bring up 20% of the agreements for renewal each year.

It is intended to issue the maximum number of agreements to officers currently applying. However, additional phasing must be applied this year which makes it highly desirable that applicants use as low a figure as feasible in stating the minimum duration acceptable. As the short term agreements come up for renewal, the majority of the agreements reissued will be of five years duration.



ASTSECNAV (Finance), the Hon. William B. Franke, gives thumbs-up signal as he starts first ride in a jet at NAAS Saultley Field. Pilot for the occasion was Lt. J. F. Hall.

VMJ-3 'Shoots' Garroway Panther Snaps Pix on Hotel Patio

A Marine photographer almost flew into the patio of the Sea Isle hotel at Miami Beach, recently, snapped a photograph of TV star Dave Garroway and then sped away at 400 mph.

The Marine was 1st Lt. G. W. Glauser, and his camera platform was a *Panther* jet.

Glauser sped to MCAS MIAMI and rushed the negative to VMJ-3's darkroom where it was processed, printed and dried. It was then handed to Capt. Jack L. Lawler, a 'copter pilot, who delivered the photo to Garroway on the



LAWLER TAKES PHOTOGRAPH FROM JANSON

beach near the hotel—all in less than half an hour.

The stunt was pulled off to show TV viewers how fast the squadron could operate over enemy territory in the event of another war.

Maj. R. H. "Smokey" Spanjer, CO, checked the photo for enemy installations but found only a guy identified by large horn-rimmed glasses and a grin.

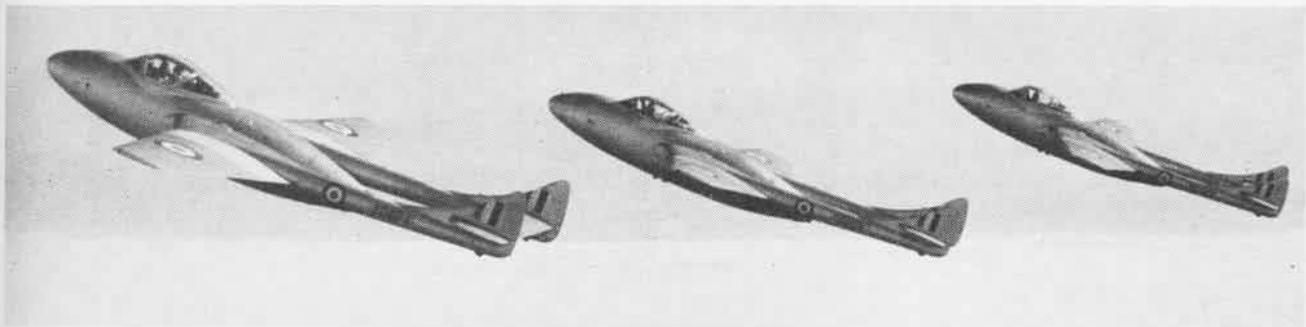
VF-71's Tactical Training Logs 1,384 Hours at FAWTULANT

Fighter Squadron 71 has completed jet all weather basic intercept tactics at FAWTULANT.

At the end of one month of training, pilots of the squadron had logged 1,384 hours of intensive flying. This was accomplished with 20 pilots, 12 aircraft and a maintenance crew of 150 men. All those enrolled in the course completed 100% of the all-weather training syllabus.

The squadron suffered no accidents during the training period and aircraft availability at the start of night operations was 95% and operable radar equipment 97%.

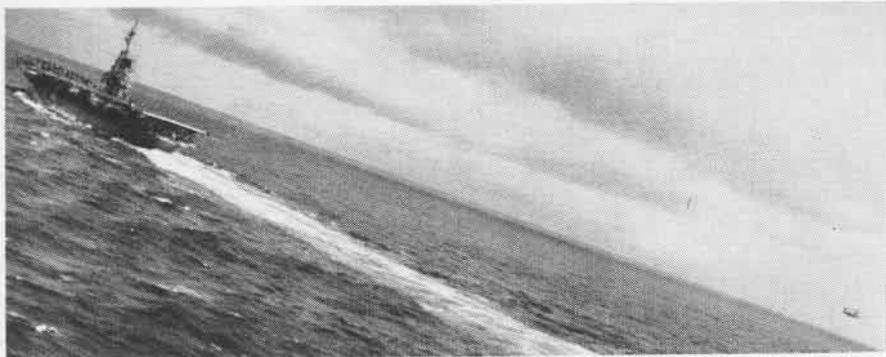
Squadron personnel were able to maintain this high availability record by a round-the-clock schedule.



THE NEW de Havilland Vampire Trainers are being used by the RAF, the Royal Navy and the air forces of Australia, Burma, Chile, India, Iraq, Lebanon, New Zealand, Norway, Portugal, South Africa, Sweden,

Switzerland and Venezuela. In addition to its flying training role, the trainer has been designed for instruction in gunnery, bombing, and rocket-firing and employs twin gunsights and side-by-side seating.

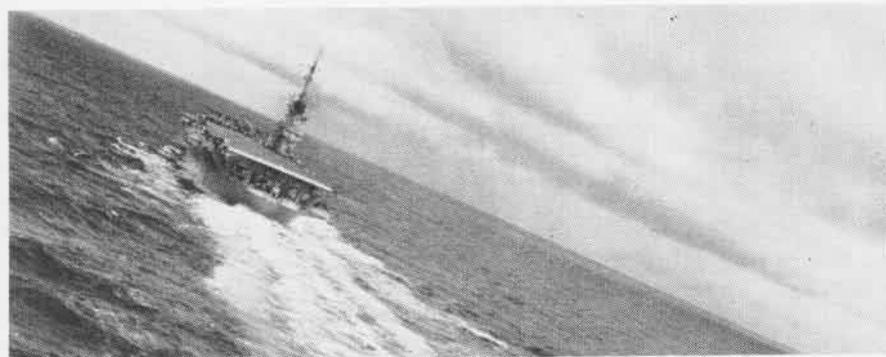
SPECTACULAR SEQUENCE PHOTO



'HOME IS WHERE YOU PARK YOUR FLYING MACHINE.'



'ROGER THE DODGER IS UP EARLY THIS MORNING.'



'I'LL JUST TIGHTEN UP THIS TURN TO GIVE HIM A WORKOUT.'



'OH, OH! HE DOESN'T WANT TO PLAY. EASE HER STARBOARD, SON.'

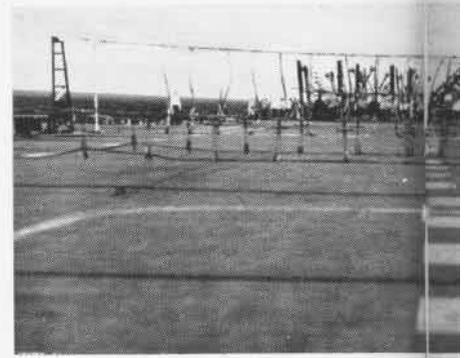
THESE UNUSUAL pictures were taken from a nose-firing position in an F2H-2F plane as it approached. Put yourself to the left, was taken as the turn was started 'in on the right edge. The LSO has netted each column, the LSO gives a 'Roger' message. The rate of turn are satisfactory. You tighten signals it is too steep. Again you get. 'Roger' the corner of your eye, you see the 'd' signal hook catches a wire, bringing you a back for release from the arresting gear fall. In the next three pictures, you are in parking position. Precision and accuracy.



'THAT'S IT, RIGHT UP THE SU. HA'



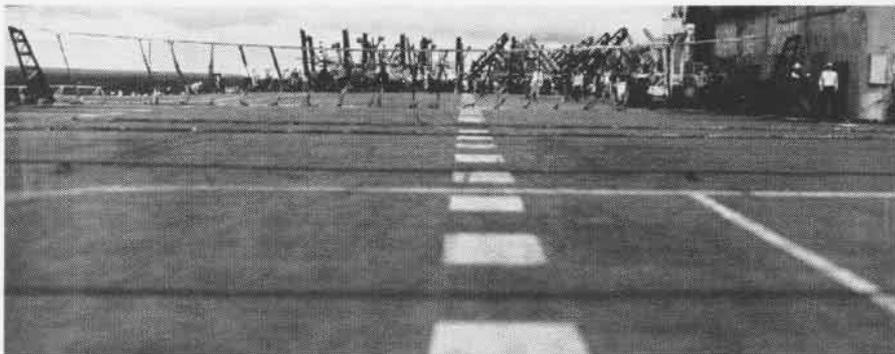
'CUT! . . . ALL I CAN SAY IS RUNNY 9'



'AND HERE I AM. LET HER TILL'

PHOTOS TAKE YOU ABOARD A CVA

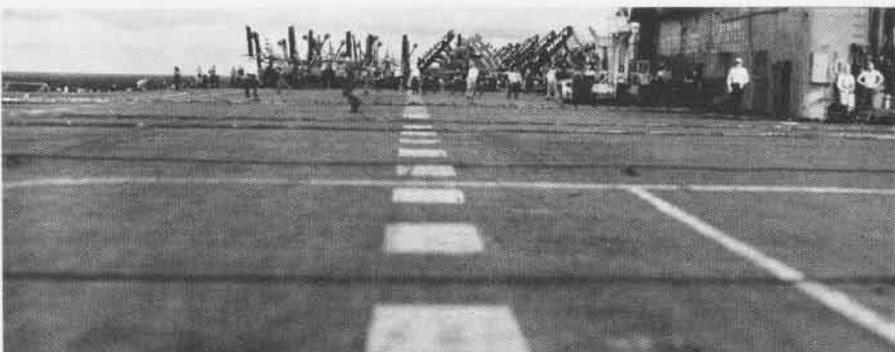
Photos taken with a K-38 camera installed in a VC-61 pilot's place. A VC-61 pilot was flying the K-38 in the pilot's place. The first picture, top, started 'into the groove.' Note the helicopter is not yet picked you up. Next, going down 'Roger,' meaning your position, altitude and you tighten up your turn a little, and the LSO you get 'Roger,' you are in the groove. Out of the 'cut' signal. You take off power, and your you to a stop. Next, you have been pulled stopping gear, and the barriers have started to move, you are being directed forward to your landing and panning are also prerequisites here.



'HOLD IT! NOW, WHO'S DIRECTING TRAFFIC TODAY?'



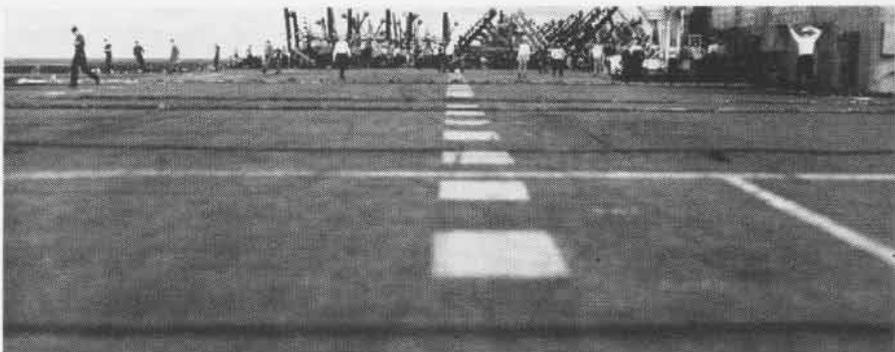
'THE SLO. HAD IT MADE ALL THE TIME.'



'COME ON, FELLAS, LET'S GET THIS THING IN THE BARN.'



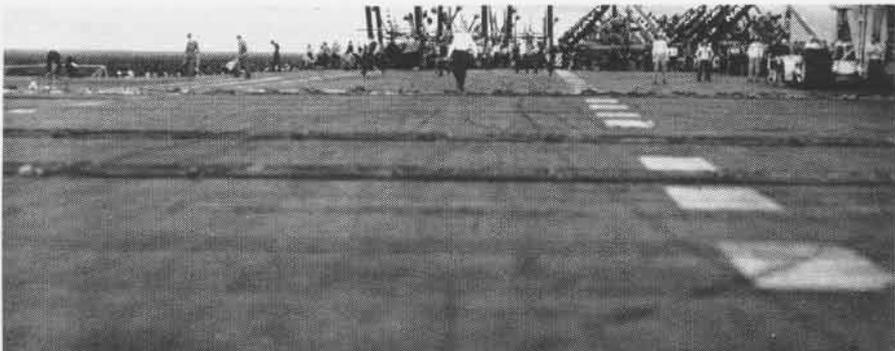
'RUNWAY 9 LOOKS SMOOOOOTTTHH TODAY!'



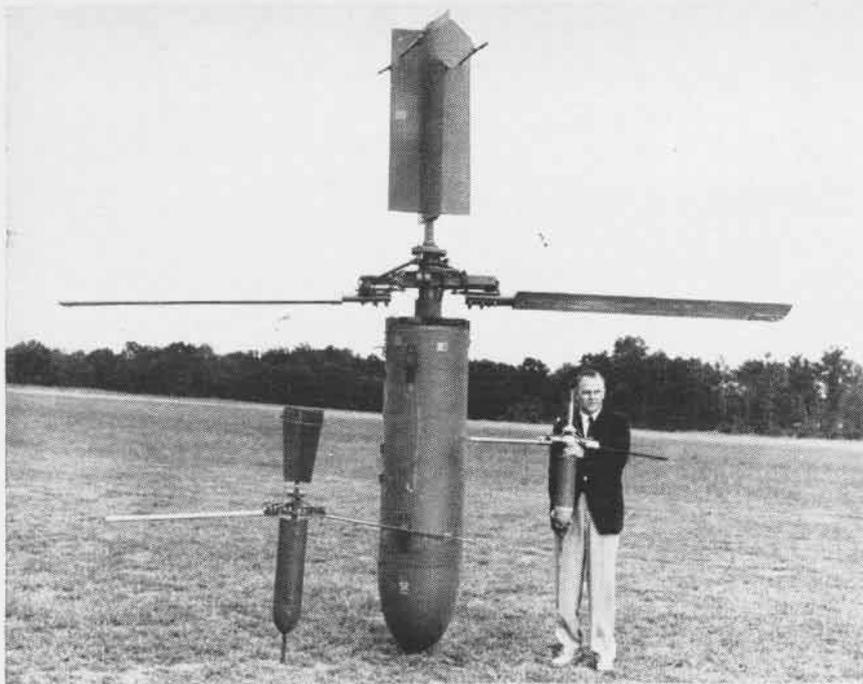
'WELL, IT'S ABOUT TIME, HOPE THE COFFEE'S HOT.'



'SHE WILL BACK TO RELEASE HOOK.'



'I WONDER IF THE OLD MAN SAW ME GREASE HER ON?'



ROTOCHUTE IS NEW ADOPTION OF MARINE CORPS FOR PINPOINTING AIR SUPPLY DROPS

ROTOCHUTE PINPOINTS AIR RESUPPLY

THE OFFICE of Naval Research and the Kaman Aircraft Corporation have revealed a new device for supplying beachheads and other confined areas from the air. The device, known as a rotochute, is being developed for the U. S. Marine Corps.

It will permit supply aircraft to drop equipment and supplies from lower altitudes at higher speeds and with greater accuracy than is possible with a parachute. In addition, high speed, low altitude drops by rotochute will keep the supply aircraft below the effective range of large caliber AA fire and greatly reduce the length of time which the supply aircraft must spend over the drop area.

The rotochute consists of two rotor blades attached to a hub, the entire assembly resembling the rotor of a small helicopter. The rotochute in turn is attached to one end of a standard military M2 supply container, a type of container currently being used by the Marine Corps for supply drop by parachute. The rotor blades of the rotochute fold back 90° and telescope to one-half their normal length. This permits the M2 container and its rotochute to be carried on the external bomb rack of a high speed propeller or jet aircraft.

When the high speed supply aircraft passes over the drop area, the container with its rotochute is released in the same manner as a bomb.

As soon as the device is free of the aircraft, the rotor blades begin spinning automatically and swing 90° to full rotating position. Centrifugal force of the spinning telescoped blades extends them to their full length, and the M2 container comes to earth at a slow rate of descent much the same as an autorotation (power off) landing.

Further development of the rotochute



GENE MONTOYA, age four years, prepares to "blast" off as dad, D. L. Montoya, AO1, looks on. "Rocket car" was built by P. W. Wooley, W. Hooser, and R. V. Stockman, from discarded water bomb after hours at Barber's Pt.

will incorporate an automatic device extending from the nose of the container which upon contact with the ground will increase the pitch of the rotor blades, thus slowing the rate of descent even more and minimizing the impact with the ground.

Because of the small area of its rotor blades and the low altitude from which it is dropped, the rotochute is much less susceptible to wind drift than is a parachute, making possible pinpoint landings within small areas.

Under contract with ONR, Kaman aircraft made about 700 experimental rotochute drops over the past several months. The first tests were conducted with a one-sixth scale model dropped from a Piper *Cruiser*. The second series of tests were done with a one-third scale model dropped from a Stearman and a Grumman F7F twin-engine Marine Corps fighter.

Current tests are being made with the actual M2 container fully loaded and dropped from low altitudes at high speeds by the F7F *Tiger*cat.

Radio Studio Dedicated Morale is Big Factor on Kula Gulf

The escort carrier USS *Kula Gulf* dedicated its own radio studio recently



WNOR DISC JOCKEYS GIVE CHRISTIE HINTS

and assigned the call letters of WKGR for identification.

Planned as a strong morale booster during long periods at sea when the use of personal radios is forbidden, the shipboard studio includes dual multi-speed turntables and a complete control console to provide continuous professional mixing and fading.

The studio is the work of the ship's interior communications technicians. It will do "anything a professional studio can," according to station advisor Ens. Richard Earle.

The *Kula Gulf*, based out of Norfolk, is commanded by Capt. E. M. Snowden.

HU-1 Makes 565th Rescue Heavy Seas No Obstacle to HUP-2

A heavy-seas rescue was accomplished by HU-1's Detachment 3 aboard the USS *Wasp* recently, which brings to 565 the number of rescues the squadron has made since its formation.

Lt. J. C. Winland was standing on the flight deck of the *Wasp* watching refueling operations in high winds and heavy seas, when he heard someone shout from the tanker, "man overboard."

According to Winland's report, the wind was registering 42 knots with gusts up to 65 from abeam, making take-off extremely difficult, and the waves were running in 25 foot heights. After four unsuccessful attempts to pick up the seaman, his helicrewman, Kennedy, AD1, managed to get a sling to the man, and he was hoisted aboard.

The rescue had been done on the double. It had taken just six minutes, 39 seconds.

D.H. 110 Latest RN Fighter New Plane for Use Aboard Carriers

The de Havilland D.H. 110 has been accepted by the British as the Royal Navy's principal all-weather, day-and-



D.H. 110 ON TOUCH-AND-GO OPERATIONS

night fighter-interceptor plane. It completed touch-and-go operations aboard HMS *Albion* last September.

Endowed with greater range and endurance, the D.H. 110, according to the company's announcement, also has more elaborate radar installation and heavier armament than that of its predecessor, the *Sea Venom*. The *Sea Venom* was the RN's first fighter plane in the all-weather class.

The announcement stated further that the D.H. 110 could be easily stowed aboard a carrier and is highly maneuverable up to stratospheric heights. The



THIS strange looking beast is a Panther/Cougar and belongs to VF-84 aboard the USS *Champlain*. Sporting a Panther fuselage and a red-tipped Cougar nose shell, the plane was a conundrum until it was discovered that VF-61 had replaced a damaged nose section with a nose shell from one of their planes during the night. LCdr. H. V. Ladley is CO of VF-84, Cdr. J. Thomas, VF-61.

D.H. 110 is a versatile plane that can be used against high altitude convoy raiders and reconnaissance planes and can double as a land-based, single-place fighter plane.

Powered by twin Rolls-Royce *Avon* engines, the new plane, yet unnamed, is primarily a high-altitude interceptor, and is armed with 30 mm Aden guns. It is also designed to carry air-launched guided missiles.

The D.H. 110, the first operational British jet aircraft to exceed the speed of sound, made this record during a dive on 9 April 1952.



THREE 40-year men are congratulated by Navy Secretary Charles Thomas at Douglas' El Segundo plant: (left to right) Mr. Thomas, T. H. "Pop" Warner, J. J. Miller and A. W. Bear. Total federal service for the trio is 126 years.

NATTU Aids Burn Victim Norman XO Makes Mercy Flight

The parents of 22-month-old Rebecca Carr, Sgt. and Mrs. B. J. Carr, of the Naval Ammunition Depot, McAlester, Okla., know the truth of the Navy's slogan "we take care of our own."

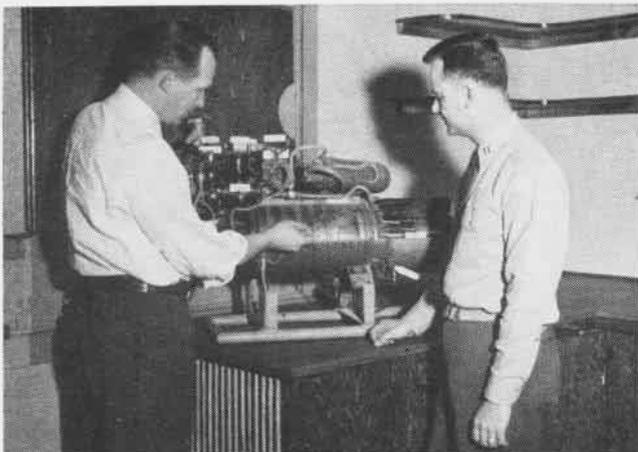
Rebecca turned on a hot water tap at home and scalded about 60% of her body. Following treatment at St. Mary's Hospital, McAlester, doctors decided that skin grafting would be necessary for her.

The Naval Hospital at Memphis was designated as the place for additional treatment, and transportation was requested from NATTU NORMAN. CNO put his stamp of approval on the request and a flight was set up. NATTU's executive officer, Cdr. C. H. Carr (no relation to the sergeant and his family) volunteered to make the mercy flight with Lt. S. B. Jensen, Operations Officer, volunteering as co-pilot.

Mrs. Carr accompanied her daughter to Memphis where the child will stay for several months until the skin grafting is completed.

Cdr. Carr said, "Rebecca is the best patient I have ever flown. During the entire trip, she played happily with her giant Teddy Bear and had a good time."

NAVY'S SCHOOL FOR AERIAL QUIZMASTERS



STARTING at 0810, Lt. O. H. Oberg begins school day with class in engines. Dr. Walter Hesse, instructor, briefs him on J-32 Turbojet.

CLASSES continue, and mid-morning finds instructor J. E. Moroney and student Oberg viewing a wing flap section in the smoke tunnel.



ADVANTAGE of using a log-log slide rule is soon discovered as advanced classes progress.

IN AN AREA famous for good tidewater fishing and sports, on Chesapeake Bay, is located the Naval Air Test Center, at NAS PATUXENT RIVER. At this well-equipped installation, blessed with adequate housing and facilities, is done some of the most interesting, intensive and challenging flying assigned to Naval Aviators. Here is the home of the Navy's Test Pilot Training School.

Naval Aviators who want to attend the school are nominated by unit commanders, so if you want to attend this school, let your squadron commander know and do a bit of salesmanship. If selected, you are in for an intensive academic refresher course to prepare you for the main body of the syllabus, covering a compact aeronautical course. You will be a better aviator well prepared for future air command duties.



ASST. OPS. Officer, Lt. J. B. Stockdale, gives preflight briefing for after-lunch jet flight.



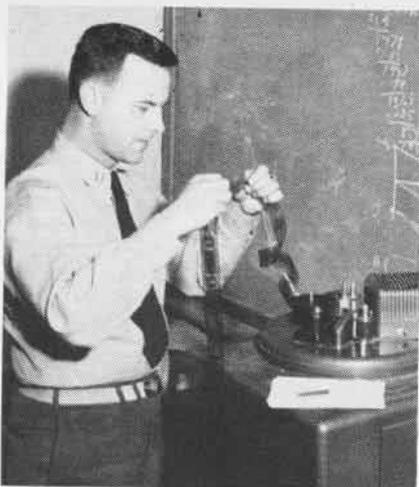
ADMINISTRATIVE Officer, Lt. F. A. W. Franke, Jr., and LCdr. R. J. Selmer maintain constant radio contact with students on test flights.



TEST PILOT Training School students must adhere rigidly to the flight schedule. Cdr. J. H. Boyum, the School Director, briefs Oberg.



FLIGHT over, Cdr. Boyum checks Oberg's flight data card and student makes a detailed report.



BACK to classroom and photopanel machine for a look at film-recorded performance flight data.



AFTER-CLASS conference with Dr. Hesse gives answers to some of the day's weighty problems.



HOMEWORK is inevitable. Owen, age 5, wants slide rule and to heck with flight report. Michael, age 2, ponders over his bedtime snack.



KIDS IN bed, it is time to finish the day's studies. Lt. Oberg's wife, Margaret, helps by typing reports and special class papers.



FIVE and a half months of study completed, Lt. Oberg returns his books to Mrs. Elaine Suslak, library custodian, for use by new class.



TEST PILOT Oberg is all smiles as he receives diploma from RAdm. D. H. Duerfeldt, Commander N.A.T.C. Station CO, Capt. Neblett, right.

And There I Was . . .



Fodder by Adoption

ON A BRIGHT sunlit Saturday morning a group of Communists was observed constructing a wire fence in the middle of the Demilitarized Zone in Korea. Carrying a coil of wire on its back was a nag of dubious heritage.

Later, early in the afternoon, the horse was spotted again, still in the same spot. Then she disappeared. Before dusk, she was seen grazing near a Marine outpost. Her trip to the outpost had to be made over a field thickly laced with mines.

After a series of attempts failed to encircle her, one Marine walked slowly towards her, talking softly, and succeeded in grabbing her mane.

Once she had overcome a shyness towards men and vehicles and acquired the name "Blaze of Glory," she began roaming at will, all the while making a thorough inspection of her new surroundings. Her diet consists mainly of leftovers from the messhall.

A number of attempts have been made to see if the horse would return to North Korea. On each occasion, she has steadfastly refused to head in a northerly direction, but turned quickly and cantered towards the south.

Horse lovers seem to think the nag is "pulling a gag" and just loves that southern (Korea) hospitality.

Terse Terminology

IT WAS a dark and dismal night in Moffett Tower. Catching up on her technical education, the tower operator was reading a thorough, well-documented treatise on the precision and clarity of naval terminology.

The Wave smiled complacently as she read further and agreed that compared to the length and unwieldiness of industrial talk, the Navy had built a veritable science of clarity and brevity.

By the time she came to the concluding

paragraphs, her grin had enlarged to a smug chuckle and she thought with pride of her own role in the scheme of naval terminology. Then it came over the speaker, loud and . . .

"Moffett Tower, this is Navy 34114 . . . I'm from vw-1 ferrying a wv-1 to vw-2 and picking up a wv-2 to bring back to vw-1. I need v1 and v2 for the wv-1 and wv-2 to get from vw-2 to vw-1 in the wv-2"

Miss Control gasped, dropped her article and radioed: "Say again all after Navy 34114."

The pilot responded word for word, "This is Moffett Tower; you say you are ferrying VIP's to pick up a p2v at vw-2?"

"Negative. I'm ferrying a . . ."

"Spell out all after I'm . . ."

"Roger. I spell. ABLE WILLIAM VICTOR OBOE NAN EASY TARE OBOE VICTOR WILLIAM. . ."

"You have a transmitter squeal."

"I'm switching from this frequency anyway. I'll take my business to Barber's Point."

And with that she put down her headset to check and see what mustering out pay was worth these days.



THIS PLANE FLIES TOO HIGH AND TOO FAST!

It's Davy Jones' Now

WORD FINALLY came to VR-24 pilot Lt. Charles "Chuck" Staley at Port Lyautey: "Casablanca says your cruise box has arrived. Will you please come down and identify same? It has been somewhat damaged."

With a hearty "yes" and a first class booking on one of the local streamliners, Mr. Staley headed for his badly needed uniforms, civvies and other personal belongings.

Arriving at the warehouse, he received a severe shock. What was once his cruise box was now a pile of lumber. Nowhere to be seen were its previous contents.

Further inquiry revealed that his box had fallen into the 'drink' while being unloaded from the ship. Divers and grappling hooks had brought the box to the surface—in small pieces—but the gear it had contained may well be

stowed in Davy Jones' locker. It surely wasn't in Lt. Staley's.

Now Staley is thinking of a classified ad: *For Sale, cheap—one somewhat used cruise box. Good for firewood, better for toothpicks.*

Man, Wuz it Rough!

A WEARY and haggard figure stumbled into VP-57's Operations Office, staggered for the nearest chair, having just completed a 15.5 hour flight. A steaming hot cup of coffee held to his sagging lips brought a faint gleam to his eyes. Slowly his hand crept across the nearest table for a crumpled *Naval Aviation News*. Then, he knew that he would live.

Suddenly there was a scream. "1000 hours!" The heat was obviously affecting this stalwart, but as we half listened to his babblings, the story came out.

A ComAirLant squadron had broken the 1000-hours-in-one-month mark, and this notable achievement had reached the pages of *NA News* while we poor unheralded ComAirPac'ers of VP-57 had been exceeding this mark.

The June record started with 1066.6 and July found us teaching 1129.6 hours. In August our pin feathers were almost fully replaced by full-fledged feathers as we flapped madly to 1235.6 hours.

September showed our record at an all time squadron high of 1305.0 hours which included the squadron's second typhoon evacuation during which all aircraft were evacuated and at the same time all operational commitments were met. After puffing all the way uphill we finally reached the summit and slacked off to an easy 1055.7 hours for October.

The story continues. "There we were with our 12 p2v's dodging typhoons, searching for lost vessels and just plain old routine patrol flying, each crew averaging 99 hours per month with one crew reaching a high of 133 hours. Flight crews and ground maintenance personnel worked round the clock seven days a week to keep the planes flying, and fly they did, safely too. The net result was *takusan* safe hours for which the squadron was awarded the ComAirPac quarterly safety award for the third quarter of 1954."

So the story ends with our hero dreaming of the rain and ice he will encounter back at Whidbey Shima where VP-57 is now located.



IT'S A GOOD DESIGN ON PAPER—ONLY TROUBLE IS IT'S ON PAPER

Photographs at 100 Miles Aerobee Film Shows Earth's Curve

The Navy's liquid propelled two stage sounding rocket—*Aerobee*—has soared to new heights at the White Sands Proving Grounds to reveal the earth's curvature from 100 miles up.

Built by the General Aerojet Corp. under the auspices of the Naval Research Laboratory, the rocket carried a standard gun turret camera modified for rocket use by the addition of a 90° wide-angle lens.

The top photograph shows the *Aerobee* shortly after the first stage of its rocket propellant had boosted it skyward and the bottom photograph—looking almost due south—reveals the Gulf of California (dark streak, upper right). Rio Grande Valley is in the lower left and the dark space above the picture is the sky. The distance from the point at the bottom of the picture to the point at the top is about 900 miles.

The distance across the horizon is about 1,700 miles. The bottom photo is a blowup of a 16 mm frame.

VF-94 Shifts to Moffett Spent Three Years at NAS Alameda

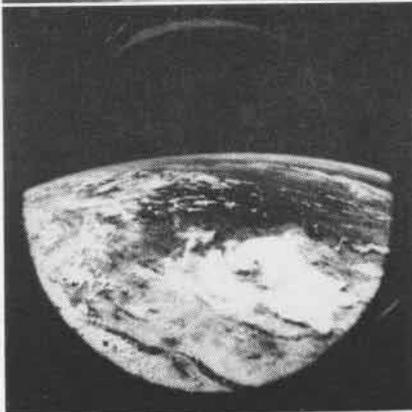
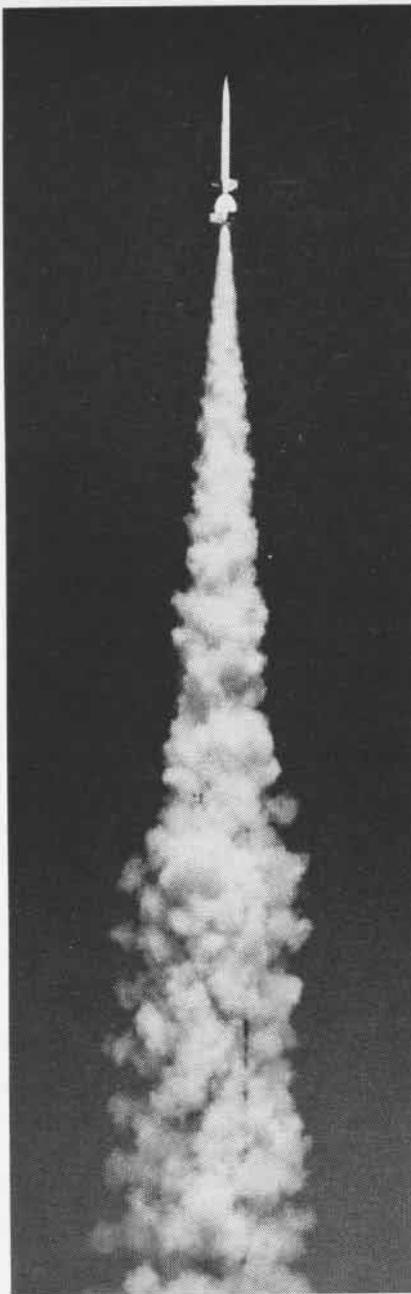
VF-94 has ended a three year association with NAS ALAMEDA and moved, lock, stock and barrel, to NAS MOFFETT FIELD. The move was made to provide a better distribution of base loading of West Coast squadrons.

The squadron, a part of cvg-9, has completed two Far East tours. While deployed to the Far East on its first tour, the squadron logged 1,250 combat sorties, 4,250 flying hours and averaged 56 combat hops per pilot.

The squadron formerly flew the famous old "U" bird, the F4U *Corsair*, but has changed to the F9F-5 *Panther*.



CO HARDING AND XO RICHEY WITH F9F-5



MILITARY VICAR GREETES NAVAL OFFICERS

Military Vicar Tours CVS Cardinal Spellman Celebrates Mass

Officers and crew members of the anti-submarine aircraft carrier USS *Princeton* played host recently to His Eminence Francis Cardinal Spellman, Archbishop of New York and Military Vicar for the United Nations Forces.

The Cardinal celebrated Mass on the carrier with over 400 sailors and Marines attending.

VAdm. W. M. Callaghan, ComNavFE, VAdm. A. M. Pride, Com7thFlt, RAdm. W. F. Rodee, ComCarDiv 15, RAdm. L. S. Sabin, ComPhibGru One and Capt. J. C. Alderman, CO of the *Princeton*, were the senior naval officers present.

After breakfast aboard the carrier with the officers, he was flown in a Marine helicopter to the Far East Command Retreat House at Oiso, Japan.

Almost One for Pettibone Quick Acting Averted An Accident

Following a routine flight, Lt. R. M. Himelick and E. A. Scott, PHC (AP) had landed at NAS COLUMBUS, Ohio, and were taxiing their R5D to the ramp. Suddenly they observed a C-45 about 100 feet up, coming in for a landing with its wheels up!

Lt. Himelick immediately notified the tower that the approaching plane had its gear up. Since the C-45 was on a different frequency, the relay of the information by the tower was necessary.

With only seconds remaining before touchdown, the C-45 was notified of its oversight, and took a wave-off. The next approach to the service runway was with wheels down.

For their alert observation and prompt action, Lt. Himelick and Chief Scott were both commended by the commanding officer of the station.

GLOBAL WEEKEND WARRIOR LIST GROWS

Latest addition to the ranks of the "Global Weekend Warriors" is Reserve Transport Squadron 931, of NAS WILLOW GROVE. Their 10,000-mile Thanksgiving weekend training flight from Willow Grove to NAS BARBER'S POINT and return, qualified them for membership in that select group.

Prior to VR-931's long hop, only two



THEY BUY LEIS TO WEAR AND CARRY HOME

other squadrons had made such exceptionally long training flights, according to the Naval Air Reserve Bulletin. VP-741 of NARTU JACKSONVILLE set the pace for overseas deployment in mid '54 with their 16,000 mile eastbound active duty training cruise, touching 11 countries.

VR-771 of Los Alamitos followed in August with their pioneer training flight to Hawaii. From the same station, VR-773 made two overwater hops to Barber's Point during their active duty cruise the next month.

Skipped by LCdr. Dean Hess of Collegeville, Pa., the VR-931-ers departed from Willow Grove by RSD on Thanksgiving eve for their over-water and celestial navigation hop.

The 32 lei-laden and aloha shirt-clad Philadelphia lawyers, doctors, and merchants spent a day and a half touring Hawaii, and swimming and surfing at Waikiki Beach.

Back home and out of uniform in plenty of time for work Monday morning, they were heard making casual mention of their "weekend in Hawaii,"



VR-773 SAILOR ENJOYS BEAUTY OF HAWAII

soaking up sunshine on Waikiki."

Besides the excellent experience in transocean flying and in pinpoint navigation, these overwater navigational training flights have important by-products. Such training exercises generate unusual interest. Because of this, they afford excellent opportunities to tell the story of Naval and Marine Air Reserve through the media of radio, television, newspapers, and newreels.

There is another consideration much less immediate, though not to be overlooked. Admittedly not a primary purpose, nonetheless the flights have given the participating Weekend Warriors opportunities for a liberty in Honolulu or in cities on the other side of the world, which will form the basis for sea stories for years to come—sea stories beginning with the words, "When I was in the Navy, I remember. . . ."

Can You Top This Record? They Did It all With One 'Copter

Whether or not it makes or breaks any record for performance, that of Helicopter Squadron 771 is one deserving of notice.

When HU-771 reported aboard NAS LOS ALAMITOS for two weeks active training duty, they found only one aircraft in an "up" condition. Two weeks later, when the squadron left, each of its 13 pilots had logged 45.1 hours flight time. This meant 100 percent availability on the one helicopter.

In addition to crewing their lone aircraft, the 12 enlisted men found time to qualify in first aid, in survival, fire control and prevention, and in close order drill, totting up an impressive 1300 hours of in-service training.

In their spare time, the squadron toured the Hughes Aircraft plant, and inspected the XH-17. Visibly impressed by the vital statistics of this 42,000-lb. whirley-bird, as they stood in the shadow of the 130-foot spread of the twin rotor blades, one pilot was heard to murmur, "If we'd had *that* baby, I could have logged 145 hours."

Need Pills? We Deliver! 'Copter Hurries Medicine to Ship

The troop-carrying transport, *General G. M. Randall*, inbound to Seattle from the Far East, had run out of malaria pills. In order to complete the pre-debarking immunization of the personnel aboard, the *General Randall*, while some 12 hours out of Seattle, requested a new supply.

Medical Service of MSTs delivered the 4,000 anti-malarial tablets to the Army Port of Embarkation, Seattle.

A request for assistance made to NAS SEATTLE, was answered by Lt. L. H. Beba and J. P. Van Scholten, ADC, who flew the station's HTE-2 to the port of entry. There they landed atop a warehouse on a helicopter landing platform built specifically for emergency flights of this nature.

After picking up the medicine the two pilots flew up Puget Sound until they located the *General Randall* near Port Townsend. The HTE-2 doesn't have a hoist, so Chief Van Scholten lowered the foot square box of tablets by line to the transport.

The request for aid had been received at NAS SEATTLE at 1000. Lt. Beba and Chief Van Scholten had completed their mission by exactly 1130.



HTE-2 PICKS UP ANTI-MALARIA TABLETS

ALLIGATOR HUNTERS BRING HIM BACK ALIVE



FLORIDA NARTU 'alligator hunters' probe with steel rods through the soft Everglades muck to locate elusive alligator hiding in his den.

THEIR demonstration in Everglades survival completed, 12 Miami NARTU men were being lifted by the HRP-1 type helicopter on loan for the exercise.

Flushed by the 'copter, one of the native alligators slithered from his mud sun porch and disappeared right before the eyes of the sailors.

"Let's capture him and take him back alive!"

You capture a Florida alligator with long steel rods and with ropes.

Armed thus—and with the necessary Florida Game Commission permit—and aided by a professional alligator wrestler, the hunters located the 'gator's 'apartment', a cave about five feet below the surface of the soft, soggy ground.

After careful probing with the rods located the 'gator, he was fenced off from deeper rooms in his apartment by



THERE'S a point you have to remember: Keep the 'gator's mouth shut. One snap of those powerful jaws, and it'll be, "Look, Ma, no hands!"

more of the long steel rods that were forced down into the soft muck around him.

A little agitating with the rods decided Mr. Alligator to come out, which he did, charging the cave entrance. Things happened in a hurry then. Bill, the 'gator wrestler grabbed his tail. That flailing appendage can knock a man off his feet. Lassoes were snubbed around his head, and a couple of clove hitches around his tail.

With two half hitches around each foot, the reptile's legs were secured to his sides, and he was ready for his journey to his new home in a zoo.

Mr. Alligator was in something of an ill humor. But the medical advisor, J. J. Rehill, DVM, one of the captors, expressed the opinion that he doubted that any serious psychological maladjustment would result from this enforced abrupt change of his environment from rural to urban life.



AN ALLIGATOR has a lot of power. McLellan has him by the tail. Hawkins holds his line taut, and Hardy dangles the lasso for his jaws.



A MAN can't stay clean when he's lassoing an alligator. He slips down, sinks down to his hips, or the thrashing 'gator splatters him.

NAVY TO USE FLAT PLATE TV TUBE



ROUND PANEL SCOPE AND SEMI-CIRCULAR SCREEN BEFORE PILOT ARE FLAT

A TELEVISION tube which consists of transparent flat plates has been developed in connection with a long-range program for simplifying aircraft instruments. Approximately the size and shape of a metropolitan telephone directory, it is about three inches thick, as compared with the present TV tube's 20 inches.

The tube is a proprietary item developed by the West Coast Electronics Division of Willys Motors. One model of the tube was adapted for Navy use by Willys. It was recently shown to representatives of the American airframe industry at a meeting held to discuss the joint ONR-BUAEER aircraft instrument development program. The meeting was held at the El Segundo, Calif., Division of Douglas Aircraft Company, Inc., the prime contractor.

The program is expected to result in an instrument panel consisting of only two basic instruments. These would both be television picture tubes which would replace 30 or more instruments now in use. One instrument would be a semi-circular plate mounted vertically and directly in front of the pilot. It would be transparent and would not interfere with the pilot's vision during contact flight. Altitude, speed and attitude of the aircraft would be shown on this plate, and physical features such as mountains, which the pilot sees during contact flight, would be depicted artificially. This instrument would tell the pilot all he needs

to know to fly the aircraft about its three axes: pitch, roll and yaw.

The second instrument would consist of a round plate mounted below the first, just inside the cockpit rim. Broad physical features of the earth below would be depicted by analogy, and the appearance would be somewhat similar to that of a radar map.

Other information necessary for navigation or traffic control would also be shown on this instrument. By means of calibrations around the rim the number of miles to the pilot's base, fuel remaining and similar information would be shown in a way that makes the information easy to read.

Other instruments now necessary to determine fuel consumption, power settings and other data will be integrated into the two instruments. Because TV tubes are used, several items of information can be selectively superimposed in the same area, to be used as needed.



TECHNICIAN EXAMINES TRANSPARENT TUBE

The TV tubes will not be used to present an actual picture of what is happening in the vicinity of the aircraft. Rather, the display which the pilot sees would be an analogy of the visual world which he would see if flying by contact, i.e., in clear weather. In this way, the pilot gets a more readily understood picture of the visible world than that presented by the dials of conventional instruments.

ANOTHER aim of the Navy's long-range program is to reduce the control system to two basic controls: a control stick and throttle. Six switches would be used to select specific types of information needed for take-off, landing, for traffic control, and other specific situations.

Although the Navy expects that the first experimental aircraft using this instrument and control system will not be flown until 1958, many components of the program will be used in existing and new aircraft as the components are developed. The first interim instrument panel of this program is soon to be installed in aircraft which are in production.

The first simplified panel to be developed is now being tested. It has relatively conventional instrument displays but fewer instruments than present panels. Integration of the information has been definitely improved.

VR-32's Tire 'Safety Cage' Measure Taken to Prevent Accident



SAFETY CAGE IS PROVING WISE MEASURE

VR-32 has come up with a safety cage in which high pressure tires are placed during inflation. The cage was designed by Wayne S. Vickery, AMC, has been approved by the Navy Incentive Awards Program.

For increased safety of personnel while servicing aircraft tires, this easy-to-make cage is recommended.

TRAINED MEN MAKE MARS RECORD POSSIBLE



STARKLY OUTLINED AGAINST THE CRISP WINTER SKY, ALL FOUR NAVY MARS FLY TOGETHER

ONCE-IN-a-lifetime event occurred recently when all four of the Navy's gigantic *Mars* flying boats flew in formation. The memorable flight was made by VR-2 to celebrate the remarkable record of the *Mars* which, in such large measure, depends upon the men that fly them.

Holders of four world's record achievements in passenger carrying capacity, payload "lifts," distance, and endurance marks, the *Philippine, Marianas, Hawaii*, and *Caroline Mars* have logged enough flight time to make twenty round trips to the moon.

In averaging almost one flight to the Central Pacific each weekday evening, since their first regular transocean operations commenced in 1946, the venerable ladies have carried 195,000 passengers in comfort and convenience. Over 15,000 tons of high priority military air freight and mail have been transported over the same period of time.

Although developing a "middle age spread" and one day scheduled to be turned out to pasture with the advent of faster and higher flying turboprop aircraft, the *Mars* still have plenty of service left in them. The outstanding record of nine years of accident-free Pacific crossings is proof of their usefulness and their continuing reliability.

Built by the Martin Company, these aircraft are flown by VR-2 from NAS ALAMEDA, under the command of Capt. William A. Sullivan, USN.

On the threshold of its twelfth year as a commissioned activity, VR-2 has had its reputation enhanced and its dependability confirmed through the efforts of its personnel. Such men as H. L. Jeske, ALCA, L. J. Rolando, ADC, Lt. W. F. McSharry, G. C. Denton, ADC, H. V. Bauch, ALCA, G. N. Levakis, ALCA, W. S. Sayward, AD1, C. S. Allen, AD1, L. W. Savage, AD1, W. H. Rush, ADC, S. F. Adamson, ADC, V.O. Hughes AD1, and J. J. Chamberlain, AD1, make the tri-weekly Alameda to Honolulu passenger and freight run. These Marsmen can boast a total of 58,140 hours in the mighty JRM.

Chief Jeske, a veteran of two tours with the Pacific Queens, has 3,500 hours in type. He originally reported to the squadron in November, 1947.

"Rollie" Rolando has built up seven years of experience at VR-2. With 5,000 hours as a flight engineer on this seaplane giant, he has participated in such flights as the first delivery from the Martin factory and on the epoch-making trip from Alameda to San Diego wherein 309 people were embarked.

Lt. W. F. McSharry, a 20-year veteran of naval service, has over 5,000

JRM hours. He recently completed his second tour in VR-2, during which he has been Plane Commander on over 400 trans-Pacific runs.

Chief Denton shepherded the first *Mars* to Hawaii in March 1946. Acting as flight engineer, he has 4,000 hours on the flight deck.

Harold Bauch has been a qualified route radioman since 1947 and has completed JRM transpacs not only to Hawaii, but to the Philippines and Japan as well.

Along with Lt. McSharry and L. W. Savage, to "Gus" Levakis goes the honor of having more *Mars* time than any other crew member—5,200 logged hours. Originally reporting to VR-2 in October 1945, he is now in his second tour.

Bill Sayward has spent five of his thirteen years of service with the *Mars*. A qualified flight engineer with 4,100 hours in the four-engine craft he has almost 200 Pacific crossings to his credit.

FLIGHT Engineer Allen is another "old timer" who has over six years on the VR-2 line. One hundred seventy-five air crossings have helped boost his *Mars* time to 4,560 hours.

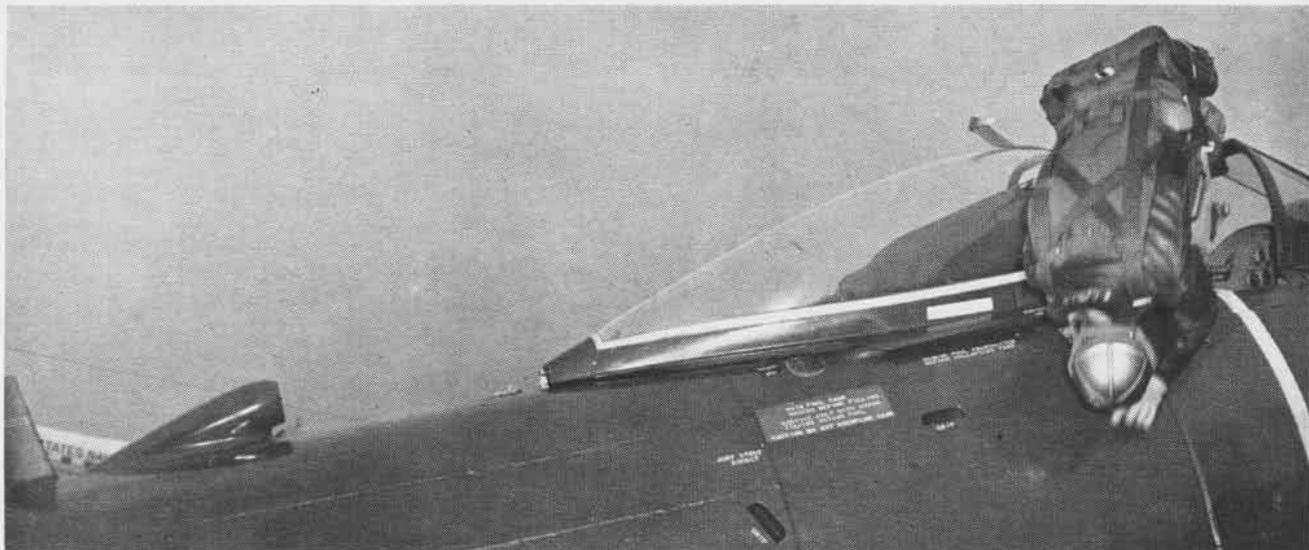
"Doc" Savage, a mech with 5,200 hours in JRM's has run the gamut from transporting monkeys around the western Pacific to flying in the last VR-2 run from the seadrome at Midway Island in 1950. He's been in service 12 years.

Participant in many record-breaking JRM flights, Chief Rush has served as crew boss on such casual "jaunts" as the *Caroline Mars* made in August, 1948, in flying non-stop from Honolulu to Chicago. He has 4,500 JRM hours in his log book.

Flight engineers whose contributions to *Mars* operations have established the Pacific Queens as outstanding in the field of air transport, are Chief Adamson, and Aviation Machinist Mates Hughes and Chamberlain. Their experience totals 13,600 Martin hours.

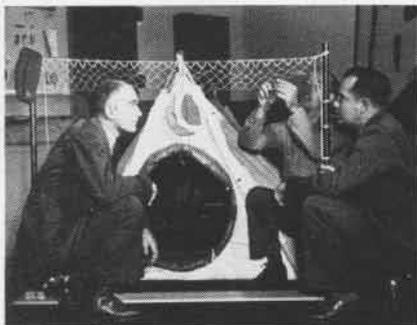
● The USS *Princeton* has its share of famous names aboard: Harry Cary, SKSN, Bill Elliott, EM3, Arthur Murray, PH1, George Marshall, AN, topped with Harry Truman, YN3.

● MCAS MIAMI—The new 8,000-foot runway was 20 to 25% complete after three and a half months. Laying of concrete for parking aprons and runway ends started last November.



PROPER way to bail out of an AD-4 is demonstrated by Cdr. John Leonard, O-in-C of Survival Training instruction. Plane's engine is turned up to simulate actual flight conditions. He advises caution when leaving cockpit as injury may result from hitting canopy.

FAETULANT SCHOOL OF SURVIVAL KNOWLEDGE



E. T. CELEBUSKI, PR3, shows how to make fish net from 'chute to Cdr. Leonard and Lt. Fry.



COLD weather gear display aids instructors in explaining use of contents of survival kits.



LIFE raft is part of the display of survival equipment used in training airmen at Norfolk.



INSTRUCTOR E. T. Celebuski, PR3, shows Lt. R. Fry, Asst. Survival Officer, operation of transmitter-receiver from MK-4 life raft.



ANTI-G suit seated in an F9F ejection seat is flanked by the M-3 and M-4 exposure suits. FAETULant covers all phases of survival.

THE FLEET Airborne Electronics Training Unit, Atlantic, is wearing an additional hat now, and a very important one. The job has little to do with electronics, but is literally a life-saver. Heretofore, survival training was carried out by individual squadrons. Now, however, FAETU instructs airmen and pilots from all squadrons based in the Norfolk area, in the proper techniques necessary to sustain life in case of forced landing or bail-out.

Heading the unit are Cdr. J. I. Leonard and Lt. R. Fry. All of the competent, specialized instructors are graduates of the Air Force Survival Training School, Stead AFB.

The training includes ditching procedures, using the Dilbert Dunker, with a checkout in helicopter hoist procedure. Swimming proficiency is checked and artificial respiration and life raft handling are taught. Field trips are in all future schedules. During these two and three day treks into the wilds of Dismal Swamp, airmen will have to live using only the survival techniques they have learned.



HOW TO get out of harness without being pulled under is taught by 15-foot drop into water. H. Trumble, AN, hoists W. Lemasters, AT3.



INSTRUCTOR F. A. Gasider gives final instructions to T. E. Stanley, AEAN, VP-44, before turning him loose in FAETU's Dilbert Dunker.

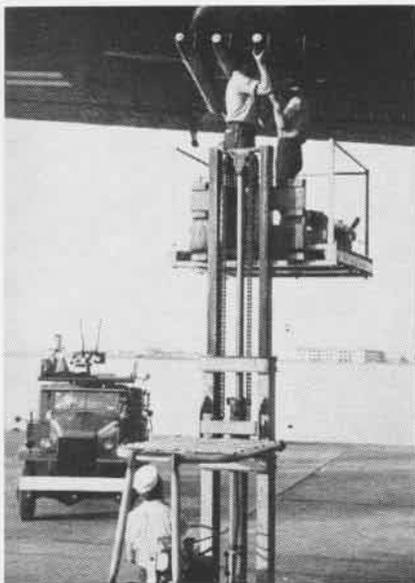


DILBERT Dunker hits water at approximately 30 knots carrying H. E. Blamire, AN. After trainer turns over, he must get out under water.



BURDENED with flight suit, hard hat and parachute harness, A. Lendermar, AT3, VP-44, demonstrates proper technique in boarding raft.

VP-45 Speeds Rocket Loads Special Equipment Does the Trick



VP-45 MEN USE PALLET FOR ROCKET HOIST

Ordnancemen of VP-45 have fabricated a pallet to expedite the loading of rockets on P5M aircraft. The squadron has estimated that by using the pallet, 15 minutes are saved in each rocket loading. This operation can be performed exclusively by ordnancemen.

The previous method of loading rockets on the P5M aircraft required two plane crewmen on each wing to lower away manually the external rocket carrier to the ground where the rockets would be loaded. The external rocket carrier plus the mounted rockets would then be hoisted to the wing and secured. Each hoisting or lowering away operations required approximately 500 turns of the Aero 14B bomb hoist.

Now the five-foot square pallet is fitted with chocks and quick-release securing bands to prevent any motion of the rockets during the hoisting operations. Wooden wedges are inserted between the forks of the fork lift truck and the pallet to prevent any motion of the pallet as the ordnancemen load the rockets on the Aero 14B rocket launcher. Waist high rails are mounted around the edges of the pallet for safety.

Aviation Booklet Released Smithsonian Issues 'Masters of Air'

With the issuance of a booklet called *Masters of the Air*, the Smithsonian Institution inaugurates a series

of popular publications on scientific and historical subjects related to its important exhibits and collections.

Masters of the Air depicts in story and pictures the progress of aviation from the first glider flight in the 1890's to supersonic jets.

This story of aviation relates the events that were the milestones of aviation progress. Included are the stories of the Smithsonian's own former Secretary Samuel P. Langley, a great aviation pioneer at the beginning of the twentieth century; flying planes of WW I; the early flights across the ocean and around the world; and the achievements of famous "firsts."

The historic planes described are in the aeronautical collections of the Smithsonian's National Air Museum whose curator, Paul E. Garber, was technical advisor for the publication. The text is by Prof. Glenn O. Blough of the University of Maryland.

The publication was made possible by a grant from the Link Foundation. Copies should be ordered directly from the Smithsonian Institution, Washington 25, D.C. The price is 50 cents.

NAVY FILMS

Navy No.	Title
MN-7367C	High Capacity Aircraft Fueling System—Jet Mix and HEAF Systems Operation
MN-7475A-E	Turret Aero 11 Series A. How the turret operates B. Operation of the hydraulic system C. Operation of the servo control system D. Operation of the replenishing system E. Antiference mechanism
MN-7896	Radar Set AN/APQ-41 Operation
MN-7969	The Story of Naval Aviation
MN-8073	Aircraft Recognition Test #12
MN-8165	The Importance of Personal Leadership Today
MN-9233H	The Aerial Strip Stereo Camera (CAS-2A)
MN-9233J	The Aerial Camera Components—Aerial Reconnaissance, the Image Motion Compensating Magazine (MA-10A)

Film libraries at air stations and centers furnish films needed by aviation activities.

500th Jet Link Delivered Air Force Gets C-11 Ground Trainer



WILLIFORD (R) CONGRATULATED BY AF MAN

The 500th C-11 jet ground trainer to be produced by Link Aviation, Inc., at its Binghamton, N.Y., plant has been turned over to the Air Force by E. Allan Williford, company president.

Since its introduction in January, 1950, the Link C-11 has assisted in the training of thousands of jet pilots of the Navy, Marines and Air Force.

The first jet ground trainer ever produced, the C-11 is used in military flight training programs as a transition type instrument trainer. It gives military pilots realistic jet training in all phases of instrument flight, communications, navigation and countless in-flight emergency procedures.

Link's first C-11 was completed shortly before the start of the Korean war. Under an accelerated program, Link workers turned out the trainer three weeks ahead of schedule.

Almost immediately, the C-11 was adopted by all branches of the military as a basic ground jet trainer. Today C-11's are being used at more than 100 air bases throughout the U.S. and the free world. By using the complex electronic computer, pilots can fly the C-11 under any simulated condition. Special problems can be carried out with the trainer.

The first C-11 represented a wide departure from the standard Link "Blue Box" that became famous during WW II, and constituted a big step toward the development by Link of the full-fledged flight simulator.

Unlike the comparatively simple, pneumatically operated "Blue Box," which, however, included cockpit motion for its realism, the C-11 provides realistic training through accurate instrument readings made possible by intricate computers.

Kaman Gets New Hangar Navy Builds for Helicopter Test

The Kaman Helicopter Corporation's new half-million dollar flight test hangar at their Bloomfield, Conn., plant was built by the Navy. The hangar was formally dedicated by Capt. W. E. Kenna, BuAer representative.

Covering 28,000 square feet of space, the hangar will be used for the test and development of helicopters.

Experimental shops and research laboratories will occupy 14,500 square feet, while the remaining 13,500 square feet will house the test helicopters.



ASSISTED by a booster rocket, similar to that used by the *Matador*, a piloted AF jet fighter is launched at flying speed from a zero-length launcher developed by Martin Co.

First Navy T-34 Delivered Trainer Scheduled for Pensacola

The first of a substantial number of Beechcraft's new T-34B Navy trainer has been delivered, six months to the day from the receipt of the contract. Lt. K. G. Fletcher and Lt. Wayne Harrison accepted the plane for the Navy at Beech Field, Wichita, Kans.

The T-34B seats two persons in tandem. Its cruising speed is reported to be 150 knots (173 mph) at 60% of its rated power at 10,000. Its maximum cruising range is 845 nautical miles.

Powered by a 225 hp Continental engine, the T-34B incorporates retractable tricycle landing gear with steerable nose wheel. The trainer has features for other requirements.

It has a flight safety factor of 10, considered high for this type of airplane. It will go into service at NAS PENSACOLA, within a short time.

FIERY 'SAUCER'S' ROLE IN RESEARCH

A FIERY "saucer" of flame hovering in a specially-designed vacuum chamber may hold the key to tomorrow's faster jet engines or better furnaces.

Continuing man's thousands of years long search for ways to build a better fire, scientists at the Westinghouse Research Laboratories, Pittsburgh, Pa., have produced flame in the shape of a flat disk.

The "saucer" of flame makes it possible to measure more accurately the exact temperature at all points of the flame. The ordinary cone of flame like that from a burning candle cannot be as accurately measured.

"How to maintain fire in a small space so as to liberate the most energy is what we want to find out," explained Dr. Raymond Friedman of WRL. "Such knowledge is important to any combustion process, particularly in jet engines, gas turbine power plants and similar applications.

"Our search is for the fundamental knowledge hidden in the flame we all take so much for granted. Where is the fire burning most intensely? What changes can be made to make the flame burn even more intensely?"

The disk-shaped flame being experimented with by the Westinghouse scientists is produced in a specially-designed vacuum chamber in which pressure can be varied from that found at sea level to 65,000 feet altitude. The flame has the characteristic of being stationary and suspended in mid-air above the burner.

At the maximum altitude mark, it has been found that a flame nearly an inch thick and about 10 inches in diameter will burn evenly in its horizontal position.

A movable thermocouple—an extremely minute platinum and rhodium wire half a thousandth of an inch thick—is used to explore the flame. Such a fine wire is necessary to avoid disturbing the flow of gases through the flame. A recording device is connected to the thermocouple, automatically measuring the temperature variation as the wire is shifted.

By making a mathematical analysis of the temperatures and measurements of the "saucer," it is possible to deduce the size of the zone where heat is



FRIEDMAN SHOWS PILOT MODEL BURNER

being liberated. Also, the intensity of the heat release in this particular zone can be determined.

The conventional conical-type flame was abandoned for these tests, because it was difficult to trace the movements of the thermocouple through the cone; furthermore, complications are introduced by the curvature of the cone.

In Dr. Friedman's opinion, detailed knowledge of the "physico-chemical mechanism" of the combustion process gained in these tests will assist engineers to grapple more effectively with the problem of developing better combustors.

In jet aircraft, he pointed out, it is necessary to burn a mixture of hydrocarbon vapor and air as completely and in as small a space as possible to get best performance at extreme speeds and altitudes.

And jets are not the only devices to benefit from these tests. Scientists and engineers agree that the new flame data may well suggest ways of improving the design of a variety of equipment, ranging from engines for blast-furnace blowers to small household heating systems.

IFR-IQ?

How often are position reports required when flying above 17,200 feet on an instrument flight plan?

Answer on Page 32.

LETTERS

SIRS:

Who committed the *faux pas* on the IFR-IQ question? (January 1955) If that is the manner in which he keeps abreast of civil regulations, he may well wind up before a disposition board!

Effective 10 November 1954, 1000 feet vertical clearance over clouds has been required.

S. W. CANHAM, JR., LT.

You are so right. Trouble is, NANews works ahead about two months, so we received a change in clearance en route.

SIRS:

It may seem
We have steam,
But like as not
That's *Hancock's* pot.

J. E. TILLEY, JR.

USS ESSEX

Editor: Catapult officer of USS Essex calls attention to page 37, December 1954 issue of NANews and we can only say—

You're right, we're wrong,
That's *Hancock's steam!*
The staff, it seems,
Was off the beam.
We now await
The whole darned team—
The yet unheard-from
Hancock's scream!

Steam 'Cat' for British CV Ark Royal First of Five Outfitted

Britain's latest aircraft carrier, HMS *Ark Royal*, will be the first ship in the Royal Navy to use the steam catapult operationally.

The *Ark Royal*, which is expected to be ready for service shortly, is the first of five carriers to be outfitted with the new catapult. Similar catapults will be fitted in the light carrier *Hermes*, which the British are building, and in the older 23,000-ton *Victorious*, now being modernized.

The carriers *Majestic*, being built for the Australian Navy, and the *Bonaventure* being built for Canada, will also be equipped with the steam catapult.

All Royal Navy operational carriers will eventually have their hydro-pneumatic catapults changed to newer type.

IFR-IQ?

"Maintain listening watch on CAA frequency and report to CAA radio at least every 60 minutes or 200 nautical miles, whichever is lesser, over fixes named in flight plan and as required by ARTC."

Ref: Radio Facility Charts and In-Flight Data, United States, 6 January 1955, Page 218.

Watch Averts Collision Marine Prevents Mid-Air Accident

Marine Private H. E. Creamer prevented a mid-air collision between an FJ-2 *Fury* and a Beechcraft recently in what he termed "just a part of the routine."

He had the wheel watch at MCAS CHERRY POINT when the jet and the prop job both decided to use the same stretch of runway for a touchdown at the same time. Each pilot was completely oblivious of the other. Creamer fired a red flare to warn them that something was amiss. Both pilots broke off, circled the field and came in at the proper interval.

Just a few days before Creamer had prevented two pilots from making wheels-up landings. When he got a write-up in the station paper for his feat, he said, "Gee, all I did was stand a watch and fire a warning flare."

● The USS *Essex* (CVA-9) is on her fourth tour of duty in the Far East since recommissioning in early 1951. She served 17 consecutive months combat duty in WW II, a record for cv's.



WOW, THAT SURE WAS SOME PULLOUT!

CONTENTS

Escape and Evasion	1
Underwater Ejection	11
Recognition	12
Carrier Landing	16
Rotochute	18
Test Pilot School	20
Sea Stories	22
Reserves	24
New TV Tube	26
Mars Record	27
Survival School	28
Fiery Saucer	31

● SUBSCRIPTIONS

Naval Aviation News is now available on subscription for a \$2 check or money order made payable to Superintendent of Documents, Government Printing Office, Washington 25, D. C.

● THE COVER

The A4D Skyhawk has a combat radius greater than present propeller-driven attack planes, yet is so small that its wings don't fold for carrier operations.

● THE STAFF

Cdr. Bart J. Slattery, Jr.
Head, Aviation Periodicals Office

LCdr. William A. Kinsley
Editor

Izetta Winter Robb
Managing Editor

Lt. Moriece Gleason
H. C. Varner, JOC
Associate Editors

Cdr. Samuel G. Parsons
Contributing Editor

Doris E. Ingalls
Editorial Assistant

James M. Springer
Art Director

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

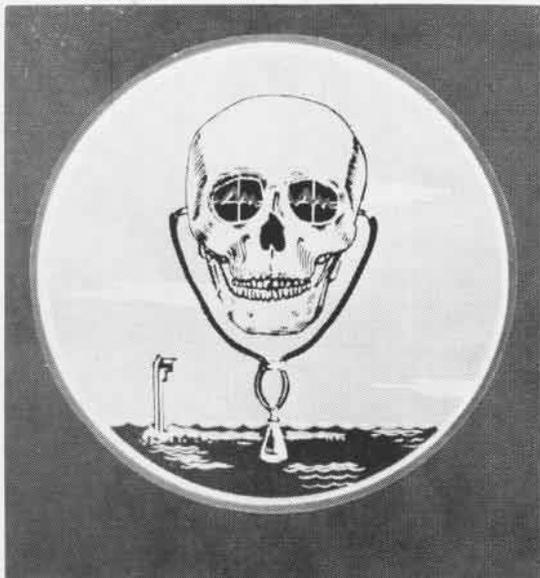


Published monthly by Chief of Naval Operations and Bureau of Aeronautics to disseminate safety, training, maintenance, and technical data. Address communications to Naval Aviation News, Op-05A5, Navy Department, Washington 25, D. C. Office located in room 5E573 Pentagon Building. Phones are extensions 73685 and 73515. Op-05A5 also publishes quarterly Naval Aviation Confidential Bulletin.



SQUADRON INSIGNIA

SPOTLIGHTED in this month's squadron insignia are three of the Navy's anti-submarine squadrons along with one fighter outfit. The mission of Reserve VS-912 is symbolized by the death head and sub detection equipment, which spells death to any submarine menace. Regular squadrons, VS-23 and VS-26, have like missions. The seek-out-and-kill job of VS-26 is depicted by the iron fist and death dealing strike of the diamond-back rattler. VS-23's mission is pictured by the flying eye probing for an undersea raider. Trident, tailhook-carrying eagle is symbolic of VF-43's carrier-based attacks.



VS-912



VS-23



VS-26



VF-43

NAVAL AVIATION

NEWS

A FAMILIAR SIGHT TO CARRIER PILOTS. YOU TOO CAN EXPERIENCE THE FEELING OF MAKING A DECK LANDING. TURN TO PAGES 16-17 FOR A TAILHOOK PILOT'S VIEW OF AN APPROACH AND LANDING.

MARCH 1955

