

NAVAL AVIATION

NEWS

RESTRICTED



Fleet's Test Tube
Day With a Pilot
NavAer 00-75R-3

SEPTEMBER 1951

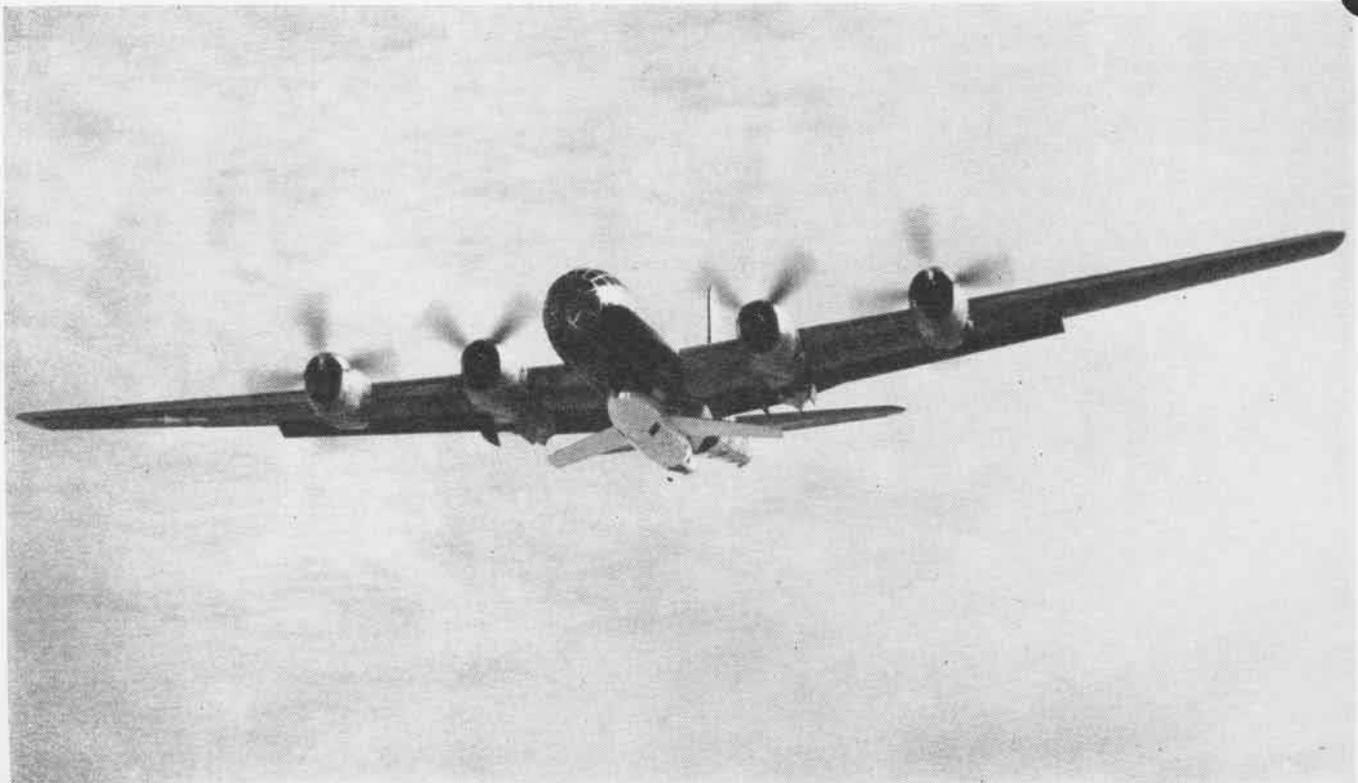
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HIGHEST AND FASTEST

The Navy's D-558-II Skyrocket has flown higher and faster than any piloted aircraft. Description of feat appears on page 12.





FLEET'S TACTICAL TESTERS

PILOTS, MECHANICS and electronicsmen of the fleet, those hardworking gentlemen whose sweat keeps 'em flying against national enemies, imaginary and real, like to operate weapons which work.

Between creative engineers and those gentlemen lies a land of proof. The engineers may be able to load planes with fancy radar gear and make them potent fighting machines, but to prove their worth and develop means of using them in a specialized job.

For that reason the Operational Development Force of the U. S. Navy exists. It is located at the Naval Operating Base at Norfolk, Va.

OpDevFor isn't limited to aviation. It encompasses every type of ship and aircraft of the Navy. Because the surface and air Navy are inextricably entwined in operations, this is logical. In defending the frontiers

of the United States the Navy's mission includes protection against submarine warfare.

OpDevFor must be ready to lend a hand developing air offensive and defensive tactics in assaulting enemy beachheads.

Directing this all-important command is RAdm. F. I. Entwistle. Part of his organization is the air department which coordinates the labors of six experimental squadrons.

Most of the air tasks for OpDevFor are assigned by the Chief of Naval Operations. The job of proving them is OpDevFor's.

Here we will try to dispel a little of the mystery surrounding this command. True, most of its work is of a highly classified nature, but what it does in general and how its work affects every man in the Navy is no secret. Boot and Admiral alike are involved.



JOB OF VX-2 based at NAS Chincoteague, Maryland is to furnish target drones such as these KD2G-2 jet drones carried by F7F-2D



PART OF drone control work at VX-2 involves full-sized airplanes which are controlled from another aircraft, then landed as above

THIS PAST summer has been a hot one in Norfolk. The staff of ComOpDevFor has labored in the heat to meet the challenges offered by improved "gadgets." New tactics imposed by the Korean war have been worked out or are in the process of development.

The Pentagon usually has the reputation for conferences. The occupants of that five-sided building have nothing on OpDevFor, however. Whoever has a problem brings it to the command, and then the wheels start to turn.

Because of the volume of work done, it is imperative that every staff member understand perfectly what is to be done. They must coordinate with every other activity which is to take part in a project. No half-baked ideas are welcome in the command. Too much is at stake—in time and money.

Even the simplest tasks sometimes require a lot of nervous energy and hard work. Take for instance the acquisition of a ship target for aerial strafing, napalming and bombing.

Needed in the area was a target for the above-mentioned purpose. OpDevFor originated a request for such a ship to be beached on Cove Point, Bloodworth Island, in the Chesapeake.

First a ship had to be found. The Navy Yard had an LSFF (Landing Ship Flotilla Flag). It was a stripped hulk which had been damaged and was of no further use as a ship. The Yard was anxious to get rid of it.

Receiving permission to beach it at the island was another

proposition, however. The island was already in use for surface target practice and high altitude bombing. There was delay, and the Yard wanted its hulk removed. After pulling and hauling, the permission was received.

Next problem to solve was—who would take the ship and beach it? Responsibility was thrown to OpDevFor. Ships and crews had to be borrowed to do the towing. Finally, on 24 July the job was done. Now the aircraft working under the command can work up new techniques in bombing, napalming and strafing. AD *Skyraiders*, F4U *Corsairs*, F9F *Panthers*, F2H *Banshees*, AJ *Savages* can now use this small ship as a pinpoint for their destructive firepower.

This project was only a small one facing the command. Its work covers all but the amphibious phases of Navy operations. Air and surface are tied together and made into a smooth fighting team. Naval aviation thus is inseparable from the service as a whole. In operations, in spirit and in command it works hand-in-glove with all parts of the Navy.

It took most of World War II for the need of an Operational Development Force to become apparent. Improved technology, coupled with new enemy tactics to combat, proved the point.

AS EARLY as 1943, a unit was organized to increase the effectiveness of planes and ships engaged in fighting off German and Japanese submarines. The thousands of



IF YOU have a plane big enough, you can lift the Combat Information Center from aboard ship and carry it well toward unfriendly aerial

forces; that's the job of the PO-1W configuration of the Lockheed Constellation transport which is laden with latest types of radar



AIR DEVELOPMENT SQUADRON THREE based at NAS Atlantic City, N. J., works with high speed carrier aircraft such as Pirates,

tons of shipping going to the bottom made it imperative that better methods of stopping the enemy undersea craft had to be developed.

This unit, attached to the Atlantic Fleet, licked the WW II type of submarine by exploiting its weaknesses.

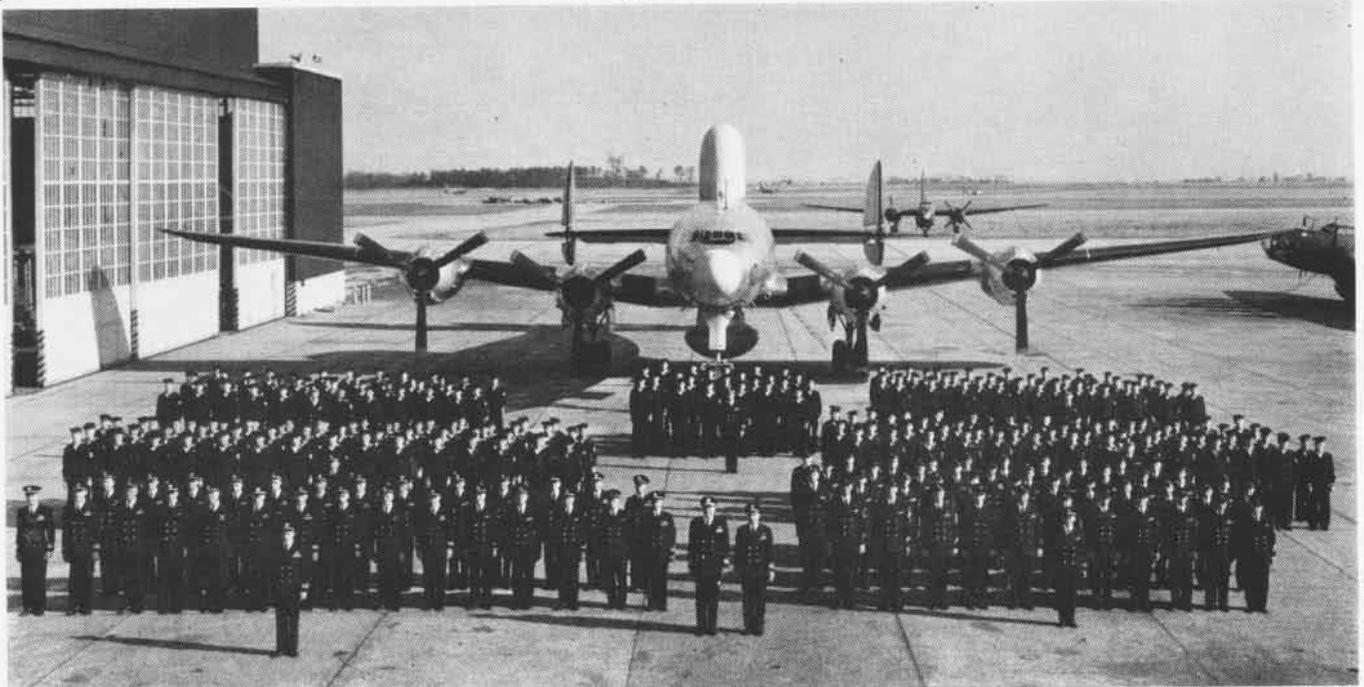
About that time the Jap *Kamikaze* planes began their suicidal dives on Navy ships. To work out methods of stop-

ping them, a task force was organized to develop changes in tactics and fire control to stop these fanatics.

The force was composed of ships, supporting aircraft and drone control groups. In mind during these tests were what might be encountered in the final assault on Japan.

Toward the end of the war, material progress made it necessary to develop systems incorporating all improvements.

where the squadron is in a position to conduct extensive tests on the Navy's Airborne Early Warning equipment and procedures with fleet



OPERATING the PO-1W Constellation is Air Development Squadron Four based at the Naval Air Test Center, Patuxent River, Maryland,

where the squadron is in a position to conduct extensive tests on the Navy's Airborne Early Warning equipment and procedures with fleet



IN PREPARATION, for a night antisubmarine hop, H. S. Bridges, AD2, places plastic dome of 70 million candle power searchlight in place on wing of AD Skyraider attack plane



RICH, AF3, and Staley, AN, of VX-1, prepare D-1 flasher, camera for plane installation

In 1945 it was apparent that the task of development had to be a continuing one. The two existing forces were combined into the Operational Development Force through an order signed by FAdm. E. J. King.

In operating weapons, training is of paramount importance. OpDevFor recommended how best to do this. Thus the command relieved the fleet of much of the necessity of finding out how to use a new weapon, so it could concentrate on training ever-changing personnel.

The Commander-in-Chief of the Atlantic Fleet furnishes whatever ships and aircraft not under ComOpDevFor which are needed for tests. Thus most projects filter from CNO through CinCLant to the command.

Air-wise, OpDevFor controls five heavier-than-air squadrons and one lighter-than-air (blimp) squadron. Tied in closely with the air activity is combat intelligence center development, and antisubmarine warfare. Head of the air department is Cdr. John Hyland.

As a type commander under CinCLant, ComOpDevFor is controlled operationally by him. Technically, the control is from the Chief of Naval Operations. OpDevFor is Task Force 40 of the Atlantic Fleet.

The command is broken up into administration, operations, communications, underseas warfare, air, CIC, material and logistics, gunnery, ordnance, and project coordination departments.

Chief of Staff to Adm. Entwistle is a naval aviator, Capt. J. P. Monroe.

Carrying out the air phases of the command are a number of development (experimental) squadrons: VX-1 at NAS KEY WEST; VX-2 at NAF CHINCOTEAGUE ISLAND, MD.; VX-3 at NAS ATLANTIC CITY; VX-4 at NAS PATUXENT RIVER, MD.; VX-5, newly formed and not yet operating on the west coast; ZX-11 at NAS KEY WEST.

VX-1, commanded by Capt. E. W. Parish, Jr., utilizes the mild climate of the southern tip of Florida to develop anti-submarine tactics and evaluate new equipment along ASW lines.

At least one of almost every kind of ASW plane the Navy operates is assigned to VX-1. There are TBM's, AF's, AD's, PB4Y's, P2V's, PBM's, PBY's, R4D's, SNB's, HO4S's, HRP's and HUP's. A sampling of these aircraft is shown in the picture on page one.

Closely tied in with the ASW work at Key West is that

of ZX-11, the airship squadron. Skipper is Cdr. D. L. Cordiner.

A continuing project there is air and air-surface development in tactics and equipment against submarines. Other projects tied in with this basic one deal with evaluation of specific planes, helicopters and airships in ASW work. Snorkel detection through various radars is tested. Sonobuoys, magnetic airborne detectors and torpedoes are tried out. All this activity requires coordination of submarines, surface ships and aircraft stationed at Key West.

Shooting down attacking planes is a major problem of the Navy, so training pilots and ships' gunners to do this is a major activity of the fleet. To help improve this training and develop new methods of doing it is the job of VX-2 at lonely NAS CHINCOTEAGUE.

Under Cdr. T. W. Hopkins, the squadron tries out all kinds of aerial targets for ships' gunners and pilots to fire at. Drone aircraft are flown from the station and shot down from the sea and air. New winged targets which can be towed fast enough for jet aircraft to shoot at are being evaluated. Other projects include a new multichannel UHF communications transmitter-receiver, a drone autopilot and a mobile drone control unit.

For carrier aircraft new tactics must be developed constantly. VX-3, commanded by Cdr. N. A. M. Gayler, takes all presently operating carrier aircraft and those which will soon be operational, and works out gunnery and bombing techniques with them. Another important phase of the work is all weather flying. All AWF surface and air equipment is tested. Many of these operations are conducted with aircraft carriers operating at sea.

Tactically, VX-3 works with the CIC department of OpDevFor. High altitude intercepts are made with surface direction. Other projects deal with aerial minelaying, air-to-air rocket firing against drones, firing against surface targets and proving the effectiveness of these weapons.

Airborne CIC is the preoccupation of VX-4. Under Cdr. A. F. Fleming, the squadron operates Boeing PB-1W's, and Lockheed PO-1W's. Radar is the key to all activities of these planes with their highly complex installations. ZX-11 is also interested in airborne CIC.

The CIC department sticks its finger into the activities of almost every squadron. Its primary interest is fighter direction, however. Continuous work is done in developing



AS THE fleet's extended "eyes" the airborne CIC's have many problems to lick; the old B-17, renamed the PB-1W in the Navy, is the flying

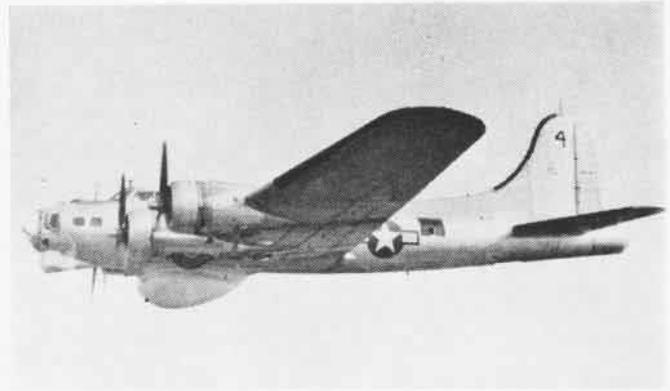
high altitude, high speed intercepts. With today's planes coming in fast, the problem of picking up enemy aircraft early is of paramount importance. Part of the solution lies in placing pickets, aerial and surface, at extended positions where early warning can be sounded.

Planes used in CIC development are F9F's, F2H's and Air Force B-45's, all high-speed aircraft.

CIC works out procedures for controllers and pilots. A naval application of the omnirange-DME system of navigation is being investigated. For aerial rendezvous and landings in poor flying weather this system holds much promise for the naval carrier pilot. Omni-DME, with its positive means of locating an aircraft in distance and bearing from a surface installation without recourse to the usual complicated surface control organization, has excited the imaginations of development personnel.

With the myriad of projects coming into OpDevFor, there must be somebody who sees that they are funneled to the proper people for action. That's the project coordinator's job. He is Capt. A. O. Momm. Working closely with all departments too is the operations officer, Capt. O. E. Hagberg.

OpDevFor is not concerned with research. Only after a piece of equipment has been produced, either the first model or the production model, does OpDevFor step into the pic-



test bed for many test installations; the two shown here incorporate radar antennas which can look up (left), cover sea surface (right)

ture. It is tested for suitability, seaworthiness and airworthiness, under actual service operating conditions when manned by average service personnel. Such a program can be compared with the road testing of automobiles. Weak points are corrected before going to the fleet units for full scale utilization, and full capabilities are exploited.

Ideas for projects come from material bureaus of the Navy whose engineers, civilian contractors or laboratories have transformed an idea into a piece of equipment. Or the commander of a ship or squadron may want tests made on a new technique of operation or he may want to try out a tactical problem. Requests are made to CNO by these activities and from there the projects are assigned to OpDevFor.

Only by testing tactics and equipment in minute detail can money be saved. Installation of equipment on board ships and in aircraft cannot be made until it is known whether it will do the work for which it was designed. A fault discovered after installation would be costly.

Some projects are completed in a short time; others are continuing in nature, such as ASW.

You don't have to walk far in a squadron or aboard ship until you see the results of OpDevFor's labors. From rubber bunk mattresses to the guppy antenna pod on an airplane, the command has proved its worth through evaluation.



AT BALMY Key West, Florida, Air Development Squadrons One and Eleven (VX-1 and ZX-11), coordinate work of airplanes and air-

ships in every phase of antisubmarine work, testing material, tactics against the underseas craft in conjunction with surface Navy units



GRAMPAW PETTIBONE

A Missing Wrench!

A student pilot in an F8F-1 completed three slow rolls in each direction during an authorized period of acrobatic practice. He then executed another slow roll to the left. The F8F ended this roll in a slightly nose high attitude with the left wing down and *with the ailerons locked.*

Unable to move the stick sideways, the pilot found that he could keep the left wing up fairly well by using right rudder. He informed his instructor of his difficulty and was told to test the plane's handling characteristics at 8000 feet.

With wheels and flaps down, he found that he could control the plane by using an excessive amount of right rudder, and that he could take a wave-off only if he advanced the throttle very slowly. He decided to attempt a straight-in approach to runway eight at Cabanis Field.

During the return to the field, the tower was notified of the emergency, and the pilot was instructed to try moving the stick fore and aft with rapid movements in an attempt to break the ailerons loose. (This advice was based on the assumption that some foreign article had become lodged against the aileron controls and might be shaken out.) The pilot tried this but reported that he was still unable to get any side motion.

About two miles from the field while at 3000 feet, the pilot slowed the plane to 140 knots and lowered his landing gear. Additional right rudder was required to hold the plane level. A slow let down with about 20-22 inches of manifold pressure was started.

At an altitude of 400 feet and about $\frac{3}{4}$ of a mile from the field, the pilot was instructed by the tower to hold altitude. He added a little more throttle. The added torque caused the left wing to drop to such a degree that it could not be held up by rudder pressure. The plane was also skidding to the right of the runway heading. The pilot realized that he would have to reduce power and land short of the field.

He heard the tower tell him to raise his wheels but was too busy at that moment to reach for the gear handle. The F8F slipped into the ground on the left wing while turning slightly to the right. The wing tip hit first followed by the left landing gear which broke on con-



tact with the plowed surface. After sliding for about 120 yards on the right gear and left wing, the plane nosed up. The pilot was wearing a protective helmet and his shoulder straps and safety belt were tight. He was not injured.

Subsequent investigation revealed that an open-end wrench, 12½ inches long, had been left in the starboard wing center section when a landing gear rework had been performed by O&R personnel a week earlier.

Indentations and scratches on the aileron push rod assembly showed that this wrench was the cause of the jam.



Grampaw Pettibone Says:

So the surgeon carefully closed the incision, leaving just one large pair of forceps inside the patient!

Jeeppers, you'd think that a mechanic would miss something as big as a 12" wrench. This particular tool had been especially fabricated by the O&R to accomplish the removal and installation of the F8F-1 landing gear trunion assembly at the attaching bolt in the wing center section. Had the mechanic counted his tools, this would have given him a mighty good clue as to where to start looking for the missing wrench.

Maybe he thought that it would be easier just to order a replacement! When you make any repairs to an airplane, someone's life depends on the quality of your work. You've got to be a perfectionist. When you're satisfied that you've done the job exactly right, count your tools before you sew up the patient.

Pump Brakes Before Landing

Recently the pilot of an AF-2W returned from an instrument flight and made a normal landing and roll-out. He applied port brake to turn off at a taxi strip, and a second later applied starboard brake to slow his rate of turn. He discovered that he could obtain no braking action on the right wheel either by pumping the brake or by a steady pressure. By this time he was on a collision

course with some parked aircraft, and therefore intentionally groundlooped his plane to the left. At the completion of a 270° arc, the starboard elevator of the AF-2W engaged the folded right wing of one of the parked planes.

When the pilot climbed out of this plane to see what damage had occurred, he noticed a pool of hydraulic fluid had formed at the right wheel and found fluid dripping from the wing aft of the wheel well. Immediately prior to this flight a new starboard brake assembly had been installed. The universal attachment fitting which attaches the brake line to the brake had evidently come loose in flight. This fitting has given some previous trouble and an RUDM has been submitted.



Grampaw Pettibone Says:

This fellow used his head when he discovered that he had no right brake. By groundlooping to the left he avoided a head on collision with a group of parked planes.

However, there's a lesson for all pilots in this accident. Had the pilot tested his brakes while in the landing circle, he would have noticed that he had no pressure on the starboard brake. He could then have planned his landing and roll out so as to avoid a congested area.

Get in the habit of pumping your brakes a bit just before landing. It doesn't cost anything, takes only a second, and it may prevent a serious collision.

Congratulations to VF-194

Fighter Squadron 194 is the proud possessor of the ComAirPac VF Safety Award for the third quarter of fiscal 1950. From 1 January to 31 March of this year 5115 accident-free hours were flown in F4U-4 and AD-type aircraft. The squadron has since had another quarter without mishap.

A total of 8987.6 hours including 443 carrier landings on the USS *Sicily* (CVE 118) were flown between 1 January and 1 July. The record was established in a period when the type aircraft was changed from *Corsairs* to *Sky-raidors*, with no change of maintenance personnel.



Rest in Peace
Young Ensign Sneed
Dive brakes would
Have cut your speed.
You really were
A darn good flier
Too bad you didn't
Pull out higher.

Cranial Concussions

The crew of a P4M-1 got a rough jolting in a recent near accident. The plane was being used for instrument instruction and the instructor looked up from the instruments to see a TBM approaching on a head-on collision course. Closing speed was estimated at better than 300 knots, so the instructor in the P4M-1 grabbed the yoke and pushed forward, diving beneath the TBM with only a few feet of separation.

The sudden pushover threw everyone in the plane against the overhead except the pilots who had their safety belts and shoulder harness fastened. Two of the nine crewmembers were hospitalized with the diagnosis "cranial concussion".

Evidently the TBM pilot did not see the P4M-1 as he made no alteration of course to avoid the collision. The incident happened so suddenly that no one was able to get the number of the TBM. The engineering department made a very thorough check of the P4M-1 upon return but reported that there was no damage to the plane.

 *Grampaw Pettibone Says:*

The visibility was so good on the day that this happened that the instructor decided that a bow turret lookout was unnecessary. I'll bet that he uses a forward lookout from now on.

Incidentally, the squadron lookout-doctrine was revised as a result of this near mid-air collision. It was determined that the best position for a forward lookout was a position standing between the two pilots. This affords slightly better visibility than is available in the bow turret.

The Powerful Panther

During recent qualification exercises aboard the USS Essex an F9F-2 defied all the accepted basic principles of flight and performed a feat that would win a bet from any aircraft designer.

The pilot made a normal approach, took the cut, and pulled his nose up slightly before easing over towards this deck. The resulting rapid rate of descent caused a slightly hard landing, and the

plane failed to catch a wire. Instead of holding the nose of the F9F down so that it would go into the barriers, the pilot lifted the plane to a flying attitude and it became airborne.

As soon as he realized that he was flying, the pilot applied full power. By this time, however, he was low enough for his hook to engage the nylon tape of the Davis barrier and carry it away. Part of the tape wrapped itself around the hook.

Forward of the barrier one F9F was being taken below on the #1 elevator and another was waiting for taxi instructions to the port catapult.

The pilot who had taken the wave-off saw that he was about to hit the parked plane and pulled back on the stick. His attitude was so nose high that he settled and crashed into the other plane. His starboard wing tore off the vertical stabilizer, while his starboard gear dragged through the after part of the fuselage. His port wheel hit the canopy and was sheared off by the armor plate.

Miraculously the pilot of the parked plane was uninjured. He was sitting with his seat all the way down. The canopy was smashed all around him and the armor plate had absorbed a gash nine inches long and half an inch deep.

The other F9F continued on over the bow and leveled off inches above the wave tops. With the barrier tape dragging in the water and the jet blast leaving a noticeable wake, the pilot was able to effect a recovery.

The ship was 90 miles from the beach and there was some question as to whether the pilot had sufficient fuel to get there, especially since he was unable to retract what was left of his landing gear and flaps. Consequently he was ordered to make another pass and land on board. This time the deck was cleared of all planes and a line of mules and tractors was set across the flight deck just forward of the barriers.

YOU AIN'T HEARD NOTHING YET!

On this pass the pilot was slightly fast

because part of his flaps and his port wheel had been carried away on the first landing attempt. He took a cut and eased the nose over. The plane made a reasonably satisfactory landing on the starboard wheel, nose wheel and port tip tank.

The hook did not pick up a wire nor did it drop the fouled tape. Once more the pilot pulled back on the stick and became airborne. This time what was left of the gear and the hook missed the barriers, and the pilot applied full power. The F9F then settled into the line of mules, loosing his nose wheel and starboard landing gear on this impact. This slowed the plane enough to make it settle to the deck on its belly.

The plane skidded up the deck for about 300 feet and then off the bow. This contact with the deck tore off the remaining flap and damaged the tip tanks and the underside of the fuselage. It did not kill the airspeed, however, and the pilot made a recovery before hitting the water.

While the ship was trying to decide what to do next, the pilot called this masterpiece of understatement over the radio: "THIS IS BECOMING A RATHER RUGGED FLIGHT!"

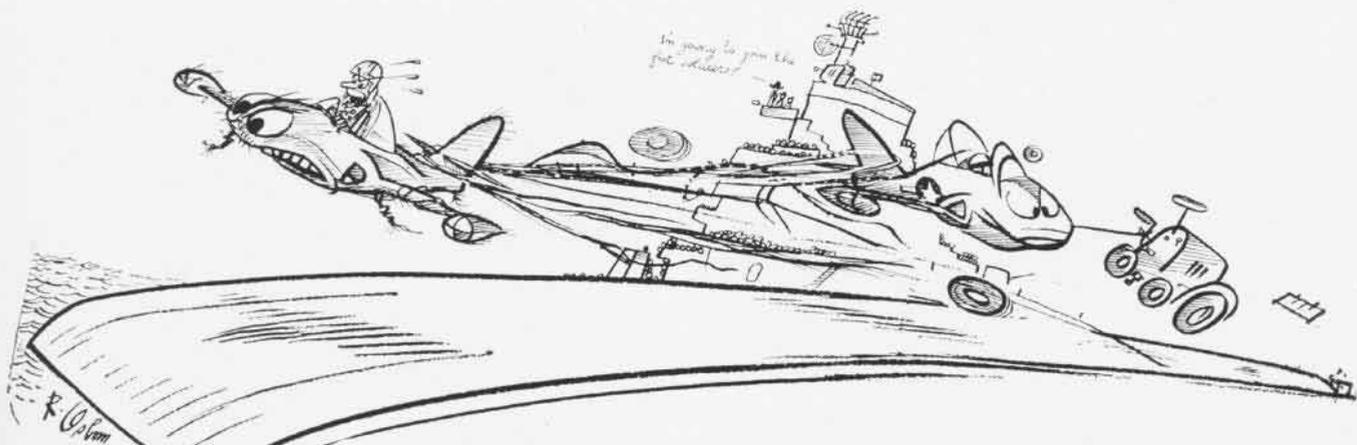
The pilot was ordered to try to make it to the beach and an escort was launched to fly his wing. About 20 miles from the beach he ran out of gas and had to ditch. The pilot was picked up uninjured by a nearby destroyer which took him to port.

 *Grampaw Pettibone Says:*

Don't say it can't happen. They sent pictures to prove it.

The cost of this unusual "performance test" was slightly over a million dollars, and I hear by the grapevine that the pilot has decided that he is in the wrong racket and doesn't give a hoot about ever trying another carrier landing.

The lad who was sitting in the parked plane is said to be a full two inches shorter than he used to be . . . seems that he shrivels-up a little bit more each time he thinks of what a close call he had.





STREAMING GASOLINE FROM THEIR TIP TANKS, TWO PRINCETON F9F'S PREPARE TO ENTER LANDING CIRCLE WHILE OPERATING OFF KOREA COAST

KOREAN AIR WAR

Looping on Trim Tabs

Skill in navigating his damaged plane helped save the life of Ens. Marvin Nelson, a *Boxer Corsair* pilot, when it was hit by enemy fire 30 miles behind the Korean lines.

With his controls shot up, he headed for the coast flying on his trim tabs alone without the use of his stick or rudder. He was forced to maneuver in small circles, gradually enlarging them until he reached Wonsan harbor.

Meanwhile Lt. (jg) Bill Teague, who came down from Songjin when he heard of Nelson's distress, had radioed the controller at Wonsan for a helicopter.

With his flight leader, Lt. (jg) Dominic Dimatteo, issuing instructions, Nelson did a complete loop in his damaged

plane over the harbor before he finally was able to bail out safely.

Almost immediately the windmill was over him and soon he was safe aboard ship. "I'm still amazed at his coolness," declared Teague. "I could see him inflate his Mae West just before he dropped into the water. The only thing which he seemed worried about was how he was going to save his plotting board which he borrowed from me earlier.

"I told him to 'throw it over the side and get the hell out of that plane!'"

First F7F 'Kill'

A Marine night fighter racked up two firsts in the Korean war when he shot down an enemy biplane at night. It was the first enemy aircraft destroyed by an F7F, and it was the first nighttime

"kill" of a Red plane in Korea.

Winner of the honor was Capt. Edwin B. Long. Northwest of Seoul over U.N. territory one night, Long found an enemy plane in his sector. His radar operator, Warrant Officer Robert O. Buckingham, spotted it on the scope.

The plane turned out to be an old black-painted biplane. When the enemy came into view, Long made a pass at it, but the antique biplane was so slow he overshot the mark. A man in the rear cockpit of the plane fired a burst at the *Tiger* with a hand-held burp gun but scored no hits.

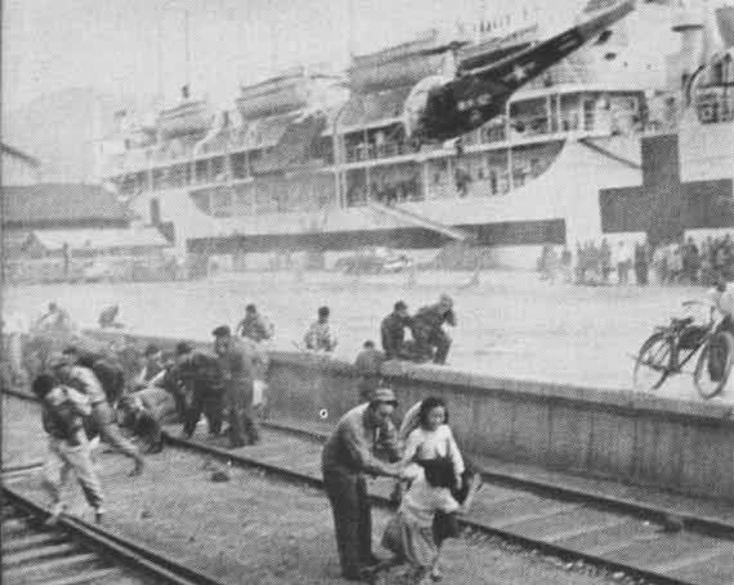
Long made two more passes, knocking the Red plane down with his 20 mm cannon. The F7F was built in closing days of World War II but did not see

CRUISER *Los Angeles'* helicopter crashed on deck with LGen. Jas. A. Van Fleet and RAdm. Arleigh A. Burke, ComCarDiv 5, aboard it



LGEN. VAN Fleet and RAdm. Burke joke with Capt. McFarlane, skipper of *Los Angeles*, after helicopter crashes on cruiser's deck





FRIGHTENED by the downdraft from helicopter rotors, South Koreans at dock scurry as 7th Fleet pinwheel lands beside hospital ship



NAVY CORPSMEN in Korean mountains rush wounded to rescue helicopter; note men holding pinwheel against mountain wind's gusts

tion in that war. Marines have been using the swift twin-engine fighters for night operations in Korea.

Soup For Cold Hands

When the *Princeton* was operating off Korea, the weather often was cold and flight deck operations underway proved a chill ordeal for crewmen, despite the warmest clothing possible.

Capt. William O. Gallery okayed an idea by Cdr. E. J. Bryant, supply officer, to install a soup kitchen in an officer's washroom amidships of the superstructure and just off the flight deck. Two large steel cooking vats were brought up from the storage room and placed in the area.

The kitchen was a success from the beginning. Men who had huddled in the narrow passageways to escape the intense cold winds off the Sea of Japan before or after flight operations, availed themselves of the kitchen.

The "energy soup," as some of the men called the stimulating food, has been a big morale factor. Often men would put in 15 hours a day or more, thanks to the warming help of the kitchen.

Coffee also is offered by the kitchen. As a change of pace, from day to day, chicken noodle, vegetable beef and tomato soups were made in the hot vats. The kitchen was open 24 hours a day except during eating hours and general quarters.

Operator of the flight deck café is Charles A. Hubbard, commissaryman, third class, a cook in civilian life. During hot weather iced tea and lemonade were served.

Bundles for Korea

Hearing how desperately South Korean children and grownups were in need of clothing, Air Group 19 squadrons aboard the carrier *Princeton* did a little collecting and sent many "Bundles

for Korea" off via air transport for the needy people.

James H. Sherrod, ATC, appointed himself chairman of the "drive" after he had heard about the Koreans suffering from exposure. With the assistance of J. Ralph Pittillo, Jr., ATC, and Ernest F. Harris, ADC, a committee was formed to collect the clothing.

Enthusiasm carried throughout the squadrons and soon a pile of shirts, trousers, long underwear, sox and shoes grew. The committee drafted Chaplain G. J. Enyedi to arrange transportation for the 48 bundles, weighing more than 1,000 pounds.

A plane delivered the clothes ashore, where it was distributed by the Presbyterian mission in Taegu. In the accompanying photo, men loading the clothes in the plane are L. M. Scalzi, AT2; Lt. R. N. Atkinson, flight deck officer; Chaplain Enyedi and Sherrod.

Sailors Aid Orphans

It's Christmas every day for 150 war orphans of the Vinygasa orphanage in Japan, thanks to sailors of the naval air facility at Yokosuka.

Last Christmas the orphans visited the facility and received gifts, each being assigned a "father" for the day. Everyone had a good time, the children were overjoyed and the men so impressed by the friendliness of the little tykes in their impoverished state that they voted to keep on the job of keeping the 150 orphans happy.

Each payday, twice monthly for Navy men, a large box is placed at the end of the payroll for the men to donate yen or dollars for support of the orphanage. Contributions averaged more than 50,000 yen. Lt. W. D. Surgeon, the welfare officer, collects the donations, converts military script to yen and turns the money over to the orphanage. In addition to the money, many sailors have had their families send clothing too.



PRINCETON'S ship's cook Hubbard passes out hot soup to warm chilled flight deck crew



CLOTHES FOR needy South Koreans being loaded aboard TBM on deck of *Princeton*



JAP ORPHANS aided by NAF YOKOSUKA Navy men play with Yeoman W. E. Miller



'BREAKING UP Housekeeping' reads sign on a 1000-lb. GP pushed by Boxer's Escobar, AO3

Three Times Is Enough

"I'll sure be glad to see next month roll around!" exclaimed 1st Lt. L. L. Harpe, as he successfully made his third forced landing in one month.

One AA burst forced him to ditch his plane in North Korean waters. He was picked up by a Navy helicopter a few minutes after he hit the water.

Lt. Harpe was hit again by AA fire. This time he made it back to base with a disabled hydraulic system.

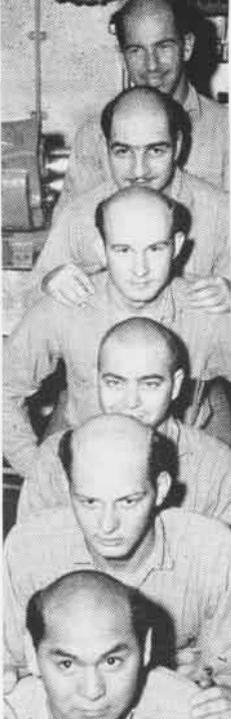
He was hit for the third time while his flight was on a strike in close support of Army troops.

With only about half power, he nursed the *Corsair* to within sight of his base when the engine quit. He glided the rest of the way and made a "dead stick" landing.

Nightfighters' Matinees

For hard-flying First Marine Aircraft Wing nightfighter-bomber pilots in Korea, there is little recreation. They sleep most of the day and prowl the black skies all night, preying upon Com-

USING JATO for takeoff, a British Sea Fury plane begins running down the deck of light fleet carrier, HMS *Glory* in Korea waters



BOXER'S repair division men Johnson, Bataille, Elder, Alcock, Carnes and Oliver

munist truck convoys and troop concentrations.

This sad state brought about an innovation. Matinee performances of current movies are given for the benefit of pilots and crews who spend the nights at honest toil.

Saves 34 Men in Day

A few days before he left Korea to be discharged, 1st Lt. George A. Eaton, a Marine helicopter pilot, set some kind of a battlefield record by evacuating 34 casualties from mountainous North Korea in one day.

He would have done better but fog held him down until midday. Hopping from a wind-swept mountain ridge to rear-area first aid stations, Eaton carried out three wounded his first few trips. The tiny Bell helicopter had a rough time carrying this load, and he came close to crashing in the mountains, so he cut the load to two.

He made his first deliveries to a station 17 miles behind the front, but later in the day he found an aid station



ONE-DAY record for helicopter rescues is set by 1st Lt. George A. Eaton, who saved 34

five miles away and began taking his wounded men there.

After he had evacuated 32 Leathernecks, he felt he was through for the day. He was exhausted, and the helicopter was out of fuel. But someone dug up a five gallon can of gasoline and Eaton took off again, returning with two patients.

He made his final landing after darkness blanketed the dry river bed he was using for a landing field.

Not for Kids

Fiving is not for kids' play—particularly in the Marine *Panther* jet squadron where the average age of pilots is 30.1 years.

Jet flying, long considered a young man's field, is in the hands of older and more experienced Marine pilots during the squadron's combat action in Korea.

The ages of the flyers range from 20 to 37. Grand daddy of the Leatherneck jetsters is 1st Lt. Merle C. Davis, and the youngster is Lt. Danny Johnson.

BRITISH aircraft repair ship HMS *Unicorn*, a converted carrier, operates with UN fleet off Korea, can land and launch aircraft





DOWN IN the crowded CIC room of the carrier *Princeton* off Korea, RAdm. R. A. Ofstie debriefs pilots back from an air strike



SOUTH KOREANS are more interested in cameraman than Navy helicopter from New Jersey, forced down when it ran out of gasoline



PROUD OF CAG-19's Korea war record aboard *Princeton* are group's leaders Carlson, Cravan, Van Meter, CAG; Parker, Riley and Bruce



METALSMITH M. C. Marshall flew off *Boxer* to land base to repair a flak-riddled *Skyraider*; Pilot W. E. Sullivan eyes piece of it

Buzzin' Cousins

If you can't drop bombs on the enemy troops, scare them to death was the technique used by two Memphis Navy pilots who ran out of ammo in Korea.

Lts. (jg) Dewey Froseth and John Carney, Jr. were flying *Corsair* fighters in close air support of hard-fighting soldiers north of the 38th parallel. Two regiments of stubborn enemy troops were dug in on a ridge.

The carrier-based planes screamed to the attack, dropping napalm and frag bombs and following up with machine gun strafing. The attackers were so close to American lines dirt from the bomb explosions fell on the bright red panels marking the friendly troops.

When the Communists still gave the Americans trouble, Froseth and Carney made several dummy runs at the request of ground controllers. Under cover of these fake attacks, U. S. troops advanced.

Dive Bombing Jets

Marine aviators began the technique of dive bombing about 24 years ago. With the advent of the jet, there has been little if any change in their style.

After several months of operating their first jets in combat in Korea, the Leathernecks of the First Marine Aircraft Wing have found that the F9F *Panthers* are fine dive bombers. Carrying bombs, rockets and machine guns, the sleek fighters daily seek out the Communists and employ the same close support tactics the Marines have long been noted for.

Squadron commander, ICol. John F. Kinney, is convinced that the jets are even better than some dive bombers he has flown. "They have no propellers, therefore no torque, to pull your sights off the target," he says.

Because of their greater speed, the jets are capable of flying more strikes per plane against the enemy than their

slower propeller-driven counterparts—it takes them less time to go to and from the target area.

Disappearing Target Hit

Two Marine flyers rocketed the bridge that wasn't there and wrecked it.

Searching a well-travelled road in central Korea, 1st Lt. G. H. Dodenhoff and 1st Lt. Willard C. Olsen, noted that the highway ended at a wide, deep river.

Across the river was another road, undoubtedly well travelled. The two pilots flew back for a closer look.

Below the water they saw a bridge—deep enough to be hidden from most aerial observation and shallow enough to allow trucks and other vehicles to travel over it.

The flyers decided to sink the "sunken" bridge.

Four well-placed rockets blew out two sections of the submerged river span.

SKYROCKET SETS SPEED RECORD

THE LONG silence which has veiled operations of the Navy's three D-558-II *Skyrocket* research planes was broken recently when the Navy announced one of them had attained the highest speed and altitude recorded by a piloted airplane.

No announcement was made as to the exact speed and altitude but speculation placed them as well over 1,000 mph and 63,000 feet. The plane was carried aloft in a B-29 mother plane (see inside front cover) and released at 35,000 feet. Powered solely by a rocket engine, its jet engine having been removed to provide more space for rocket fuel, the plane was flown by Bill Bridgeman, Douglas Aircraft Co., test pilot. He is a former Navy combat pilot in VB-109, VP-21 and VP-22.

The *Skyrocket* originally took off under its own jet power from the ground and flew to altitudes where its rocket engine was most efficient. When it exceeded the speed of sound easily, it was decided to remove the jet, install more tanks and air-launch the plane to make further research flights at still higher speeds. It is necessary for the plane to operate in the upper atmosphere where air is thinner and fuel capacity permits higher speeds. A ton of propellant is used each minute by the rocket engine's four tubes.

A nine-man Douglas flight unit occupies the B-29 on test flights. The rocket ship is coupled into the bomb bay of the mother ship. The pilot enters the cockpit of the *Skyrocket* shortly after takeoff, prior to attaining altitudes where he will require auxiliary breathing oxygen.

Two conventional jet planes act as



BRIDGEMAN TALKS WITH RADM. THOS. S. COMBS

observer aircraft for as long as they can remain near the rocket plane. On reaching altitude, the pilot of the B-29 electrically releases the rocket ship, much as a bomb is released. The *Skyrocket* drops away in a level attitude, with power off.

The pilot then turns on the rocket-firing switches and begins a high-speed climb. At the proper altitude, he levels off and accelerates to maximum speeds consistent with the altitude at which he is flying and with the limitations of the fuel supply. When the fuel is exhausted, the pilot executes a spiral descent and lands at 180 mph deadstick upon Muroc desert lake bed. Considerable important data is recorded by instruments and by the pilot in a few minutes of sonic flight.

Three *Skyrockets* were built by Douglas, one of which is being flown by NACA with jet-rocket power plants in stability and control research tests. NACA is scheduled to assume control of the D-558 flight program after final high speed air launch tests are conducted by Douglas for the Navy.

Bridgeman reported that he encountered some buffeting at the highest alti-

tudes and noted a tendency to "fight" the pressurized suit he wore, which had "windshield wipers" to clear fog from the face plate. He experienced no black-outs, although he began his 180° turn to return to Muroc at his highest speed. He could not estimate the diameter of his turning circle at this speed.

Biggest tendency while flying is to "red out", he said. This is caused by negative G's in going into dives, which forces blood into the head. The D-558-II has made 60 flights from the ground using its jet engine to get to altitude and 10 flights from the B-29.

Bridgeman said no icing troubles were encountered because flights were steered away from cloud areas. One of the difficulties encountered was with communications since at the high altitudes "everything in Southern California can't hear on the radio." Although landings were at 180 mph, no trouble was met with the swept-wing craft. Care was taken not to make any cross-wind landings, however.

VR-3 Receives Safety Award Flew 12,500 Hours Without Accident

For flying over 12,500 accident free hours between July and December 1950, Air Transport Squadron Three was presented the "Meritorious Achievement in Flight Safety Award" recently.

During this time, VR-3 operated scheduled flights to the Alaska-Aleutian area, cargo flights to Japan and air evacuation flights from the far east and across the continental United States.

The bronze and mahogany plaque was presented to VR-3 by Col. M. A. Elkins, Director of Operations for the Continental Division, Military Air Transport Service. Plaque was accepted by Capt. W. W. Hollister.



DID THIS HAPPEN to you? One of the most spectacular deck-crash pictures turned up recently, without any information as to when it happened, on what carrier and who the pilot of this "lucky" F6F was. We do know the pilot got a cut when he anticipated a waveoff,

so he dove for the deck biting at an angle and engaging an arresting wire so violently it broke his plane in half. The front end churning through three barriers before finally stopping. If you know any more details, drop the NAVAL AVIATION NEWS a line on it.

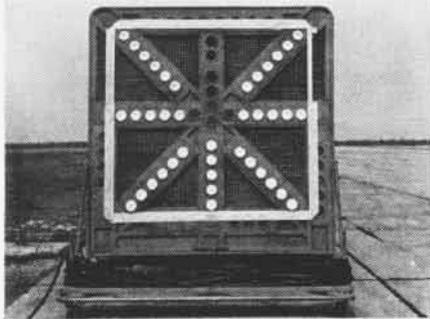
AUTOMATIC LSO'S PANEL FOR CARRIERS

THE NAVY has developed and given preliminary field testing to an automatic landing signal officer's panel for aircraft carriers, aimed to give greater visibility to the LSO's signals.

With the increased emphasis on night carrier operations and the higher speeds, and consequent larger landing pattern, of jets, some improved system to replace the LSO's paddles was found necessary.

It all started when Naval Medical Research Institute found that present ultraviolet lights used to illuminate the landing signal officer's fluorescent suit markings at night are harmful to his eyes. It also was found that special goggles or use of visors tends to obstruct the angle and range of vision.

Naval Medical Research suggested to Bureau of Ships that a new system of signaling be developed, with a mechanical device to display the signals if



THIS IS WHAT 'WAVEOFF' SIGNAL LOOKS LIKE

possible. Further, there was need for visual contact guidance of new higher speed aircraft in the pattern at a greater distance from the aircraft carrier under all weather conditions. It appeared lights would have to replace the luminous paddles.

The magnitude of the problem was extensive. The CNO approved the project which was assigned R&D #NS674-122 by Bureau of Ships. Development was carried out by the General Engineering and Consulting Laboratory of General Electric company, under direction of BUSHIPS with the cooperation of Bureau of Aeronautics.

This system of bringing planes aboard a carrier, day or night, must meet the following considerations:

1. There should be one signal panel, one set of signals and one set of controls suitable for day or night operations under varying flying weather conditions.

2. The signals should, as near as possible, simulate present signals so pilots can use them to land by, with little or no indoctrination.

3. The control should be a system the LSO is familiar with so that there will be no difficulty in changing to the new system.

4. The distance of visibility must be great-



LT. CHAIRES, VX-3, HOLDS CONTROL BOX OF AUTOMATIC LSO PANEL, WHICH SHOWS 'FAST'

er than the present 500 yards. If possible, this should be one mile, owing to greater landing speeds of new design aircraft.

5. The signal panel must be designed so that the panel will not become invisible with the sun directly behind the panel. Reflection of the sun on the panel must not result in transmission of a false signal to the pilot.

The accompanying photograph above is a picture of the experimental panel and control unit as finally evolved for test and evaluation. This was done by VX-3 at NAS ATLANTIC CITY with excellent results, the panel meeting all of the requirements listed above.

The signal panel consists of bars which are internally illuminated to give signals which simulate those presently given by the LSO and his paddles. All of these signals are amber colored except the "cut" which is the four green lights located in a diamond shape in the center of the panel. The "slow" (come on) signal is red and uses the four red lights in a vertical line directly above the green lights. All amber lights on at once (*see photo, left*) would mean a wave-off.

The portion of the panel outlined by the tape is the actual size of the panel for shipboard installation, which might be located somewhere forward along the flight deck for better visibility, with the LSO still keeping his platform near the ramp.

The control unit shown in the photo is strapped to the LSO. It is equipped with two handles, one grasped in the right hand to simulate action of a throttle and joy stick, and the one in the left hand to give the waveoff signal. The actual unit that will be built for shipboard installation will be pedestal-

mounted with two levers. The one for the right hand will simulate the joy stick, and that for the left hand to simulate the throttle. The whole unit will be somewhat like that used by drone control pilots on the ground.

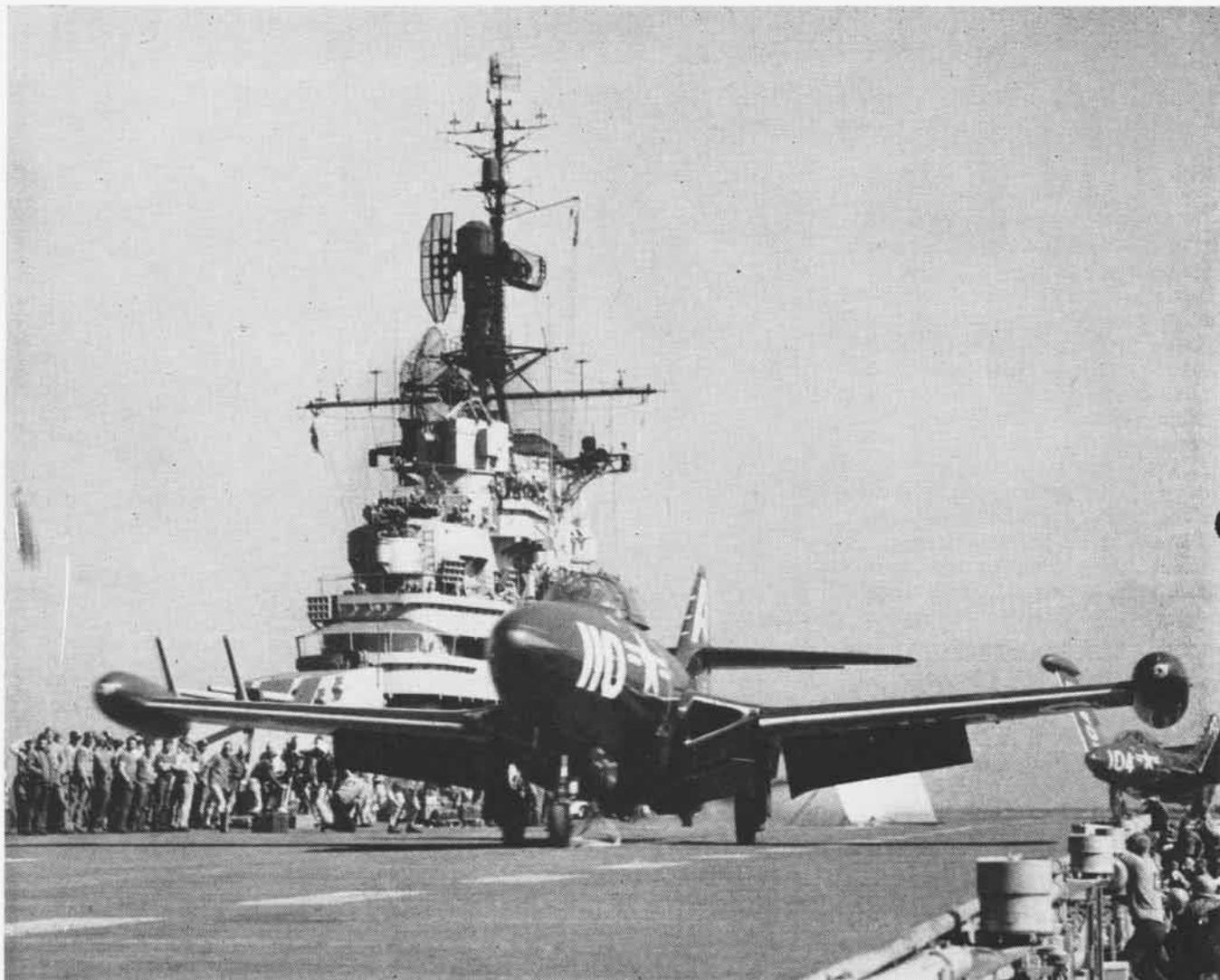
This arrangement will permit a simultaneous "slow" (come on) signal and attitude correction signal. The left handle will have a button to give the wave-off and the right handle will have a button to give the "cut" signal. This is the same arrangement as provided on the control unit in the photo.

Controls provide for the LSO to make essentially the same motion to indicate the necessary correction in attitude or speed as he would if piloting the aircraft himself.

Equipment shown in the photographs was tested and evaluated at Atlantic City under both day and night operating conditions, with both conventional and jet aircraft. It was found that the LSO's could operate and the pilots could land by this system with little or no indoctrination.

Under daytime operations, the visible range of the signal was over one mile and under night operations this distance was greater. This visual system of contact control of landing aircraft was received enthusiastically by all personnel who used it under the evaluation tests.

The practicability of this system having been proved, this development is now in its second phase, which is to provide a design suitable for shipboard installation. It is expected that the first prototype of this design will be available for shipboard installation in November or December of this year.



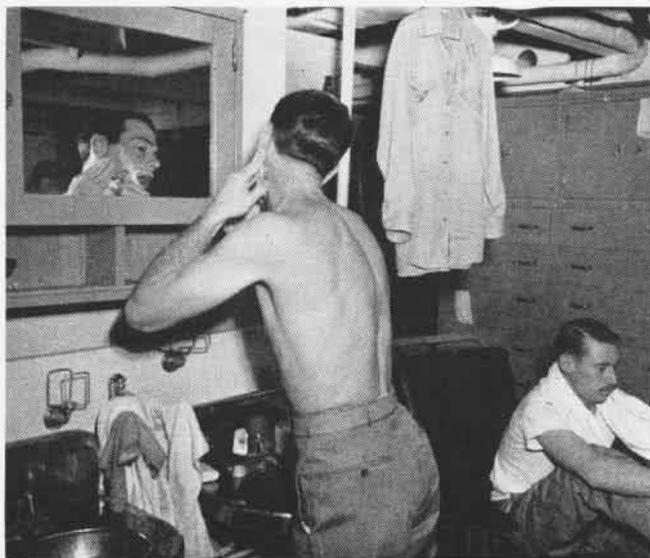
NOW IN KOREAN WATERS is the veteran aircraft carrier USS Boxer, carrying the first all reserve air group to go into combat in the

current conflict. These converted salesmen, teachers, mechanics, farmers, are flying, servicing Corsairs, Panthers, Skyraiders

UP IN MORNING, OUT ON STRIKE



LT. (JG) BILL WALLACE heaves out, but doesn't have to trice up, while **Ens. M. T. Dragnastin** and **Ens. Jack Rader** catch forty winks



WALLACE TAKES a quick shave and roommate **Lt. (jg) Harry Smith** pulls on shoes as they prepare for day's strikes in Korean zone



JOE WILSON samples eggs and bacon and reads news while Wallace accepts "Boxer Press" and breakfast from SD Willie D. Cox



PILOTS Mayhugh, Droege, Hyman and Wallace are briefed by the Air Intelligence Officer Lt. Albert T. Cook before morning strike



THE CAPTION says that Murray, Nelson, Maloney rush to man planes; they'll have to wait awhile with F9F Panthers spotted forward



ALSO A RESERVE is plane captain William H. Marr, AD3 Atchison, Kansas, who lovingly cares for Wallace's tactical support F4U



RELAXING in the wardroom over a game of chess after a full day of strikes are Lt. (jg) Charley Peterson and Lt. (jg) Wallace



LAST DUTY of the day for Wallace is writing a letter to his wife Doris whom he married two months before leaving the United States

ROCKETS TEST AIRPLANES OF FUTURE

A RED bullet-like rocket about twice the size of a man roars off an inclined launching platform on a fly-infested sand island near NAS CHINCOTEAGUE, Va. Powered by solid powder rocket motors, it shrieks upward at 1200 mph.

In a matter of seconds, it is lost in the blue over the Atlantic ocean. Up as high as 100,000 feet it soars. Human eyes cannot see it, but radar eyes follow it and recording machines set down a huge mass of scientific data on that two-minute flight.

Thus, at the National Committee for Aeronautics' pilotless aircraft research station on Wallops Island, are tomorrow's airplanes tested. Delta wings, varied sweep wings and all manner of aerodynamic shapes are checked out in actual flights at this lonely station.

Rocket vehicles soon pass through the transonic range and into the supersonic in a few seconds. Radar follows the model in space and records its velocity. Telemetering sends back data on how the model, its wings or other parts react during the brief flight.

These \$500 to \$15,000 models are one-time units, falling into the ocean after finishing their flights. NACA estimates it would cost more to retrieve them than it would be to rebuild them. They probably are too badly broken up for reuse anyway.

Data obtained at Wallops proved valuable in designing such planes as the Navy's F-4D delta-wing jet fighter and the ultra-fast research airplanes like the record holding D-558-II.

Some rocket models are powered initially with boosters which drop off after the first part of the flight is finished. Power in the model itself takes up from there, shoving the speed up to 1,600 mph or more. Once its fuel is used up, the model continues in free flight. Delayed action fuses can be used in the rocket to allow extreme altitudes by taking advantage of as much "coasting" as possible before firing the second charge.

Meanwhile on the ground, most of the rocket station's 70 employees are busy operating recording instruments and cameras on the flight. Pressure-measuring devices, a radio telemeter transmitter and other miniature instru-

ments are carried aloft in the model. Radio receiving sets, recording apparatus and a control panel for firing the rocket are housed in a concrete building at the launching site.

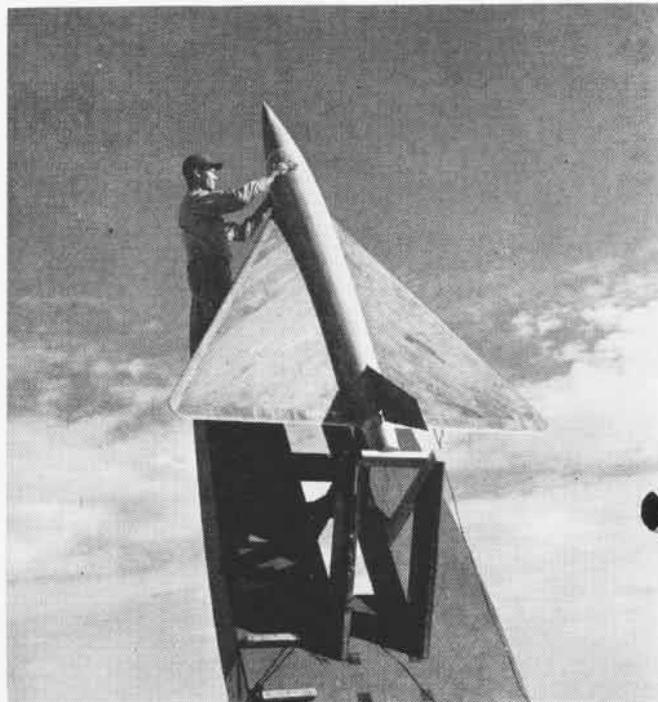
Most records are made photographically on fast-moving strip film. All results are recorded graphically on the same film and can be compared in relation to time and distance. Even the distance the rocket has traveled from the launching stand can be calculated within a few feet, at any point in the film.

During its flight, the model can be put through a series of programmed maneuvers simulating a wide range of flight conditions. It can roll, climb, dive and turn like an airplane, exerting varying

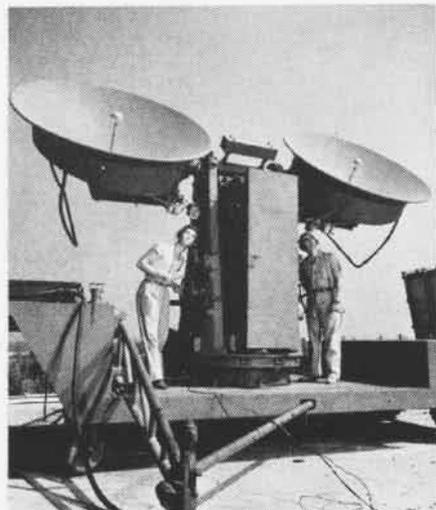
forces on the wing and tail surfaces. In this way, the Navy can be advised how its newest jets on the drawing boards will react under similar forces.

The most valuable information is obtained by telemetering from the rocket itself. Tiny batteries in the rocket head send back numerous readings from pressure pick-ups and other instruments. It transmits a running record of acceleration, position of controls, forces of them, lift and drag, pressures acting on the model's surface, attitude of the model in the air stream and even temperature.

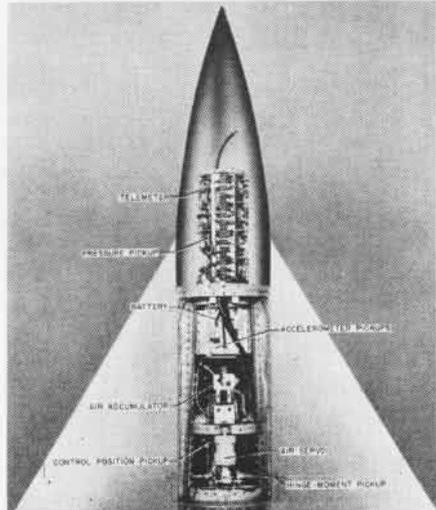
Two types of radar units are used, a Doppler velocity radar (*see photo, lower left*) and a flight path radar. Records on



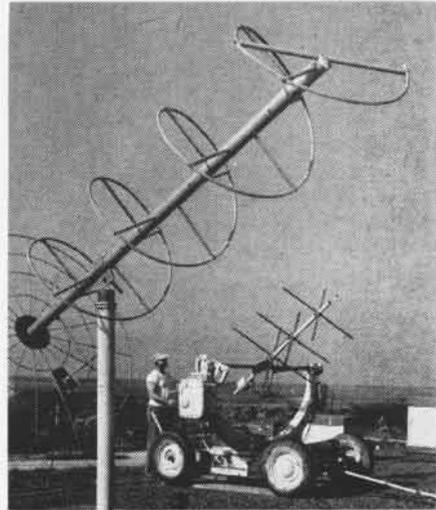
TECHNICIAN READIES DELTA-WING MODEL ON WALLOPS ISLAND LAUNCHER



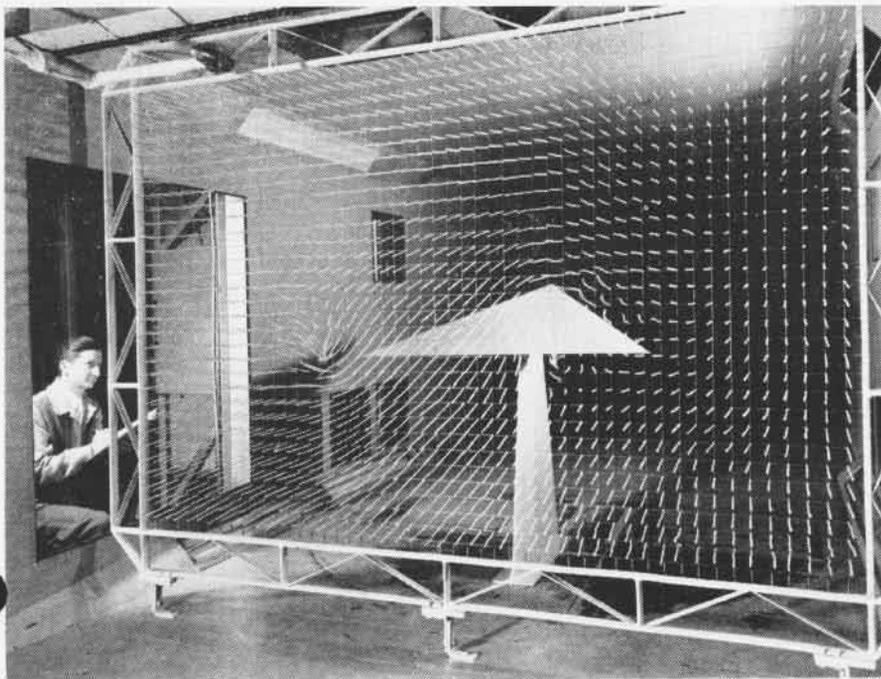
DOPPLER RADAR TRACKS NACA ROCKET MODELS



MODEL NOSE CARRIES SCIENTIFIC INSTRUMENTS



ODD ANTENNAE GATHER IN TELEMETERED DATA



COTTON TUFS ON GRID MEASURE TURBULENCE IN WIND TUNNEL TEST OF DELTA WING AIRCRAFT

graph paper in these units keeps information wanted to coordinate other data from telemetering. So, in those few seconds, all data needed for one model for a phase of research is gathered.

NACA also uses another method of gathering scientific data on model shapes. To find out more about transonic flight, a research model is dropped over Wallops island from 30,000 feet. Radar tracking and telemetering give data on it as it pulls through the transonic speed barrier by gravity pull alone. An F8F and F-82 *Twin Mustang* drop the models, some with ramjet engines which were under test. Data on flutter and drag in this speed range are gathered.

Another facility at Wallops Island is a preflight jet which permits ramjet engines to be tested in a stream of air moving at supersonic speed. Thus the engine can be tested to see if it will ignite properly when it attains running speed and the fuel system works.

NACA's rocket test station at Wallops Island is not a missile test range like the Navy has at Pt. Mugu but is an aerodynamics range. Wing shapes, thicknesses, fuselage lengths and tail surface proportions are tried out. All kinds of data are sought on life, drag, stability, control effectiveness, damping in roll, stabilization, flutter, buffeting, boundary-layer phenomena, inlet performance and aerodynamic heating caused by skin friction with the air. By finding this out ahead of time, NACA helps the Navy eliminate bugs in its high speed planes before they are built.

Wallops Island installation was built in 1945 when transonic flow information was almost non-existent and could

not be obtained in wind tunnels. The information was needed by men designing supersonic research planes, jet fighters and guided missiles. Since then more than 1,500 research models have been fired at the station. Only this year was the public permitted a look-in at this lonely station to which no road extends.

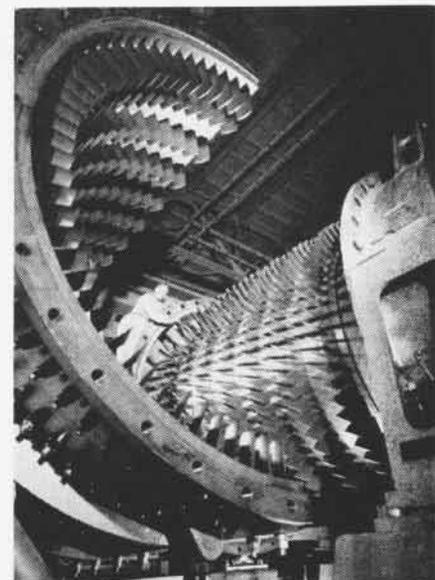
It usually takes about five years to design, develop and put into service a new Navy airplane. Planes that will be flying five years from now are expected to be very fast. Most of them will benefit from current research with rocket-powered models. A look at these models seems to indicate tomorrow's planes will all be swept-wing or delta-wing jobs with bullet-shaped fuselages, high-mounted elevators and almost flush canopies. Ratio of fuselage length to diameter will increase from five to one to about eight to one. Wings will be thinner than on today's planes, and shorter.

NACA, in addition to studying flight characteristics in models, also is in charge of research flying of the Navy's D-558-1 and D-558-11 planes and the X-1, X-4 and X-5 variable swept-wing research craft at Muroc.

THE WALLOPS Island rocket station works with NACA's huge research station at Langley AFB, Va. Only recently have scientists solved the problem of simulating transonic flight conditions in a wind tunnel. Subsonic and supersonic winds could be produced but in the range of 760 to 800 mph tunnels were unable to function correctly. Since the war, however, Langley Aeronautical Laboratory has licked the problem by still-classified means and now operates a 16-foot transonic wind

tunnel powered by two 30,000 hp motors (see front cover photograph). A "ventilated" throat permits tests in this critical speed range.

A total of 31 wind tunnels are operating at Langley gathering data on flight problems in all speeds up to Mach 17. To achieve the latter speed, krypton gas was used instead of air, at extremely low temperatures, to give a lower speed of sound. This "hypersonic tunnel" has a 11" throat in which small aerodynamic



BIG COMPRESSOR POWERS SUPERSONIC TUNNEL

shapes are placed.

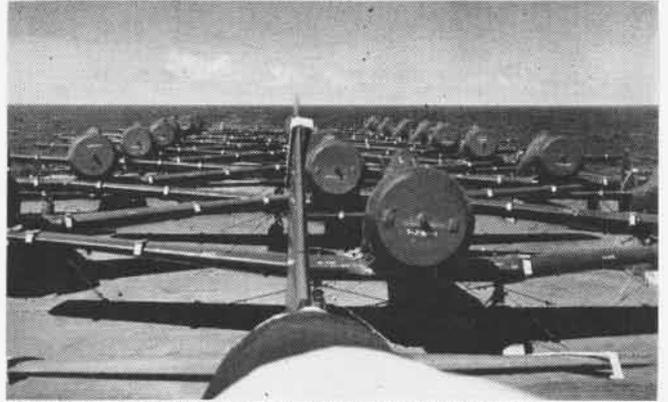
At hypersonic speeds, shock waves are swept back close to the model instead of at angles about 45°. Ordinary airplane wings get most of their lift from the upper surface, but at hypersonic speeds the largest part of the lift is derived from the lower surface. More of the load can be carried by the lift from the fuselage, as distinguished from the wing lift.

With delta-wing aircraft the thing of the future, problems of control with that shape are being investigated widely. A tail assembly located behind the wing, for example, is affected by the wing wake. If the tail assembly is close behind or on the wing, as in such Navy planes as the F7U and F4D, the problem is more serious because highly-disturbed air flows close to the tail. As speed increases, the turbulence becomes wider and nears the center of the wing. NACA studies this problem on a delta-wing wind tunnel shape illustrated above.

NACA is making buffet studies and looking into booster trouble on Navy *Corsairs*. Another project is investigating helicopter flying under hood and dual instruments for helicopter all-weather flight. In the project, one man sits in front as "check pilot" while the other flies the helicopter from the rear seat, hidden behind a canvas curtain.



SAILORS OF THAILAND NAVY WORK WITH AN SB2C BROUGHT BY CARRIER



DECKLOAD OF PRESERVED AT-6 TRAINING PLANES EN ROUTE TO THAILAND

THAILAND NAVY GETS SB2C'S AND AT-6'S

FIRST shipment of SB2C dive bombers and AT-6 trainers to the Thailand Navy was made recently when the USS *Cape Esperance*, (T-CVE-88) arrived in Bangkok with a deckload of planes.

The aircraft were delivered to Thailand under Mutual Defense Assistance Program, together with other ground force and naval equipment. Members of the U. S. and Thailand navies joined in removing the *Helldivers* from the

carrier. The planes were lowered from the flight deck to the pier and put on barges for further transportation to land bases further inland.

Three CVE's were taken from the mothball fleet and assigned to Military Sea Transport Service for transport duties of various sorts. They were the *Windham Bay* (T-CVE-86), the *Cape Esperance* and the *Sitkoh Bah* (T-CVE-92). The baby flattops engage in no combat but supply planes to our forces.



LARGE WINCHES LOWER A HELLDIVER FROM CARRIER DECK AT BANGKOK



THAILAND AIR FORCE MAN REMOVES BOLTS FROM WING OF AT-6 TRAINER



THAI NATIVES POLE SB2C ON BARGE UPSTREAM TO LAND AIR BASES; AT 6 WINGS HAD TO BE REMOVED TO PASS UNDER BRIDGES ON RIVERS

SOVIET TWIN-JET BOMBER



AIR FORCE'S B-45 4-JET BOMBER RESEMBLES RUSSIAN TWIN-JET SOMEWHAT WITH LONG NACELLES

PICTURED on the next two pages is a twin-jet Soviet light bomber of distinctive appearance and undisclosed designation. Observed over the last few years at May Day displays over Moscow, this aircraft has been under development long enough to suggest the possibility of squadron use.

Even the most casual glance will reveal characteristics which definitely set this plane apart. Perhaps the most obvious recognition feature is the exceptional combination of straight wings and swept-back tail but more systematic scrutiny will bring to light many other distinguishing features.

In the plan view, the wing is seen to be set unusually far aft, leaving a considerable portion of the fuselage forward of the leading edge and very little between the trailing edge and empennage. A two-gun turret is set at the extremity of the fuselage which extends well aft of the elevators.

The wings are rather narrow, square tipped, and tapered along the trailing edge only. The long engine nacelles are placed directly in line with the blunt tips of the tail plane and overhang both the wing's leading and trailing edges, with the greater part of their length protruding forward.

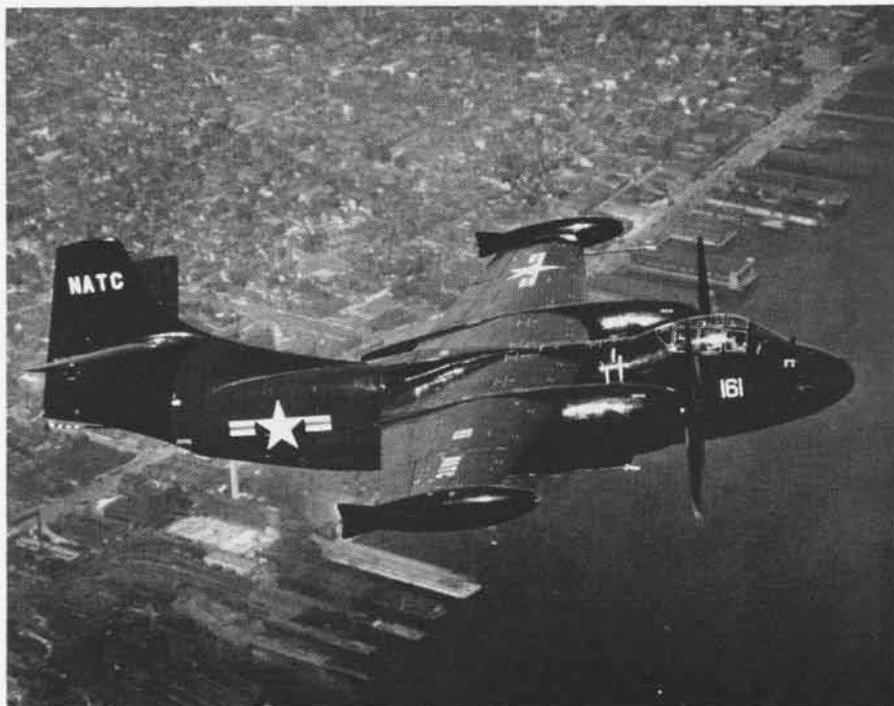
The side view is dominated by the tall, tapered fin and rudder which are swept back over a conspicuous observation post for the tail gunner. Owing to the rearward placing of the wing, the engine nacelles lie far enough aft so

line of the fuselage provides the best recognition clue from this angle.

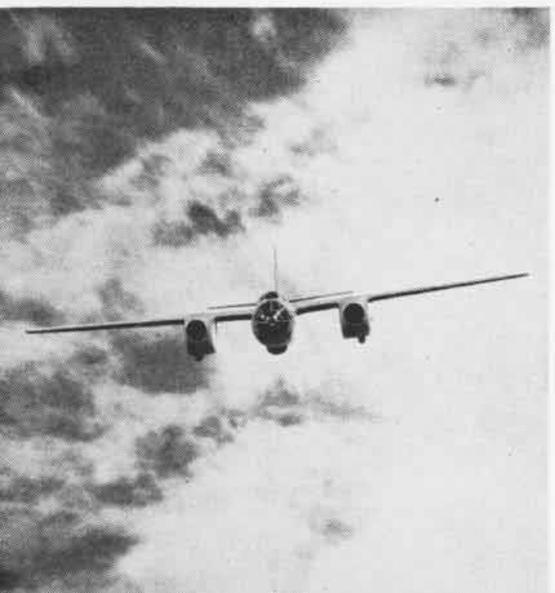
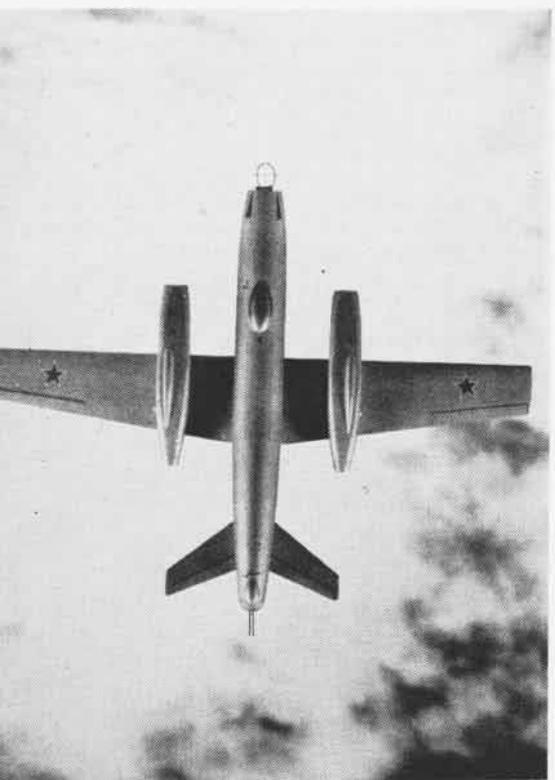
All of these characteristic features combine to give this aircraft a highly individualized aspect. The general effect is one of a preponderance of straight lines and sharp corners. No fillets exist at the wing roots to soften the junction of wing and fuselage; tail surfaces join the fuselage similarly without fairing. Even the engine nacelles, which have conventional round intakes and exhausts, are flat-sided and angular over most of their length. A landing gear fairing is noticeable outboard of each nacelle's center line.

FEW AIRCRAFT are as visually distinctive as this one. Familiarity with its appearance characteristics will make its recognition a lot easier than the recognition of many twin-engine types. The one essential prerequisite is attaining that familiarity.

Nearest approach to this Soviet plane in the U. S. fold is the North American B-45 bomber. Although the *Tornado* has four jet engines instead of two, it houses them in a pair of nacelles. Its tail assembly is slightly swept back, but the elevators have a slight dihedral. Both planes have plexiglas noses, with pilots' canopies above and behind them. Although it is a bigger plane and prop-driven, with a jet engine in the tail the Navy's *AJ-1 Savage* has a slight resemblance to the above two jets, as can be seen from the photograph shown below.



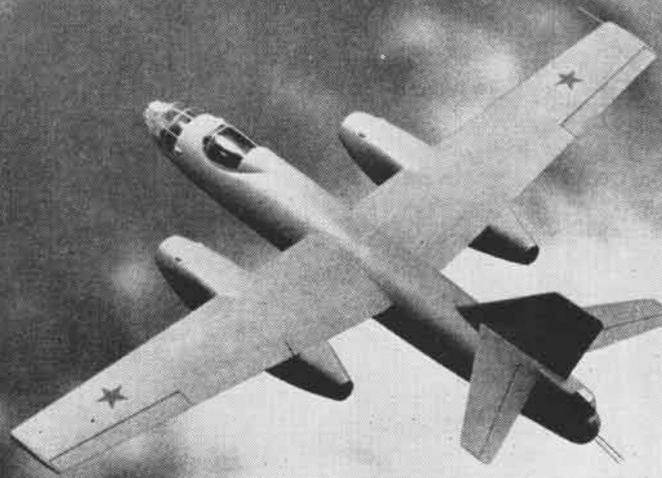
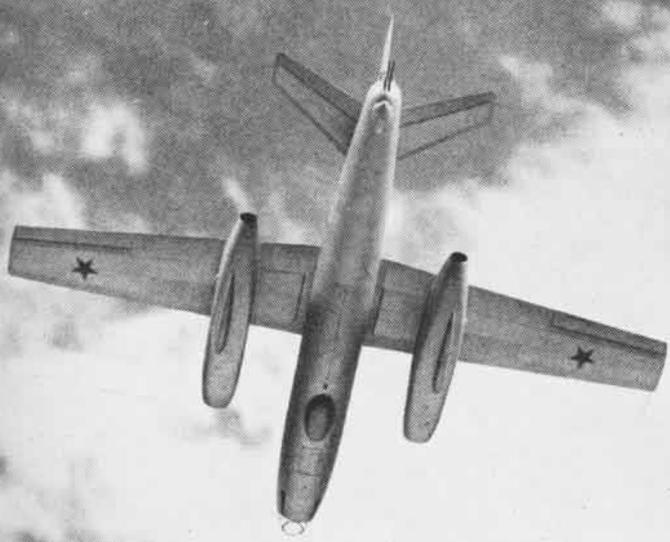
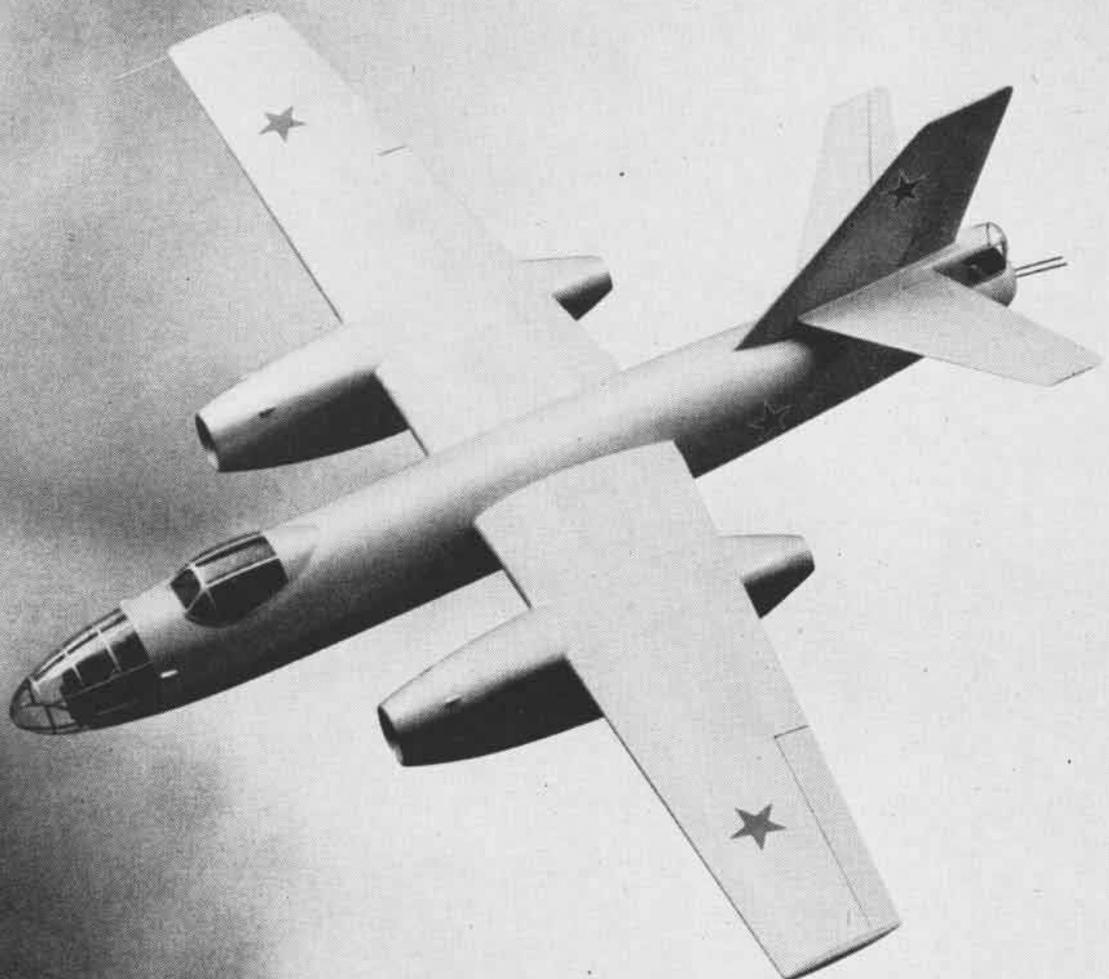
NAVY'S AJ-1 TWO-ENGINE LONG RANGE BOMBER DESIGNED TO OPERATE FROM CARRIER'S DECK



NAVAL AVIATION
NEWS

soviet twin-jet

Straight wing and swept tail help to identify this twin jet bomber which has been repeatedly displayed at Moscow air shows. Note the position of the wing, about midway between nose and tail, and the shape of the long engine nacelles. Blunt wings, tapered only on the trailing edge, and squared tail surfaces give this plane a sharp, angular appearance.





NOTE TRICYCLE LANDING GEAR, RADOME, SEARCHLIGHT ON PROP NACELLE: ENGINES INSIDE CAR

NAVY TO GET NEW BLIMP

THE NAVY'S newest and biggest non-rigid airship, the 324-foot *Nan* ship, is nearing completion of its preliminary flight tests and soon will be turned over to the Navy at Lakehurst.

The N-type blimp has 875,000 cubic feet capacity of helium as compared to 750,000 for the M-type, of which the Navy now has four, and 525,000 in the familiar 2K-type airships. In dimensions, the new craft is 324' long and 71' diameter, the M ship 310' and 71' and the 2K 253' and 60'.

Built especially for antisubmarine warfare, the *Nan* ship has a big radar dome on the bottom of its streamlined cabin and a searchlight mounted alongside the starboard engine. Power for the blimp comes from two R-1300-2 P&W engines mounted inside the gondola. Either engine can operate both propellers, which are newly-designed Curtiss reverse-pitch props. Cooling is by ducts.

Because of the extra radar and electronics gear aboard, the airship has an expanded complement of 14 men and can fly 75 miles an hour.

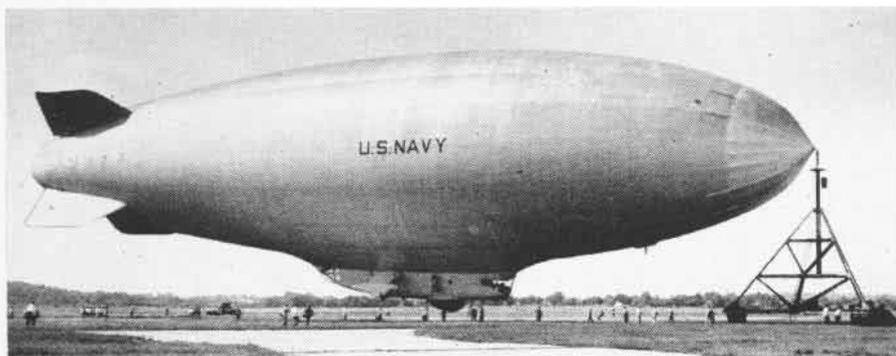
Besides the N-1 ship already completed, there are four more *Nan*-type under construction. The first one, because of the engineering and designing

costs included in the price, cost about \$5,000,000. It has been under development since mid-1948. First flight was on June 18.

The blimp was built at the Goodyear Aircraft company's Akron hangar, site where so much Navy lighter-than-air history was written. It is far smaller than the *Akron* and *Macon*, built by Goodyear in the early '30's, which had 6,500,000 cubic feet of helium and were 785' long.



WHEN THE CARRIER *Monterey* took 70 visiting civic and business leaders on a two-day cruise off Pensacola, one of them was John P. Floberg, assistant secretary of the Navy for Air. Here he is shown shaking hands with Capt. D. L. Mills, the skipper, before taking a helicopter back to the shore.



SIDE VIEW OF NEW NAN AIRSHIP SHOWS TAIL SURFACES AT 45° ANGLE INSTEAD OF OLD STYLE

Korea Marines Aid Girl, 5 Fighter Squadron 'Enlists' Ill Child

A five-year-old girl, suffering from a serious disease in a Chicago hospital, has been made a member of the *Devilcats*, Marine fighter squadron operating in Korea.

She has a membership card, a set of wings, the squadron's colorful shoulder patch and a 24' letter to prove it. And every day Plane #20 takes off from a field in South Korea, she will be flying with the Marines—for printed above the numerals is the girl's name, "Miss Kay".

She is Kay Jean Zeller. One of the squadron pilots heard of her plight on the Jack Birch program over an Armed Forces Radio Service station. The flier, 1st Lt. Harvey A. "Pete" Kneeling, Jr., had a child the same age and was sympathetic to Kay.

Ground Marines painted her name



DEVILCAT PILOTS POSE WITH LENGTHY LETTER

on the F4U, 27 pilots sat down and wrote one-page letters to Kay and taped them together (see photo). They reminded her she was now a Marine and will have to fight hard to get well. They all promised to take good care of her airplane.

Besides the letter, wings, membership card and patch, the squadron also sent her two Korean 1,000-won notes signed by all pilots (a short-snorter) and two pictures of the fliers with the letter.

Navy Reopens NavCad Posts Recruit Aviation Cadets After Layoff

The Naval Aviation Cadet program, suspended for civilian candidates since October, 1950, has been reopened.

Men from 18 through 26 may apply at any Navy recruiting station, naval air station (Air Reserve), or Naval Air Reserve Training Unit.

Selection boards, established at the air stations or NARTU's will select candidates. Selectees will undergo flight training for about 18 months and be commissioned ensigns in the Naval Reserve or second lieutenants in the Marine Corps Reserve.

Applicants must be unmarried and stay that way until commissioned, and must have had two full years of college.

BLUEPRINT FOR RESERVES



RADM. I. M. McQUISTON AND CHAIRMAN BUFORD REVIEW RESERVE FORCES POLICY BOARD AGENDA

OF VITAL interest to all Reservists are the new Department of Defense policies regarding the Reserve Forces. These policies spell out the future organization and operation of the Reserve Forces and are designed to provide for the orderly training and mobilization of these Forces in the future. They were developed by the Civilian Components Policy Board, now designated the Reserve Forces Policy Board, and were approved by Secretary of Defense Marshall.

At present Reservists, either in an Organized or Volunteer status, veterans with many years of war service and those with none, are equally subject to recall in time of national emergency declared by the President. This has made it difficult for the Reserves to plan their immediate futures and has resulted in certain inequities.

To remove these inequities in the future and to chart a clear course for Reserves who will come into the program under the Universal Military Training and Service Act, the new policies call for the establishment by law of three kinds of Reserve Forces: the Ready Reserve, the Standby Reserve and the Retired Reserve.

The Ready Reserve would consist of units and individuals available for immediate military service in time of war or when, *in the opinion of the President*, an emergency exists.

The Standby Reserve would consist of units and individuals available for involuntary military service upon decla-

ration of war or national emergency *by the Congress*.

The Retired Reserve would consist of those individuals who have been placed on the Reserve Retired list in accordance with law or appropriate regulations. Its members would be subject to involuntary military duty, if qualified, upon declaration of war or national emergency *by the Congress*.

The Ready Reserve and the Standby Reserve would not correspond to the present Organized and Volunteer Reserve. To meet requirements for full mobilization, the policies call for the establishment of six different categories of training in both the Ready and the Standby Reserves.

Individuals and units in Training Pay Group A in both Forces would receive 48 drills and 15 days active duty with pay; Training Pay Group B would get 24 drills and 15 days active duty with pay; Training Pay Group C, 12 drills and 15 days active duty with pay; Training Pay Group D, no drills but 15 days active duty with pay; Training Pay Group E, prescribed drills without pay plus annual training-duty with pay if funds are available; Training Pay Group F, no training and no pay.

Members of the Standby Reserve, who were unable to participate actively in the training program, might be transferred, if otherwise qualified, to the Inactive Status List in order to maintain their Reserve membership.

Upon passage of legislation creating the Ready Reserve and the Standby Re-

serve, all Reserves currently in an Organized or Volunteer status, would become members of the Ready Reserve unless they could meet the requirements for transfer to the Standby Reserve. Specific requirements for such transfer are now being worked out with appropriate consideration being given to active duty performed during World War II and since 24 June 1948.

Other Department of Defense policies call for equalization of dependency allowances of enlisted Reserves on active duty with those of Regulars; regular promotions for Reserve officers; and maintenance of Reserve Forces in time of partial mobilization.

Legislation needed to implement these policies is now under consideration by Congress.

In addition, the Reserve Forces Policy Board has recommended that each military department effect the following by administrative action: 1. Designate an Assistant Secretary for Reserve Forces, who shall have, in addition to his other duties, primary responsibility for Reserve matters; 2. Set up special offices for Reserve Forces which shall consist of not less than 50% of Reserve officers on active duty; and 3. Completely integrate the organization, administration, training and supply of Reserve Forces with those of Regular Forces. (At present only the Navy has this set-up.)

The Civilian Components Policy Board was redesignated the Reserve Forces Policy Board on 14 June 1951. At that time, Charles H. Buford, former president of the Chicago, Milwaukee, St. Paul and Pacific railroad, was sworn in as chairman. He succeeded Edwin H. Burgess, vice-president of the Baltimore and Ohio railroad.

RADM. Irving M. McQuiston, military executive of the CCPB and former coordinator for Naval Air Reserve to DCNO (Air), was appointed vice-chairman of the new board. The membership of the CCPB was also transferred to the new board.

When he set up the Reserve Forces Policy Board, Secretary of Defense Marshall stated in a letter to Mr. Burgess: "The importance of adequate Reserve Forces to the security of the nation has been clearly demonstrated by recent world events. The progress of the Civilian Components Policy Board in achieving a unified Reserve Forces program has been regularly reported to the President, Congress and the general public as one of the outstanding accomplishments of the unification contemplated under the National Security Act of 1947.

AIR RESERVES BATTLE FLOODS



NAS ST. LOUIS AIR RESERVES LOAD SANDBAGS IN A BOAT ENROUTE TO THE BRADSHAW LEVEE

NAVAL AIR RESERVES joined in the battle to protect civilian lives and property when floods harrassed the Middle West this summer.

The Chamber of Commerce of Lawrence, Kansas, asked immediate help from NAS OLATHE to combat the flood threat—and got it!

Over two hundred men from the station, including personnel from the Naval Air Technical Training Unit, the Marine Air Detachment, and the Air Force, as well as the Reserves, volunteered for the job. They worked four days and nights to protect the levee which was threatened by the Kaw River flood.

LCdr. Morton Freeman, aircraft maintenance officer at Olathe, was in charge of the party. While sitting in a truck, he dozed from exhaustion. As the truck started, Freeman was jolted off. He was picked up uninjured but still sleeping deeply—a good commentary on how hard the men worked.

The citizens of Lawrence thanked the men from the station, stating in the daily newspaper that their work was largely instrumental in preventing further devastation to their community.

Later, when floods hit the Kansas City area, Reserves were again mobilized and were utilized in various phases of flood control and disaster relief.

NAS OLATHE acted as a receiving point for Navy planes flying in from NAS GLENVIEW with much needed life jackets, typhoid serum, a portable water purification unit and other supplies. These supplies were then rushed to the

disaster area by truck.

One of the planes took off from Glenview under instrument conditions—ceiling 250, visibility ¼ mile.

The typhoid serum was obtained from the U. S. Naval Hospital at Great Lakes.

The Missouri River flood crest rampaged down toward St. Louis and Naval Air Reserves from NAS ST. LOUIS went into action.

Hours before the Cul de Sac levee in St. Charles County broke, Naval Air Reserve workers made a last ditch at-

tempt to hold the flood waters back. Despite their efforts, however, the levee gave way, spilling billions of gallons of water across farmlands in Saint Charles County.

Nothing daunted, they kept on answering appeals for help. At the Bradshaw levee near West Alton 75 volunteers from the naval air station battled mud and mosquitoes all through the night, striving desperately to prevent the river from overflowing into low farmlands. When they couldn't reach points that needed plugging on foot, the Reserve sailors just naturally got the sandbags to their destination by boat.

Reserves Set Up New LTA NARTU

The Naval Air Reserve's second LTA NARTU was commissioned on 29 June at the Marine Corps Air Facility, Santa Ana, California. RAdm. A. K. Doyle and the commanding officers of the Los Alamitos and Oakland naval air stations took part in the ceremonies.

CO of the new unit is Cdr. H. B. Hosmer, a pioneer in airship operations from carriers.

Volunteer Air Reservists in VAU 11-4, Los Angeles and Capt. Norman M. Lyon, a veteran LTA pilot of both world wars and now a prominent realtor, were instrumental in establishing the base. They will make up the nucleus of the first Organized squadron at Santa Ana.

Weekend training was slated to get underway early in July. A training blimp has been assigned and a Fleet type airship will arrive in the fall. Anti-sub-



LCDR. FREEMAN WATCHES SAILORS FROM NAS OLATHE WORK HARD TO PROTECT LAWRENCE LEVEE



INSTRUCTION IN LINK TRAINER RADIO PROCEDURES AT NAS NEW ORLEANS



CAPT. MELSON BRIEFS RESERVE RECOGNITION OFFICERS AT ANACOSTIA

marine and patrol training will be emphasized.

Five officers and 40 enlisted men make up the active duty complement.

Five New Marine Reserve Squadrons

Five new Marine Air Reserve fighter squadrons have been commissioned to replace units mobilized after the outbreak of the war in Korea. The new squadrons are located at NAS GLENVIEW, NAS GROSSE ILE, NAS WILLOW GROVE, NAS SQUANTUM and NAS NEW YORK.

At the same time, a drive is underway to build other Marine Air Reserve squadrons, drained of manpower when individual Reservists were called to active duty, up to authorized pre-Korea strength.

New vigor will be put into this program by the impending release of thousands of Marine Air Reservists now on active duty. The men will be given an opportunity to rejoin their old outfits, thus providing the backbone for continuance of a strong Reserve.

At present, 36.64% of the officers and 44.22% of the enlisted men in Leatherneck units in the Far East are Reservists who were ordered to active service as a result of the Korean war.

Commissioning of the five new squadrons brings the Marine Air Reserve back to its pre-Korea complement of 30 fighter and 12 ground control intercept squadrons.

Station Round-Up

• **NAS NEW ORLEANS**—Link trainer usage at this station has shown a steady increase. In the fourth quarter of 1949 pilots logged 237 hours, and during the first quarter of 1951 they upped the hours to 565.7. The increase in Link hours per pilot was even greater for many of the vacancies caused by recall of Reservists to active duty had not been filled during the latter period. In the picture, pilot Killkullen receives instruction from WS-82's Kieffer as station keepers Ferguson and Goebel look on.

• **NARTU JACKSONVILLE**—During June, a new patrol squadron, VP-742, was commissioned at this unit as a replacement for VP-741 which had been ordered into active military



CAPT. HOWELL SWEARS JEANNE INTO RESERVE

service. LCdr. Goodwyn R. Taylor, formerly CO of FASRON-745 and a Pacific combat veteran, heads up the new squadron.

• **NAS DALLAS**—When Organized Reservist Lt. (jg) M. J. Speck was awaiting clearance in his Corsair fighter, a Texas Air National Guard jet fighter crash-landed on the runway and burst into flames. Speck cut his engine, ran to the burning F-84 and climbed onto the plane to free the pilot, 1st Lt. Russell L. Betts. The canopy was sprung and could not be opened. Nevertheless Speck kept trying until the crash crew arrived and helped save the pilot. Speck received several commendations for his action.

• **NARTU ANACOSTIA**—A two-weeks refresher seminar was held at this station for Reserve recognition officers. The course was designed to give the Reservists information on the latest operational type of aircraft and ships.

• **NAS LOS ALAMITOS**—Enlisted personnel at this station recently put on a successful show for the benefit of Navy Relief entitled "Bluejackets Blackouts". Two performers in the show, George H. Jack, SR, a dancer, and



CAPT. KRIEGER GIVES I.D. CARD TO SON TOM

J. E. Adams, DC3, an impersonator, were later offered an opportunity to appear on the Horace Heidt show.

• **NAS OAKLAND**—This station netted \$15,598.63 for Navy Relief by sponsoring a car raffle. Oakland also contributed a prize winning booth at the NAS ALAMEDA Navy Relief Carnival. The booth represented the "Muirfield Links", complete with putting greens, Scotsmen's burrs and kilts.

• **NARTU SEATTLE**—C. A. Hilliker, AOU1, of VF-894 built a scale model of the Bunker Hill which was viewed by thousands of Seattle people on Armed Forces Day. Said to be one of the best of its kind, the model is built to the scale of 1/16" to the foot.

• **NARTU MEMPHIS**—Not satisfied with their daily association with the Navy's aircraft, stationkeepers John F. Bauder, AL3, and Gordon E. Smith, AD3, purchased their own plane. It is a little Commonwealth Skyranger and they got it for \$650.00 even though it had only been flown 150 hours. Recently they flew to Bauder's hometown in New York, a 950-air-mile or 1283-road-mile round trip, at a modest cost of \$40.23 for gas and oil. They have no problems connected with CAA approved maintenance since Bauder is a qualified radioman and Smith a qualified mechanic.

• **NAS WILLOW GROVE**—Capt. John G. Howell, commanding officer of this station, recently swore his daughter Jeanne into the Naval Air Reserve as an applicant for the NR officer candidate program. Wave Howell, who attends the Norfolk Branch of William and Mary College, will receive training during her summer vacations preparatory to receiving her commission as Ensign.

• **NARTU MEMPHIS**—Capt. K. M. Krieger, commanding officer of this unit, has enlisted his only son, Tom, as a member of the Naval Air Reserve. At present Tom is drilling with VA-799, but he has his sights set on becoming one of the 160 Naval Reservists to be selected next year for the Naval Academy.

• **NAS SQUANTUM**—Among the group of some 300 Naval Air Reservists from New England who recently took their two weeks cruise at NAS ATLANTIC CITY were two father and son combinations in one squadron. LCdr. Augustus Whelan and his son John and LCdr. Thomas Coakly and his son William comprised this unusual foursome. Also on cruise with the group was Chief Machinist Cedric G. Lindley. He served in World War I, missed World War II and is now back in uniform just to be "ready" in case we become embroiled in a third world war.

★
**LOBLOLLY BOYS
 AID WOUNDED
 FROM KOREA**
 ★



ONE OF THE Navy's "loblolly boys"—hospital corpsmen—Chief Joseph E. Hudson, briefs his patients aboard a MATS air evac plane in Japan flying altitude and time they'll arrive

IN THE archives of early history of the United States Navy, provisions were made for the "Loblolly Boys", who were assigned as assistants to the surgeon aboard ship and in hospitals ashore. Later these "Loblolly Boys" became "Baymen" and when the Hospital Corps was organized in 1898, the "Baymen" were renamed hospital corpsmen or pharmacist mates. In 1948 their title was again changed, this time to hospitalmen.

Today, after 137 years, the successors to the "Loblolly Boys" are assisting Air Force and Navy nurses and working with Air Force medical technicians aboard Pacific Division, Military Air Transport Service hospital planes flying wounded Korean veterans from Haneda Air Force Base, Tokyo, Japan, to Travis Air Force Base, Fairfield, Calif. In the air they uphold the lessons learned during their training in a hospital corpsman school.

At the present time, there is no school to train Navy corpsmen for duties pertaining to air evacuation. They are trained in general hospital duties and merely adjust themselves to relative duties aboard C-97's and C-54's which MATS is using to fly the wounded from Korea to mainland hospitals.

However, in December 1945, a two-week indoctrination course was introduced at NAS ALAMEDA to acquaint corpsmen with problems arising from effects caused by high altitudes to patients, procedure of giving plasma aloft, ditching at sea and miscellaneous matters pertaining to loading of patients on various types of aircraft.

Two of these modern day "Loblolly Boys" are Joseph E. Hudson, chief hospitalman, and Charles W. Buchwald, hospitalman third class. They are assigned to VR-8 and are on temporary duty with the 1453rd Medical Air Evac-

uation Squadron, both at Hickam Air Force Base, Honolulu, Hawaii.

Chief Hudson entered the navy in May 1942 and served at Mare Island Naval Hospital, Vallejo, Calif., and aboard the USS *Saranac* in the Pacific during World War II. He reported to VR-8 in July 1949 and has been flying the "air evac" route since September 1950. He served in the Coast Guard from July 1931 to September 1937. Incidentally, Chief Hudson was the first Coast Guardsman to complete a Naval Hospital Corpsman School.

Buchwald, a reserve recalled to active duty earlier this year, first enlisted in October 1943 and served with the 3rd Marine Division at Iwo Jima and Okinawa during World War II. He reported to VR-8 in March 1951 and has been flying "air evac" since April.

On a regular air evacuation flight, Chief Hudson and Buchwald depart



ONE OF THE jobs of a hospital corpsman is to give backrubs to stretcher-bound patients; Buchwald gives aid to Pfc. Russell Hughes



LULL IN duties aboard air evac plane en route to Hawaii gives Corpsmen Hudson, Buchwald chance to chat with Air Force workers



A "MUST SEE" for Wake Island visitors is this old half-sunken Jap transport, a casualty of the Marines' staunch stand there



INSIDE AN underground hospital built by Marine at Wake and used by Japs, corpsmen inspect old washbasin and a bone splint



BUCHWALD AND Hudson inspect sign at underground hospital on Wake where Cdr. Cunningham, Maj. Devereaux surrendered to Japs



JAPANESE KIDS at Haneda laugh as Chief Hudson (left) explains American baseball yarns while Charlie W. Buchwald, HM3, listens

Hickam on a cargo plane destined for Haneda via Midway, Wake Island and Iwo Jima. Upon arrival at Haneda, they sign in with the 1453rd MAES Detachment for the return trip. While awaiting the return flight which is usually 24 to 48 hours, they go sightseeing in historic Tokyo or rush down to the U. S. Naval Base at Yokosuka to shop or reminisce with former shipmates who happened to be in port.

Upon returning to Haneda, Hudson and Buchwald find their names on the alert board indicating they will stand by to depart at a moment's notice.

Finally they are notified when the plane is leaving Haneda for Hickam AFB via Wake Island. All air evac flights stop at either Wake or Midway to refuel and change crews on the return flight to Hickam.

After the evacuees are loaded aboard, the corpsmen check litter safety belts and complete pre-takeoff procedures. After over-water briefing the patients and informing them as to the altitude the plane will fly and the estimated time

of arrival at the next station, the plane takes off.

Once the plane is airborne and leveled off, it becomes in reality a flying hospital ward. Now the corpsmen spend their time preparing the patients for the maximum comfort possible in the aircraft. The walking patients are allowed to get out of their litters and move about as much as possible in the limited space. The litter patients are watched to see that the altitude has not caused their air mattresses to become over-inflated, and are checked for warmth and comfort for the long over-water flight. The corpsmen then take temperatures, assist the nurse in giving medications, take care of food, water and attend to personal problems.

USUALLY 24 to 36 hours is spent at Wake Island. Here the corpsmen can rest, go sightseeing or have a swim while a new crew takes over plane and patients. For anyone "laying over" at Wake, many interesting sights can be seen on this historic island. One is an underground hospital the Marines used after the Naval Hospital was destroyed

by the Japanese in December 1941. Another is an old half-sunken Japanese transport which ran aground on the east end of the island in the early days of World War II. This is a "must see" for everyone.

The trip from Wake to Hickam usually takes eight to 12 hours, which means the patients have been in the litters for a long period of time and are getting tired and restless. The corpsmen again assist the nurse dispensing medications, giving back rubs and distributing cool drinks and hot coffee to all the patients aboard.

Ambulances will meet the plane on arrival at Hickam to transport the evacuees to the air evacuation ward at Tripler Army Hospital for a 24 to 48 hour rest before continuing on to Travis AFB.

To the nurse and corpsmen, this stop means the end of another air evacuation flight, and to the evacuee, it means he has only a few more hours remaining before he reaches "home" or as near home as the closest military hospital back in the United States.

Sortie Statistics Revealed

Navy-Marine Combat Effort Analyzed

Analysis of statistics regarding combat aviation in the Korean war theater has revealed the part Navy and Marine aircraft have played and are playing in air combat missions.

Recently disclosed figures show the following:

In April 1951 Navy and Marine aircraft flew over 7,000 combat sorties, representing over 36% of the total combat effort of the U. S.

In May over 8,000 combat sorties were flown by Navy and Marine aviators, amounting to over 39% of the total combat sorties.

In June the count was over 8,000 combat sorties, totaling 44% of the number of sorties flown.

For the entire second quarter of the calendar year 1951 over 23,000 combat sorties were flown, making the Navy-Marine share 40% of the total U. S. combat air sorties flown in the Korean war zone for that period.

In July, Navy-Marine combat sorties totalled more than 6,000, amounting to more than 45% of the U. S. combat effort.

Pinwheel Blows 3 to Safety

Downwash Pushes Boat Back to Men

NAS PENSACOLA—Another unique helicopter rescue was chalked up here recently when a hovering pinwheel used its rotor blasts to blow a wandering rowboat back to three youths struggling to keep from drowning in Escambia Bay.

The trio had been in swimming when a gust of wind blew their small boat out of their reach. Chief Aviation Pilot R. C. Hamilton sighted the drifting



HELICOPTER DOWNDRAFT BLOWS BOAT TO 3 MEN

boat and the men while on a routine hop from Helicopter Training Unit One, Ellyson Field.

After radioing to shore for help, Chief Hamilton kept his Hiller training-type helicopter hovering overhead. The ground cushion caused the boat to drift back toward the swimming boys and within two minutes the first youth was aboard.

Soon all three were in the boat. About that time the rescue helicopter from Ellyson arrived and stood by with a life raft. Chief Hamilton then proceeded to push the boat about 1½ miles to land, using the downwash from the rotors to propel the boat while one youth steered it with an oar.

The three rescued men were Robert Alkov, Jack Rowland and Ronald Adams, all members of the Pensacola Organized Naval Reserve.

Squadrons Win ASW Honors

Atlantic Air Wings Selects 3 Winners

NAS NORFOLK—Three units of Atlantic Fleet Air Wings command have won recognition for outstanding battle efficiency in antisubmarine operations

and readiness in 1950 and 1951. The honors were passed out in lieu of the Navy "E" awards, which were suspended during the Korean conflict.

Out of 29 units in the command under RAdm. Richard F. Whitehead, the winners were VP-45 at Coco Solo, commanded by Cdr. T. G. White; VP-5 at Jacksonville, headed by Cdr. Fred Borries, and ZP-2 at Lakehurst, commanded by Cdr. F. N. Klein. Cdr. Rex W. Warren also shared the command of VP-5 during the award period.

Pennants and plaques were awarded the winning squadrons.

Jet Start Plan Saves Gas

Coral Sea Develops Fast Launch Idea

USS CORAL SEA—A new starting procedure for F2H jets aboard this ship has been developed to conserve fuel for long range jet escort and/or attack missions.

The first four aircraft are not started until the ship is into the wind and near launching speed. It takes an average elapsed time of about two and a half minutes from the time "start engines" is sounded until the first two jets are ready to be launched by catapult.

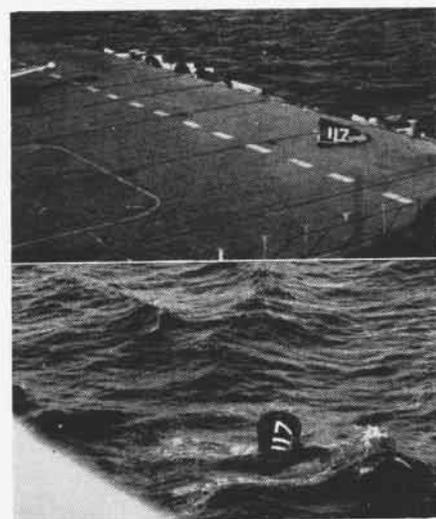
The remaining jets are started upon signal by an officer of the squadron concerned, at his discretion. The ultimate is to start engines on a jet, taxi him forward immediately, spot on the catapult, and launch with no delay.

By using this system, about 300 pounds of fuel is saved for each jet launched, as compared to old starting technique of "cranking up" all jets about six to eight minutes before scheduled launch time. This also eliminates any unnecessary jet idling on deck caused by unforeseen delays.



THE CASE of the Wandering Nose might be the title of this series of photographs of an F9F that came to grief when its book caught the wire on the CV Bon Homme Richard. The nose section came loose for some reason, skittered down the deck by itself and went over

the side into the ocean, where an alert photographer caught it finally bobbing along on the waves like a cork. The nose section on the Panther is removable so crewmen can work on the guns, cameras or other gear which is installed in that part.



BUNYAN'S BOG BOMBERS



NAS MINNEAPOLIS ORDNANCE CREW STARTS HANGING 2,000 LB. BOMB FROM ITS RACK ON A TBM

IF YOU were to fly over Red Lake Bog in Minnesota, you might well wonder if mighty Paul Bunyan once more was roaming the Everglades of the North. Far below you would see a string of 50 craters—each one approximately the size of that legendary logger's footstep.

Today, however, Naval Air Reserves from NAS MINNEAPOLIS are the trail blazers. They blasted out these craters with 50 1,000 and 2,000-pound bombs to mark a path of refuge for large game animals in the area. The project climaxed two years of cooperative effort between the Reserves and the Minnesota Conservation Department.

The wilderness area of Red Lake Bog is the stamping ground of some 5,000 moose and the range of the last known herd of caribou in the country. During most of the year, natural water holes are present but they dry up during the summer months. This places the moose and other large game at the mercy of biting insects. Blinded by these insects biting them about the eyes, the moose become an easy prey for small predatory animals. Only by wallowing about in the mud can the large animals acquire an insect-proof armor.

The area, however, is completely inaccessible to men on foot during the warm months, and is penetrated only with the greatest difficulty during the winter freeze-over. Because of this, the Conservation Department asked the Naval Air Reserve to blast out the needed wallows by aerial bombing.

The initial project was undertaken two years ago, when fliers from NAS MINNEAPOLIS blasted 12 water holes, 30' deep and 100' wide, in the bog.

This year's operation was based on that experience. Ton and half-ton bombs, for example, were decided upon as a result of a study made of the effectiveness of 500 and 1,000 pound bombs used originally. All bombs are general purpose seconds.

Before starting the operation, type training officers, accompanied by Conservation Department officials, made survey flights to determine where bombing would accomplish the most. Many adjustments had to be made between the two sets of officials because of the wide disparity in normal office practices. For instance it was found that it would be more practical from the Navy's viewpoint to drop the missiles in strings of four rather than placing

them at random over the area. Conservation men adjusted their plans accordingly to meet Navy recommendations.

A system of marking targets also had to be agreed on. Here it was decided that a pathfinder plane would precede the bombers, dropping smoke flares at one minute intervals from an altitude of 50 feet. Then they would go aloft to observe the bomb "hits".

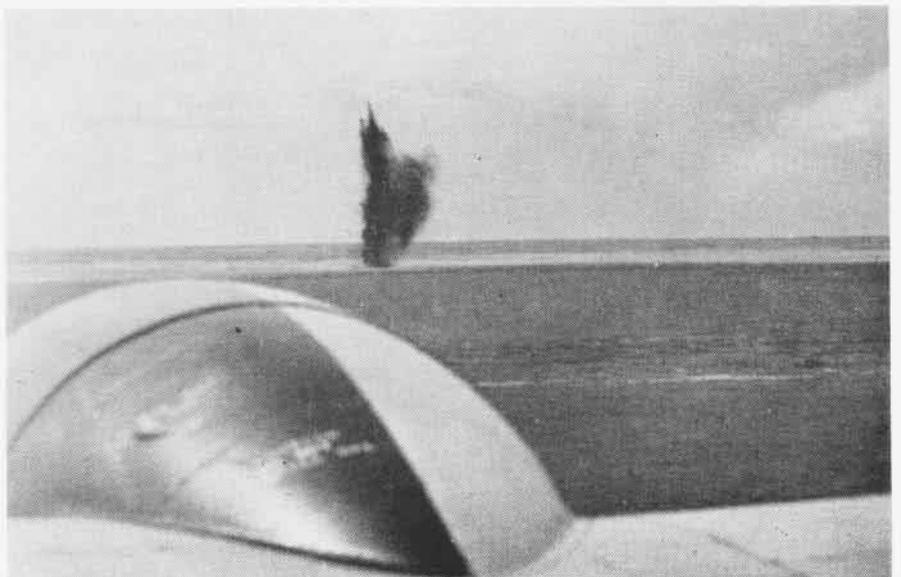
At the same time, ordnance men went to work on their phase of the operation. Mattresses were placed under the bomb racks. Dummy bombs were hoisted into place and then dropped on the mattresses time and time again to make sure everything was in order.

As in previous years, the air station's auxiliary field at Bemidji, only a few miles from the bog area, served as a base for operations.

FINALLY the job got underway. Flares were dropped and radio summoned two planes to make trial runs testing optimum detonation. Then the remaining planes rendezvoused for the strike and all subsequent runs were made quickly and effectively. At the end of three days, the Reserves wrapped up "Operation Woosh" and the moose had their wallows.

The Navy's type of training proved its value during the operation. Every step was so completely planned that the entire operation was run off on schedule.

Proficiency records in syllabus training provided a basis for selecting the "Weekend Warriors" making the drops. Each man took a day off from his civilian job to participate in the "bombing."



HERE BOMB HITS THE COVER OF RED LAKE BOG MAKING A WALLOW 30' DEEP AND 100' WIDE

NAVY GETS BIG CARRIER

AIRCRAFT carriers made news in the Navy in the past few weeks, with four *Essex*-class carriers being taken out of mothballs, an escort carrier rejoining the fleet and contract being awarded for a new 59-900-ton islandless flattop.

The four *Essex*-class carriers whose removal from the Reserve fleet was announced were the *Hornet*, *Randolph*, *Shangri-La* and *Antietam*. The *Salerno Bay*, CVE-110, also came out of mothballs after being stored at South Boston Naval Shipyard Annex.

Flight decks on the CV's were to be strengthened to take heavier planes and other improvements made in arresting gear and catapults to handle them. The *Shangri-La* and *Antietam* are already in operation, it was announced, the former with a skeleton crew and the latter in full operation in the Pacific.

The *Philippine Sea* was placed in the ready reserve, along with the *Shangri-La*, after it was overhauled and modernized following operations off Korea. In the ready reserve, the carriers are without air groups and men to man the guns, but can be in full-scale battle readiness within 10 days merely by augmenting the crews.

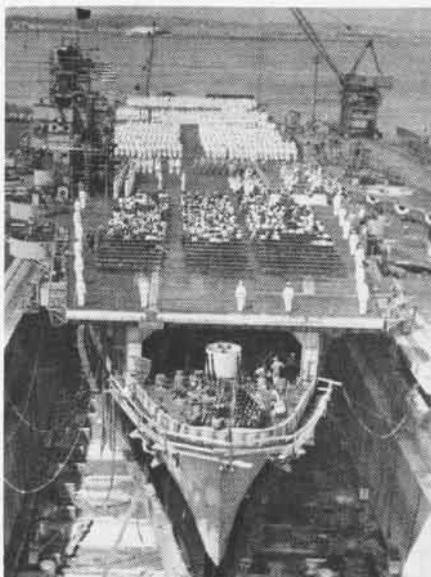
The Navy is authorized under the budget to operate the nine *Essex*-class flattops and the three 45,000-ton *Midway*-class carriers, plus nine escort carriers.

Contract for construction of a new large aircraft carrier displacing 59,900 tons has been awarded by the Navy to Newport News Shipbuilding and Drydock Co., Newport News, Va. Estimated cost of the new carrier is \$218,000,000.

The ship will be a flush-deck type with a retractable bridge, an overall length of 1040 feet and an extreme width of 252 feet including gun sponsons. This compares to the size of the *Midway*-class CVB's with a flight deck 968 feet long and 136 feet wide.

The almost double width of the flight deck will allow larger, heavier carrier-based naval aircraft of the newest designs to operate from her decks. When P2V's have flown from the decks of the *Midway*-class carriers using JATO their 100-foot wingspan has not given them too much clearance as they passed the island.

With a retractable island, the new carrier will be able to take considerable wingspan with no trouble. The island would be raised during navigation and to increase radar search coverage and lowered for flight operations. Construction of the new carrier is expected to take about three years to be finished.



SALLY BEE RECOMMISSIONED WHILE IN DRYDOCK

Another escort carrier has been taken out of mothballs and joined the active fleet—the *USS Salerno Bay* (CVE-110), which had been stored at South Boston Naval Shipyard Annex.

Capt. John P. Rembert, Jr., is commanding officer of the "Sally Bee", which saw invasion action late in World War II in the Pacific, even though she was not commissioned until May, 1945. She participated in the last occupation of the Pacific war, the island of Formosa on 17 October 1945. Cdr. Henry F. Burfeind is executive officer of the 10,900-ton escort carrier.

The *Salerno Bay* was the sixth of the *Commencement Bay* or 105-class carriers, designed specifically for air support of amphibious invasion landings.

The Navy has announced that two more mothballed *Essex*-class aircraft carriers would be taken out of the Atlantic Reserve fleet and modernized to take their place in the active fleet. They are the *Hornet* and *Randolph*, the CV-12 and CV-15 respectively.

Flight decks will be strengthened to take heavier planes and improvements made in arresting gear and catapults to handle them. The *Randolph* will be modernized at Newport News, Va., and the *Hornet* at Brooklyn, N. Y.

'Pinwheel' Averts Collision Planes Help Check Swinging Carrier

USS BON HOMME RICHARD—A recent harbor incident at Sasebo, Japan, again proved the value of *Operation Pinwheel*.

The *Bon Homme Richard*, moored to a buoy, suddenly found herself swinging rapidly to port toward the HMS *Ceylon*, which for some reason was not

swinging with the tide. The buoys of both ships were far enough apart to allow the two ships to swing clear if they both swung simultaneously.

However, since the *Ceylon* did not swing, it became obvious that the *Bon Homme Richard*, in a few moments was certain to crash into her port quarter.

Fortunately, planes had been spotted, eight AD's facing inboard at each corner of the flight deck. Flight quarters were sounded and planes in stations one and four were started immediately. The swing was checked when the ships were only a few feet apart, and the *Bon Homme Richard's* stern was swung around to starboard. After this, the British cruiser was moved to another berth.



Blimp Survives Twin Woes Trouble Dogs ZP-2 Craft Over Atlantic

ZP-2, LAKEHURST—Two close calls with disaster were survived by a blimp from this squadron while on an ASW mission 150 miles out in the Atlantic ocean. It took some fast thinking and good flying to bring the ZP-2 back safely.

The airship, commanded by Lt. J. W. Dawson, was making a run on a submerged submarine which requires a blimp to fly at full speed with a maximum of only 75' altitude. While doing so, the propeller ran away owing to malfunctioning of a limit switch. As it oversped, it ran by the stops, going into full reverse at full power.

The airship lost flying speed and because of its heavy cargo was in danger of stalling into the sea. Dawson with Ens. T. R. Cuthbert, who was on the elevator, brought the engine back to idle and worked the blimp to safe altitude with the remaining good engine, but not before it had flown just above the water with its tail pendants dragging.

On the flight back, 45 minutes later, a sudden sharp hammering developed in the good engine, with cylinder head temperature shooting up to the limit. Power was taken off and the temperature dropped to safe limits but the ship was staggering along under its weight of confidential weapons. It looked for a time as though a sea ditching was in store for the crew.

The airship barely made it to Suffolk AFB, where it dropped the weapons and was able to fly back home with reduced power on its one engine, making 14 knots under IFR conditions. Cdr. F. N. Klein, Jr., CO of ZP-2, who was aboard the airship during its dual troubles, later presented Dawson and Cuthbert with letters of commendation for their airmanship bringing it in.

JET F9F PHOTO UNIT MAPS NORTH KOREA



LT. HOOPER, HEAD OF 'EASY', SMITH AND ELMIES FIRST JET PHOTO UNIT TO REACH KOREA

FIRST unit to fly jet photo planes in combat for the Navy, Detachment Easy of VC-61, is back in the U. S. again after six months on the carrier *Princeton*, photographing North Korea in 160 combat sorties.

The detachment's three F9F-2P planes carried two K-17 aerial cameras in the nose where Alameda's O&R had removed the 20 mm cannon. Six hundred pounds of ballast had to be added to make up the weight differential.

The carrier's photo unit was composed of three officers: Lt. C. A. Hooper, and Lts. (jg) John E. Smith and George Elmies and a crew of 13 men. Before it had completed its six months tour of duty, it had taken 14,000 pictures of North Korea showing cities, bridges, troop concentrations, airfields, gun emplacements and supply dumps.

In addition, they mapped countless sections of Korea, including the east coast from the 37th parallel to the Russian border. Their work was an invaluable source of intelligence information for the entire fleet.

Detachment Easy went into combat during the Chosin reservoir evacuation. The successful bridge and tunnel interdiction program against the enemy was largely made possible through photos taken by jet photo planes. More than 300 bridges were photographed, some five or six times. As soon as the bridges were repaired, photos showed it and new strikes were launched against them.

Part of the interdiction program was

by surface bombardment from battleships, cruisers and destroyers. Here low oblique photos were needed, simulating a coxswain's view. The jets delivered pictures to the ships to assist in locating targets and pinpointing their gunfire.

Jet photo planes can shoot pictures at all altitudes from 100' to 40,000' and at speeds ranging from 150 knots to 500 knots or more. Besides the K-17 cameras with 6" and 12" lenses, the jets carried Sonne continuous strip cameras on some hops. Jets are usually thought of as high speed aircraft, but photo pilots usually slow them down and fly low on assignments. Most of



COLLIER, AFC, DEVELOPS FILMS OF RED AREA

Detachment Easy's missions were under 5,000' and from 150 to 200 knots.

The plane performs well at low power settings and fuel consumption is economical. The average photo hop is about two hours long. During that time the plane will cover as much as 600 miles. Conventional planes remain in the air about twice as long, but seldom cover more than half the distance. Photo pilots use their speed and altitude going to and from the target and drop down, working low and slow at their assigned target area.

Each photo plane is accompanied on his mission by one jet fighter, which acts as a body guard in case of enemy air opposition, or in the event he is hit by ground fire. The photo pilot has no guns and needs his speed and his escort for protection. Enemy ground fire is becoming more a menace to all of the aircraft. The Communists installed modern antiaircraft batteries at all important centers and photo planes worked a great deal on flak coverage. Photo interpreters studied their pictures to locate flak installations. Lt. Hooper had several years experience as a photo interpretation expert.

The jet photo plane is easy for photo



LANE, COLLIER TAKE CAMERA FROM F9F'S NOSE

mates to work on. The sliding nose permits easy access to all cameras and equipment. An excellent workhorse, the F9F's missed 100% availability on only one occasion. Later models of the F9F *Panther* are in production designed specifically for camera installations of the latest design.

• NAF ANNAPOLIS—Striking an underwater obstacle while taking off, a JRF tore a big hole in its hull and sank. The four crew members were not hurt. The pilot was Lieutenant Jack S. Laney.



WHEN THE NAVY'S newest jet fighter, the F7U-3 Cutlass, comes off the production line it will look like this. Actually the plane shown here is an F7U-1 with elongated tails installed experimentally for improved stability. The -3 model when it is produced will have the same high horizontal stabilizers. Navy recently announced a number of the new models would be purchased from Chance Vought Aircraft Co. Below the Cutlass in this picture is the newly-elongated runway at Hensley field, NAS Dallas, which accommodates the F7U's.

Marine Wins Chanute Honor LCol. Carl Captures IAS Recognition

LCol. Marion E. Carl, a top Marine Corps jet pilot and one-time holder of the world's speed record at 650 mph, has been awarded the Octave Chanute Award for 1951 by the Institute of Aeronautical Sciences. The award was in recognition of "his outstanding contributions to evaluation of advanced-type naval aircraft and for a continuously outstanding career devoted to advancement of the art and science of flying."

Col. Carl is head of the carrier aircraft section of Flight Test division, NATC PATUXENT RIVER. During World War II, he was a leading ace with 18½ Jap planes to his credit. Later he led the Marine Phantom jet exhibition team and flew the D-558-1 to a new world's record of 650 mph.

The Chanute award this year for the first time carries with it an honorarium.



ONE OF THE latest photos of Adm. Forrest P. Sherman, taken before his untimely death in Naples, Italy, was this shot in Tokyo. Just prior to going to the Mediterranean he visited the Orient and talked to Gen. Matthew B. Ridgway, Army Commander. In Spain, Adm. Sherman laid groundwork for American use of sea and land bases.



NEW HEAD of the Naval Air Reserve Training Command is RAdm. L. A. Moebus, who replaced RAdm. A. K. Doyle on 3 August. Adm. Moebus formerly was ComFair Alameda. Adm. Doyle becomes Cdr. Car. Div. 4.

Approves Joint Field Use President's Panel Sets Jet-Prop Rule

Joint use of airports by civil and military aircraft, including jets, involves no "inherent hazard" and can be worked out successfully, the Airport Use panel of the National Air Coordinating Committee has reported in a statement on general policy.

Appointed by Pres. Truman, the committee has been studying the problem of whether the two types of traffic, involving both prop planes and jets, should be allowed to fly off the same field.

"There is no inherent hazard in the mixture of all types of aircraft, including jet aircraft, both civil and military at a single airport within the traffic handling capacity of the airport," the panel stated, "provided, that adequate air traffic patterns and proper air traffic control facilities and procedures are established."

The panel made the following exceptions: 1. Where highly congested terminal areas are under consideration, 2. where special military operations of

a nature not permitting adherence to normal traffic patterns or traffic control procedures are contemplated, or 3. where military security requirements necessitate sole military use. In these cases, individual study of these locations would be required.

The panel made special recommendations regarding the St. Louis, Jacksonville, Newark, Boston, and Miami areas, where particular problems are present. Members of the panel making the study were A. B. Curry, C. F. Horne, CAA; Joseph P. Adams, CAB; Capt. E. J. Lanigan, USN; Col. Lewis P. Ensign, USAF, and LCol. Frank Collins, Jr., Reserve Forces Policy Board.

Bairoko Awards Men Medals

Good Conduct Honors Due After Check

USS BAIROKO—Through the industry of Francis J. McBee, PNA1, who delved into service records of 218 men on this carrier in Korean waters, 32 men of VS-23 have been awarded Good Conduct medals to which they were entitled.

Almost all of his work was done on off-duty time when McBee interviewed each man and wrote BUPERS for verification if there was any doubt. In addition to the Good Conduct medals, five men were presented various World War II service medals which they never got.

Since the original "investigation" and official presentation, an additional 22 first awards of the Good Conduct medal have been made to men who currently became eligible.

- NAS ALAMEDA—The old gold-plated corner which used to sound reveille and taps here has been purchased from a private owner and placed in the station's trophy case. Recordings over the public address system now rouse the sleepy.

- NAS MEMPHIS—This station has one of the Navy's youngest doctors aboard—23-year-old Lt. (jg) H. F. M. Garrett. He graduated from Tennessee's medical school at 21.



CARRIERS have been awarding cakes for pilots making thousandth landings, but Capt. Cameron Briggs of the Boxer came up with a new wrinkle—each helicopter pilot who rescues a pilot from the water gets a windmill cake. Above, Lt. (jg) Henry Buercholtz gets one for picking Lt. (jg) Warren Nelson out of the water after his F9F ditched.

Bolis Family Goes All-Navy Six Members Now in the Naval Reserve

The Bolis family went "All-Navy" when the youngest daughter, Margaret was signed up for the Wave recruit indoctrination cruise at NAS DENVER by LCdr. Alice H. Aronson.

Oldest brother George joined the Navy 12 years ago. He was followed by Anne, William, John, Madelyn, and now Margaret.

George, a chief boatswain mate, drills with the Weekend Warriors at the Naval Supply Depot in Oakland, California.

Anne is on active duty in the dispensary at NAS OAKLAND as a hospitalman first class.

William, an Organized Reservist at NAS DENVER for three years, was called to active duty in October 1950 with VF-713. A chief aviation machinist's mate, he is currently attached to FASRON-691



LCDR. ARONSON, MASCOT 'FLICKA' AND BOLIS at NAS SAN DIEGO.

Madelyn is a Weekend Warriorette at NAS OAKLAND with a seaman rating.

John, the only one not wearing Navy blue at the present time, is a member of the inactive Naval Reserve. During World War II, he served in the Pacific aboard the *Randolph* as a gunner's mate first class.



RADM. JOHN M. Hoskins, former head of CavDiv Three off Korea, now head of MATS Pacific division, autographs a ball for Flight Nurse Lt. (jg) Josephine Hart, who flies air evacuation patients from Japan to Hawaii. The ball was the official one thrown out by the admiral to launch the Hickam season

9 P4M'S 100% AVAILABLE 7 DAYS



ALTHOUGH NEW PLANES ARE NOTED FOR THEIR "BUGS", THESE MERCATORS WERE MAINTAINED 100%

NEW PLANES are noted for their "bugs". An outstanding exception to this pattern was demonstrated by Patrol Squadron 21, based at NAS PATUXENT RIVER, Maryland. The squadron made a 6,500-mile training circuit of the United States in seven days during which nine P4M-1 Martin *Mercator* patrol bombers were 100% available.

Skipper Cdr. R. G. Albright led his group of twin-engine, twin-jet planes over a route which included Pensacola, San Diego, Alameda and Seattle.

The hop from San Diego to Alameda was notable for the speed made by the big ASW-minelayer planes. One group of three made the 460 statute miles in one hour, 15 minutes for an average of 368 mph. Slowest time for any was

one hour 19 minutes.

The relatively new squadron needed a training mission where all planes were to be deployed. Commander, Air Force, Atlantic Fleet, assigned the mission.

First hop was via airways to Pensacola. Next leg was direct to Grand Canyon thence to San Diego, where there was a one-day layover. From Alameda to Seattle, a mass flight was made.

Maintenance officer was LCdr. E. S. Buchanan, while the maintenance chief was J. F. Mansfield, ADC. Crews normally consist of pilot, copilot, two pilot navigators, plane captain, first mechanic, first and second radiomen and two ordnancemen. For this mission two extra crew members were carried to aid in engine checks.



WHILE MAKING CROSS COUNTRY RUN, PILOTS ENJOYED SCENERY: HERE THEY PASS MT. RAINIER



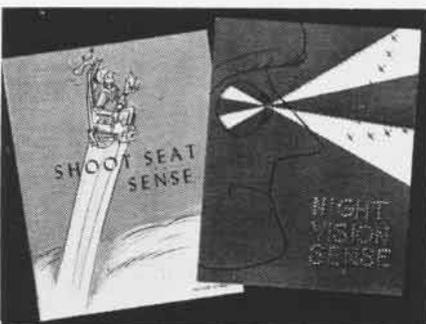
TWO NAVY Admirals are pictured here with another member of the United Nations truce team which met with Communist delegates at Kaesong, Korea, to discuss a cease fire. Right to left are pictured LGen. James A. Van Fleet and Gen. Matthew B. Ridgway after they arrived in Seoul with three of the five UN delegates—VAdm. C. Turner Joy, Commander Naval Forces Far East and senior UN delegate; MGen. L. C. Craigie, USAF, and RAdm. Arleigh A. Burke. This photo was taken at Seoul after the quintet arrived from Tokyo, Japan.

**Ejection Seat Pamphlet Out
Night Vision Treated in New Booklet**

Two new training pamphlets of interest to aviators, one dealing with pilot ejection seats and the other night vision, have been issued by the aviation training division of OpNav.

Newest is *Shoot Seat Sense*. In humorous lingo and cartoons, it points out the value of an ejection seat for jet pilots who fly high and fast. The four steps in using the ejection seat are outlined: operating the pre-ejection lever to jettison the canopy and get the seat ready to fire, positioning the body upright, turning on the portable oxygen supply bottle in case the ejection is at altitude, and pulling the face curtain down to fire the seat.

The pamphlet recommends free-falling to 18,000 feet or lower to avoid freezing temperatures and high parachute opening shock found higher up. It takes nearly a minute to fall from 31,000 to 18,000 feet, during which time the pilot could suffer from cold



TWO NEW TRAINING PAMPHLETS OUT FOR PILOTS

and lack of oxygen.

Night Vision Sense, a revision of an earlier pamphlet on that subject, explains how the human eye works at night. In view of increased night flying in the Navy, this type of vision is increasingly important.

**Airlift Medal Is Issued
Navy Units Can Get New Medallion**

Members of VR-6, VR-8 and GCA Units 21, 28 and 31 who participated in the Berlin Airlift are eligible for the newly-created Medal for Humane Action.

The bronze medal has on one side a facsimile of a C-54 airplane with a wreath of wheat centering at the bottom of the



NEW BERLIN AIRLIFT MEDAL HAS R5D ON FACE

coat of arms of Berlin. The reverse bears the eagle, shield and arrows of the seal of the Department of Defense, beneath the words "For Humane Action" and above the quotation "To supply necessities of life to the people of Berlin, Germany."

The medal hangs on a ribbon banded in black, with white stripes outside blue bands, followed by white stripes centering one red stripe.

Personnel who served in the above units 120 days during 26 June 1948 to 30 September 1949 inclusive, within the boundaries of the Berlin airlift operations. These were specified as the 54th parallel north latitude on the north, the 13th meridian east longitude on the east, the 48th parallel north latitude on the south and the 5th meridian west longitude on the west. Applications for the medal should be submitted to BUPERS. Personnel eligible for the medal may wear the ribbon bar announced earlier (NANews, May 1949).

Saddles Adorn Navy Club

Fallon, Nev., Citizens Donate Gear

NAS ALAMEDA—Probably the most un-nautical and unusual enlisted men's club in the Navy has been established at an outlying airfield at Fallon, Nevada, where squadrons from here go for practice flying.

Known as *Harry's Club*, it is an outstanding example of goodwill and friendliness between the Navy and Fallon residents. It is named after Lt. Harry Fitzwater, officer-in-charge, who helped secure the club for his men.

All decorations and most of the club's furniture were donated by citizens of nearby areas. Walls are draped with harnesses, saddles, branding irons, old railroad lanterns and other relics of the old west, reflecting the rugged ranch and farm country in the area.

All hands turned to with help of local citizens and turned an old barn into a fine recreation center. Open every evening, *Harry's Club* serves beer and soft drinks. A large dance hall has a juke box and every two weeks sailors and Fallon musicians team up to throw a dance.



COWBOY GEAR ON WALLS OF FALLON'S CLUB

MAINTENANCE ACES TRAINED AT EL TORO



T/SGT. JAMES Alford explains the highly complex electrical and wiring systems of *Corsair* to Private Hunter and Sgt. Strickland



CAPT. JUDSON Flickinger (center) plans the day's schedule at El Toro with M/Sgt. Usrey, NCO in charge of school, and Alford

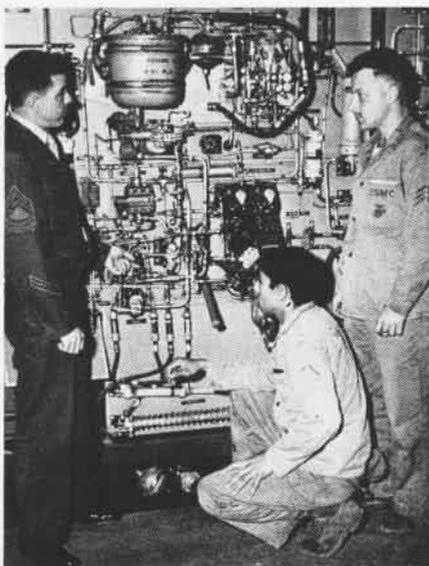
WHY IS THE availability rate of Marine Corps *Corsair* fighter planes so high in Korea even in the face of the terrific mechanical pounding the planes take in their daily sorties?

Perhaps this is the answer.

Since World War II, more than 1,250,000 hours have been expended at El Toro Marine Corps air station in maintenance instruction and over 8,000 enlisted mechanics and 2,000 pilots have been trained in the maintenance and operation of the F4U *Corsair*.

Pilots are required to take part in this training because experience has proved that a combat pilot must know the intricate operation of his plane.

Scene of this highly technical training is El Toro's NAMTU (Naval Air Mobile Training Unit), a school which supplements the established program of air technical training. The school is



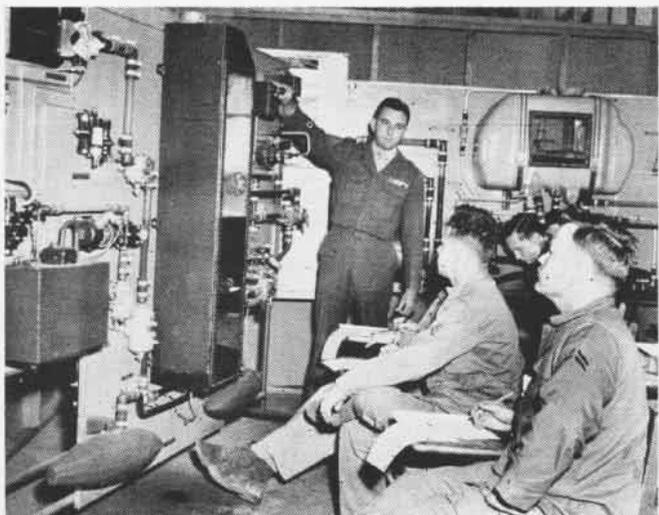
M/SGT. USREY gives students the latest word on hydraulic system of the Marine's fighter

equipped with the latest aids for training—mock-up and cutaway units, films, technical literature.

HEAD OF the school is Capt. Judson Flickinger. As a pilot just returned from combat in Korea, the captain is well aware of the value of expert maintenance in order to keep fighting planes in the air.

Non-commissioned officer in charge of the school and also senior instructor is M/Sgt. J. C. Usrey, a veteran of 11 years in the Marine Corps and a graduate of flight school at Pensacola, Florida.

The faculty can boast 21 diplomas and 30 years practical experience in aviation. This fact indicates the type of instruction Marine mechanics receive before they are called upon to keep our fighter planes operating against the enemy in every variety of rugged climate.



CLASSROOM WORK is a must for all *Corsair* mechanics. Here Sgt. L. J. Larose demonstrates fuel and oil line operation of *Corsair*



T/SGT. WM. J. Skillman uses a cutaway engine to show students the actual operation of the power plant used in the *Corsair*



NEWEST AND one of the most interesting of the X model research planes flying today is this X-5 made by Bell, capable of changing the degree of the wing sweep-back in flight. One axial-flow jet powers the plane, which will be used by NACA to study aerodynamic effects of changing wing sweepback while in flight. Note how rear wheels retract into fuselage above jet instead of into wings.

Jet Engine Starter Note

A failure on the part of some facilities to take advantage of the quick disconnect feature of jet engine starters has been reported. The special feature was designed to facilitate starter remounting.

However, some activities are removing the starters and the quick disconnect, then re-assembling and processing them through normal channels.

The purpose of the quick disconnect is to allow the mounting head to remain on the engine for all maintenance periods. The complete starter could be removed at time of engine overhaul. The mounting head should not require overhaul at less than 400 hours of engine operation.

Banner Fraying Reduced

A method for reducing the fraying of Aero 25A banner type targets when being towed at speeds from 120 to 200 knots during air-to-air gunnery exercises has been evaluated by Utility Squadron Seven.

This method consists of thoroughly wetting down the last five feet of the trailing edge of the target. This causes the fabric to shrink four to six inches, thus closing and strengthening the mesh.

It is recommended that the banner targets thus treated be allowed to dry completely before re-rolling to prevent possible mildewing if long time storage is anticipated.

The proposed wetting process applies only to the Aero 25A banner targets which are constructed of a resin-coated rayon marquisette mesh fabric.

Cannon Fire Well at 47,000'

VMF-224, ATLANTIC—Experiments with firing guns at extreme altitudes were conducted by LCol. R. M. Baker, commanding officer of this squadron, during recent close air support exercises at Roosevelt Roads, Puerto Rico.

Climbing his *Banshee* to 47,000 feet in-



ALL THOSE SHELLS AND NO DEER FOR VMF-224?

dicated altitude, he expended all the ammunition from his 20 mm cannon with no discrepancies or ill effects on plane or guns.

In the accompanying photo, Col. Baker is congratulating MSgt. C. B. Robinson, ordnance chief, for a job well done as they stand atop a pile of cannon casings accumulated during the nine-day exercise.

The *Banshees* dropped miniature bombs, fired SCAR and HVAR rockets, dropped 100-lb GP bombs, napalm and fired 20 mm's, with excellent results.

During qualifications aboard the *Coral Sea*, VMF-224 took colored moving pictures of carrier approaches, landing, catapult shots and deck handling. These movies, viewed by all pilots of the squadron, supplied valuable information and will aid in training future pilots in carrier operations.

• MCAS CHERRY POINT—VMR-153 recently shattered a six-year-old squadron record as its pilots logged more than 1,000 flight hours during May. The new mark was 1,084 flight hours, biggest total since 1945 when the squadron was operating in China.



A NEW JET checkoff list has been designed by squadrons on the *Coral Sea*. This man is wearing a jacket with the list easily readable. He is stationed so jet pilots can see the list before commencement of spotting on the catapult for launch. Checkoffs thus are completed prior to spotting and all pilots thus are assured of compliance.



JONES, JOHNSON, SCHEIDER, FIELDS LOAD UP

Step Helps Rocket Loading

VF-884, BOXER—A portable step which saves time in loading rockets and bombs on folded wings of the squadron's F4U's was developed and built recently by William H. Smith, AMS1.

The step has been dubbed the "hoote-nannie" by ordnancemen who term it a back and time saver. According to Charles Y. Fields, AOU2, who originally suggested need for such a device, four men can now load bombs or rockets on the wing launchers in less time than it used to take five men, and with greater safety.

The device was made of chrome-moly 4130, having a .125" wall and outside diameter of 2". The J-hook connecting the tubes was made from 1095 bar stock, 3/4" x 3/16". All joints were welded. The device is steadied in the blast tubes of the inboard and center guns and against the lower rocket/bomb launcher of the Aero 14A modification. Any interested squadron can get a detail drawing from this squadron.

New Jet Fuel Is Produced

A new jet fuel, JP-4, designed to cut down vaporizing and foaming losses of fuel during fast climbs, has been developed by the Navy and Air Force and will begin reaching operating commands by the first of 1952.

Although it is almost the same blend of distillate fuel oils and gasoline that goes into present JP-3 jet fuels, the new type is slightly denser—about .3 to .5 of a pound a gallon. It is intended it will replace JP-3 as soon as engines are cleared to use it.

When a jet plane makes a fast climb, its fuel boils and foams. As much as 15 to 20% is lost through the escape vents because of this. Since the new fuel cut down this reaction and is slightly denser, increased range is in prospect for jet aircraft.

The Navy still uses aviation gasoline aboard its aircraft carriers for both jets and propellered aircraft. At air stations along both coasts JP-3 has been made available for jets. Both the Navy and Air Force are stressing the JP-type fuel usage because of its better availability and less cost. More of it can be obtained from a barrel of petroleum than either kerosene (a jet fuel) or aviation gasoline. Development of JP fuels, therefore, is desirable from a petroleum conservation standpoint as well as considerable less cost.



AVIATION ORDNANCE

New Mine Parachute Packs

Mine parachute packs are designed to stabilize the flight of aircraft-planted mines and to prevent damage to mine cases and other components by reducing the water entry velocity of these mines.

At the end of World War II, since parachute packs in stock were unsatisfactory for use on external racks of attack-type aircraft, a program was initiated to provide packs that could be used externally. As a result of this program, parachute packs Mk 9 Mods O and 1, Mk 13 Mod 1, and Mk 14 Mod 1, which permit all existing stockpile parachute-planted mines to be used on external racks, have been developed.

Parachute packs Mk 9 Mods O and 1 and Mk 13 Mod 1 have been produced and are available for use. Parachute pack Mk 14 Mod 1, now scheduled for production, should be available in the fleet within the next six months.

Operational data on these new packs has been disseminated in BUORD confidential letter, serial 19337, 18 April 1951.

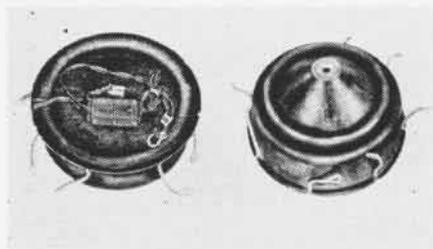
Parachute Pack Mk 9 Mod 1 is used in planting mines Mk 36 Mods 1, 2 and 3, Mk 26 Mod 1, Mk 25 Mod O, and Mk 13 Mod 6. This pack comprises parachute Mk 2 Mod 3 and a plastic parachute housing consisting of a dish and cover.

The parachute Mk 2 Mod 3 is a six-foot nylon hemispherical type with 16 tubular braided nylon shroud lines evenly spaced about the hem of the canopy. The shroud lines, attached to the canopy with zigzag stitching for a length of 17", terminate in eight small loops, called risers, at the point of attachment to the parachute housing and release mechanism.

The housing is constructed of $\frac{1}{8}$ " fibre glass impregnated with polyester resin. The dish is $5\frac{1}{4}$ " deep and $19\frac{1}{4}$ " in diameter. A stud assembly, centrally located, secures the cover to the dish and positions the pack on the mine. The dish has eight notches, which provide openings for the risers of the parachute, and two small holes below each notch. The risers are lashed to the dish with nylon line passed through the small holes below each notch. These risers are attached to a mechanism which releases the parachute pack from the mine upon water impact.

A nylon line, which is attached to the hem of the parachute canopy and to the inside of the cover, is used to pull the parachute from the dish and to secure the cover to the parachute to prevent the cover from damaging the aircraft fuselage. The cover is secured to the dish with a slotted clip which engages the necked portion of the stud assembly.

A nylon static line passes through the clip, and the end of the static line is bar-tacked to a static line pocket that is riveted to the outside of the cover. The excess static line, which allows the mine to clear the aircraft before releasing the cover, is folded into the



PARACHUTE PACK MK 13 MOD 1 IS SHOWN HERE static line pocket. A $\frac{3}{8}$ " screw pin anchor shackle is attached to the end of the static line which fastens to the aircraft.

When the mine is released from the aircraft, the static line pays out of the pocket and pulls the clip from the stud, releasing the cover from the dish and pulling the parachute out of the dish. After the parachute is pulled out, the static line breaks the bar-tacks at the pocket, and the clip shucks off the static line and falls clear of the aircraft. The latter feature is essential since the static line remains with the aircraft, and if the clip were fastened securely to the static line, damage to the fuselage of the aircraft might result.

Initial production of the parachute pack Mk 9 was the Mod O which incorporated a trigger hook to secure the static line to the anchor point of the aircraft. Testing revealed that the trigger hook might be disengaged from the aircraft during flight when carried on external racks. A screw pin anchor shackle was substituted to eliminate this type of failure, and the modified pack was designated Mk 9 Mod 1.

Parachute pack Mk 9 Mod O as issued is serviceable for bomb bay use; and it is usable on external racks when the trigger hook is attached to a screw pin anchor shackle (G 12-S-790) and the screw pin anchor shackle is attached to the anchor point on the aircraft.

Parachute Pack Mk 13 Mod 1, used in planting mines Mk 25 Mods 1 and 2, is composed of parachute Mk 12 Mod 1 and a parachute housing essentially similar to that used for parachute pack Mk 9 Mod 1.

The parachute Mk 12 Mod 1 is a 9-foot nylon, hemispherical type with 32 tubular braided nylon shroud lines. The shroud lines are attached to the canopy hem cord using an 8" telescopic splice and ten turns of nylon line seizing over the splice near the loop that encircles the hem cord. The shroud lines terminate in small loops, the adjacent loops being seized together to form the risers.

The housing is the same as that used for parachute pack Mk 9 Mod 1 except that the depth of the dish is $7\frac{3}{8}$ " and the stud assembly length has been increased to compensate for the increase in depth. The static line assembly, however, is somewhat different. The clip attached to this static line is composed of two pieces which separate after releasing the cover and fall clear of the aircraft. The static line is attached to the hem cord of the parachute with a braided nylon

cord which breaks after pulling the parachute out of the dish.

Parachute Pack Mk 14 Mod 1 will be used in planting mine Mk 10 Mod 9. This parachute pack is the same as the Mk 13 Mod 1 with these exceptions:

a. The parachute housing dish is contoured to fit the spherical nose of the mine, whereas parachute packs Mk 9 Mod 1 and Mk 13 Mod 1 are contoured to fit the concave shape of the tail cover of the mine.

b. The separable clip is replaced by a pack opening hinge.

The lower section of the pack opening hinge is permanently attached to the parachute housing cover with a ferrule allowing the hinge to rotate and also to translate a small distance relative to the ferrule to allow the hinge to disengage from the stud. The pack opening is accomplished by the stud sliding out of engagement with the upper section of the hinge when the hinge is translated relative to the ferrule.

Pack opening may also be accomplished, depending on the direction of static line pull, by the breakage of the necked section of the stud. The pack opening hinge is believed to be more desirable than the clip inasmuch as it will definitely eliminate any possible damage to the fuselage of aircraft.

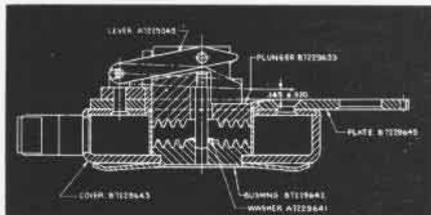


DIAGRAM OF AN-M4 ELECTRIC TRIGGER CONTROL

AN-M4 Trigger Check Data

Recent reports of failures of the AN-M4 Electric Trigger Control have been reported to the Bureau of Ordnance. (See August 1951 *Naval Aviation News*).

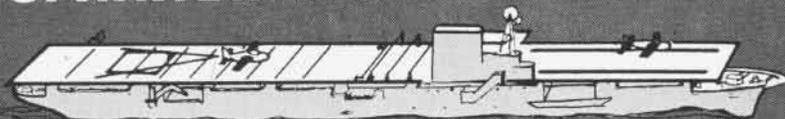
A close examination of these reports indicates that the majority of the failures have been caused by the improper seating of bushing B7229642. This bushing has been found in many instances to be seated too far into the solenoid cover B7229642. This condition causes the plunger B7229633 to rest on washer A7229641, assembled in bushing B7229642 before the lever A7229645 can depress far enough to disengage the sear on the gun.

The diagram shows the critical dimension that must be held. It is imperative that the distance from the tip of the lever to the top of the plate B7229645 be $.145 \pm .020$ inches where the plunger is fully depressed and resting on washer A7229641. If, upon inspection, it is found that the dimension is not within the specified tolerance shown in the diagram, the trigger control should be replaced.

All serviceable triggers should be tested in accordance with paragraph 117, page 217, of TM 9-229. BUORD wishes to be advised of all AN-M4 electric trigger control failures. NAVORD Form 147 should be submitted to the Aviation Ordnance Branch of the Bureau (Code Ma8-1a).

An Ordnance Material Letter containing instructions for installing the electric trigger control to the gun, is now being distributed.

CARRIER NOTES



BUREAU OF AERONAUTICS—SHIPS INSTALLATIONS DIVISION

Pistons on H4 Catapult Rams

The Naval Air Material Center has designed, manufactured, and completed extensive tests of a new-type throttling piston to replace the present type acorn piston on the rams of the H4 catapults. The purpose of the new throttling piston is to increase the launching capacity of the catapult by making possible its operation at higher pressures. Shipboard installation of this throttling piston has been completed aboard the USS *Leyte* and has been approved for the USS *Valley Forge* and the USS *Philippine Sea*.

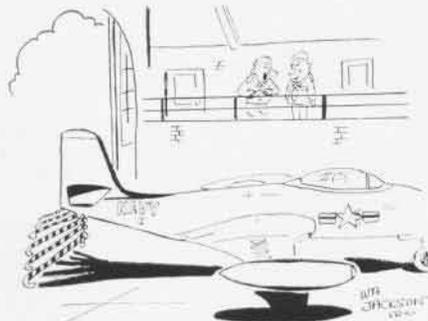
Service tests using deadloads were successfully completed aboard the *Leyte* in June 1951. When a comprehensive study of both the shore and shipboard tests has been completed and actual performance has been determined, new catapult launching bulletins will be issued to the service. It is anticipated that all aircraft carriers equipped with H4 catapults will be issued change material upon completion of the manufacture of the new throttling pistons during late 1951.

Indicator on Arresting Valve

A quantity of synchro-transmitters and receivers suitable for a prototype installation for arresting gear control valve position indicators has been delivered to the Norfolk Naval Shipyard for installation in the USS *Leyte*. These indicators will enable arresting gear operators to select any arresting control ratio setting required for the energy condition of each individual landing. Service tests of these indicators on the *Leyte* will determine whether or not modifications are necessary prior to installation in other carriers.

Arresting Gear Publications

The first of a selected group of Naval Aircraft Factory Reports on arresting gear and barriers has been republished under the NAVAER publication system. The reports being published provide complete technical information on the operation and maintenance of Mk 4 and Mk 5 arresting and bar-



MAKING YOUR FIRST CARRIER LANDING TOMORROW, EH?

rier gear. These new NAVAER publications will be listed in a supplement to the *Naval Aeronautical Publications Index*, NAVAER 00-500, and in the Section K Allowance List, NAVAER 00-35QK-1.

H8 Catapult Information

A revised check-off list and set of safety precautions for the H8 catapult have been approved for use aboard the USS *Oriskany* (CV-34) and the USS *Essex* (CV-9). The check-off list and safety precautions, prepared by the Naval Air Material Center, were based on experience gained in operation of the XH8 field catapult at NAMC and recommendations submitted by the USS *Oriskany* (CV-34). They will be made a part of the Operation and Maintenance Instruction Manual for the H8 catapult, NAVAER 51-15HA-502.

As of 15 July 1951, the USS *Oriskany* has made approximately 1700 successful launchings on each catapult since it has been commissioned, while the USS *Essex* has made approximately 500 successful launchings on each catapult without casualty to aircraft aboard either vessel.

Portable Jet Starting Unit

NAS ALAMEDA has developed a new portable jet starting unit.

When the first jet planes were delivered, there was no efficient means for starting them. Large storage batteries normally used to operate automotive cranes were placed on a trailer and towed to the planes as an emergency measure for starting Allison J-35 engines.

This proved costly as the battery at full

charge provided a maximum of three starts before a recharge was necessary. Then, too, there were safety hazards involved because of open-type cables and an absence of proper control devices, which allowed arcing and possible short circuits when connections were made or broken.

After experimenting, it was decided that a prime mover such as a gasoline driven engine of adequate horsepower would provide



PORTABLE UNIT STARTS JET ENGINES SAFELY

a cushioned start. The unit finally designed is mounted on a four-wheel trailer. A six-cylinder, 70-hp standard 1800 rpm industrial Chrysler gasoline engine with a three-to-one ratio drive to the generators provides the power. The two generators are type CM 74, 400-ampere, 30-volt, operated at 4600 to 4200 rpm.

This unit can be loaded to 1600 ampere without appreciable voltage drop, the voltage being regulated by the standard aircraft regulator found in APA Catalog. This unit has been used to start F9F, FJ, F2H and F3D planes using the newly developed J-42-P8, the J-33-A-8, J-35-A-5 and J-34-30 engines with marked success.

Blueprints and additional information are available at O&R Department, attention Plant Division, NAS ALAMEDA.

• MATS, PACIFIC—Third Air Rescue Squadron wrote in for Japan occupation service ribbons. When the ribbons arrived, it was found the number was correct, but the ribbons all were for the occupation of Germany following World War I.



INSTEAD OF touching down in the usual helicopter fashion, *Clementine*, darling of the USS *Bataan*, makes like fixed-wing plane and snags arresting wire on 22,222nd landing. An arresting hook was rigged on the plane's underbelly, so it could make the landing in the same manner as regular planes instead of coming in to land like a building elevator.

ALL WEATHER FLYING

During the winter of 1950-1951, there were approximately 50 serious aircraft accidents wherein weather was the major factor (excluding those due to deck motion, cross wind landings, ice on runway, etc.). In nearly every instance, the pilot of the aircraft concerned possessed no instrument rating, and was flying in accordance with visual flight rule procedure. A study of crash records for the winter 1949-1950 reveals that similar circumstances obtained. Rectification of this situation is mandatory.

Experience has proved that an aviator who is capable of meeting the requirements of flight over the federal airways is capable of reaching his target in the operating areas under unfavorable weather conditions, provided suitable navigation aids are available, and once there of devoting a maximum amount of attention to his primary weapons. Further, in order to participate in instrument flight or to proceed upon tactical training missions in nearly all training areas of the United States, compliance with civil airways procedures is mandatory.

Reputations on the Line

In no place is the reputation of the naval aviator more in view than in the execution of specified procedures and in meeting the requirements of CAA regulations binding upon military aircraft.

For these reasons and because of the continued incidence of weather caused crashes by unqualified aviators, or aviators proceeding under visual flight rules when instrument procedures would enable safe flight, the Chief of Naval Operations does not anticipate that the mandatory instrument rating requirement now in effect for Group I naval aviators will be relaxed. Certain modifications to cover aviators assigned primary duty as helicopter pilots and those assigned certain special duties are under preparation.

The Chief of Naval Operations has received correspondence which indicates concern over the possibility that certain Group I aviators will find it impossible to comply with the mandatory instrument rating requirement. It is recognized that the attainment and maintenance of an instrument rating is, under certain conditions, difficult of accomplishment and in some cases most impractical or impossible.

There is no intention that any naval aviator be penalized for failure to meet this requirement because of military operational requirements or because of lack of facilities. Circumstances beyond the control of any individual will in no case be considered as prejudicial to the person concerned.

Most Pilots Have Cards

Reports submitted in accordance with *Opnav Instruction 154.2 (ACL 4-51)* for the first quarter of calendar year 1951 indicate that of approximately 9,000 naval aviators upon whom reports have been received, two-thirds have qualified for an instrument rating or expect to qualify during this quarter.

This figure includes aviators deployed to the western Pacific and others for whom the requirement is not mandatory. For those based in the continental United States, the percentage of those who will be qualified on 1 July 1951 exceeds 80 percent of the total.

Since but approximately one-third of the Group I naval aviators in the Navy possessed a valid instrument rating on 1 July 1950, the results of the program to date are encouraging and indicate that a great majority of those concerned are seeking to comply with both the letter and the spirit of existing requirements.



Cart for Unloading 'Brass'

During the period that VF-51 was operating Grumman F9F Panthers from the USS *Valley Forge* (CV-45) in the Korean area, the problem of rapidly unloading "brass" from expended 20 mm ammunition arose frequently. This usual procedure required eight men to unload a four-plane flight using the standard canvas bag and it took five minutes to do it.

The unloading process has been speeded up by a device dreamed up by Earl K. Neifer, AOC, and built by Carrol B. Kirk, AMI.

A small, one-man operated, two-wheel car which is easily maneuvered can easily handle the brass from four aircraft. It is much more efficient than the standard canvas bag which requires two ordnancemen per plane.

• **USS VALLEY FORGE**—What is believed to be one of the largest mass re-enlistments aboard any American vessel took place recently when this carrier had 50 enlisted men sign over for six years while cruising in the war zone off Korea.



OH, OH, GUESS WHO!

LETTERS

SIRS:

Just this evening I was enjoying the March issue of your magazine and I was at once fascinated by your comment on a picture appearing on page five therein.

The photograph is of a Marine sitting on the wing of a *Corsair*. The fact that he is almost directly on top of three .50 cal wing guns and has a few belts of ammunition of that caliber draped on his person seem to bother him not at all. He seems relaxed. One of his legs is dangling over the leading edge of the wing and his facial expression is one of true boredom.

But here is that source of fascination—that intriguing comment which, I might add, is the reason for this letter: "It's hard to tell what S/Sgt. Mike Welsh of VMF-235 thinks about 20 mm F9F ammunition."

It sure is—mighty hard.

RICHARD B. BETTIS, CPL.

FMAW, KOREA

† That was some error on our part if it could be seen clear out in Korea. Will the Marines forgive us for mixing up their F4U with an F9F?



SIRS:

I had a recent experience that may interest your readers, and bearing on your article "New Disease of Link Pilots", in July *NAVAL AVIATION NEWS*.

I was passing through Guam, and was put up in VIP quarters at NAS AGANA. About 0200 I heard an extremely faint radio signal. It took me almost an hour to determine the identifying letters between the on-course signal. I couldn't hear it whenever a car passed or a dog barked, it was that faint.

Then I found I could hear it only in a certain position in bed. Eventually I deduced it was not a nearby monitor or the range station itself; it was being received by the bed-springs.

It faded out in the morning noises. Later in the morning I asked local pilots what station had those letters. They'd never heard of it. It was only by accident, as I was fiddling with an airways manual when coming into Itazuke, Japan, that I learned that there actually existed such a radio station, broadcasting on Guam.

Not having returned there since that time, I am still in mystery as to what kind of radio broadcast it was. But I sympathize with the pilot who made the statement in that article.

C. A. BOND

FLEET LOGISTIC AIR WING
NAS ALAMEDA

† Radio experts say that a person with exceptional hearing might pick up radio programs off his bed-springs, especially if they were slightly rusty. The oxidation deposit might act like a miniature crystal set. Remember the story of the gent in Washington state a while back who claimed he could hear radio programs unaided, his body acting as a sort of receiver?

• **VR-1, PATUXENT**—A pilot and ground maintenance school for personnel of this squadron, to check them out in R6D-1 aircraft will be established this summer. First R6D-1's are expected to arrive shortly in the squadron.

LETTERS

SIRS:

This squadron has completed its carrier qualifications with a record that will give other new outfits something to shoot at. In mid-January VF-23 began receiving F9F-2 Panthers to replace the F4U-4's. The full complement was received by mid-March and an all-inclusive transitional flight program begun to accustom pilots and crew with the new jet fighters.

For six weeks the squadron was at NAAS EL CENTRO for training in ordnance and field carrier landing practice. On 15 April it embarked on the USS Essex.

VF-23 brought to a close its two-week qualification cruise on the Essex with the distinction of having qualified all its 31 pilots without a single accident during the qualification landings, not even a blown tire. During this period, it made 351 landings.

It is felt by squadron members that this is an outstanding accomplishment in view of the relative inexperience of the pilots (17 had no fleet experience whatsoever), the short training period and because it was the first carrier landings for all pilots in the jet-type aircraft. VF-23 also had the added distinction of making the first jet landings on the Essex, which also chalked up its 31,000th landing during this cruise and its 1,000th since its recent recommissioning.

PUBLIC INFORMATION OFFICER



SIRS:

I thought the Flight Safety-Gramp page in June issue *superb*. . . The bunch of crash photos and the opening with Gramp I felt really Bonged the Bell!

The *mass* of accidents all together was what moved me.

I congratulate you people on it.

ROBERT OSBORN
LCDR., USNR

¶ Thanks, Bob. We agree that our Art Director is really sharp!



SIRS:

We noted in the May 1951 issue that NAAS WHITING FIELD believed Lt. (jg) George V. Warren had established an all-time record with 1600 accident-free hours of flying.

We do not like to disagree with our



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neighboring field, but one of our flight instructors completed 1925 accident-free hours before he was transferred from this command. He was Wallace R. Creel, ADC (AP). Enclosed is a picture of Chief Creel receiving a letter of commendation from Cdr. M. H. Tuttle, commanding officer of Corry Field.

PUBLIC INFORMATION OFFICE
NAAS CORRY FIELD



SIRS:

An article in the May issue states that Canadian Naval Aviation was officially constituted a part of the RCN in 1945, but the idea was born in April 1943.

If the records are searched, I believe it will be found that in the summer of 1918 a group of RCNA cadets arrived at Massachusetts Institute of Technology with our own naval aviation cadets. Where they were to report for Primary, I do not remember. Perhaps there are still some old timers around who also remember the Canadian cadets and can add some data.

P. F. LEWIS, USNR
WORLD WARS I AND II



SIRS:

For several years many naval aircraft have been equipped with two basic (vacuum operated) types of gyro horizon indicators. They are both of the same stock number, R88-I-1350. One is manufactured by Sperry, the other by Jack and Heinz. The Sperry type utilizes a small airplane indicator with no center reference point while the Jack and Heinz type utilizes a wider airplane indicator with a small round dot to represent the longitudinal axis of the plane.

Any pilot having flown on instruments using both of the above types will readily agree that the indicator having the wider wing span and center indicator is much easier to use, especially in turns. . . . The Sperry type with small airplane indicator having no center reference is very difficult to control during turns.

Both of these instruments are used in R5D aircraft and probably will be used for many years. It would be highly desirable, especially from the viewpoint of safety, to have the Jack and Heinz type face on all gyro horizons used in the R5D. The Sperry type could be easily modified by simply replacing the small airplane indicator with the type used in the Jack and Heinz.

What, if anything, is being done about this?

J. O. BRAUN
LCDR, U.S.N.

AIR TRANSPORT SQUADRON 8

¶ BUAER says: "The superiority of the miniature airplane with the center reference dot was recognized at the time of AN standardization of gyro horizon indicators. This type has been used since that time. No action was taken to install this type retroactively, however. At the suggestion sent in above, BUAER is investigating the practicability of changing all miniature airplanes to the preferred type."

CONTENTS

OpDevForLant	1
Korean Air War	8
Skyrocket Speed Record	12
Automatic LSO Panel	13
Day in Pilot's Life	14
NACA Wallops Island	16
Thailand Navy Gets SB2C's	18
Soviet Twin-Jet Bomber	19
Navy's New Blimp	22
Blueprint for Reserves	23
Reserves Battle Floods	24
Loblolly Boys	26
Bunyan's Bog Bombers	29
Navy Gets Big Carrier	30
F9F Photo Unit in Korea	31
P4M's in Speed Tour	33
El Toro Maintenance	35

● THE COVER

View inside the 16-foot transonic wind tunnel at NACA's Langley Field research center shows vanes and air vents for cooling. This giant tunnel is driven by two 30,000-hp motors driving counter-rotating fans.

● SUBSCRIPTIONS

An unclassified edition of Naval Aviation News, containing special articles of interest to Reserves, is available on subscription for \$2 a year through Superintendent of Documents, Government Printing Office, Washington 25, D. C.

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SQUADRON INSIGNIA

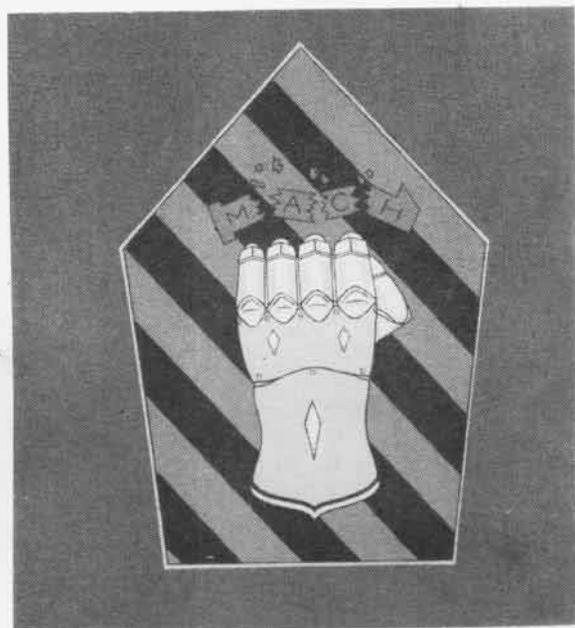
FOUR NEW aviation insignia are presented this month. NAS Niagara Falls, a Reserve station, features a delta-wing plane flying past the famous falls. ASW squadron VS-27 has a pelican with sub in its beak. VC-4, an all-weather outfit, has its Latin motto, "Night is our best ally," a black cat to see at night and live coals representing planes' armament. VF-21 has a mailed fist smashing the mach meter needle, typifying the squadron nickname, "The Mach Knockers." Background is red and black.



VS-27



NAS NIAGARA FALLS



VF-21



VC-4

Out Of Mothballs, Into Battle



NAVAL AVIATION
NEWS

War broke out in Korea 25 June 1950. Navy and Marine Corps Reserve pilots and crews rushed back to man the de-mothballed carriers. They were ready, trained to handle the equipment and planes they soon were using to fight the Red Koreans. They had kept abreast of new developments and techniques of naval aviation. Naval Aviation News is proud to have done its part in keeping them informed.