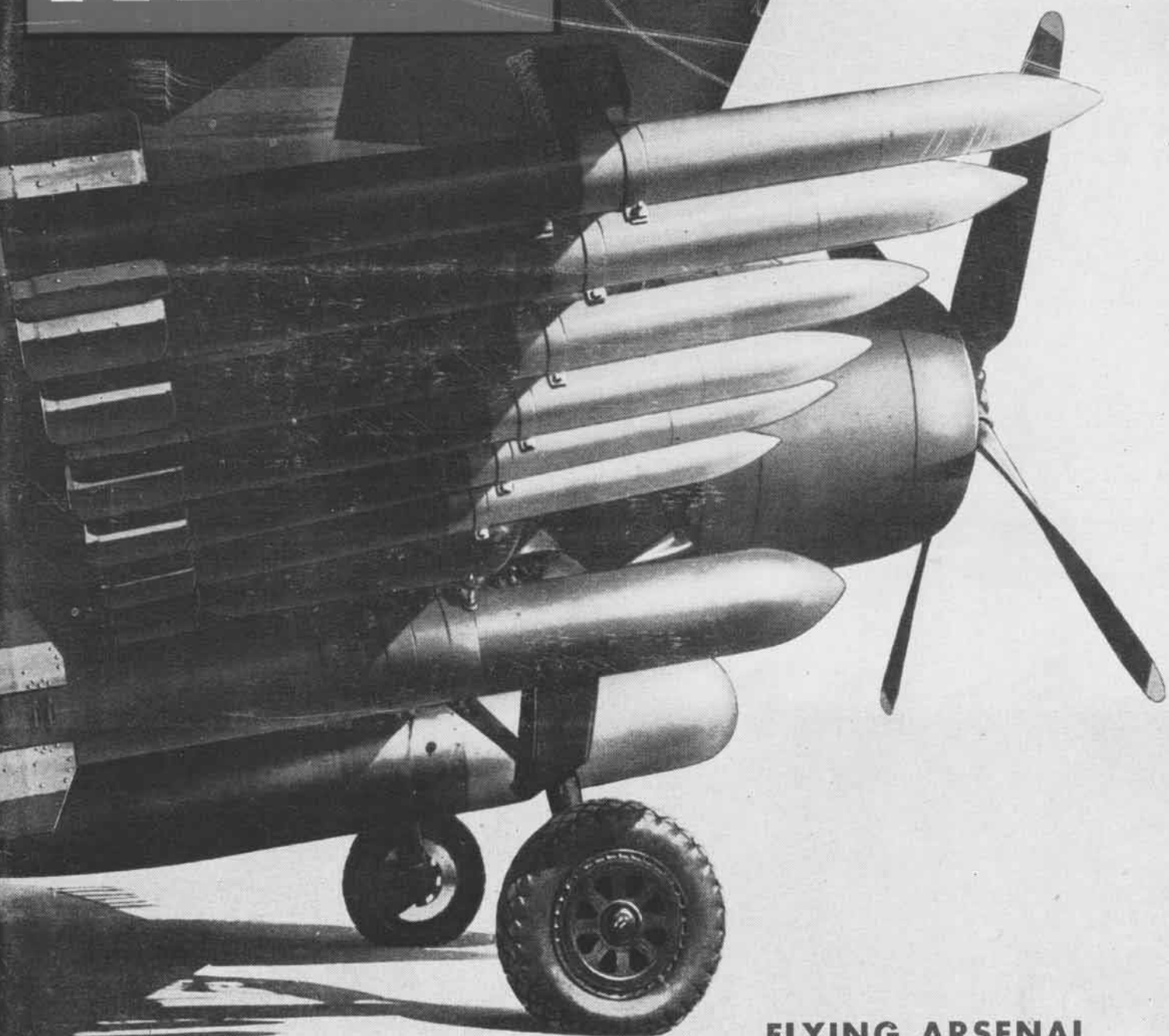


NAVAL AVIATION

NEWS

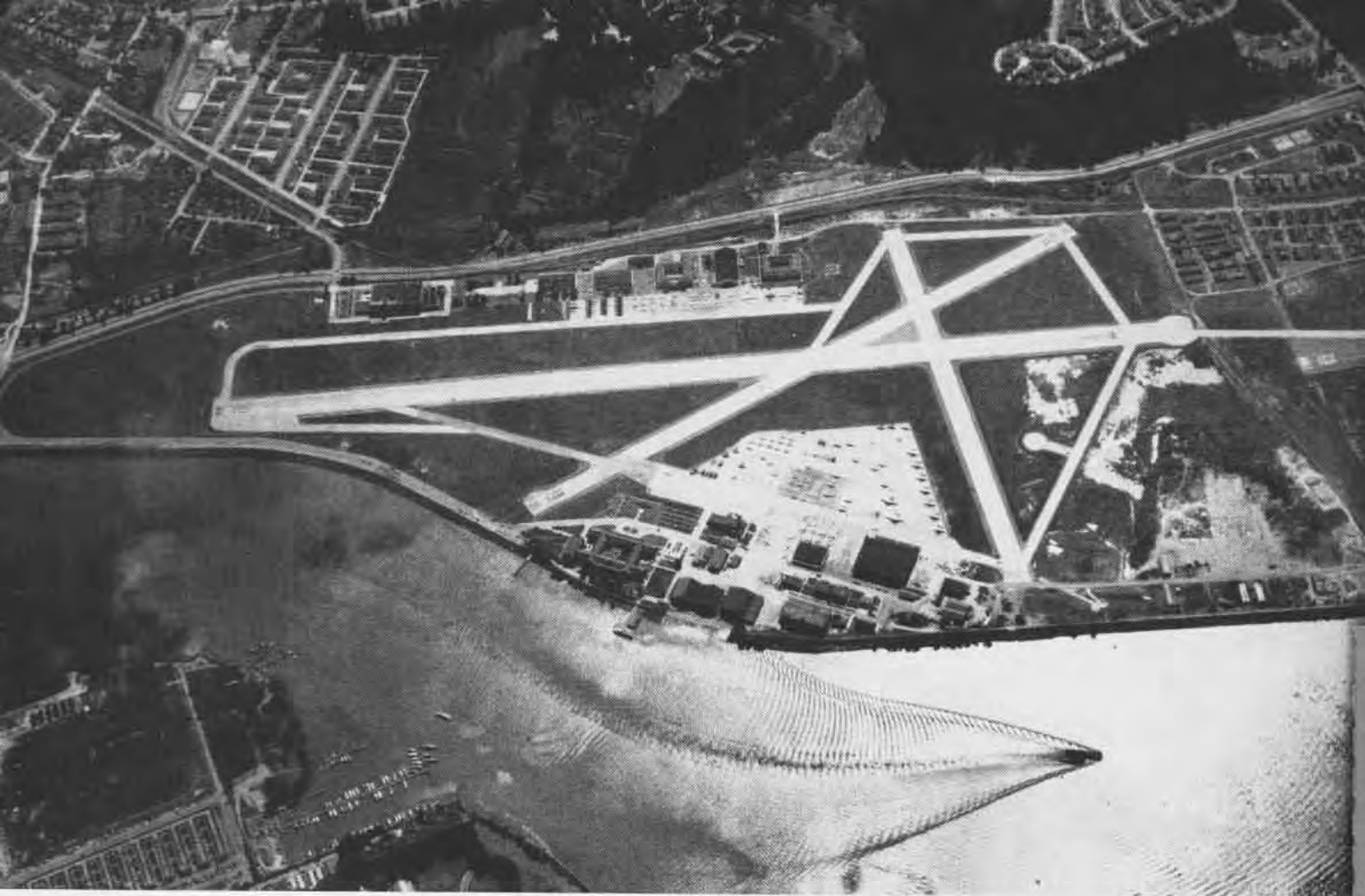


FLYING ARSENAL

Marine Maneuvers
Dirigible Hegira
Storm Evacuation

November 1947
RESTRICTED





YOUR HOME BASE?

So you think you know your home air station from aloft? Then see if you can tell where these two fields are. Navy Department habitués should recognize the upper one at least. *Answer on last page.*



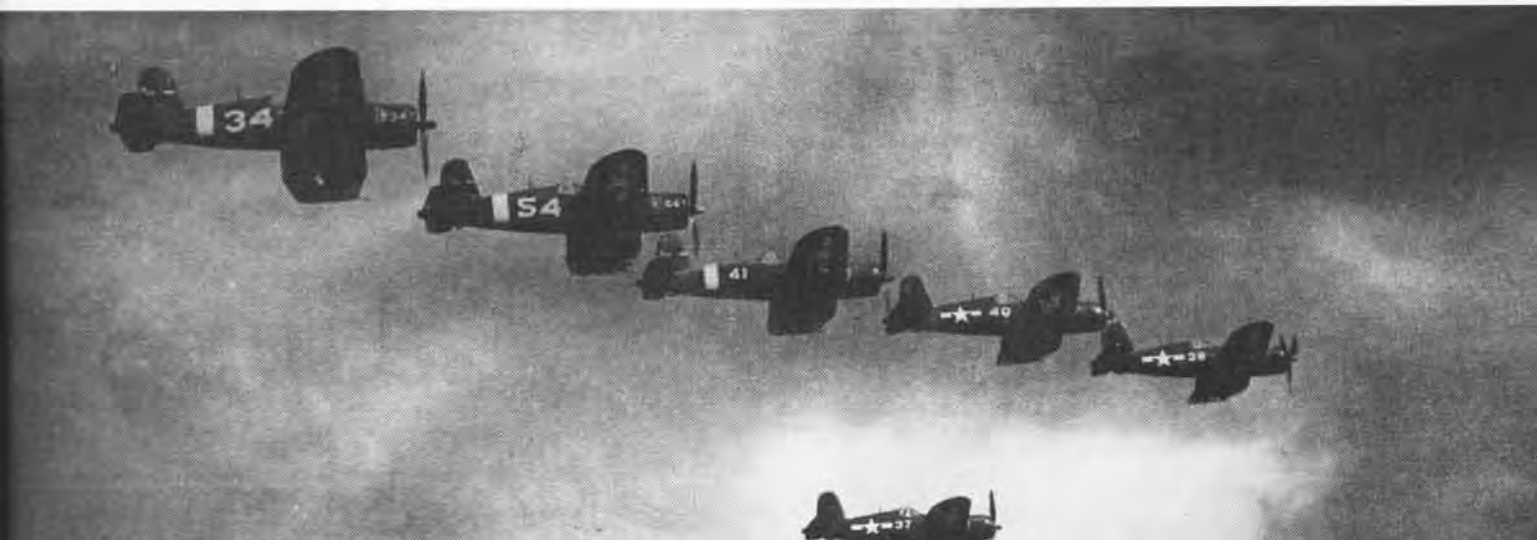


Marine Air 'War'

IN CASE OF a national emergency, how fast can the Marine Air Reserve mobilize its forces and be ready to fight?

The Marines found the answer to that question when they held the first nation-wide mobilization of fighter squadrons and radar-equipped ground intercept squadrons at Cherry Point and El Toro.

Seventeen squadrons from all over the Atlantic seaboard flew to Cherry Point in a single day. At El Toro, bad weather and longer distances required three days to mobilize 15 squadrons. At both air stations, civilian "week-end pilots" and ground personnel spent two weeks on active duty training, a unique program.



Cherry Point



NORFOLK RESERVES FROM VMF-233 REFUEL CORSAIR DURING MOBILIZATION AT CHERRY POINT

BECAUSE of their compactness and mobility, Marine Reserve squadrons were able to gather at the two remaining Marine Corps air stations—at Cherry Point from August 15 to 30, and at El Toro from September 8 to 20. Success of the operation exceeded expectations both as to speed of mobilization and the value derived from the training.

In one day's time, every Marine Reserve squadron east of the Mississippi river and all of their mechs and ground personnel were transported from their home base to Cherry Point or flew their fighters there. The feat was outstanding and gave the Marines a fighting force of 176 *Corsairs* one day after they got their call to duty.

Fifteen R5C's from VMR-252, commanded by Maj. C. W. Somers, supplemented by 10 R4D's and one JRB transported officers, men and gear to and from the mobilization. They flew shuttle hops, like Lt. E. A. Allen, one transport pilot, who hauled the Miami contingent north, then later the same day hopped to Philadelphia and brought the Reserves down from Willow Grove.

Another outstanding record of the Cherry Point mobilization was the over-all total of 5,235 hours flown by pilots of the 12 squadrons, without a single fatality or accident of any consequence.

Top the hours-flown record off with the remarkable plane availability record made by those squadrons—87½% of all planes fit for tactical flying each day of the two-weeks period.

Marines from Willow Grove, commanded by Maj. Henry S. Miller, led all squadrons at Cherry Point with 92% availability.

Pilots at Cherry Point flew more than 3,500 hops to get in their practice in gunnery, bombing, rocket firing and tactical exercises supporting ground troops—the major job of Marine aviation today. Highlighting this phase was the close air support work the *Corsairs* did with ground troops from Camp Le Jeune.

These maneuvers benefitted pilots as well as the Marine Control Ground Intercept Squadrons (MGCIS) directing the support. These radar outfits are the only ones of their kind in Reserve aviation—five on the east coast and three western squadrons. They have nine officers and 80 enlisted men, compared to normal fighter squadron complements of 164 enlisted men and 35 officers to operate the average of 15 planes per squadron.

In the evening, voluntary lectures were given so that Reservists could get up-to-date on latest military developments, both ground and air. But some of the best sessions were held by groups of wartime buddies who had not seen each other since demobilization. Staging of a joint mobilization of all eastern and western squadrons helped considerably in boosting morale by giving men a change of scenery, a chance to do some real training and to get together with old shipmates.

OUT OF the 1500 personnel who took part in the Cherry Point mobilization, 500 were new teen-age recruits who had no war service and were comparatively green in Marine aviation. It was their first chance to see a lot of planes operating from a single base and observe how big-league flying is done. All of them went home with the feeling that they were full-fledged Marines.

In the ground-air support problem, half of the pilots watched the first day's "war" from the ground, going aloft the second day to fly support. Infantry officers get the real word on aircraft by having pilots along with them, and the pilots soon see why accurate support is vital to troops.

Squadrons participating in the Cherry Point mobilization were: VMF-321, Anacostia; VMF-244, Columbus; VMF-121, MGCIS-22, Glenview; VMF-351, MGCIS-15, Atlanta; VMF-251, MGCIS-19, Grosse Ile; VMF-144, Jacksonville; VMF-142, Miami; VMF-132, New York; VMF-233, Norfolk; VMF-217, VMF-235, MGCIS-21, Squantum; and VMF-451 and MGCIS-17, Willow Grove, Penn, a total of 17 squadrons from 11 stations.





Gen. Vandegrift and Brig. Gen. C. F. Schilt, commander of Marine Air Reserve, meet civilian fliers at Cherry Point



Reunions of old squadron mates were common during maneuvers; here some VMF-121 pilots from Glenview, Ill., talk



Squantum enlisted-man Reservists from VMF-217 practice belting ammunition; squadrons flew to Cherry Point in single day

Five hundred teen-age, non-vet recruits to the Marine Air Reserve took part in mobilization; here they learn of engines



Plane handler from Jacksonville Marine Air Reserve directs *Corsair* taxiing out to Cherry Point runway for a short hop

Civilian-mech at Cherry Point keeps his hand in at rearming *Corsair* with miniature bombs for attacks on 'enemy' pillbox



El Toro



THREE 'VISITING FIREMEN' WATCH SGTs. EDDINGS AND MOKE OF MEMPHIS CHECK HYDRAULICS

WHEN the Marine Air Reserve mobilized its western United States squadrons at MCAS EL TORO, it was a real long distance operation. Although they were closer to Cherry Point, many stations along the Mississippi river flew to the western maneuvers so that the number of squadrons at each would be approximately the same.

VMF-221 traveled the farthest distance of any squadron taking part in either Cherry Point or El Toro maneuvers. Its *Corsairs* stopped four times to refuel while covering the 1841 miles from St. Louis to California. Minneapolis' three squadrons traveled 1740 miles, Memphis 1771 and New Orleans 1764.

Denver's men flew 1031 miles; Olathe, Kansas, 1591, and Seattle 1149. Record for the easiest hop went to Los Alamos' three squadrons which hardly got their wheels up before they had covered the 20 miles to El Toro.

Beginning Sept. 8, the 1400 officers and men who took

St. Louis pilots Zeigler, Morgan and Weitkamp check maps during refueling stop at Olathe en route to the west coast



part in the El Toro activities flew their own *Corsairs* or came in transports for their two-weeks tour. The lure of Southern California helped draw 15 squadrons from the 10 western Reserve stations.

Fourteen R5C's and an equal number of R4D's, flown mostly by VMR-252 again, ferried 1100 non-pilot Marines to El Toro. Because of the long distances or bad weather, the last of the Reserves did not arrive at El Toro until the third day of the period. Early birds, however, lost no time, as training flights started when the first men arrived.

Morning ground fogs curtailed early flight operations during most of the two-weeks training period. This evidently had its good points as plane availability at El Toro, for all squadrons, was 92%, same as the best squadron could attain at Cherry Point. Total hours flown at El Toro was 5,716, eclipsing the eastern record, and total training flights made were 3,422, slightly less. Ground control intercept squadrons

Capt. Haskell checks in Seattle groundcrewmembers Jones, Tobias, Kiskaddon, Arrowsmith and McGraw boarding R5C





Civilian-pilots from VMF-241 at Los Alamitos, Lts. Bolinski, Thomas and Antone, figure out their 20-mile hop to El Toro



Maj. Drury, CO of VMF-117, New Orleans, explains full deflection to Lts. Hayden, Spence, Wright and Edwin at El Toro

set up their radar air-search gear at Camp Pendleton and operated from there.

When the mobilization program got underway, fighters got in plenty of gunnery, rocket and bombing practice in the barren hills behind El Toro or over the Pacific. Highlight of the two-weeks period was close air support exercise run off at Camp Pendleton in conjunction with ground Marines.

Working with a Pacific fleet force led by the three attack carriers *Tarawa*, *Boxer* and *Valley Forge* and the escort carriers *Rendova* and *Bairoko*, Marine Reserve fighters made mock attacks on the "invading fleet."

Two groups of fighters carried out the interception, one coming in low over the water to escape radar detection and the second using glide bombing. The exercise gave ship's gunners tracking practice and their CIC crews a chance to detect and follow the attacking planes.

WHEN fog banks closed out flying in the mornings, pilots and ground personnel listened to lectures by station men on engineering, electronics, ground controlled approach and other late developments. More-experienced squadron leaders gave their teen-age general duty enlisted men instruction in handling and repair of their planes.

After the day's flying was over, night lectures were held. Speakers from Chance Vought, BUAER power plants section, CAA and others gave the Reservists the latest word on new developments in their fields. Talks included dope on air support, jet planes, pilotless and guided missiles and experimental planes that Reserves may fly some day. The station's GCA unit checked many pilots out in dummy runs when the field was open for flying.

After maneuvers were completed, transport squadrons again flew them back to their home bases and took rear echelon personnel back after last details had been cleaned up. Before the mobilization started, check crews had been flown in ahead to get El Toro ready. All these jobs kept transport pilots of VMR-252 and VMR-152 busy.

Squadrons which participated in the El Toro maneuvers were: VMF-241, VMF-123 and MGCIS-18 from Los Alamitos, VMF-236, Denver; VMF-213, VMF-234 and MGCIS-16, Minneapolis; VMF-216, Seattle; VMF-112, MGCIS-20, Dallas; VMF-124, Memphis; VMF-143, New Orleans; VMF-221, St. Louis; VMF-215, Olathe and VMF-141, Oakland, a total of 15 squadrons.



Reserve personnel of VMF-234, Minneapolis, dope off while en route to western maneuvers; looks comfortable, doesn't it?



Sgt. Niesen, ground crewman of VMF-213, Minneapolis, works on launcher while Sgts. Marchio, Esslinger, Higgins confer

GRAMP AW PETTIBONE

Some Ride, Eh?

A Reserve Ensign took off from NAS ATLANTA recently for a short familiarization flight in an SNJ. In the rear seat he carried an aviation machinist's mate who had come along for the ride. After flying for about an hour the pilot headed back toward the base and ran into light rain—and a few other objects on the return trip. The following excerpts are from the pilot's and passenger's statements:

Pilot: "I started through the squall as it seemed quite small, but due to excessive radio interference caused by lightning I was unable to get the beam. I then made a 180 degree turn but became disoriented due to the darkness."

Passenger: "The light rain suddenly changed to a terrific rain with heavy winds. The pilot called back and said that he had lost the beam. There was a lot of static, and lightning was popping quite frequently."

Pilot: "I let down to look for landmarks, and had to go quite low in order to recognize anything due to the squall."

Passenger: "He asked me to look for landmarks and names on signs or buildings. It was raining pretty hard when we had the collision."

The collision referred to was the severance of four high tension cables midway between suspension points located on the ridges on opposite sides of the Chattahoochee River. The cables were approximately 60 feet above the river and some 200 feet below the adjacent ridges.

Passenger: "At first I thought that lightning had struck the plane. Then the pilot called back and said that we had hit some wires and asked if I was O.K. . . . and asked me to check the tail surfaces. I called back and said that there was no damage to the tail surfaces that I could see."

Pilot: "I immediately climbed to 2500 feet and checked the plane for damage. The flight characteristics were unchanged except that the plane shuddered under 100 knots. The landing light on the port wing was knocked out and the starboard wing had a cut about two feet long from the leading edge to the trailing edge at about the center of the wing. I thought that I was north of the field and a little west so I took a heading of 150 degrees. The beam was still incomprehensible."

"Finally I flew over Monroe and



identified it by a sign. I did not know the exact location of Monroe in respect to Atlanta. I first flew further south, but the jumbled beam seemed to get weaker, so I flew northwest. I saw a plane going in the same general direction and followed it for a few minutes and finally saw Stone Mountain. I could not understand the NAS ATLANTA tower but they must have read me. I asked for a green light if the landing gear appeared O.K. and they flashed a green light as I flew by the tower in low pitch. I landed at 1419 without further mishap."

Grampaw Pettibone says:

"I'm still trying to figure out why you still had your passenger with you when you got back—maybe you never got high enough for him to jump?"

I guess by now you realize that you flew right smack into a thunderstorm and that once you were in it you did just about everything wrong.

The weather reports show that this cumulo-nimbus cloud was about 50 to 60 miles NNE of the station at the time of your take-off and was moving towards Atlanta at about 30 to 35 miles per hour. It actually passed the airfield just four minutes before you landed. Now let's add up your mistakes:

1. You apparently didn't recognize what you were getting into, but you at least should have known that you were on a contact flight plan and that you should have turned back or gone around the squall. The rule is: "If you can't go around a thunderstorm, find a place to land and sit down and wait for better weather."

2. The next rule that you forgot was: "Don't turn around once you get well into a thunderstorm." Had you remembered this you would have broken out in the clear in a matter of four or five minutes of rugged straight and level flight.

3. You had plenty of gas left for two or three hours of flight, but you got excited

when you realized that you were lost and went down to 60 feet above the terrain in heavy rain to look for sign posts.

4. Even after you discovered that you were over Monroe which is within a 50-mile radius of Atlanta, you didn't know which way to fly. A lot of smart aviators solve this problem by carrying charts with them.

My advice to you is **STAY ON THE GROUND UNTIL YOU LEARN A FEW OF THE BASIC PRINCIPLES OF INTELLIGENT FLIGHT PLANNING.**

Slow Down Boys!

Case #1. Pilot landed JRF-5 on glassy water in slight crosswind at a speed of 80 knots. Approximately 50 feet after the plane landed the nose began to dig in and the plane water-looped to port so violently that the starboard wing tip float, struts and strut fittings were torn off and the float was carried through the aileron and the trailing edge of the starboard wing.

Case #2. After failing to raise the tower for landing instructions pilot came in downwind for landing. Sea was calm with 7 knots ESE wind. Area was clear and no other planes on the water at the time. The JRF was held off the water at about 80 knots; throttles were closed. After contact with the water the aircraft began to yaw first to the right and then to the left. In rapid succession the left wing tip float was torn loose and then the right wing tip float was shorn off, damaging both wing panels.

Grampaw Pettibone says:

While both of these accidents resulted from multiple pilot errors, I think that the major error in each case was in landing the airplane too fast. In the second case, the fact that the airplane was landed downwind increased the speed at which the aircraft contacted the water by 14 knots over what it would have been had the landing been made into the wind. The pilot certainly displayed poor judgment in continuing his downwind landing after he approached the water close enough to determine the wind direction.

Technical Order 96-42 (par. 5) concerning restrictions on the JRF is quoted below:

"Reports have been received of a porpoising tendency of the JRF airplanes under certain conditions. It is believed that this trouble can be avoided if the speed of water contact is kept as low as 70 knots. Since these airplanes have good lateral control at the stall, the landing range from 57 to 70 knots is desirable and should present no difficulty to the pilot, even under overload conditions."


Poor "Batten" Average

A *Corsair* pilot hurriedly changed planes after the rest of his flight had left the line and accepted the second plane without visually checking the control surfaces. He adjusted the rudder pedals and taxied to the rocket loading area where four rockets were loaded on the left wing of his FG-1D.

On take-off he was number four in a flight of six. During the early part of the take-off run he noticed a strong swing to the left, but thought it due to slipstream and with added throttle managed to get airborne. At an altitude of 10 feet the yaw to left became so strong that the pilot realized that he could not control the plane.

He chopped the throttle and munched into the ground, wheels down, about 50 yards to the left of the runway. The aircraft struck on the left wing. The rockets were knocked off and fortunately did not explode. The left wing and fuselage were crumpled, but there was no fire. The pilot loosened his shoulder harness, discovered that he had suffered only minor leg scratches, and climbed out of the wreck after cutting all switches.

It was then that he discovered that he had attempted a take-off without removing the rudder batten.

 **Grampaw Pettibone says:**

Looks to me like a lot of people must have been sleepy-eyed that morning. Better get those battens painted a bright red color and tie a few streamers on them to increase their visibility. I'll tell you another thing you can do to make up for banging up that nice new fighter. Get yourself a wallet-size picture of that crumpled *Corsair* and every time you show it to other pilots, tell them about those "wonderful shoulder straps."

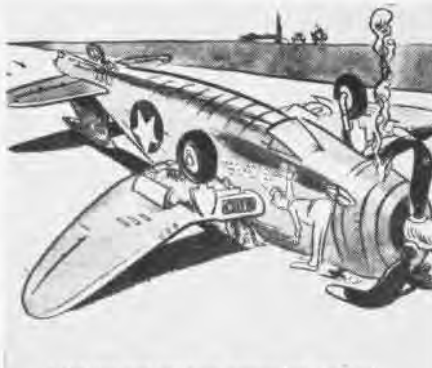
Another Propeller Fatality

The plane captain of a PBV-5A was standing on the wing after cranking the port engine manually. When the engine started, he attempted to climb down over the leading edge of the wing to enter the plane through the navigator's hatch. He slipped on an oily surface and fell through the port propeller to the ground.

 **Grampaw Pettibone says:**

The PBV handbook advises entering the aircraft from one of the two waist gunners' blisters when the engines are turning up. Common sense should indicate the hazard involved in trying to climb down between the whirling propeller and the leading edge of the wing into the navigator's hatch. There's room enough to do it, but no room for error.

By the way, my old accident files contain several instances of pilots who have lost two or three fingers during a buoy approach while signaling from the pilot's




LOCK that hood OPEN for landings and take-offs!

escape hatch. It's been some time now since the last instance, but perhaps a warning is in order. Watch where you swing your arms. Those propellers are still mighty effective slicing machines!

Glamour Boy!

The daring young flier whose lower extremities are pictured below isn't about to take off on a flight over the jungles, despite the wicked looking weapon strapped on his left leg. Actually he's standing on the wing of an F8F-1 just after the landing gear collapsed on his return to NAS El Centro, California after a night tactics flight.

The landing was normal, but shortly after touching down the right tire blew out. During the vigorous application of left rudder and brake necessary to keep the plane rolling straight, it is believed that the handle of the knife hit and released the locking plunger allowing the up-tensioned lever to fly to the "UP" position.

 **Grampaw Pettibone says:**

That's a glamorous looking getup, son, but I'm glad your squadron now has an order prohibiting the wearing of articles strapped to the lower left leg while flying in F8Fs. By the way, just about a month ago a PV pilot ran into the same difficulty when he inadvertently retracted his landing gear with a bulky article, which was stowed in the right knee pocket of his flying suit.



VA-6A Safety Record

Attack Squadron Six-ABLE reports the following safety record for the past eleven months.

- (a) Hours flown—3810
- (b) Carrier Landings—140
- (c) Catapult shots—110
- (d) Accidents—NONE

The commanding officer comments that this record involved some luck as evidenced by the following incident which occurred during the eleven-month period. We quote from Ensign "DILBERT'S" statement following an emergency landing in a TBM:

"We were joining up Southwest of Point Loma at approximately 3,000 feet. My power settings were 2050 rpm and 39" mp. My engine started cutting out intermittently. I called the other planes and informed them that I was going back to the field for an emergency landing. I then switched to the tower frequency and called the tower informing them that I wanted to land downwind on the four ball course, because this was straight in.

"I checked all instruments and everything was normal. I found that by increasing the rpm to 2400 or above and adding manifold pressure to 35" or more, the engine would run OK. When I learned this I was nearing the field so I came on in for a landing downwind. I touched the wheels when the plane was going 90 knots about halfway down the mat. Realizing that I couldn't stop without ground looping or raising the wheels, I added power.


"It took full power normally so I left full power on it and held the plane on the runway building up excessive speed and then pulled up over the planes at the end of the mat. I continued on out over the bay then made a nose low left turn into the upwind runway and landed. The engine would not run throttled back so I turned off the runway to the right and stopped.

"In my opinion I made the following mistakes: The engine started cutting out at 3000 feet. I should have tried to hold my altitude thereby having time to bail out in case of fire and also I should have come into the field high so that I could have picked a better runway into the wind or at least cross wind. I shouldn't have added power to go around in preference to ground looping even though the engine had checked OK at high power settings during let-down.

"Before take-off I made an idle mixture check and a mag check and a full power check. All of these checked out OK."

John Dilbert,

Ens., AV-H, U.S.N."

 **Grampaw Pettibone says:**

Well, John, I'm mighty glad you made it. Right now you're just an associate member of the "I WENT AROUND AGAIN WITH A BAD ENGINE CLUB," but watch out. Next time you pull a stunt like that you're likely to qualify for the wings and halo that go with a full membership. Congratulations to Attack Squadron Six Able for an outstanding safety record despite your rigorous flight operations.

DID YOU KNOW?

'Hotshot' Sets New Record Flies Cross Country Under 9½ Hours

Naval Air Transport Service's *Hotshot* flight from San Francisco to Washington lived up to its name on September 17 when it established a record for the run in nine hours and 21 minutes.

Aided by a terrific tailwind, probably an effect of the Florida hurricane, the R5D piloted by Lt. Jack Cowles eclipsed the previous record of 10 hours and 12 minutes. NATS planes flying westward on the same run took 15 hours to buck the headwind. Lt. (jg) A. L. Jones was co-pilot on the record-breaking flight.

VR Pilots Get VF Training Marines Report Findings in Transfer

MCAS-223, EL TORO—How much of a job is it to make a fighter pilot out of a multi-engine combat or transport plane pilot? This squadron after having given transitional training for a group of pilots has some interesting observations:

A large variation in adaptability is noted among student pilots. Although 12 hours seems about right for SNJ time before they step into *Corsairs*, it has varied from eight to 25 hours with pilots of similar background.

Transport pilots have the most difficulty. Even a little single-engine time seems to make adjustment to fighter tactics much easier. This fact indicates the desirability of transport pilots maintaining proficiency in some single-engine type in view of the fact that Marine aviation basically is fighters.

The squadron piled up something of a record when its pilots flew 1,546 hours during July, with 67 percent plane availability. The men got nine hours in the SNJ dual with the instructor in the back seat. The training was complicated by the fact some pilots had flown only multi-engine aircraft since finishing flight training and consequently had lost contact with some basic fundamentals of tactical flying not encountered with larger planes.

Navy Men Finish Jet Study Westinghouse Graduates 3d Group

BARR, ESSINGTON, PA.—Nine naval officers and enlisted men recently were graduated from a thorough jet engine course conducted by Westinghouse Aviation Gas Turbine Division.

The course consisted of 320 hours instruction on the J-30-WE (19XB-2B)



JET EXPERTS FINISHED A SEVEN-WEEK COURSE

and J-34-WE (24C-4B) jet engines. The students studied theory, operation, installation, maintenance and overhaul of turbo-jet engines.

Approximately 50 officers, enlisted men and key civilian personnel have taken the course and are now helping to set up the Navy's jet program.

Graduates shown in the photo below include (front row) J. H. Guthrie, instructor; J. H. Schucraft, CWO, USMC; Lt. W. R. Guijer, USN; B. T. Frassinelli, ACMM, USN; (Rear) S. J. Pisarski, AMMI, USN; Lt. S. B. Lewis, USN; Lt. J. Vaughan, USN; F. R. Nelson, ACMM, USN; R. M. Simpson, ACMM, USN.

Aerologists Add New Course Specialists Getting Advanced Training

The Naval School for Aerographer's Mates at NAS LAKEHURST, N. J., now has in operation a Class C school for experienced Chief Aerographer's Mates. This school brings chiefs up to date on latest Navy, Army and civilian developments in meteorology. The first class



STUDENTS CHECK WEATHER IN AIRBORNE CLASS

convened at Lakehurst on 7 July 1947.

The new 10-week course will include latest developments in basic meteorology, meteorological instruments, map analysis, forecasting, oceanography and aerological electronics. Chiefs returning from specialized duty at sea will take the new course before returning to shore billets.

Capt. G. F. Kosco USN, OinC of the Aerology School, was meteorological officer in charge of *Highjump* and *Frostbite*. Eventually, after all the meteorological data gathered on the expeditions have been evaluated, polar forecasting technique will be included in the training program.

Practical application of methods used at the school is made in an R4D flying classroom. After checking weather conditions along a proposed route, student aerologists go aloft and use various meteorological instruments in the flying classroom to check their predictions first hand.

The Naval School at Lakehurst is a Group Three activity under the Chief of Naval Air Technical Training. Prior to the opening of the Class C school, this activity had only the less specialized Class A and B schools.

Yachts In Practice Search VP-HL-13 Uses Race Ships as Target

VP-HL-13, PACIFIC—The running of the 1947 TransPacific yacht race from San Pedro, Calif., to Honolulu in July coincided nicely with the squadron's quarterly flight syllabus, and the yachts were used as targets for long-range search missions.

When the leading yachts were estimated to be about 800 miles from Honolulu, the squadron commenced search and established contact with them at a distance of 850 miles. With the position of the first few plotted, the squadron readily set up a sector barrier to intercept each succeeding yacht for identification purposes. This exercise gave the squadron excellent practice in the following phases of their quarterly flight syllabus:

Oceanic navigation, radar and visual sector searching, encoding messages with the standard aircraft code, blinker and international flag identification, shifting of frequencies while in flight, weather reports and cruise control practice. Benefits to all were great.

Nats Drops New York Stop Floyd Bennett Is Now Flag Stop Only

With the dispatching of its last regular flight on 23 September, NAS NEW YORK became a flag stop only on VR-1's coastal hospital flights. Disestablishment of the VR-1 NATS Detachment, Floyd Bennett Field, was authorized by DCNO (Air).

Basic reason for the disestablishment was the prospective transfer of a portion of the field to the Port of New York Authority. All other naval facilities have moved to one side of the field.

Since the movement of the NATS detachment was found to be prohibitively expensive, authorities decided to discontinue the stop. The first NATS flight went into Floyd Bennett on 2 March 1942 piloted by Lt. (jg) S. W. Hopkins, USNR, later CO of VR-7 at Miami and VR-3 at Olathe.

Carrier Launches Phantom Two Pilots Fly Planes to Air Races

First catapulting of the FH-1 *Phantom* from an aircraft carrier deck was made recently when two of the jets were launched by the *Kearsarge* and flew to the Cleveland Air Races.

The *Phantom* had been flown off the deck of the CVB *Franklin D. Roosevelt* a year ago, but this was the first time it had been catapulted. Pilots of the two aircraft were Lt. Cdr. J. J. Davidson, who flew the plane off the *FDR*, and Lt. Cdr. Butch Davenport. Both are attached to Patuxent flight test.

The *Kearsarge* was at sea off Quonset Point. On arrival over Cleveland, the planes could not land due to weather and had to go to Buffalo, but later returned to Ohio, one landing at Cleveland and the other at a nearby field.

First plane to be catapulted from a U.S. carrier was the P-80 test jet from Patuxent River, launched by the *Roosevelt* last fall. It was piloted by Major Marion Carl, holder of the world's speed record of 650 mph. in the D-558.



What is it? Viewed from above, it looks like a flying saucer, but in side view the Vought-Sikorsky V-173 resembles a *discus* with *stork legs* and a rudder. It is a plywood prototype of the XF5U.

Restricted



FOR USE IN RAPIDLY COMPUTING FLIGHT TIME

For Faster Time Computing

Naval Reservist Designs Flightimeter

The Flightimeter was designed by an enlisted Naval Reservist in the A&R department of NAS NEW ORLEANS. The device is for use in flight shacks where a great deal of computation is necessary. It quickly translates odd minutes of flight time into tenths of an hour.

The device as pictured indicates a theoretical take-off time of 01 (it could be 0801, 1301, etc.). The landing time is indicated in minutes by the outside numbers, and with the arrow on the proper take-off time, is automatically converted into tenths of an hour on the inside circle. For example, if take-off time were 0901 and landing time 1145, the 45 on outside circle would fall in the .8 of an hour area. Therefore, flight time would be 2.8 hours.

Training Unit Wins Trophy Takes Safety Award for Third Time

NAS JACKSONVILLE—*Avenger* flying VA-ATU FIVE is still the safest single engine squadron in the Navy's Advanced Training Command. For the third consecutive time the squadron won the coveted single engine safety trophy.

Rear Admiral Ralph Davison, USN, chief of NAATC, recently made the presentation to Lt. Comdr. G. Macri, USN, skipper of the squadron which set the highest single-engine safety record since inauguration of the competition in February 1946.

Squadron members believe that ability of the engineering department, combat experienced instructors and highly qualified enlisted personnel are the strongest reasons for this year's record. VA-ATU FIVE will retain the trophy until 1 July 1948.

Since its origin, the safety in flight "Oscar" has been in continual custody of VA-ATU FIVE. This year the NAATC's efforts to raise safety records of all units did much toward bringing one of the safest years in its training history.

VP-MS-ATU 10 won the trophy for the safest multi-engine squadron in the command for the second consecutive time. In 11,565.3 hours, the *Mariners* suffered but one minor accident. This accident occurred when one beaching gear slipped loose on a PBM-5 being hauled up a ramp.

Drone Craft Saves Fish Boat Heavy Seas Make Task More Difficult

UTRONS, PACIFIC—While returning from operations as a TDD target airplane control boat, an AVR boat attached to VU-7, detachment Able, rescued a disabled fishing boat with four men aboard in Catalina channel.

The boat was sighted with a white shirt rigged to the mast. A tow line was passed and heavy seas parted the line. One man from the fishing boat was thrown overboard and immediately rescued by the crash boat. Towing was resumed with a longer and heavier tow line.

Continued heavy seas necessitated many course changes and slow towing speed to prevent capsizing the fishing boat. Failure of radio communications between the AVR and its base at NAS SANTA ANA added tenseness to the situation and the base dispatched a second boat to search for the overdue craft.

Big Helicopter Given Tests Piasecki Transport Is at Patuxent

Final tests on the Navy's new twin-rotor 10-passenger transport helicopter, the Piasecki HRP-1, are being held at Naval Air Test Center, Patuxent. The Navy has ordered 20 of the aircraft for delivery by the spring of 1948.

The *Rescuer* is powered by a 600-hp P&W engine and can ascend and descend vertically with more than a ton of useful load. Its speed is more than 100 mph. Eight passengers and two crewmen can be carried, with space for six litter patients if desired, with 300 mile range under full load.



NAVY GETS FIRST NEW PIASECKI HELICOPTERS

The aircraft's two sets of rotors are located at opposite ends of the 48-foot fuselage, turning in opposite directions to offset torque found in most planes.



GROUND CREWMEN AT DALLAS RUN TO GRAB LANDING LINES ON K-47 AS SHE COMES IN FOR LANDING; BLIMP HIT 60-KNOT WIND AT THIS STATION

BLIMP HEGIRA

IF YOU were to travel across Louisiana, Mississippi, Alabama or Georgia today you might find a swath of the colored population with white hair.

No, the Negroes are not albinos—they are the aftermath of ZP-1's transcontinental movement of six blimps from Santa Ana, Calif., to Weeksville, N.C. They're all "quick blonds," thanks to the big bags.

Flying a few hundred feet over the tops of the pines, the big silver airships created a furor in the Deep South. As they came into sight, the crews reported, Negroes large and small, chickens and livestock looked up in terror and scattered like a bursting bomb for refuge in the boondocks.

Movement of ZP-1 from the West Coast to the East concentrates the Navy's entire blimp strength on the Atlantic seaboard—at Lakehurst, Weeksville, Boca Chica, Fla., and Glynco, Ga.

The airships bucked desert heat, high mountain altitudes, hurricanes and rain in their long transcontinental hops during August. Stopping points across the country had been designated and staffed by blimp detachments, complete with extra helium and emergency stick masts for mooring. Stops were at El Paso and Dallas, Texas; Houma, La.; Glynco and Weeksville. Army personnel, station hands and plain bystanders all were roped in to help as ground crews when the K-ships came in for landings.

The first blimp left Santa Ana on

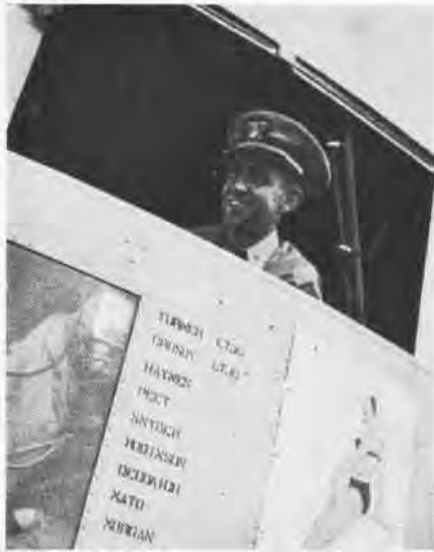
August 5 and arrived at Weeksville on the 7th. Two airships—the K-105, piloted by Lt. (jg) J. A. Turner and the M-4, piloted by Lt. C. G. Williams—both made the trip in 44.3 hours elapsed flying time. There the similarity ends—the M-4 took only 50.3 hours total from the time it left Santa Ana. The Turner ship took nine days, thanks to having to wait out a hurricane at Houma when winds hit 40 knots.

Airships making the cross-country hop, besides those two, were the M-3, commanded by Lt. B. B. King; K-121, Lt. Virgil H. Eckert; K-47, Lt. (jg) H. M. Jones and K-107, Lt. (jg) R. M. Locke. Cdr. F. S. Rixey, skipper of ZP-1, and Lt. Cdr. L. B. Caine, exec, who planned the flight, came East ahead of the expedition.

TOUGEST part of the jaunt was expected to come when the blimps hit the hot air and sudden thunderstorms of the Arizona desert lands. By trying



LT. (JG) LOCKE (CENTER, REAR) AND HIS CREW MEMBERS ON 'DISMAL SWAMP SPECIAL' BLIMP



LT. CDR. CAINE, EXEC OF ZP-1, SCANS AIR

to hit those areas at night or early in the morning, the blimps escaped much of the turbulence. One flew over Dragon pass by following automobile headlights up the pass, with the moon silhouetting the 5,000-foot peaks on both sides.

When the hot sun hit the bags, the expansion of air inside forced the pilots to valve off helium. This caused loss of lift and required some expert piloting, flying nose up to stay aloft. Helium trailers replenished the supply at Dallas.

Pilots and co-pilots swapped off on the elevator every few minutes during turbulent periods because of the difficult job of holding the blimps under control. The worst weather seemed to hit the travelers in the Texas area. The K-47 ran into a 60-knot storm at Dallas, complete with cloudburst. Rain com-

plicates blimp flying, adding several hundred pounds of water to the skin and causing the tail to become heavy. This particular storm was so violent, one of the crew shouted, "Put God at the wheel and let's get outa here!"

Two blimps were held up at Houma for three to five days by 40-knot winds. To keep them from being damaged, ground workers had to haul out dozens of preserved airplanes from the blimp hangars, pull the blimps inside and pack the planes in around them. The day after they departed a 100-mph. hurricane hit.

Since the blimps flew night and day, piloting was traded off, with the men sleeping a few hours. Sandstorms, high winds and line squalls added to the excitement at various places along the route. One blimp reported cornstalks flying past in one stiff blow it weathered.

The M-3's fuel line broke around Atlanta and it limped into Glynco with one engine, dodging storms. All crewmen went forward and a man was stationed with a fire extinguisher at the disabled engine. It was started and run long enough to help the blimp get through the turbulent area.

That ship also flew the longest hop on the transcontinental trip—a 19½-hour jump from Santa Ana to Dallas non-stop. The M-4 took second honors with a hop from Dallas to Weeksville. At Dallas, one blimp's arrival brought out a crowd of 4,000 sightseers to watch.

ZP-1 HAD almost five years of service on the Pacific coast and has many sea rescues to its credit, according to the *Santa Ana Ballonet*. Eleven days after the first airship arrived, it located three

men in a liferaft and stood by until a Coast Guard rescue boat arrived.

The squadron made the first unassisted sea-to-airship rescue. Locating two survivors of a plane crash in a raft, one of them badly injured, the blimp passed over them at a low altitude. Using an improvised device, it lifted the injured man aboard. In one rescue, a downed airman was lifted into a blimp from seas so rough a circling PBY could not land.

Its rescues also extended to desert areas. One searching blimp sighted several plane crash survivors in a rough wasteland and directed two would-be rescuers who had traveled overland, to the pilots. Since all four were injured or nearing collapse from heat, the blimp pilot crash-landed his ship. Crew members jumped out and held the ship into the wind while the dazed passengers were brought aboard. Dropping ballast to take off, the pilot brought his damaged ship to the nearest airfield.



NAS SEATTLE—During the past two months VF-14-A has qualified all pilots in GCA approaches. Each pilot has completed a minimum of six daylight and six night approaches. The squadron soon will trade its P4U-4's for *Bearcats*.

NAS NORFOLK—Preparing to swap their *Helldivers* for AD-1's is VA-6B, a squadron attached to CVBG-5. This group belongs to the carrier *Coral Sea* which went into commission on 1 October.—*Dope Sheet*

NATB PENSACOLA—A bathing beauty contest was the highlight of a Labor Day carnival which this command sponsored at nearby Fort Barrancas. Other features were a baby contest and plenty of chow for all.—*Gosport*



A complete change of insignia painted on the sides of Naval Air Transport Service planes has been put into effect on all aircraft except Zebra. These excellent photographs by VR-4, Moffett Field, show the old method of marking (left) and the new. The differences are as follows: Bureau numbers on each bow reduced from 12 to six inches in height. Red danger strip painted completely around fuselage at inboard



propeller tips. Letters NATS on top of starboard and under port wing reduced in size and preceded by last three digits of Bureau number. Same digits painted on the fuselage forward of the cargo door. National insignia moved aft of door. Both Bureau number and model number moved from rudder and put on the fuselage. The word "NATS" was put on both sides of rudder. Other insignia were unchanged.

NAVAL AIR TRAINING COURSE RESHUFFLED

CERTAIN Naval Air Training activities are being reshuffled in line with new budgetary limitations. The Navy Department recently announced that heavy land-plane training at Whiting Field near Pensacola, will be transferred to NAS CORPUS CHRISTI. This training is carried out in *Privateers* and PV-2 *Harpoons*.

Basic VP medium landplane training in SNB's will replace the heavy plane instructions at Whiting Field, moving from Corry Field, Pensacola. Replacing the VP units will be all primary training, now conducted exclusively in SNJ's.

NAS JACKSONVILLE will continue its advanced training in carrier and VP type aircraft and also will retain the instructors' advanced training unit. The advanced training unit of *Corsairs* and *Hellcats* was moved from Cecil Field to Jacksonville.

Basic aerial tactics, basic and operational carrier qualification training and Landing Signal Officers' school will be conducted at Saufley Field, Pensacola. NAS PENSACOLA will also retain basic VP training in medium seaplanes. Although advance units will begin moving in the very near future, the changes will be accomplished by a gradual transition which will be completed by January 1948.

Memphis soon will have the large majority of all the naval air technical training schools. In line with the general Navy policy of consolidating facilities, three schools will be transferred to Memphis from Corpus Christi in October and 12 from Jacksonville at a later date.

When these transfers have been effected, Memphis will have 23 of the air technical training schools.

Memphis now has eight schools for officers and enlisted personnel: Aircraft Maintenance, Line Maintenance, Aviation Machinist Mate, Aviation Metalsmith, Advanced Aviation Machinist Mate, Advanced Aviation Metal-

smith, Atomic Hydrogen and Helium Welding, and Printing.

Corpus will add Aviation Electronics (Maintenance), Aviation Electronics (Basic Maintenance), and Aviation Electronics (Officers).

Jacksonville will send the following schools to Memphis: Aviation Electrician's Mate, Aviation Ordnanceman, Advanced Aviation Electrician's Mate, Advanced Aviation Ordnanceman, Advanced Aviation Ordnanceman (Officers), Aviation Fundamentals, Aviation Storekeeper (Class A), Aviation Storekeeper (Class C), Aviation Supply Officer, Aircraft Instruments, Link Instrument Trainer, and Specialist in Artificer Devices.

The Control Tower Operators' school will be transferred from Jacksonville to Olathe, Kans., where the Ground Controlled Approach school also is located.

Other schools which will remain in their present locations are: Combat Information Center, Glenview, Ill.; Photography (Camera Repair) and Photography (Motion Picture Camera), Pensacola; Target Aircraft, Santa Ana, Calif.; and Aviation Boatswain's Mate (Catapult) and Aviation Boatswain's Mate (Arresting Gear), Philadelphia.

Memphis was chosen to house the majority of the schools because of its geographical location and its ample facilities and living quarters.

P-Boat Guides A Bearcat In GCA at Argentinia Saves a Lost Plane

NAS ARGENTIA—The GCA unit at this Newfoundland station reports some kind of a "first" when it brought in an F8F from CAG-7 which was trapped aloft in dense fog and low ceiling, using a PBY *Catalina* as a "pointer" to guide it in.

Because of the imminent departure of the carrier and bad weather, it was almost imperative for the F8F to land at Argentinia in below-standard instrument weather. Since no one in the carrier air group was familiar enough with GCA to be willing to try an approach, the Group Commander decided the only safe approach would be a formation led by a pilot familiar with the GCA approach here.

As a demonstration of good faith, one of the GCA officers flew the PBY and led the approach down through a 400-foot ceiling at this base without difficulty.

It had been decided to bring the PBY over the right hand side of the runway at about 100' altitude to put the *Bearcat* in landing position. For test purposes,



Who packed parachute #432?

the run was completed by the PBY despite the unexpected high ceiling of 400'. It was obvious that this type approach can be made successfully in much worse weather, and might be used in case of radio failure of one of two planes flying in company.

Navy Gives McDonnell 'H' Designating Letter of Firm Changes

To avoid confusion with planes built by Douglas Aircraft Co., CNO and BUAER have changed the designation of all aircraft made by McDonnell Aircraft Co., from "D" to the letter "H".

The *Phantom* jet fighter will be known as the FH-1 instead of the FD-1. The *Banshee*, formerly known as the F2D-1, has changed to the F2H-1. Douglas planes will continue to be known by the "D" designation which the company has used for so long, such as the AD-1. The Douglas test plane which broke the world's speed record will continue to be known as the D-558.

McDonnell's twin-engine experimental helicopter, sometimes dubbed the *Flying Banana*, will be known as the XHJH-1.

Helicopter Lifeboat Next? Coast Guard Studies Idea for Rescue

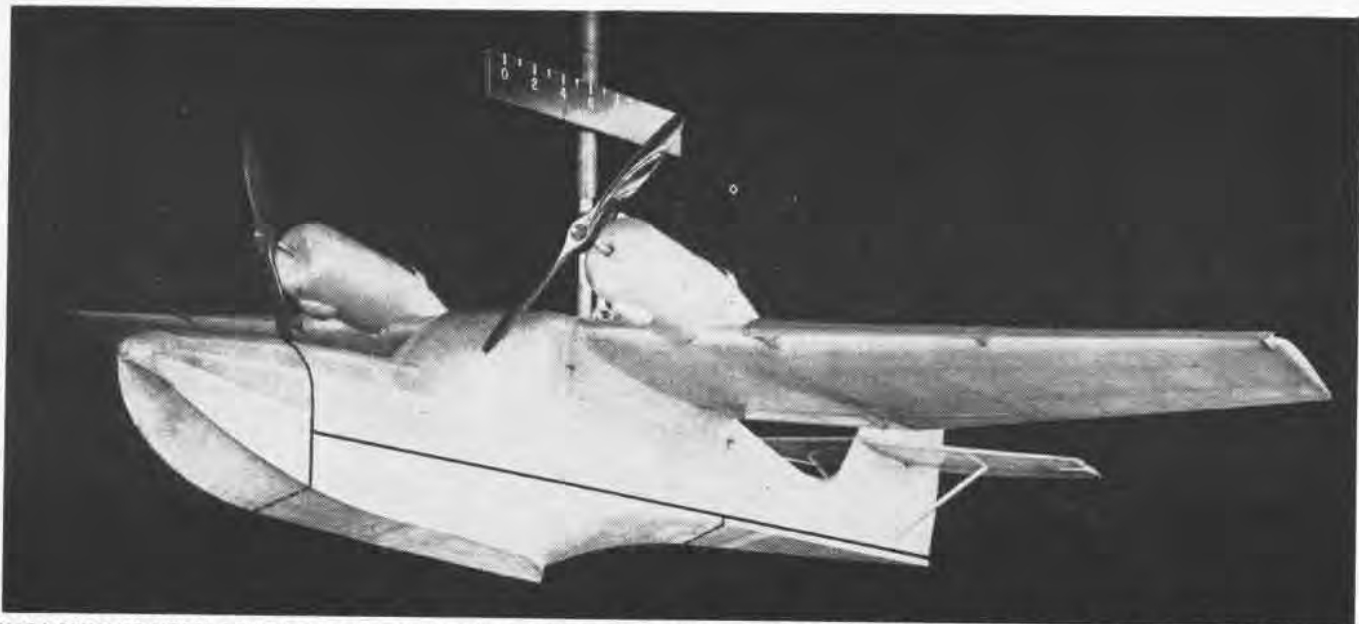
A twin rotor, glider-helicopter lifeboat that can be launched almost vertically from land or water is one of several proposed rescue methods now under study, according to the *Coast Guard Bulletin*.

The amphibious powered glider would be towed behind the search plane, released at the scene of the disaster, landed vertically, rotors folded back or jettisoned, and maneuvered as a conventional motorboat while picking up survivors.

By being able to land vertically like a helicopter, the problem of coming down in rough seas would be overcome. Compared to a fixed-wing glider, the helicopter lifeboat would be smaller, lighter, stallproof, less susceptible to air gusts, fly and land at lower speeds and in smaller spaces than other ships.



You shouldn't have told him to wring it out!



NACA DYNAMIC MODEL OF WIDGEON THAT WILL HAVE REMOVABLE NOSE AND BOTTOM TO FACILITATE FULL SCALE TESTING OF VARIOUS HULL DESIGNS

NEW SEAPLANE HULL TO MAKE BETTER SPEEDS

THE PROGRAM of breeding a Whippet strain into the seaplane stable is underway. The Navy is procuring a modified Grumman J4F complete with interchangeable hull and bottoms. To be known as the *Petulant Porpoise*—if it porpoises everyone will be petulant—the lower section of the J4F's hull can be removed and a new one spliced on at will.

The splice line begins a couple of feet in front of the cockpit and drops vertically so the nose can come off. Horizontally the juncture line bisects the vertical line a couple of inches above the chine and continues straight back to the trailing edge of the rudder. The entire nose and bottom can be detached and replaced, or any one of three sections can be removed and a different section installed.

Tests will be conducted by NACA at its Langley laboratory in close cooperation with the Navy at the Patuxent Naval Air Test Center. NACA will furnish research data on the various hull configurations, while Patuxent will see how the results fit service requirements.

The fickle *Widgeon* is to be equipped with three different hull styles. The first of the three bottoms to be tested will be the P5M design. The P5M hull was designed primarily with rough water performance in mind. The design

stems from the well-proven PBM hull, but is a fairly radical departure, in that it has a relatively high length-beam ratio, a shallow 60° V-shaped step and a long afterbody.

The afterbody runs all the way back to the rudder as does the planing-tail, but chines continue the full length of the ship on the P5M hull while the planing-tail afterbody is rounded into the fuselage. The new P5M design is expected to decrease aerodynamic drag of the hull about 4% and hydrodynamic drag by 20%, over the PBM-type hull.

The second hull to be tested will be the NACA planing-tail design. This hull is somewhat narrower than conventional designs and has the step faired into the afterbody which runs all the way to the trailing edge of the rudder. NACA claims a 50% aerodynamic and hydrodynamic drag reduction over conventional designs, with excellent water handling characteristics.

The third hull is a planing-tail con-

figuration with a variety of possible modifications. Any one of the three sections can be taken off and replaced by a new and different type section. In this manner a number of modifications of the planing-tail hull will be tested.

THE RESULTS of these tests may well tip off the trend of future seaplane design. Although "speed is of the essence" so to speak, the primary consideration for Navy seaplanes will continue to be their rough water capabilities. Seaplanes' primary mission is patrol, their secondary mission is air-sea rescue. To carry out these two jobs a seaplane must be able to follow the fleet into any area, whether it happens to include a nice smooth lagoon, or just a lot of rolling ocean.

The Navy never intends to find itself in the same position as the Japs did. Their *Emily* seaplane was one of the best so far as aerodynamic performance was concerned, but hydrodynamically, the *Emily* was strictly a dog. (Jap-type).



NEW TYPE HULL DESIGN OF P5M WILL BE AS RUGGED AS PBM AND SOMEWHAT MORE EFFICIENT

HURRICANE BILL



BEFORE



AFTER

WHAT SLIGHT CASE OF HURRICANE EVALUATION WILL DO TO A BASE STATION, ANACOSTIA HERE

THE AIR over eastern United States was full of airplanes scurrying inland during the middle of September as the Navy evacuated several thousand aircraft to escape the Florida hurricane. Consequently, little damage was done as the storm blew itself out in the deep south, Miami and Pensacola being closest to the path.

Hurricane bills went into effect as far north as Quonset Point. Anacostia, Norfolk, and Jacksonville also flew planes out of their areas to inland safety points. The Reserve station at Miami weathered the 100-mile-an-hour blow without having to evacuate its planes, by storing them in hangars.

Before the fury of the tropical hurricane struck, planes were flown out of other stations, loose gear picked up, frame huts tied down and movable equipment secured against rolling. Wooden storm windows were installed on buildings at Florida stations.

Twenty crewmen aboard two Cuban fishing boats tossing helplessly in the Gulf during the hurricane were rescued by boats and planes from Pensacola. As the storm changed directions, planes were flown to stations which formerly

were evacuated because of the storm.

More than 2,000 planes were evacuated from Norfolk with only two minor accidents. All were able to make the return trip home a few days later. Some were flown to Pensacola and then had to be evacuated back to Norfolk as the

hurricane changed direction, went west.

At Anacostia, big equipment like Gunairstructors and Link trainers was put on oil drums to bring it above the expected flood level of the Potomac.

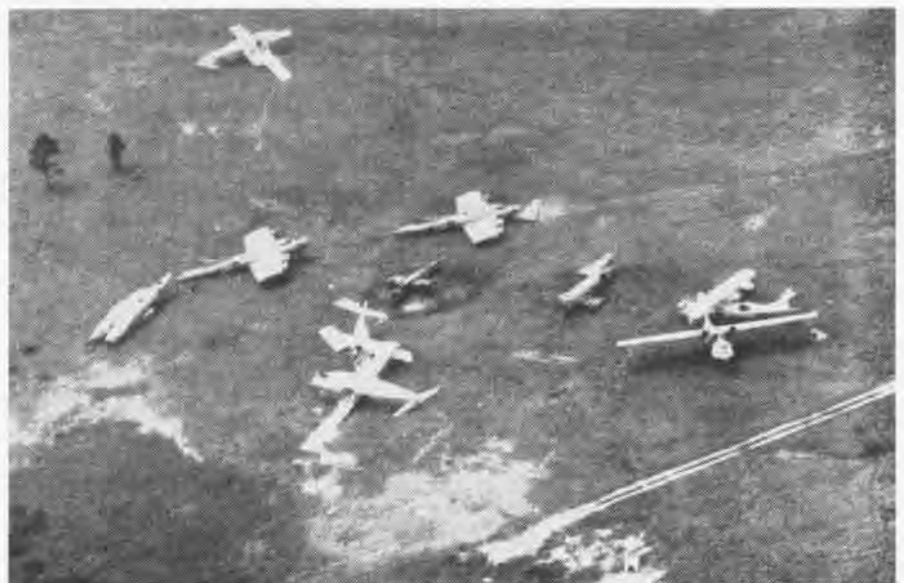
Down at Jacksonville, where the hurricane was expected to hit, the station was on Condition One on Monday. The storm failed to reach more than 30 mph at Jax. A total of 220 planes was flown out, with 401 officers and men flying 126,912 miles.

Whiting field, near Pensacola, was all set for the blow, evacuating 89 multi-engine planes to Kansas and Ohio bases. Personnel left were housed in buildings designed to withstand forces up to 140 mph., with food and other facilities sufficient to last them four days, if needed.

DESPITE the hurricane winds on 17 September, damage at Miami was negligible. Reserve planes were in the air as winds subsided enough to permit operations. Reports from the search flights enabled relief activities to send aid where need was greatest and communications were crippled.

The hurricane probably was the best-covered tropical storm in history. Storm-scouting planes from VPM-3 under Lt. Cdr. William Janeshek, VX-4 of Norfolk., and the Navy Hurricane Weather Central, in charge of Cdr. E. T. Harding, followed the hurricane path day and night. Cities in its path were warned ahead of time from the time it was first discovered by Navy planes off Antigua Island in the Caribbean.

Radar-equipped B-17's from Norfolk followed the hurricane by night on their scopes, while *Privateers* from Miami flew into the storm during the day. Planes reported changes in direction of the storm and helped keep loss of life and government property to a minimum.



PALM BEACH ARMY AIR FIELD TOOK BAD BEATING, AS WAR-WEARY PBY'S AND B-17'S TESTIFY



NAS Miami's old hangar #1, leased by county, packs in 97 private planes. Two other hangars sheltered Reserve airplanes



Hurricanes are no respecters of wealth, as this photo by Reserve survey plane shows Boca Raton exclusive club's fate



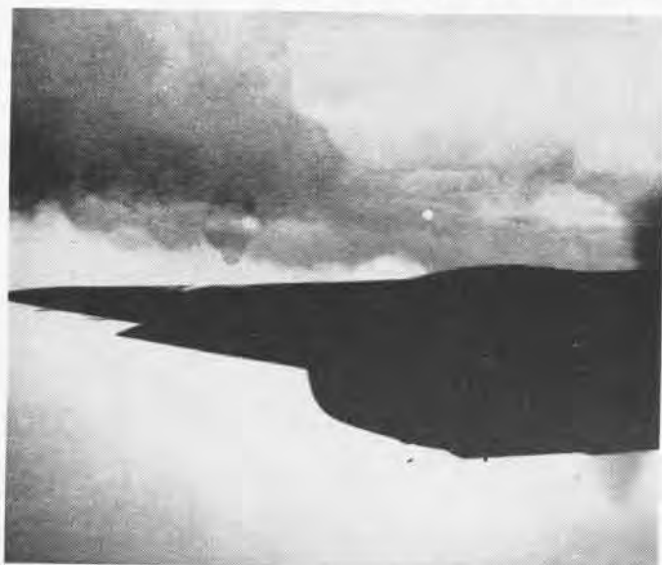
Navy survey plane spotted this devastated hangar at Boca Raton air field; Storm damaged many buildings, no lives lost



Center of hurricane smashed into Boca Raton Army air field, flattening barracks buildings as if they were of cardboard



'Hurricane Hound' plane from VPM-3 shot this spectacular picture of 125-knot wind whipping seas near eye of storm



At hurricane's peak, VPM-3 plane found double 'eye' in center—dark clouds (L.) and outer eye (R.), calm air between

RFD BIKINI



BILL KAUBER DELIVERING THE MAIL TO BIKINI



MAIL PLANE, USS CHILTON IN BACKGROUND

FROM BIKINI, the atomic-ed atoll, comes news of an old friend on a unique mission. During July and August the busiest plane crew in the Pacific was flying a PBV-5A on the Marshall Island line. They flew six days a week carrying mail, passengers, and high priority cargo between Kwajalein and Bikini.

The "Rural Free Delivery" route was in good hands, for flying the "Cat" was Lieut. Comdr. W. L. "Ace" Kauber, veteran PBV pilot, now in his seventh straight year in the Pacific.

Primary mission of the VRU-3 *Catalina* was servicing the Bikini Scientific Resurvey Task Group consisting of four ships and about 700 men. From 15 July until 1 September this Task Group was stationed at Bikini making extensive scientific investigations of the atoll to determine and analyze long range effects of 1946's two atomic bomb explosions.

To personnel at Bikini, civilian and military alike, the roar of the *Catalina's* engines overhead meant mail call. Except for the three-day-a-week flight from Kwaj, Bikini had no other mail service. There were no complaints, however; letters airmailed from the East coast of the U.S. arrived at Bikini six days later. Nearly half of the 90 scientists who worked at Bikini arrived there aboard the PBV and many started their return trip to the U.S. on the same plane.

On almost every flight the PBV-5A delivered high-priority cargo ranging all the way from delicate laboratory equipment used in assaying materials to determine their radioactive content, to heavy coring gear required in drilling operations on the island. On one trip the

Catalina carried in six tons of Aqua-Jell.

When Lieut. Comdr. Kauber and his crew of two officers and five men reported to Ford Island early in July to pick up a *Catalina* that had just returned from major overhaul at NAF PHILADELPHIA, they expected a leisurely flight back to their home base at NAS SANGLEY POINT, just outside of Manila in the Philippines.

At Pearl they were ordered by Com-AirPac to Kwajalein to service the Bikini Scientific Resurvey. Since that time they have serviced Bikini and operated shuttle flights to other islands in their spare time—spare time, at the end of the first six days of August, the old lady had logged 38 hours.

BILL KAUBER was one of the pilots commended by CinCPac in November, 1941 for a flight in PBV's from Hawaii to Cavite in the Philippines. War clouds were lowering fast.

In mid-August the Bikini flight became a three-cornered affair with a run to Rongerik atoll added. This provided mail and passenger shuttle service between the Resurvey group at Bikini and scientists aboard the LSM 382 at Rongerik. Rongerik is the atoll to which Bikini islanders were evacuated to make way for the *Crossroads* tests last year.

The last time I saw "Ace" he was skipper of Mactan Island just off Cebu. It was a short, dirty little coral strip, but anytime you landed there a couple of Aussie ships, a NATS plane or two, and a good assortment of Navy aircraft would line the runway. Renewing acquaintance with Bill and liberty in Cebu City made it a "must" stop.

There was never a dull moment flying the Bikini RFD. Passengers included

Judah, reigning chief of the evacuated Bikini natives, and three of his Alaps, or clan heads, Jibaji, Azekel, and Jasus. The *Catalina* dropped down at Rongerik atoll, 109 miles east of Bikini, picked up the four natives and brought them to Bikini.

LIEUT. COMDR. Kauber spent the whole war in the Pacific. Everytime his rotation came up he requested to stay. Flying "Black Cats" mostly with VP-21 and 71. Bill got his share of action. Milne Bay, Morotai, Lingayen Gulf, Sulu Sea—raining so hard that Felix the well-gunned cat on 71's insignia wore a slicker—bombs away, perfect straddle. "Gee, I wish I were back down south. This is no dinkum!"

All crew members of the Bikini shuttle plane are veterans of the Pacific air war. Lieut. Comdr. Kauber was with VP-21, 101 and 71. His first pilot also flew with a PV outfit in Africa, and the navigator had duty as a carrier based fighter pilot. The five enlisted boys in the crew had various naval aviation duties during the war. Kauber describes the crew as the finest he's seen in the Navy, and that means a lot coming from a former "Navy AP."

Quite a few guys will remember Bill as the fellow who pulled them out of the drink someplace. A PBV is a clumsy kite when you're flying by, but when you're looking up from a few million acres of water, there is nothing more beautiful than a *Catalina* with floats down. The weather was never too bad nor the water too rough when a shipmate needed help down there.

FLYING the mail may seem an unimportant and uninspiring task for a man who has seen so much of the Pacific under different conditions. But for anyone who has been "a million miles away from home," the value of prompt mail delivery is unquestioned. No matter how far one goes, he never finds enough to quite equal that which he has left. Letters bring a little bit of home with them wherever they are delivered. "Ace" would know about that.

A nice feature about being in the Navy is that sooner or later one always runs into a former shipmate. So, see you on the next trip out, "Ace" . . .



R. RICHARDSON, FORMER NANNEWS MAN, IN PBV

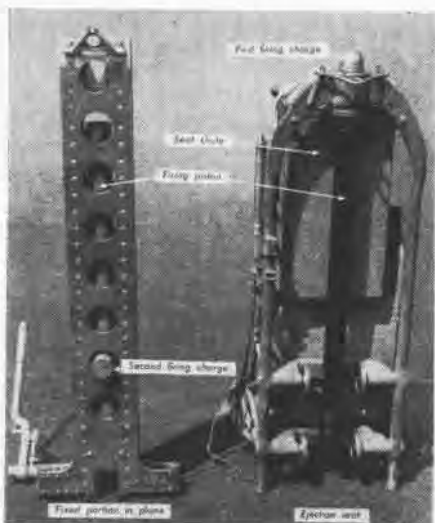
Jet Ejects Man at 500 mph English Test Shows It Can Be Done

BUAER safety engineers are studying with interest news from England that the Martin-Baker pilot ejection seat had been used successfully to project a man from a jet aircraft going 500 mph.

Bernard Lynch, 29-year-old worker for the company which manufactures the seat, was tossed out in his seat at 12,000 feet from a Gloster *Meteor*. He parachuted down in five minutes.

The Navy has been experimenting with the Martin-Baker seat at Naval Air Material Center, Philadelphia, and the Parachute Experimental Unit at Lakehurst for the past year. Up to now the fastest speed at which a man has been ejected from a plane in flight was 250 mph. This feat was accomplished by Lt. (jg) A. J. Furtek of the parachute unit last winter (NANEWS, Dec. 1946).

The seat used by Lynch in his high-speed ejection was a refinement of the seat used by Furtek. BUAER is procuring several service models of this seat for evaluation. Of particular interest, from a scientific standpoint, is the effect of the 500-mph slipstream when it hit Lynch and the effect of the sudden deceleration on his body.



MARTIN-BAKER SEAT HAS 2 POWDER CHARGES

Published reports of the experiment said Lynch sustained no ill effects from the 23 G shock of being ejected over the RAF station at Chalgrove, Oxfordshire. After he left the plane the small drogue chute on the seat slowed him down for eight seconds; then the seat chute unfurled. Lynch rode down with the seat for two minutes before unfastening himself and using his personal parachute.

NAS TILLAMOOK—Need an airplane? This station has 505 preserved planes aboard ranging all the way from F7F's to multi-engined jobs. You can take your choice.

MIDWAY FIRING OF V-2 HERALDS NEW WEAPON

SEVERAL hundred miles off the East coast, the USS *Midway* recently tried something new in naval warfare. For the first time in history, a large bombardment rocket was launched successfully from the deck of a ship. For that matter, it was the first time a large rocket had ever been launched from a "rolling platform".

Leading military and civilian personnel in the field of guided missiles watched a captured German V-2 rocket as it was launched from the deck of the 45,000-ton *Midway* on Saturday, 6 September 1947. Immediately after the firing, the *Midway* conducted flight operations.

After being launched successfully, the V-2 travelled about six miles and exploded. But the experiment was successful so far as the Navy was concerned. Primary purpose was to ascertain whether large bombardment rockets could be fired from modern aircraft carriers without requiring modifications affecting flight operations. The *Midway*, the first CVB, did it.

Rear Admiral D. B. Gallery, USN, Assistant Chief of Naval Operations for Guided Missiles, reported that all special devices designed for shipboard firing had functioned properly. "This launching," stated the Admiral, "marks the beginning of a new era in naval weapons."

The rocket was furnished to the Navy by the Army's Ordnance Department at the White Sands Proving Ground, Las Cruces, N. M. The actual firing was under the direction of Commander P. G. Holt, USN.

Although army technicians and observers were present to render technical assistance, the launching was carried out by a specially-trained Navy crew. This crew received most of its training at the Army's White Sands proving grounds where the V-2's are being used for exploring the upper atmosphere.

Whether any special platforms or shields were used has not been disclosed by the Navy. One problem which would be vital in shipboard launchings would be protection against the jet motor which powers the rocket. This motor produces a thrust of 28 tons. Alcohol and liquid oxygen are pumped into the motor at the rate of nine tons

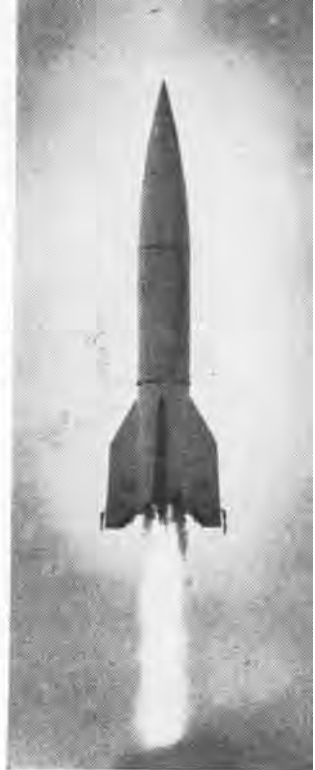
per minute by a 460 hp permanganate-hydrogen peroxide turbine.

The V-2 rocket, for which no effective counter-measure was developed during the war, was originally fired by the Germans to a distance of about 200 miles and reached an altitude as high as 65 miles. Tests at White Sands have sent the rocket over twice as high into the ionosphere.

From a gentle start, which allows it to be fired from the deck of a moving ship, the 45 foot missile reaches 3,500 mph by the time it has climbed to an altitude of 25 miles.

Use of such a missile aboard ships of the fleet would produce a fire power far beyond that possible with conventional weapons. The fact that firing of the missile did not interfere with flight operations proved that naval ships could launch a defensive screen before launching the long range missiles.

While the V-2 has proved to be a suitable research rocket, the Navy has already announced the *Neptune* rocket which is designed to climb to heights of better than 1,000,000 ft. or some 100 miles higher than the highest recorded V-2 flight thus far.



MIDWAY'S FIRING OF THE V-2 HELPED TECHNICIANS LEARN REQUIREMENTS FOR FUTURE DESIGNS





PBM-5 COMES TO A WATERY STOP AT NATC PATUXENT RIVER AFTER REVERSING PITCH OF PROPELLERS; LANDING RUN WAS CUT ABOUT 40 PER CENT

REVERSE PITCH PROPS

RECENT AND current Navy experiments indicate that reverse pitch propellers have a definite place in naval aviation. They already have been tested and specified for use on certain aircraft and currently are being tested for possible future applications.

The reverse pitch procedure has three advantages:

1. It shortens the aircraft's landing run.
2. It increases the plane's maneuverability.
3. It serves as a dive brake in fighters and dive bombers, eliminating the necessity for building in braking apparatus in the airframe structure.

In shortening the plane's landing run, the use of reverse pitch propellers prevents excessive brake wear (for heavy airplanes); decreases required length of field; provides brakes for operation on snowy and icy runways, and decreases the "beating" seaplanes take when landing in rough water.

The plane's ground maneuverability is increased, as the reverse pitch procedure provides for a shorter turning radius and enables the aircraft to back up.

Reverse pitch propellers have been tested and evaluated on PBM-5 aircraft for use on PBM-5A's; they have been tested and specified for use on late P2V-2's, and they currently are being tested on XP4M for P4M application.

In testing dive brake props on SB2C aircraft, the plane handled satisfactorily, but the prop reversed too slowly. An F8E propeller installation is being tested for attack application and has proved satisfactory to date.

In tests conducted at NATC PATUX-

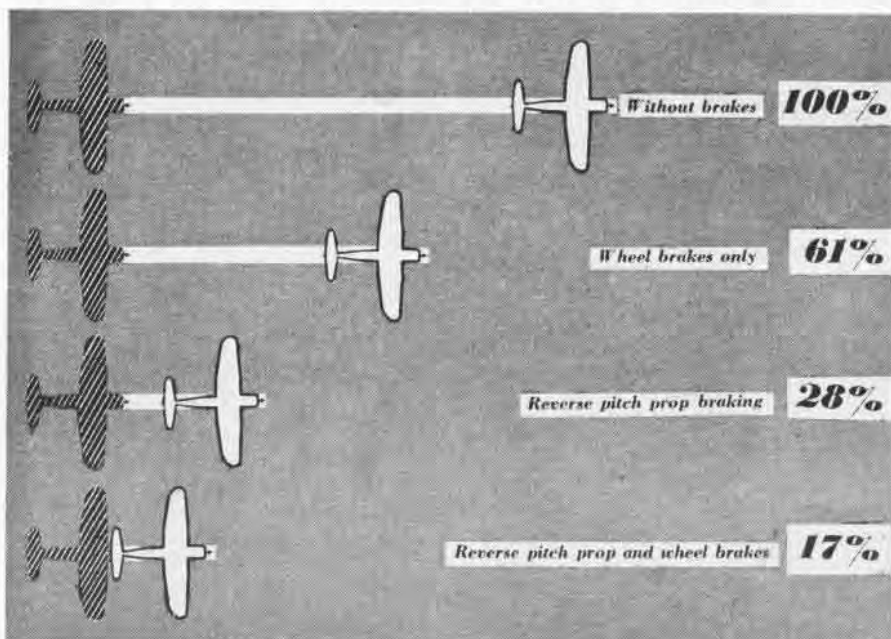
ENT RIVER with Model PBM-5 aircraft, reduction in landing run through use of reverse pitch propeller action was approximately 40 per cent. Some of the conclusions drawn from the Patuxent tests were:

1. As installed on the test airplane, the reverse pitch propellers decrease landing run.
2. The average per cent reduction in landing distance decreases with increase in gross weight.
3. Use of reverse pitch during landing on water should be restricted to emergencies only, because of corrosion problems which result from salt spray.
4. The nose-up pitch resulting from use of reverse power does not critically affect the

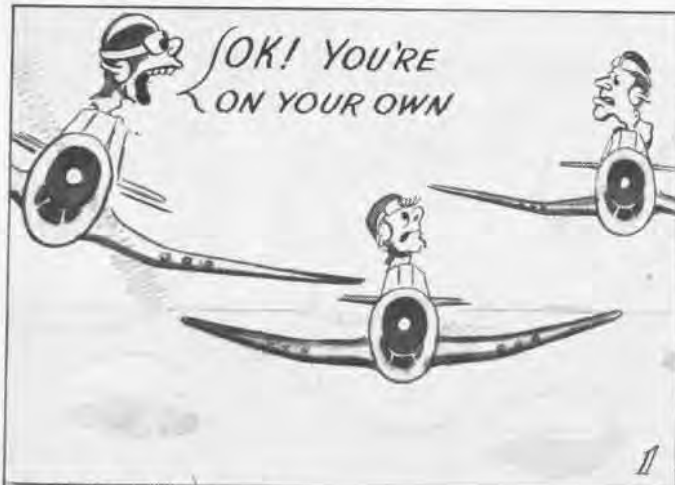
control of the airplane on the water.

The time required to change from normal pitch to full reverse was about 3.5 seconds. Regarding the PBM-5 landings during the Patuxent tests, the NATC report stated:

"Near the completion of the landing run, the spray that drenches the airplane obscures the pilot's vision. This can be avoided by retarding the throttles to idling reverse just before the spray reaches the bow. If further braking of the airplane is needed, full reverse can again be applied after the airplane has slowed to a speed at which the hull bow spray is reduced to some extent."



BUAER CALCULATIONS SHOW HOW REVERSE PITCH PROP BRAKING HELPS REDUCE LANDING RUN



LT. I. M. AGONER

Moral: Play It Safe



THE FLIGHT Safety Spotlight is focused on mid-air collisions occurring during simulated combat. An increase in the number of accidents of this type is particularly alarming because of the accompanying fatalities. A single mid-air collision usually results in the destruction of two planes and the death of one or more pilots. Sometimes the toll is far greater—the worst training

accident in naval history was the mid-air collision of two PB4Y-2's while under simulated attack by fighter aircraft. Twenty-seven lives were lost in this one accident.

Carelessness, confusion, and failure to follow established doctrines are the principal causes of most mid-air collisions. Too much vigor in pressing home a simulated attack has cost many a fighter pilot his life. A regularly scheduled combat flight with adequate briefing and ground training prior to take-off still requires the utmost alertness from each pilot. Even when each participant knows what he is expected to do, there is still inherent danger in this type of training. The possibility of an accident is multiplied many times when pilots engage in unauthorized simulated combat. Here there are added dangers because of variations in plane performance and pilot skill, plus the element of surprise in the initial attack, which frequently is not anticipated.

Observe the restrictions set forth in BUAER MANUAL Art. 6-212 and in Flight Safety Bulletin 6-44. At all times know what you are required to do, follow the prescribed doctrine and above all, **PLAY IT SAFE.**

Case 1. Two SC-1's were engaged in practicing section tactics when they sighted an Army training plane which was 500 feet below and ahead. The section leader increased power and commenced a shallow climbing turn to the left. Without a signal from the section leader the wingman executed a cross-under and commenced a sharp diving turn to the left for the purpose of making a high-side gunnery run. The wingman flew through the slipstream from the AT-6 and a second later collided with his section leader who was also executing an unauthorized high side run on the Army plane.

Case 2. Two SNJ's were engaged in a scheduled combat tactics flight. The first fight had been completed and altitude advantage was exchanged. During the second fight several scissoring turns were made by each plane, but neither was able to get on the tail of the other. During this scissoring the pilot with the initial altitude advantage slowly descended until both planes were at the same level. While one plane was in a left turn and the other in a right turn, the collision occurred. The propeller of one plane smashed into the side of the other plane and severed the fuselage at the center. Neither pilot managed to escape.

Case 3. Following a ground briefing by the instructor, the pilots of two F6F's went out on a scheduled combat tactics flight. While engaged in simulated combat one pilot pressed home his attack with such vigor that he was unable to avoid a collision. Both planes spun after the impact. One pilot bailed out successfully, but the other crashed with his plane which burst into flames upon impact.

PLAY IT SAFE!



AIR RESERVISTS MAKE HISTORY DOWN IN TEXAS

HISTORY has long portrayed Oklahomans and Texans as experts with a six-shooter. Men under big white hats practiced many shots before being able to kill a striking rattlesnake or to draw quickly for defensive purposes.

But times have changed in the Southwest. Many young "Sooners" and "Longhorns" no longer limit their practice to the old .45 Colt. As members of the Naval and Marine Air Reserve at NAS DALLAS these plainsmen now do their "gun work" from the seat of a fast-flying plane.

On a typical weekend 278 Naval and Marine aviators, 83 ground officers and 1141 men may be found getting in their Reserve training at Dallas. Many of the 406 Volunteer Reserve aviators, attached to the station, will also be present hoping to get an airplane to fly.

These young Southwesterners apparently do not get their fill on the weekends or during the week. With the completion of the September active duty cruises NAS DALLAS will have trained approximately three-fifths of all its Organized pilots for fiscal 1948. Commander Bill A. Miles, type training

At work—J. Waterson, C. Summers, A. Trowell, E. Pass, J. Frank, J. Joffre



'Weekend Warriors', pilot Lt. (jg) J. Harless and gunner B. J. Golightly ARM2c are two of some 1500 Organized Reservists who came out for regular drill at Dallas

officer, reports that during the last year 392 aviators, 38 ground officers and 153 men came aboard for annual training cruises.

Flying at Dallas is not entirely a local affair. Many "Weekend Warriors" come from such places as far-away Tulsa, Lubbock and Houston. With so much enthusiasm on the part of aviators, it is not surprising that total syllabus flying time for the year added up to 15,177.3 hours and that individual pilots chalked up a fine average of 91.98 syllabus hours during the period.

PERIODS of gunnery and bombing practice at Corpus Christi and Pensacola break the monotony of local flying. Dallas pilots also enjoy a different type of air work when they participate in local air shows and fly-overs in connection with such events as the Naval Air Reserve Anniversary celebration. During the disasters at Texas City, Texas, and at Woodward, Oklahoma, Dallas aviators carried out numerous "mercy flights," flying in medical supplies, food, clothing and emergency personnel.

The enlisted training forces are similarly well equipped with ample facilities and experienced instructors. Practical training for all men from apprentice seamen to chief petty officers is provided. Aircraft maintenance, for example, does a particularly good job in training the O-2's by giving them real work to perform.

Keeping pace with this naval training, Major J. W. Kean, USMC, commanding officer of the Marine Air Detachment, has recently activated a Marine ground control intercept squadron of six officers and eighty men.

Since the Reserve program was set up at Dallas in the beginning of last year Captain L. J. Dow, USN, has served as

commanding officer. Under his capable leadership a smoothly functioning organization has been set up and the program has received much favorable publicity. Today there are 35 Reserve officers and 477 enlisted stationkeepers aboard; in addition 36 Marine stationkeepers are attached to the base.

THE TEXAS spirit of hospitality and cooperation shows up in many ways at NAS DALLAS. The local Marine howitzer battalion and the Dallas surface reserve take their training on the station. A branch of the Office of Naval Officer Procurement has its headquarters there. And around 1000 transient airplanes are serviced by Operations each month.

Occasions such as "open houses," *Operation Reunion* and Navy day bring thousands of interested visitors to the station. A Navy Relief carnival was so well attended that more than \$4000 was netted for the fund. Groups of Boy Scouts and students frequently come aboard for tours and "indoctrination." With Reservists participating in programs sponsored by local civic, veteran and social groups, NAS DALLAS is definitely a part of North Texas.

NAVAL Air Reservists have plenty of opportunity to combine their work with sports and recreation. Stress is placed on a dynamic inter-departmental athletic program featuring all sports. Regular teams represent the station in major sports, such as football or basketball.

The Sunday afternoon and evening activities, which include swimming, horseback riding, movies, etc., provide relaxation for both the Reservist and his family. Station dances are held regularly. A nursery for future WAVES and



1st Lt. Brown, Capt. Schubert, Capt. Dixon (front) and 1st Lt's Kovsky, Doggett, C. Norman, R. Norman, Cheatham



BM1c J. Pringle teaches seamanship to BM1c Williams, Seamen Parker, White, Edington, Lykins, Darden and Smith

sailors makes it possible for both mother and father to enjoy the recreational facilities. Reservists take great pride in their beautiful officers' club and the fine enlisted men's club which is now being constructed.

Highlights of the first year's activities at Dallas, however, are the excellent record of no injuries to personnel and the number of hours of night flying chalked up by all hands. These achievements, together with the fine teamwork shown by all hands, have indeed made a record that will be "something to shoot at" in the coming year.

All in all four conclusions regarding the Dallas Air Reservists may be drawn:

1. Pilots have not lost their "know-how."
2. They quickly develop into smooth-flying teams.
3. Reservists, after a concentrated thirty-day training period, would be ready for combat.
4. They all enjoy being back in the Navy and sharing in Reserve activities.



Texas City disaster—Dallas Reservists transmit from dock area after 1st blast

NAS Dallas Air Reserve Squadrons

- CVEG-70** Lt. Cdr. R. W. Jarvis, Air Group Commander
- VA-70-E** Lt. C. C. Nathan, Jr., C. O.; Lt. R. M. Wyatt, Exec.
- VF-70-E** Lt. T. D. Taylor, C. O.; Lt. C. E. Phillips, Exec.
- VA-69-E** Lt. J. W. Cooper, C. O.; Lt. F. W. Rosson, Jr., Exec.
- VF-69-E** Lt. W. L. Pou, Jr., C. O.; Lt. R. L. Podenick, Exec.
- VA-55-A** Lt. P. N. Kissire, C. O.; Lt. N. M. Faulkner, Jr., Exec.
- VF-55-A** Lt. E. B. Crawford, C. O.; Lt. F. B. Craddock, Exec.
- VA-56-A** Lt. Cdr. R. B. Cottingham, C. O.; Lt. B. M. Easley, Exec.
- VF-56-A** Lt. Cdr. R. E. English, C. O.; Lt. W. B. McElroy, Exec.
- VP-ML-53** Lt. Cdr. R. C. Elwell, C. O.; Lt. C. F. Kimber, Exec.
- VR-74** Lt. Cdr. C. H. Chapin, Jr., C. O.; Lt. R. R. Jackson, Jr., Exec.
- FASRon-54** Lt. Cdr. F. J. Penbody, C. O.; Lt. J. L. Wheeler, Jr., Exec.
- FASRon-154** Lt. Cdr. T. C. Sharp, C. O.; Lt. H. Holliday, Exec.
- VMF-112** Maj. H. Morrison, Jr., C. O.; Maj. J. S. Reeder, Exec.
- MGCIS-20** Capt. W. A. Sparkman, Jr., C. O.; 1st Lt. W. G. Durden, Exec.

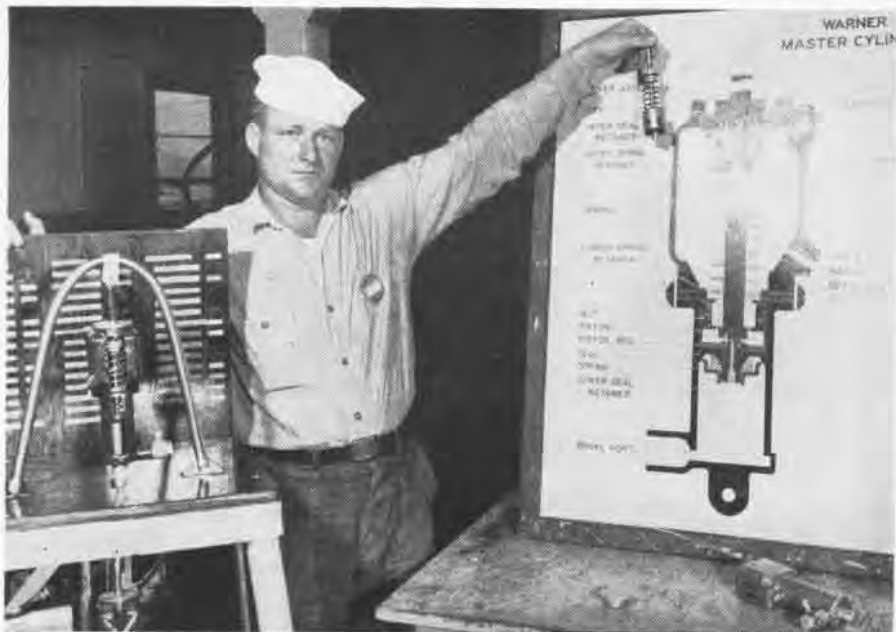
Now it's ride 'em sailor. D. Jones S1c (r.) and two friends try out the horses. A fine sports program results in more work



Enlisted O. R.'s entertain their guests at regular Wednesday evening party. About ten visitors enlist after each affair



NATTC ANNOUNCES NEW SCHOOL



ONE METHOD OF INSTRUCTION IS DEMONSTRATED BY THE ACTUAL PART AND AN EXPLODED VIEW

Structural Mechanic's Rating Replaces Present Three Aviation Classes

THE NAVY'S new enlisted rating and warrant structure as outlined in BUPERS Circular Letter #25-47, is tentatively scheduled to go into effect on 1 January, 1948.

Under this plan many rating specialties are being absorbed into other rates. In many instances two or more of the present rates are being combined to form an entirely new rate. An example of this is the new rate to be known as Aviation Structural Mechanic which will combine the functions and duties of the present Aviation Metalsmith, Aviation Machinist's Mate Hydraulics and Aviation Painter. Personnel in each of the three rates which are to be combined must acquire the necessary knowledge and skills to perform adequately duties of an Aviation Structural Mechanic.

Inasmuch as there are relatively few AMMH's and PtrV's, the majority of personnel in the new rate will be composed of present Aviation Metalsmiths. This means that Metalsmiths will be required to know how to service, maintain and overhaul aircraft hydraulic equipment.

For this reason, eight weeks of hydraulic instruction has been incorporated into the course of study of the Advanced Aviation Metalsmith, Class "B" school, at the Naval Air Technical Training Center, Memphis, Tenn.

This is an excellent plan for the pres-

ent and future AM's attending the "B" school. But, what of the men who graduated from the AM school before the hydraulic course was added; and the men who have not attended the "B" school? Obviously, some arrangement had to be made whereby these men could acquire the necessary knowledge of aircraft hydraulics before the new rating structure goes into effect or as soon as possible thereafter.

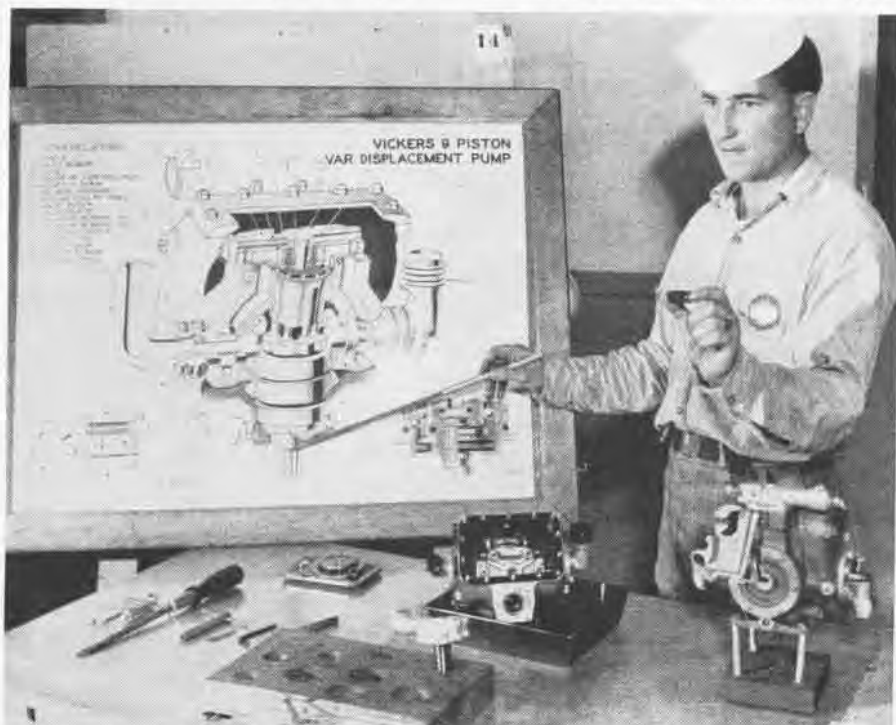
For men in this category a special

course has been established which allows them to take the eight weeks of hydraulics along with the "B" school students.

The first 40 hours include an introduction to hydraulics and the basic operating principles. The next 200 hours are devoted to a study of the types, location, function, and maintenance of units in the hydraulic system. Next, comes 40 hours of trouble shooting and line maintenance. Throughout the course "learn by doing" is stressed. Alternate periods of shop and classroom work are given to give the most effective training.

THE QUOTAS for this special eight-weeks course are voluntary. To commanding officers whose units are plagued by a shortage of men trained in hydraulics, this special course presents an excellent opportunity to obtain trained men in a comparatively short time. To the Aviation Metalsmith who wishes to prepare himself to qualify for the new rating of Aviation Structural Mechanic, this is an opportunity which is no longer a dream. Also, all Aviation Metalsmiths assigned to this special hydraulics course by quotas from BUPERS are, upon completing the course, immediately returned to the unit from which they came.

Aviation Metalsmiths should see their educational officer who will have their CO's request a quota for the course from BUPERS. This special Aircraft Hydraulics Maintenance course is part of the NavScol, Advanced Aviation Metalsmith, Class "B", at the Naval Air Technical Training Center, Memphis.



'LEARN BY DOING' IS EMPHASIZED IN AVIATION STRUCTURAL MECHANICS SCHOOL AT MEMPHIS

Navy Pacific Air Bases Shrinking

YOU WOULD never recognize the old battleground now. Of all the mighty naval air bases operating in the Pacific when the war ended a couple of years ago, only six remain in the entire area west of Hawaii.

Vice Admiral John D. Price, Commander Air Force, Pacific Fleet, who last summer conducted an extensive inspection of air bases in the Western Pacific, has forwarded a report which would surprise many sailors who sweated out those long months before VJ Day.

Discarded or inactivated are many old familiar bases—Majuro, Eniwetok, Truk, Manus, Espiritu Santo, Guadalcanal, Samar and Tinian. Only air bases to survive have been Agana and Orote on Guam, Kwajalein, Midway, Sangley Pt., P. I. and Tanapag, Saipan.

A naval air facility will probably be established on Naha island off Okinawa at the Army Air Base to support seaplane tenders, NATS hops and heavy landplanes.

Accompanying Admiral Price on the 16,000 mile, 15-day trip were Rear Admiral A. C. Miles, Fleet Aircraft Maintenance Officer, Rear Admiral Kendall, Commander Air Force, Western Pacific, Commodore J. B. Ricketts, Force Supply Officer, Buck Buchwach, newspaper correspondent and five members of the Admiral's staff.

Bases visited included Majuro, Kwajalein, Truk, Manus, Peleliu, Samar, Sangley Point, P. I., Tsingtao, Tientsin, Peiping, Shanghai, Okinawa, Guam, Saipan, Wake and Midway.

Roll-up of Naval Pacific bases is expected to result in approximately 100,000,000 dollars worth of surplus aviation material. A large part of this will probably go to China and the Philippines.

First stop on the inspection tour was NAF MAJURO where a handful of officers and men were busy "rolling up." Now only the military governor remains to care for the 1400 natives.

NAS KWAJALEIN, the next stop, is the last active base remaining in the Marshall and Gilbert Islands, although now on reduced operating status, supporting NATS flights, and occasional heavy sea and landplane traffic or a carrier air group.

Still in Kwaj's anchorage are 28 radio-active victims of the atom bomb tests, inspected and maintained by radiological safety teams.

The islands in Truk lagoon, the suc-

ceeding stop for Admiral Pride's group now lie like eggs in a deserted nest. To the South NAS MANUS (Momote) is fast returning to its natural state—the jungle. Aussies, operating plantations there, are having difficulty with black Melanesians who have been spoiled by Americans. The natives did not want the Americans to leave and their most popular song, taught to them by GI's, is still "Pistol Packin' Mama."

A short visit to Peleliu was interrupted by a Jap naval lieutenant and followers who did not believe the war was over. Following this were a few days at NAS SANGLEY POINT, P.I. where the exceptionally high morale is attributed mainly to the excellent housing afforded its personnel. This base operates a rattan furniture factory and the cost of furnishing dependent housing has been cut by 50%.

The sojourn in China revealed a confused nation. Nationalist government troops were in control of all major cities in North China, but presence of Communist troops was apparent a few miles outside city gates.

The stop-over at Okinawa revealed a once-great naval base, haunted by the many wrecks strewn upon her beaches by a fierce typhoon which struck in the latter days of the war.

THREE days were spent in the Marianas. On Guam, while war crime trials were under way, civilian contractors and military personnel were busy laying ground work for making Guam the Pearl Harbor of the Western Pacific. Progress had been delayed by a typhoon and inability to obtain civilian and native labor. The Chamorros have more money than they know what to do with.

Navy men will soon be gone from Wake, leaving the island as nothing more than a stopover for Pan American Clippers flying to and from the Orient. Nipponese died here aplenty, trying to subsist on a diet of scaviola bushes, morning glories and fish, and waiting for an attack which never came.

After Wake, NAS MIDWAY seemed like a garden spot. The Looney Goonies were in complete control and their young ones were everywhere, just sitting around waiting for chow. The inspection party could not tell who was inspecting whom.

Admiral Price found that the morale of naval personnel varies directly in proportion to availability of housing.



WRECKS STILL LINE THE BEACHES OF OKINAWA



ADMIRALS KENDALL, PRICE, MILES AT PELELIU



WAR'S END BROUGHT PLAYMATES FOR GOONIES



CHINESE KIDS AND FRIENDS ON PEKING VISIT



MARINE PATROL ENTERING A CAVE ON PELELIU >



MINNEAPOLIS RESERVISTS 'FLY' A LINK TRAINER ON KING NEPTUNE'S BARGE IN CITY PARADE

back into the fold, is the NAS SQUANTUM plan of offering refresher courses leading to commercial CAA licenses. Requirements for the certificates may be met by aviation personnel in the rate (or as striker for the rate) of AM, AMM, Ptr and Sp(Y). The program was worked out in cooperation with CAA inspectors in the area. Six rated men, who have certificates themselves, will serve as instructors and will hold classes outside of hours so as not to interfere with regular drills.

On the state and county fair circuit, the Naval Air Reserve story has been effectively presented. Staunch Navy men from NAS GROSSE ILE struggled through torrential rains and a sea of mud to set up training devices at the Michigan State Fair. A functioning radar, on which aerial targets could be picked up, was a popular feature in the NAS MINNEAPOLIS exhibit at the Min-

UNITS DO MUCH TO BUILD UP NAVAL AIR RESERVE

"JOIN THE NAVAL AIR RESERVE" is now written in bold letters for thousands to see on the F-2-G and P-63, being flown by Cook Cleland, victor in the Thompson Trophy Race, and by Steve Wittman in air shows throughout the country.

A former Navy dive bomber pilot aboard the *Lexington* and veteran of many combat missions, Cleland plans to give exhibitions at various airports under commercial sponsorship and later to enter the Miami Air Races.

Steve Wittman, who had a WTS school for naval cadets at the Oshkosh Airport during the war and who placed third in the Tinneman Trophy Race at Cleveland, is scheduled to fly in air shows in the Ninth Naval District.

This type of promotion, which was developed by NAS GLENVIEW, is indicative of the efforts being made by all Units within the Naval Air Reserve Training Command to keep the public aware of the Naval Air Reserve program and thus obtain the needed recruits.

Top-notch plan to encourage interest by the preview and free sample method was worked out by NAS DALLAS. On 25 August 300 Senior Scouts of the Boy Scouts of America, all 15 years of age or older, reported aboard for four days to participate in the first "Senioree" to be held in this country.

The Scouts' schedule was packed with naval instruction in first aid, aerology, ordnance, pistol shooting, skeet shooting, hydraulics, engines, propellers, seamanship, navigation, electronics and recreation. Principal instructors were sta-

tionkeeper personnel. Each Scout, upon registering for the gathering, was given a physical examination by the station medical department, and, upon checking out, was presented with a Certificate of Accomplishment.

The success of the enterprise was insured by months of cooperative planning between the station and Region Nine Boy Scout officials.

Not advanced as a promotional idea, but one that should offer an extra-added inducement to bring certain rated men

nesota State Fair. NAS MEMPHIS was scheduled to set up displays at both the Mid-South and Tipton County Fairs.

Although air-show activities were still curtailed, except in special instances, pilots from NAS COLUMBUS, who arrived at the Cleveland Air Races only to find their scheduled exhibition rained out, quickly recouped their losses by flying on to Pittsburgh. There they gave an exhibition at the Allegheny County Fair, which acquainted some 50,000 spectators with the Naval Air Reserve.



LT. JACK, SIC PURICK AND LT. WILLIS OF WILLOW GROVE JUDGE GAS MODEL PLANES AT MEET

At NAS OLATHE, the August push was directed to making a success of the first annual Midwestern States model airplane meet, which was held at the station in September. Four hundred entrants demonstrated their models before some 20,000 spectators. NAS WILLOW GROVE also kept Reserve activities in the public eye by furnishing judges and putting on an aerial display at the gas model meet held at nearby Wings Field.

On the press front, NAS NEW ORLEANS' new streamlined procedure for issuing regular releases on personnel on board for cruises is beginning to pay off. So, too, are NARTU SEATTLE's efforts to interest women representatives of local papers in NARTU recruit needs. The *Washington Post* and the *Press Telegram* recently featured pictures of their newsboys visiting NARTU



COOK CLELAND 'PLUGS' RESERVE ON HIS F-2-G

ANACOSTIA and NAS LOS ALAMITOS respectively.

Other highlights of the current program to emphasize opportunities in the Naval Air Reserve include: the NAS GLENVIEW arrangements for placing six billboard displays and 1,000 car cards, designed by the public information department, in the Chicago area; the NARTU NORFOLK idea of starting up a seven to ten piece band which is being groomed to play on local radio stations; the NAS NEW YORK activities which ranged from helping with a spread for *Air Trails* magazine to entertaining 60 Sea Scouts; and the NARTU JACKSONVILLE radio programs.

Finally there is the excellent plan developed by NAS MIAMI for having squadron commanders "get to know their men" better. Although this plan is designed to build up a greater "esprit de corps" and make the training more effective, it will result in the individual squadron members becoming the most enthusiastic recruiters for the squadron.

Washington Preview—Two VPP squadrons have been authorized for incorporation into the Naval Air Reserve program. Each will have a complement of 24 officers and 75 men in the rate of photographer's mate or striker. No increase in either assigned personnel or aircraft is authorized. Pilots and aviation personnel available for Organized Reserve squadrons will be utilized to man



NAS Oakland Link operators Knoth, Weaver, Lampher, Scott and Veaszey

the proposed squadrons. Currently assigned SNB's will be overhauled and the necessary modifications made to convert them into SNB-3P's.

We "Dip Our Wings"

● To NAS NORFOLK—for the excellent safety record chalked up during the first 14 months. As far as injuries to personnel go, not a single Band-Aid has been broken out for any Organized or Volunteer Reserve pilot.

● To NARTU JACKSONVILLE—for its good August maintenance record. Aircraft availability hit an average of 97% due to the untiring efforts of the NARTU maintenance crew.

● To NAS MINNEAPOLIS—for the helpfulness shown by station personnel in providing entertainment for the little polio patients temporarily housed in the station dispensary. During the epidemic of 1946, the General Hospital and Sister Kenney received permission to use these facilities and the last youngsters left in August 1947. The enlisted men were particularly cooperative while the children were convalescing.

● To NAS NEW YORK—on the commissioning of NARVU 3-1 in New York on 6 August. Lt. Cdr. Robert N. Dobbins, former air officer on the *USS Attu* and previously C. O. of the NAAS at Quillayute, Washington, is the Commanding Officer of the Unit.

● To all stations within the September hurricane area—on the smoothness of their plane evacuation operations.

● To NAS OAKLAND—on the commissioning of NARVU 12-1 at Stockton, California, and of NARVU 12-2 at Reno, Nevada. Skip-



At local Photo-Fair, PhoM1c Wells of Los Alamitos shows camera to co-ed

per of the Reno Unit is Cdr. William Randall, formerly C. O. of CASU 43F on Guam. Lt. Cdr. R. Wilber, who flew aboard the *Mississippi*, commands the Stockton Unit.

● To NAS DENVER—on the commissioning of Volunteer WAVE Division 12-1 which is composed of 11 WAVE officers and 69 enlisted WAVES. This is the second WAVE Division to be organized within the Naval Air Reserve Training Command.

Training Tips—At Squantum, squadron commanders are given a training syllabus before the squadrons come aboard for two weeks training duty. This gives the squadrons an opportunity to plan the flight and ground training well in advance and thus accomplish more during the period.

At Los Alamitos, requalification in water bounce for PBY-5A pilots has been resumed, and considerable interest has been found among those taking part.

The Syllabus for Training Officers and



STEVE WITTMAN SECONDS MOTION ON HIS P-63

Enlisted Personnel in Aviation Supply Procedures, as developed at NAS NEW YORK, has been approved for dissemination by CNAResTra.

Men of Distinction—The chief machinist's mate of the *Squantum* maintenance department, who devised a hydraulic quick-change tire machine, which has materially improved aircraft availability.

NAMD instructor, J. L. White, AEM2c, of Seattle, who designed and built a mobile power unit. This unit may be used to turn up aircraft, to furnish a source of electrical power for radio and radar equipment and to supply needed power for starting. Mounted on a standard bomb trailer, it can be transported to a field in case of emergency or utilized on the NAMTD line.

Metalsmiths at New Orleans, who have constructed a warning flag which gives positive notice of non-operation of landing gear lockpins on SNJ's. These are designed to prevent instances of collapse of SNJ landing gear while taxiing.

The Grosse Ile pistol team which took top honors in the .22 cal. competition among Navy teams at the Camp Perry national pistol meet. J. O. Forman, GM2c, won a distinguished medal in the individual pistol match.

Men of the St. Louis maintenance department who have been working on night check crews to insure availability of aircraft during September cruises.

Lt. E. R. Macon, C. O. of VA-66-E who is an apiarist as well as an aviator. When a colony of bees swarmed on a fire hydrant outside the O. O. D. shack, just as the hurri-

cane evacuation plan was about to get underway, Lt. Macon came to the rescue, gathered the bees in a box, and, without as much as one sting, carted them home to one of his hives.

Station Round-Up—Aboard for cruises at Norfolk during August aviators from CVEG-60 averaged 37 hours a pilot. O-2's on active duty really turned to in assisting stationkeepers in both day and night crews keep availability of planes to a 94% average. FASRON 65 had a particularly good enlisted record during their cruise with 101 of its 175 men making the tour.

Twelve pilots, three ground officers and five enlisted men reported aboard for cruises at NARTU LAKEHURST during August.

An ACI group is being formed at Los Alamitos. Officers of the group will be further organized into teams for research and subject presentation.

The GCA unit at Atlanta is scheduled to operate from 0800 to 1600, Monday through Friday, and will require 45 minutes notice at all other times. The new search antenna has altitude coverage that is unmatched by any other unit. At a range of approximately 10 miles, the search beam extends from an altitude of 200 feet to 12,000 feet above the ground.

Ninety-nine percent of the aviator billets in the Organized Reserve at Denver are filled. During September the Army was scheduled to transfer Buckley Field to the Navy.



AVENGER GIVING WAY TO SPEEDIER AIRCRAFT

NAATC To Replace Avengers Corsairs Will Be New Attack Trainer

The *Avenger* is about to lose another of its major jobs. NAATC JACKSONVILLE is about to turn the old warhorse out to pasture and replace TBM's in the Attack training program with the racier F4U.

The move is being made to make transition easier for pilots going into Attack squadrons in the fleet equipped with AD-1's. Performance figures for the *Corsair* and the *Skyraider* compare closely, and it should be relatively simple to switch from the F4U to the AD-1. Going from the comparatively slow TBM to an AD is a considerable step up the ladder.

The AD and projected Attack types do not have bomb-bays. The *Skyraider* though a big airplane is strictly a one-man job, while the TBM had a crew of three, pilot, radioman and tunnel gunner.

AIRCRAFT vs. THUNDERSTORM



HURRICANE-LIKE WINDS CAUGHT WHITING FIELD BY SURPRISE; DAMAGE GROUNDED MANY PLANES

ON A RECENT August afternoon all hands at NAS WHITING FIELD turned to to double secure all aircraft when aerologists predicted winds up to 45 kts. Their efforts reached the feverish stage when a large and menacing looking thundershower was seen approaching the station at 1530.

Since it was impossible to forecast the direction of the wind in a thunderstorm, all aircraft, except those placed in the hangar were secured in their normal parking positions. These included 31 PB4Y-2's, 24 PV-2's, 3 F6F's, 2 R4D's, a JRB and an OY-1.

By 1540 the winds increased to 70-80 kts and changed direction from East to Northwest, causing wind forces to be exerted between the port beam and starboard quarter of aircraft parked on the north parking line. These aircraft were seriously damaged.

Two of the *Privateers* broke their moorings and overrode their chocks to

turn 160° to stream into the wind. Aircraft which did not weathercock lost either their rudders or elevators or both. PV-2's were found to have ribs crushed by rudder battens.

Final assessment of damage after the wind subsided at 1555 showed that 22 aircraft had received class "B", "C" or "D" damage. Damage to buildings, and grounds was estimated at \$8,050. All exposed aircraft were immediately grounded by the commanding officer for a thorough inspection.

The commanding officer's recommendations for combating sneak attacks by thunderstorms included the use of control surface battens of such size as to permit them to bear on at least two ribs for greater distribution of forces imposed; the use of 1" plywood on battens for large control surfaces; and that normal mooring reel tie-down on heavy aircraft wings be supplemented by manila lines.



FIRST TWO AIRCRAFT WERE STRIPPED; THIRD FROM LEFT BROKE MOORINGS AND WEATHERCOCKED

TECHNICALLY SPEAKING



ABOVE PHOTO IS AN ARTIST'S CONCEPTION OF HOW EXTENDED HYDRO-FLAP WILL LOOK ON P4M-1

NACA HYDRO-FLAP ADAPTED TO NAVY PLANES

AND THERE I WAS—30 feet below sea level. One could listen to that story around almost any Pacific island bar during the war. Some guy was always telling his ditching experience to an eager Ensign audience and explaining how, "... I set her down nice and smooth and everything was going fine until the nose began to dig in." From there the tale goes into a detailed description of how the airplane developed unmistakable submarine tendencies, and "... me without my breathing-under-water gear on."

Ditching characteristics of a number of Army and Navy planes were studied by the National Advisory Committee for Aeronautics during the war. As a result of this research NACA developed the "hydro-flap."

The hydro-flap is a planing surface that can be extended from the plane's bottom at a 45° angle. Located as far forward as possible, the device may take many forms and shapes in different airplanes, but all are intended to keep the plane's nose above the water until forward speed is lost.

Preliminary model tests have been so successful the Navy has adopted the idea for land-based patrol planes. The first plane to come equipped with the new ditching flap will be the production model of the P4M-1 airplane. On the P4M-1, the hydro-flap is actually an entrance hatch lowered to the proper angle. The hatch is beefed up to withstand a 10,000-pound load when locked down in position. It is a fairly simple

modification and is expected to make ditching a P4M "no strain."

On other planes the hydro-flap may take the shape of a ski installed on the nose wheel, or it might be the wheel door, or even a specially designed flap. Studies are being made at present on a P2V hydro-flap that can be installed on present production models.

Though no full scale tests have been completed, model tests indicate that the hydro-flap will not only hold the nose above the water, but will also eliminate the excessive loads that sometimes break a plane in two during ditching.

Plastic Cases Aid Training

To see is to understand. Therefore the newly developed transparent plastic enclosures for intricate aircraft instruments, which allow students to observe the working units in actual operation, have added to the effectiveness of the instruction in the Aircraft Instrument School at the Naval Air Technical Training Center, Jacksonville, Florida.

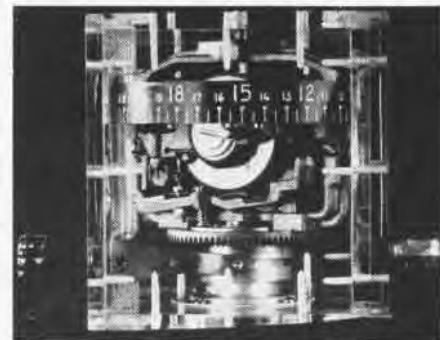
All aircraft instruments require an enclosure either to maintain constant conditions,



DIRECTIONAL GYRO IN REGULAR OPAQUE CASE

such as those of air pressure, vacuum or hydraulic pressure, or to keep out dust or dirt. Making this enclosure of transparent plastics, whenever practicable, makes it easier for the student to successfully understand what is going on in the sealed case and thus analyze and correct any difficulties he may encounter.

The directional gyro, pictured here, for example, is one of the effective training aids in use at Jacksonville. Through the plastic enclosure the student can readily observe the limits of operation, the erection and synchronization of the spinning gyro. Thus he quickly comes to understand such operations as the caging operation, when the gyro element is returned to a fixed position, or the synchronization of the indicating dial with the heading of the magnetic compass.



PLASTIC COVER LETS 'CAGED' GYRO BE SEEN

Similarly when a vacuum-producing source is connected to the inside of the plastic enclosure, the trainee may watch the movement of the rotor as it starts and accelerates in speed. By use of a Strobotac, the rpm of the rotor, as viewed through the case, may be checked as it increases in speed. This demonstration shows that it is necessary to allow the rotor to run for approximately five minutes before it reaches maximum operating speed.

BuAer Designates New Jets

BuAER has issued ACL 80-47 which establishes aircraft model designations for the F9F Grumman jet aircraft now being built for the Navy.

The model designation F9F-2 is established for the production model of the XF9F-2. It is a single seat, jet-propelled carrier-based fighter airplane powered by a single J-42-P-4 engine—the Rolls Royce *Nene* built by Pratt-Whitney.

The model designation XF9F-3 is established for the experimental model which is identical to the -2 except that it has a single J-33-A-23 engine made by Allison. The F9F-3 will be powered by a single J-33-A-8 engine.

ACL 81-47 established model designations for the FH-1, XF2H-1 and F2H-1, all twin-engined jets made for the Navy by McDonnell Aircraft Corp. The FH-1 has two J-30-P-20 engines; the XF2H-1 and the production model have J-34-WE-22 engines made by Westinghouse, one of the most powerful today.

VMF(N) TECHS GET RADIO-RADAR TRAINING

VMF(N)-542, El TORO—Since the war this squadron, like all units of the service, has lost many experienced and skilled repairmen and technicians. There has been a particularly acute shortage of skilled technicians in the radio-radar department. Since this is a night fighter squadron, there is need for many proficient technicians for the constant repair and maintenance of radio and radar equipment.

With the release of more and more experienced men from active duty, it became imperative that some sort of training program for aspiring radio-radar technicians be established. By taking advantage of the training facilities available at the Fleet Airborne Electronics Training Unit of the Pacific, Ream Field, Calif., and combining the knowledge thus gained with on-the-job training, a workable solution to the problem of training technicians has been developed.

Personnel from the radio-radar shop, airborne intercept operators and naval aviation pilots, as they can be spared, are sent to the Electronics Training Unit at Ream Field for a four-month basic course in radio-radar theory. The course also offers some practical work in actual maintenance and repair of equipment, and the students are instructed in the operation and maintenance of various sets of gear, such as the AN/ARC-1, AN/ARC-5, AN/ARR-2, ATC, AN/APN-1, AN/APN-4, AN/APX-2, AN/APS-4, AN/APS-6, SCR-720, SCR-269-G, and associated test equipment.

Changes for MAG 31's Gusty

MAG 31, MIRAMAR—*Gusty*, MAG 31's air control center (see NANews, March 1947), has undergone several changes which have resulted in improved operation.

The most important improvement was the installation of a second AN/ARC-1 VHF set which operates in conjunction with the other AN/ARC-1 VHF set off the same antenna. This was made possible by the installation of an electronically operated antenna switching unit constructed by the Group radio-radar department. (See accompanying illustration).

This new installation permits the intelligence duty officer, who is on duty at the control center during all night operations, to monitor four channels or frequencies instead of the original two. The two AN/ARC-1 VHF sets, for normal operations, are set up on the following frequencies and channels:

Set #1, 140.94 MC. channel 10 (Guard) and 141.12 MC. channel 7.

Set #2, 140.58 MC. channel 10 Guard and 141.48 MC. channel 5.

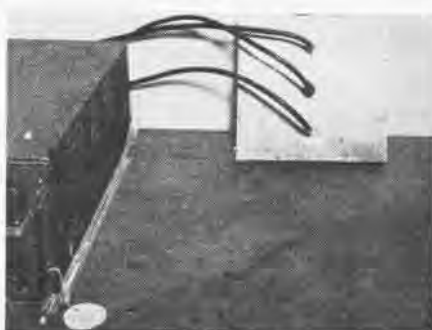
140.94 MC. is the training frequency assigned to VMF(N) 534, and 141.12 MC. is assigned to VMF(N) 542. 140.58 MC. is the emergency frequency, and 141.48 is assigned to the GCI control center. With this AN/ARC-1 set up, all aircraft on local night operations are in direct radio control with *Gusty* at all times. The two AN/ARC-1 are remotized to a control panel where the control boxes, speakers and volume controls are located.

Also located on the control panel are the following controls: one remote control unit

After these men return from the school at Ream Field they are interviewed by the squadron radio-radar officer and then are assigned to a particular type of gear in the shop. If possible they are assigned to equipment of their own choice. At this stage of training they gain actual field experience in the alignment, adjustment and maintenance of radio-radar equipment. For two months a man is assigned to one type of equipment and then is rotated from one type to another until he has worked with every piece of gear in the shop. At all times he is working with an experienced NCO in charge of each type of equipment and is under constant observation by the radio-radar officer and the civilian technician assigned to the squadron from the Airborne Coordinated Group.

After a certain length of time, depending on the proficiency of the individual, a man is recommended for an 879 specification serial number.

At present 12 men from this squadron are under instruction at the Electronics Training Unit. When six of these return to the squadron, six others will be selected to be sent to the Training Unit. This system of rotation allows for the eventual training of all radio-radar personnel without too greatly depleting the force on hand needed to maintain equipment currently in use. Of the 41 men assigned to the radio-radar department, 22 have completed the Ream Field training course.



RADIO-RADAR DEPT. MADE THIS SWITCHING UNIT

for MHF, two telephone units directed to GCA control center and GCI control center, and an altimeter. TS-14 hand sets are used with the AN/ARC-1 VHF sets and are also used with the MHF units. The MHF remote control may also be attached to another AN/ARC-1 VHF set for further controlling of aircraft on VHF or to replace one of the other two AN/ARC-1 VHF sets that might be out of operation temporarily. The new set-up at the control center permits operation on as many as 30 VHF frequencies or a combination of 20 VHF frequencies and one MHF frequency which give the intelligence duty officer maximum radio control of aircraft for all night operations.

Aircraft Mooring Reels. The August "Howler" article *Abuse of Aircraft Mooring Reels* contained two incorrect references due to typographical errors. Operation and maintenance information on mooring airplanes is told in Technical Notes 95-44 and 86-45.

Jet Plane Intake Sucks In 200-Pound Man and Kills Him

By United Press

BAKERSFIELD, Calif., Sept. 18—An Inglewood, Calif., mechanic weighing more than 200 pounds died when he was sucked into the air intake of a P-86 jet plane at Muroc Air Base, Coroner Norman C. Houze reported today.

The mechanic, Maurice G. Bricka, 37, employed by North American Aviation Corp., was standing four feet from the giant craft during an experimental test yesterday.

The powerful suction pulled his body in head first, Mr. Houze said.

CALLING ALL MECHS!

Read the above clipping from a daily newspaper. Someday you will be working on jet engines, if you aren't already. Take heed of what happened to this mechanic and beware of the front end of the engine as well as the jet exhaust.

Protractor Reduces Errors

NAS ATLANTA—The operation of rigging and adjusting aircraft control surfaces has been considerably improved here by the use of a device known as a universal protractor.

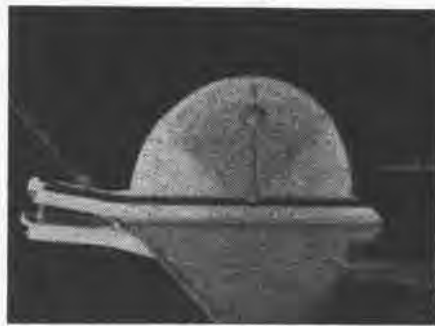
It was designed by an aircraft inspector under the Navy Employees' Suggestion Program.

The protractor is slipped on to the control surface which is in neutral position, and the protractor is set at zero. The control surface then is moved to the full up position and the degree of up travel will be indicated on the protractor. The control surface then is shifted to full down position and the degree of travel will be shown on the protractor.

It will be noted that it is not necessary to change the position of the protractor on the surface during the various movements. This protractor can be used on any type aircraft control and may also be used to check the degree of travel of wing flaps and setting of warning horn on aircraft where warning horn is used on the wing flaps.

In addition to reducing the possibility of error, this protractor cuts the time required to perform the particular operation by two-thirds.

[SUGGESTED BY JAMES R. HERRON]



ATLANTA DEVICES IMPROVES USE OF RIGGING

Lower PB4Y Power Settings

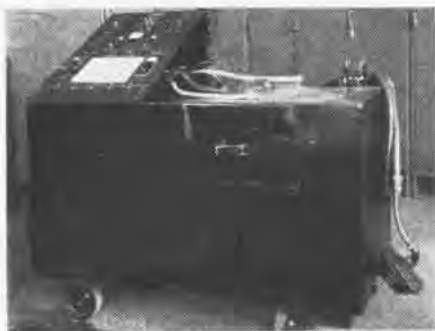
NAS WHITING FIELD—In order to aid the Maintenance Department in their program to decrease the number of engine changes on PB4Y-2 aircraft, VP-HL Aviation Training Unit 12 has been experimenting with reduced power settings, consistent with safety, on familiarization phase flights.

Realizing the potential damage to an engine being operated at high RPM's for an extended period of time, even though the power settings are within authorized limits, it is believed that reducing power even further, as described below, will materially lengthen the engine life.

The traffic pattern has been reduced by 500 feet in order to reduce the time necessary to remain at the climbing power. This also enables more landings to be made during scheduled periods. The unit doctrine in the past has called for a power reduction from take-off power to 45" of manifold pressure and 2600 rpm (normal climbing power) at the time the flaps are raised. These two changes are being studied to consolidate them into a single power reduction to normal climbing power at the time the gear is retracted, thereby cutting down the period of high RPM.

One more power reduction has been made in the normal landing pattern. On turning base leg during the landing approach, rather than use 2600 rpm, during which time the manifold pressure averages about 21", 2300 rpm is now being used, adequate in case of a wave-off. To date, all instructors have made favorable reports on these new procedures. Full high RMP is set in the final approach before flaring-out for the landing.

➤ *BuAer Comment*—Concur with procedure outlined for lowering power settings as soon as possible after take-off. Since the issue of *PB4Y Bulletin No. 234*, which reduces power settings in cruise position, the engine failures resulting from combustion chamber difficulties have been reduced over 75 percent.



TESTING GEAR SPEEDS ELECTRIC PROP CHECKS

Electric Propeller Tester

FASRON 3—A real time saver in checking electric propellers installed on aircraft has been achieved in a testing machine developed by Julian R. Kelso, ACMMP, USN.

The objective of the machine is to simplify the means whereby the continuity of circuits and operation of the electric propeller can be established as being complete, with the consumption of the least amount of time. The tester has been placed in operation by FASRON-3 at NAS NORFOLK, and its perfor-

mance has proved that it fulfills the mission for which it was designed.

The machine consists mostly of local stock and parts which were fabricated locally by personnel of the unit. It is simple to keep in proper working order, for any defective parts can be replaced quickly from local stock.

A valuable feature of the propeller tester is that it can be modified, with a minimum amount of effort, for testing other electric propellers and is therefore not confined to the present electric propeller in use.

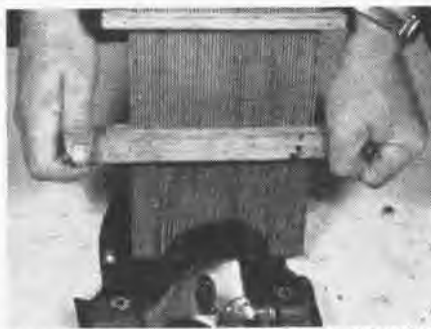
Development of this tester was recognized as an excellent contribution to the naval service when Kelso was commended by Commander Air Force, Atlantic Fleet, and the letter included in his official record.

➤ *BuAer Comment*—This appears to be a practical device. Any activity which might be interested in building one should contact FASRON-3 for blueprints and specifications.

Tool for Contour Transfers

NAS NEW ORLEANS—The value of Naval Reserve know-how to the Navy was demonstrated in the metal shop at NAS NEW ORLEANS when a Reservist originated a contour device (see photo) for the station during his part-time training periods.

The device consists of a number of movable brass rods which, when pressed against



SLIDING RODS OF DEVICE RECORD THE CONTOUR

a contour, accurately record and retain the outline. It has been put to use in construction of forming block contours.

➤ *BuAer Comment*—It is probable that other naval aviation activities will find this ingenious device of value in checking and transfer of contours.

Distribute AR-4 Lifeboat

The long-awaited AR-4 droppable lifeboat is now being distributed by BUAER.

The AR-4 is a four-man pneumatic lifeboat of double-tube construction complete with a lateen-type sailing rig, mast, rudder, keel, weather shield, sun canopy, sea anchor, and an inflatable floor. It is designed primarily for dropping from the bomb-bays of the SB2C type aircraft to personnel at sea. The unit also may be carried in large aircraft and dropped by hand from hatches or ports, and is particularly useful for rescues in low temperature areas.

When survivors reach the floating unit, a strong sharp pull of the inflator cable handle, found at one end of the unit, will release the retaining pins on the container and actuate the CO₂ inflation system. Instructions for rigging and operating the boat and its



AR-4'S WEATHER SHIELD PROTECTS SURVIVORS



LIFEBOAT IS COMPLETE WITH RUDDER AND KEEL

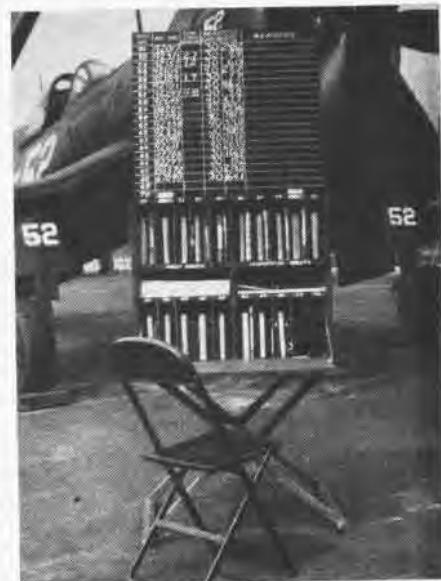
equipment are visibly stenciled in accessible locations, and detailed instructions may be found in the operating booklet stowed in a pocket of each boat.

Complete details and description of the AR-4 may be found in BUAER TO No. 20-47.

Field Desk Holds Log Books

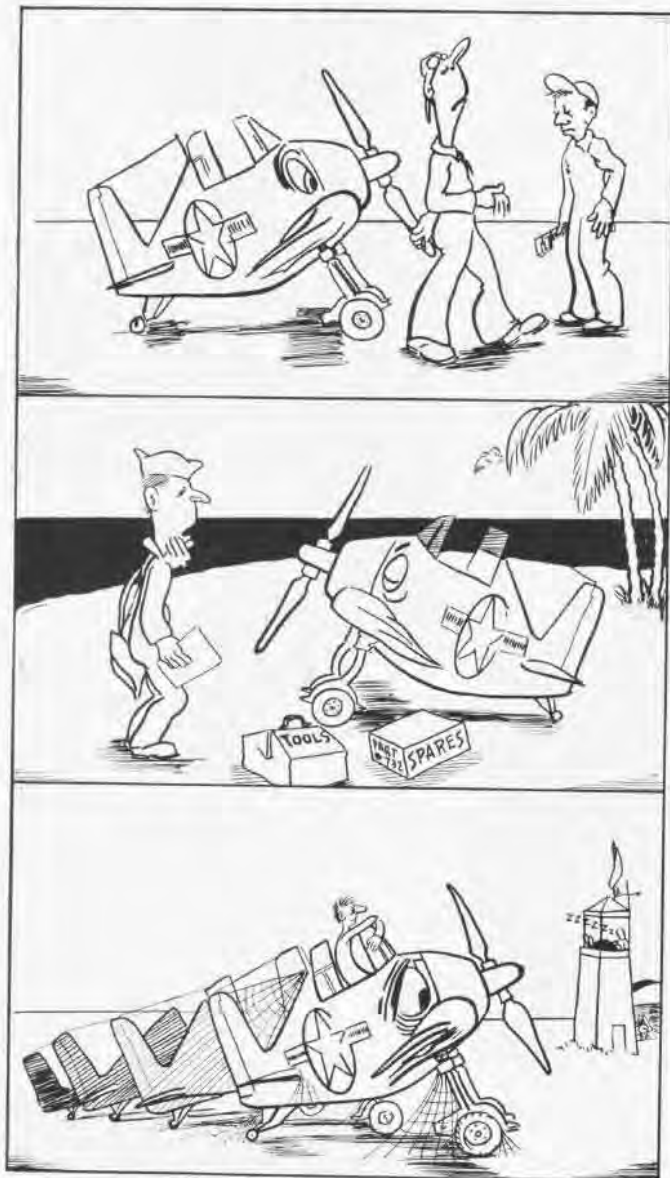
NAS WILLOW GROVE—The carpenter shop of this activity devised an engineering field desk for the use of Marines while on their annual training maneuvers. The desk proved of great benefit in accomplishing the necessary logging of aircraft and engine time.

Top, bottom and sides of the desk were constructed of 3/4" plywood and desk top of 1/2" plywood. It contains 20 compartments 3" wide and 12" deep with space 3" deep for data sheets. The desk top folds in first, then the data board closes and is fastened with hasp for locking. It has chest handles for carrying and is walnut stained.



FOLDING DESK IS HANDY FOR FIELD MANEUVERS

Pilots, Know Your Planes To Help Keep 'Em Flying



The pilot who elevates his nose at the thought of helping to maintain the airplane he flies may find himself behind the eight ball sometime. "Scratch a naval pilot and uncover an engineer" is the goal recommended to keep planes available.

(The following timely "editorial" is a message to naval aviators from Captain S. B. Spangler, USN, Director of the Maintenance Division, Bureau of Aeronautics, Navy Department.)

THE AVERAGE pilot probably feels, on occasion, that the advent of peacetime operations has brought with it far too much paper work, too much emphasis on the engineering features of aircraft, and too much to do about airplane care and maintenance. After all, many pilots think, a pilot's job is to fly his airplane, not maintain it.

The purpose of this article is not to discuss all the fallacies in this line of thought—and there are many—but to

point out some of the inevitable results of not knowing the condition and state of readiness of your airplane and insuring yourself that it is properly kept up.

As a general statement, a pilot is extremely foolish if he does not thoroughly acquaint himself with the operational features of his airplane.

If he does not know the full capabilities of his airplane in terms of maximum load for take-off and flight, best airspeeds for various operations, maximum "G" limitations, how to get best range and endurance, and the many other things he should know, he can hardly fight his airplane successfully. Much less can he expect to lead others properly as a section, squadron, or group commander.

THERE are, however, more finite and real results of a failure to insure yourself that your airplane is being properly maintained.

First, and ever present, is the danger of failure of some part of the airplane. At best this would mean a voyage by raft; at worst, it could mean your life. A failure of some part of the equipment of your airplane may mean an abortive flight or a failure to be able to carry out your mission.

The most serious result of improper maintenance, however, is the reduction in the operating strength of the Navy. Overhaul intervals are based on what is considered a satisfactory life factor and end condition for operation and overhaul. As funds for the maintenance and operation of the Navy decrease—and they are decreasing—the aeronautical organization is faced with the necessity for making a decision which will either cut operating hours per pilot or extend the service life between overhauls, or both.

It is entirely possible that the service tour may have to be doubled in order to obtain money to buy gasoline and other operating supplies. If this necessity arises, then each airplane which, through improper maintenance, gets in such a condition that it cannot be flown for its normal service tour, represents a direct loss in the operating strength of just one airplane. It cannot be replaced except by diverting funds from operation.

To give some idea of what this diversion of funds might mean, the overhaul of one F8F takes enough money to operate that airplane a thousand hours, or almost its total operating life. In the case of larger airplanes the effect of an unscheduled overhaul is even more serious. For example, the cost of an extra PB4Y overhaul can be a most severe drain on operating funds. This money cost could be obtained by reducing the number of F8F overhauls, and hence the number of operating airplanes, but the cost would be seven F8F type aircraft for one PB4Y. A little consideration of these examples will show you that you hold your very future in naval aviation in your own hands.

IT USED to be the greatest pride and proudest boast of naval aviation in days of its early development that "scratch a naval pilot and you will uncover a pretty fair engineer." From a necessity forced on him by lack of facilities, airplanes, and money, the early aviator had to make the very best use of all he possessed. The result was an aviation organization unexcelled in the world.

The future is certain to require again that we do our very best with what we have—or we will have nothing.

S. B. Spangler



TOOK THEM SEVERAL YEARS, BUT THEY MADE IT

Workers Win Delayed Honor

NAS SAN DIEGO—Ten naval aviation apprentices who began before the war to train for journeyman and supervisor jobs in Navy A&R shops finally got their diplomas at graduation ceremonies here.

The men are veterans of the war who started training in 1941 and 1942 before entering the armed forces. They returned to complete their training under cooperative agreements between the Navy, San Diego city schools, and the Veteran's Administration.

Presentation of their diplomas was made by Capt. L. E. Gehres, C.O. of the station. Pictured here, they are, left to right, front row: J. E. Engelstad, C. A. Skelly, Jr., A. W. Aoford, C. F. Thompson and C. E. Montanaro. Back row: J. C. Roush, S. G. Hewson, L. D. Phillips and A. J. Forrister.

Covers Serve Dual Purpose

The oil cooler port covers described in *FAI Bulletin #184* were found to serve a dual purpose by VMF-211 during the cold weather operations last winter. These covers, fitting snugly to the oil cooler ports, kept out dust as well as rain and snow.

The carburetor air filters used in this area, the intercoolers, and the oil coolers were kept cleaner by this method. The covers were installed at all times the airplanes were not actually being operated.

A canvas cover for the air scoop also was used in conjunction with the oil cooler covers. These replaced the dust boards that had been used previously and more efficiently prevented rain, snow, and dust from entering the air scoop. Engine covers would have made the scoop covers unnecessary but these were not available for all planes.

New Dial Cleaning Method

NAS PENSACOLA—Acetone has been used for some time to soften and remove radioactive markings from instrument dials. Undiluted acetone is not satisfactory as it attacks and removes the dial finish.

A procedure has been developed here for the solvent removal of luminous markings (before the dial finish is appreciably attacked) by diluting acetone with naphtha and carbon tetrachloride. This procedure is as follows:

Any luminous material that is in good condition shall not be removed, but material that is chipped or cracked shall be removed under liquid and be replaced with new material. Caution shall be exercised to see that ventilation is adequate. The material may be removed by acetone

or by scraping off with a small piece of razor blade inserted into a handle.

Undiluted acetone will remove all paint materials on the dial down to the metal, and should be used only when large quantities of material are to be removed. To remove only the luminous material from the dial without loosening the basic paint, a solution by volume of the following constituents may be used: Naphtha 55 parts; Carbon tetrachloride 35 parts; Acetone 10 parts.

When acetone or an acetone solution is used, the dial shall be rinsed with clear water after removal from the acetone. When scraping luminous material, the dial shall be kept under liquid at all times so that no particles of the material will get on work tables or in the atmosphere.

When the coating is injured or removed, it shall be touched up or replaced with white zinc oxide lacquer enamel. After application, this enamel shall be air-dried for a period of at least three hours.

Solvents which have been used to remove markings containing radioactive materials shall be handled in accordance with Section 9, General Safety Rules, "Safe Handling of Radioactive Luminous Compound." It should be noted that spent radioactive markings contain, within practical limits, the same quantity of radium as new markings. Radioactive decomposition of radium is very slow, requiring approximately 1,830 years for half of the material to decompose.

The Pensacola procedure was developed under the Navy Employees' Suggestion Program. In addition to providing a more efficient means of removing dial markings, it makes possible a 90 per cent reduction in time consumed in the cleaning process.

Annual savings realized from its use amount to more than \$5,000 at the originating activity.

[SUGGESTED BY WILLIAM O. CLOUD]

Pallet Hook Eases Loading

NAS SAN DIEGO—Pulling loaded pallets to the rear of a truck bed is a hard job. A "pallet hook" recently invented at this base allows the load to be pulled into position for a stacker to pick it up easily and remove it from the truck. The invention is estimated to save approximately 1300 hours per year of \$1,950 per annum. Its inventor was awarded \$50.

[DEV. BY G. C. CLARY,
QUARTERMASTER CHAUFFEUR]



NEW HOOK MOVES LOAD, SAVES ON MAN HOURS



BOOKS

The Escort Carriers in Action. Compiled by Price Gilbert, Jr., Cmdr., USNR. Ruralist Press, Inc., Atlanta, Ga., 1946, \$2.50. (The story in pictures of the escort carrier force. U. S. Pacific Fleet.)

The Blue Ghost. Edward Steichen, Capt., USNR (ret.). Harcourt, Brace, 1947, \$3.75. (Photographic log and personal narrative of the Lexington in combat operations—by the country's outstanding photographer.)

The Right To Fly. John C. Cooper. Holt, 1947, \$5.00. (With air power considered as the total aviation activity of a nation, the relative strength of the great powers, both actual and potential, is analyzed.)

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Reaction-Powered Planes and Missiles. *Aero Digest*, Sept. 1947, pp. 38, 39, 72, illus.

GCA in the Control Tower. *Aero Digest*, Sept. 1947, pp. 65, 118, 119, illus.

Development of the X-5 Supersonic Research Airplane. R. M. Stanley and R. J. Sandstrom. *Aeronautical Engineering Review*, Aug. 1947, pp. 22-26, 72, illus.

Notes from Helicopter School, Part IV. Wolfgang Langewiesche. *Air Facts*, Sept. 1947, pp. 67-80. Fourth in series on learning to fly helicopter.

British Test New Jet Fighter. *Aviation Week*, Aug. 25, 1947, p. 27, illus. SARO flying boat.

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New Channel Wing Nears Flight. *Aviation Week*, Sept. 15, 1947, pp. 21-22, illus.

Jet Rotors Point to 'Copter Payload Gain. *Aviation Week*, Sept. 22, 1947, pp. 28-31, illus.

The SARO AL. *Flight*, Aug. 7, 1947, pp. 127, 128. Jet flying boat.

Short-Distance Aids to Navigation. *Flight*, Aug. 14, 1947, pp. 155-157, illus.

Design and Psychology. *Flight*, Aug. 14, 1947, pp. 170-172, illus. Cockpit design related to human error.

Soviet Aviation Day. *Flight*, Aug. 28, 1947, pp. 226, 227, illus. Views of new military aircraft over Moscow.

Northrup Wing. *Fortune*, Oct. 1947, pp. 112-116, 182, illus.

Airborne Radar . . . How It Works, What It Does. Frank C. White. *SAE Journal*, Aug., 1947, pp. 27-31, illus.

Aircraft Power Plant Predictions. A. T. Gregory and A. L. Pomeroy. *SAE Journal*, Aug., 1947, pp. 62-66, illus.

The British Outlook on Future Aviation Engines. F. R. Banks. *SAE Journal*, Sept., 1947, pp. 31-34, illus.

Problems of Helicopter Powerplants. Robert Insley. *SAE Journal*, Sept., 1947, pp. 46-48.

The Third Ten. Gen. H. H. Arnold. *Skyways*, Oct., 1947, pp. 28, 29, 52, 54, illus. Concluding series on early aviation licensed pilots.

Don't Underestimate the Difficulties of Guided Missiles Problems. Dr. Lawrence R. Hafstad. *U. S. Air Services*, Sept., 1947, pp. 7-10, 30.

MAG 33, EL TORO—VMD-254 is now conducting exercises with the CIC Group Training Center, San Diego. Exercises are conducted daily by single squadrons. Several planes act as the attack force and the CAP is vectored by fighter director to intercept.

SERVICE TEST

INTERIM REPORT DIGEST

This digest covers the 15 September Interim Report of Service Test, NATC PATUXENT and does not necessarily reflect BCAA's policy.

AM-1

Carburetor Air Scoop. When airplane was received for test, 26 August, the plastic carburetor air scoop was found cracked and buckled at lower left corner for distance of 14". Left bearing socket for alternate air door was cracked, misaligning door and causing it to jam in alternate air position. Plastic air scoop assembly was replaced with a metal scoop.

Intake Pipe Drain. P&W support assembly, P/N 109715, was replaced with one of the same part number having a satisfactory braze.

FD-1 (38 Hours)

Throttle Quadrant. Quadrant had been elongated $\frac{1}{4}$ " by use of a round file, evidently to obtain increased engine rpm. Engine control linkage was adjusted and a stop riveted over the elongated section.

Combustion Chamber. (J30-P-20A P-400009) During inspection at regular ten-hour check period, four longitudinal cracks 2" from the fuel manifold were found on the upstream side of the inner combustion basket at the 2, 5, 6, and 7 o'clock positions as observed from the rear of the engine. Engine had a total time of 20 hours 15 minutes of which 5 minutes was military power. Cracks will be inspected at each ten-hour check period for growth.

Fuel Lines. Tubing $\frac{1}{2}$ " O. D. x .049 Wall (fuel pump to dump valve), P/N AN-WW-T-858—fuel lines were found to be chafing against each other on both aircraft, BUNO'S, 111754 and 111758. Adel clamps were installed to prevent vibration and further chafing.

Spark Plug Boss. The actual spark gap required (which is formed when the single electrode spark plug is installed) is between $\frac{5}{16}$ " and $\frac{3}{8}$ ". If this gap is less than $\frac{5}{16}$ ", material is filed or machined from the face of the spark plug boss, P/N 19H111-1 to obtain minimum spark gap. If the gap is more than $\frac{3}{8}$ ", shims or extra gaskets are added under the spark plug to bring this measurement within the required tolerance.

Westinghouse directed in Engine Notice No. 15 that the spark plug boss which has an original thickness of .302" to .322" shall not be decreased to less than .172", and also that the original finish must be maintained, and squareness of the boss face to the tapped spark plug hole must be kept within .020" per inch. It is believed that it will be difficult for field activities to "maintain square-

ness of boss face and original finish" with a file and yet remain within specified tolerances, and that as a result of this procedure, the life of the outer combustion chamber will be unduly shortened.

Turbine Outlet Temperature Indicator. The policy of red-lining the face of the instrument, R88-1-2670, at engine change to comply with the maximum turbine outlet temperature of any given engine presents a problem in correctly marking the instrument glass. An error of 100° is possible between the readings of a short and a tall pilot due to parallax. This activity is at present removing the instrument glass and marking the red line on the face of the instrument. However, this is not considered a good practice and it has been recommended that an adjustable red line marker on the face of the instrument be provided that can be adjusted to the correct turbine outlet temperature for each engine.

Starter Seal. Starter No. 4b, installed on Westinghouse engine WF000036, was removed and inspected when received from overhaul. Inspection showed that the seal, P/N 61H454-1, for the starting dog positioning bolt was $\frac{1}{2}$ " in diameter and the diameter of the drilled center hole was $\frac{9}{32}$ ". In accordance with the manufacturer's change sheet, the diameter of the seal was to be reduced from $\frac{1}{2}$ " to $\frac{15}{32}$ " and the drilled center hole was to remain $\frac{1}{4}$ ". It is apparent that $\frac{1}{32}$ " had been removed from the center hole instead of from the outside diameter of the seal. This resulted in an improper oil seal.

Turbo Jet Engine. Failure of engine J30-WE-000036 occurred after 20 hours 41 minutes engine operating time since overhaul. Failure was caused by loss of oil pressure resulting from a failure of the drive spline on the oil and scavenge pump, P/N 23F308-1, serial 54635. Engine was disassembled and following damage found: Turbine rotor shaft was frozen; bearings No. 1, 2, and 3 were damaged; diffuser extension assembly, P/N 14G88-1, the compressor housing assembly, P/N 23F757-1 at first, seventh, and eighth stages, and the compressor spindle assembly sleeve 14G-1 were slightly damaged. Engine will require overhaul.

Corpus Tries A New Trainer

A new type of simulated-flight trainer, which its manufacturer claims does not require a specially-trained instructor and operates at a low cost, is being studied by aviation officers at NATC CORPUS CHRISTI.

The trainer, developed by Dr. R. C. Dehmel and built by Curtis Wright Corp., is stationary and sits on the floor. An



DR. DEHMAL (LEFT) WATCHES RADIO INDICATOR

electric computer continuously solves the equations of the theory of flight, giving a reading of actions induced by the readings.

Any pilot capable of giving instructions can instruct in the new trainer, Dr. Dehmen said, because all radio connected with the trainer is automatic, and any radioman can repair it.

Microphone Short Troubles

VMF-115, PACIFIC—This squadron recently experienced some unusual radio trouble. As planes taxied to position for night take-off, every pilot found himself unable to transmit or receive, due to static and screeching in the receivers.

After several unsuccessful attempts by each division leader to contact the tower or other planes in their flights the squadron returned to the line and the hop was cancelled. After checking radios in all planes, it was found that one plane caused the whole trouble.

The microphone leads were shorting out, causing both VHF and HF transmitters to be keyed constantly. This caused the screeching and blocked all radio traffic. The offending pilot did not know his mike was to blame. Replacement of the microphone stopped the trouble.

Device Loosens Tire Beads

NAS NEW ORLEANS—An aircraft tire bead-breaker, constructed in the metal shop mainly from scrap material, loosens the beads on both sides of the tire simultaneously from the wheel.

Though designed for stationary use on 32x8 tires, the bead-breaker is portable and can be adapted to any size wheel.

[DEVELOPED BY F. B. MAKOWSKY, AMM2]



TIRE BEAD IS BROKEN ON BOTH SIDES AT ONCE

AVIATION ORDNANCE

INQUIRIES SHOULD BE ADDRESSED TO THE CHIEF OF BUREAU OF ORDNANCE

Preserving of Aircraft Machine Guns

Aircraft machine guns being returned for overhaul in a rusted condition indicates that some of the operating activities are not following existing instructions for the preservation of Aviation Ordnance Equipment. Aircraft machine guns or any piece of machinery inadequately preserved will in a short time rust or corrode to such an extent that subsequent use or overhaul is impossible. If ordinary precautions are followed in the preparation of equipment for periods of idleness, storage, or shipment, a considerable savings in overhaul costs can be effected.

In preparing guns and accessories for extended periods of idleness, the following considerations must be given: 1. Proper and careful cleaning of equipment 2. Selection of the appropriate preservative 3. Proper application of the preservative 4. Packaging of equipment after application of the preservative.

Regardless of the effectiveness of the preservative, corrosion is likely to occur if moisture and dirt are not completely removed prior to the application of the preservative. Likewise, improper selection of the preservative material may result in inadequate protection, permitting corrosion and rusting to start.

Lubricating and preservative oils offer some degree of protection but are not entirely satisfactory for extended periods of idleness unless frequent inspection and reapplication of the preservative can be accomplished. For that reason, the hard film preservatives are recommended if frequent inspection is impractical, and this material is intended for corrosion prevention under the most severe conditions of exposure.

Detailed instructions for the preservation of Aviation Ordnance Equipment for periods of idleness ranging from ten days to six months are given in Bureau of Aeronautics publication NAVAER 00-85A-501.

In addition, this publication contains a list of required materials, their stock numbers and pertinent information regarding their use. This publication does not cancel or supersede Bureau of Ordnance publication OP-1105, Ordnance Storage Instructions which gives instructions for preservation for longer periods.

Production Starts on Bomb Cartridge

Production has begun on the 1" cartridge (bomb ejector) Mk 1 Mod 2, designed for use in the Douglas bomb ejector of attack type airplanes. This cartridge is the approximate size of the type "D" aircraft engine starter cartridge.

The aluminum case has a square rim to facilitate more accurate regulation of head space and therefore will not fit in the powder retainer of bomb ejectors of early issue. Bureau of Aeronautics will shortly issue AD Aircraft Service Change Order No. 25 which will take care of this latest modification.

The cartridge was developed when it was found that the lag between completion of the firing circuit and functioning of the Type "D" aircraft engine starter cartridge was excessive and inconsistent, thus adversely affecting accurate placement of bombs. The lag when firing the 1" cartridge will always be less than ten milliseconds.

When using this cartridge in aircraft equipped with a circuit test lamp, ground personnel should be kept away from the vicinity of the fuselage while testing the firing circuit. This safety precaution should be observed although it is extremely doubtful if a cartridge will fire when the test circuit is completed.

NAVORD OCL AV5-47 covers the selection and test of Type "D" aircraft engine starter cartridges for emergency use in the bomb ejector.

BuOrd Changes Mk 18 Control Boxes

Recent reports reveal that in some installations the switch guard on Control Box Mk 18 Mod 1 (a component of the aircraft sight system Mk 1 Mod 2) installed in AD-1 aircraft is not positively secured. Due to inherent plane vibrations the guard has a tendency to rotate and interfere with operation of the GUN-MANUAL switch.

To overcome this difficulty a new switch guard (Stock No. 3942-G-870-100) is being procured to replace all unsecured switch guards. In addition, all on hand stocks of control boxes are being modified to include the new guard. All control boxes with the new switch guard can be identified by the rivets in either side of the switch. The older switch guards do not have attaching rivets.

Modification instructions for field activities to obtain the new switch guards and replace the older ones are now being formulated, and it is expected that they will be distributed for field use by 1 December 1947. New switch guards are now available for distribution and will be furnished to activities supporting AD-1 aircraft squadrons in accordance with Ordnance Circular Letter NAVORD OCL V2-47.

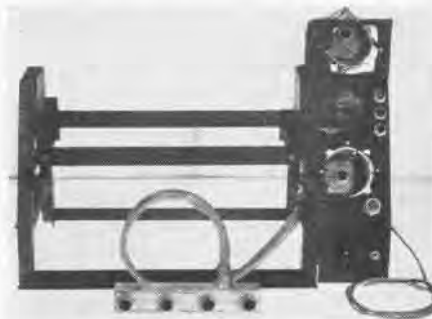
BuOrd Gets Report on Pin Failures

The Naval Proving Ground, Dahlgren, and the Naval Aviation Ordnance Test Station, Chincoteague, reported that frequent failures of the subject part were occurring. The majority of failures reported occurred below the normal part life of 2500 rounds. In most cases, failure occurs where the tapered and straight section of the tip meet.

If other activities are experiencing the same troubles, Bureau of Ordnance requests that a RUDAOE, NavOrd Form 147 be submitted. State in the report 1 part number, 2 identity of manufacturer (stamped on body of part), 3 total rounds on part when failure occurred, 4 frequency of failure of subject part, 5 any additional information that will enable Bureau of Ordnance to investigate and correct

the trouble. Include with the RUDAOE photographs or samples of the failure.

Bureau of Ordnance is investigating the overall performance of the subject part. Activities will be informed through NAVAL AVIATION NEWS of corrective action taken.



NAS Alameda's A & R electronic's division built this radio altimeter test stand. The unit saves man hours in servicing altimeters and has proved practical for shipboard use. BUAEER considers this stand one of the best maintenance racks for AN/APN-1 equipment thus far devised in the field.

Taxiing on Ice Takes Care

VR-5, SEATTLE—Taxiing on icy runways requires just as careful piloting as flying a plane, plane commanders on the Aleutian runs have found out.

New commanders usually taxi too fast. Ice-grip tires will keep the plane rolling under control if taxiing speed is held down. It is recommended that all taxiing be done with the yoke in full forward position. This insures proper steerage of the nose wheel without excessive speed and will prevent it from locking in a fixed position. A locked nose wheel will start the plane skidding and any attempt to correct with throttles or brakes will only aggravate the skid.

New co-pilots must remember that during all taxiing they are responsible for their side of the plane and must keep the plane commander informed on clearing obstacles and traffic to the starboard. Filling in logbooks and other paper work, when the plane is underway on the ground, is not considered conducive to safe taxiing.

Marines Train Corsair Pilots

MCAS EL TORO—How do you go about making a fighter pilot out of a man who knows his way only around a multi-engine "clunk?"

Here's the way VMF-223 made the transition for 40 Marine pilots, many of them transport men. An SNJ syllabus of about 12 hours was given to prepare them for flying the Corsair, making use of the instrument squadron's SNJ's.

The F4U syllabus of about 40 hours stresses formation work and aerobatics and finishes up with gunnery and bombing hops. An integral part of the program is an intensive ground training course of 30 lecture hours, movies and demonstrations and 30 hours of required reading. Fourteen experienced VF men are instructors, some transferred from other squadrons for the training period to aid the transition.

AVIATION PROGRESS

Short excerpts from Progress Reports of various BuAer sections are presented below. They represent progress during August, contained in September summaries.

Piloted Aircraft Division

Airship—Preliminary specifications for the ASW airship, Model XZPN, have been prepared, and are ready to issue to contractors interested in submitting proposals for construction.

Airship M-2—NAS LAKEHURST has submitted a preliminary plan for the installation of APS-20 radar in the airship M-2. The plan has been tentatively approved by BUAE.

FD-1—VF-17A has moved to Quonset. Tests at Patuxent indicate airplane is satisfactory for catapulting.

SC-2—Contractor has three more modified SC-2 airplanes completed at the plant and is awaiting BUAE disposition instructions. This brings the total modified to six. Disposition of these airplanes is still undecided. Three remaining unmodified SC-2's will be returned to Columbus within two weeks.

HRP-1—The first HRP-1 has been released for preliminary demonstration. It is anticipated that the helicopter will be delivered for final demonstration during the second week in September.

HTL-1—NATC Patuxent reports cooling difficulties and requested a service change. Report of Service of HTL-1's on Midshipmen's cruise verified previous reports of unsuitability of the HTL-1 in present configuration for fleet operations.

XJL-1 Amphibian—In the interest of economy and elimination of further delay, the contractor has been informed that the instrumentation and water testing specified will not be required.

XJR2F-1 Amphibian—The first airplane is well along in final assembly. Taxi tests were tentatively scheduled the first week in September.

AD-1U—The mock-up board met at the Douglas plant, El Segundo from 4-6 August.

J4F-2 Amphibian—Action has been initiated to supply two spare Ranger engines to be shipped to the NACA at Langley Field for use during the testing of this airplane.

TBM-3U—The prototype airplane is now at NATC Patuxent River for evaluation.

XR60-1—No. one aircraft has R-4360-22W engines installed and ground run and taxi tests are being conducted for propeller vibration survey and engine cooling. Flight tests are anticipated throughout September at the contractor's plant. CNO has allocated four naval aviators and 12 men for duty under BAR Burbank for indoctrination and training on XR60 to insure successful service operation upon completion of final demonstration.

XNQ-1—Second airplane is now being flown and evaluated by the Training Command. First airplane was flown from the contractor's plant to Patuxent for evaluation of stall warning device and effect of increased dihedral. After this evaluation the airplane will be returned to the contractor for installation of XR-680-10 engine.

Airborne Equipment Division

Fuel Tanks—Curtiss-Wright Corp. is making satisfactory progress under its contract to produce 5,000 aluminum alloy 150 gal. MK 12 external auxiliary fuel tanks. Contractor estimates that first production tank will be available for Bureau test on or about 10 October.

Hydraulic fluid—Extended service tests at NRL on the modified Pesco 3000 psi hydraulic pump were terminated after 2000 hrs operation with Hydrolube "U-3" at full pressure. Pump parts were in excellent condition indicating that this non-inflammable fluid has very satisfactory lubricating characteristics with the modified Pesco pump. Corrosion tests with magnesium brake casting test specimens indicate that Hydrolube "U" will probably be satisfactory for use with the chromate surface treated alloy even when the surface is scratched. A slight amount of corrosion occurs on the bare magnesium alloy. The Airborne Equipment Division is currently setting up a program for the installation of non-inflammable fluid in all naval aircraft.

Airspeed indicator—Recent changes in the specifications for the maximum allowable airspeed indicator, which provide for an expanded scale below 150 kts, are being submitted to the Working Committee of the Aeronautical Board for incorporation in an AN specification.

Aluminum Alloy Rivets—Final report on this project reveals that the resistance heating pressure method of driving aluminum alloy rivets produces joints with slightly higher fatigue strengths than those of conventionally riveted assemblies. Previous reports showed equal or higher static strengths and equivalent corrosion resistance for the new riveting procedure.

Magnesium Lithium Alloy—Preparation of improved alloy compositions for commercial evaluation is nearing completion. Also, plans are being made to evaluate magnesium-lithium alloys for use as light weight armor in aircraft.

Resealing R5D Fuel Tanks—An experimental project involving resealing one wing of an R5D with Proseal 354 and the other wing with Technical Coatings TC46S and TC46HS has been established at NAS ALAMEDA.

Pilot Comfort—A second set of experimental seat pans and back pans have been successfully live-jump tested at NAS LAKEHURST. When remaining sets have been re-

ceived from the contractor, they will be forwarded to an operating squadron for further evaluation.

Pararaft—A pre-production sample of Model PK-2 Pararaft Kit has been inspected and approved. Production deliveries are expected to start prior to 1 September.

Ships Installations Division

Underside Fueling—BUAE has completed investigation of the problems accompanying a proposal to change the system of fueling Navy aircraft from the underside of the plane. Information was secured on modifications necessary to make this change in aircraft carriers, planes and shore stations. Data were summarized in Ship Installations Memo, Aer-SI-4 of 18 August.

Arresting Hook—ComAirPac has designated VA-11-A, a 20-plane SB2C squadron, to test arresting hook pressurized shock absorber reservoirs.

Arresting Gear Changes—Changes 9 and 10, modification of Mk 4 arresting and barrier engines to improve reliability and reduce maintenance, are being accomplished during scheduled overhauls of active CVE-105 class vessels beginning with CVE-120.

Non-skid Deck Covering—Results of service test on non-skid deck coverings on CVB-41 class vessels to reduce purchase cable wear are not too encouraging. While considerable improvement in reducing wire rope abrasion can be obtained, sacrifice in non-skid properties on water or oil soaked areas is apparent. CO's of applicable vessels raise objection to acceptance of such sacrifice and recommend investigation of wear resistance of wire rope. Suggestion was referred to the wire rope technical committee.

Seaplane Tenders—The *San Marcos* was assigned availability at Naval Shipyard, Terminal Island, for temporary conversion to a seaplane drydock. Completion was scheduled for 1 October.



Rotation Problem Is Solved

FASRON-113, WHIDBEY ISLAND—Rotation of this unit's personnel has always been a headache, as about one-sixth of the squadron personnel rotate monthly with the personnel of FASRON-114 in Kodiak, Alaska. This situation has caused the development of a system for abstract handling of rotating personnel.

Weekly reports to departments heads concerning detail assignments of men make it possible to anticipate the requirements of future replacements in responsible assignments such as outlying details in shops. Some shop CPO's have been replaced every 30 days or less.

To prepare for such rotation, a graph is constructed from information gathered from personnel reporting in and from the weekly reports. This allows the assignment of incoming personnel to important jobs and to jobs where they can 'break in.'

To augment this on-the-job training, an educational program now helps increase the efficiency of all rates. This utilizes the supervisory capacities of petty officers and helps them learn the jobs they will hold some day.



SUPPLY NEWS

FROM ASO AND SUPPLY DIVISION BUAER

Spares Provisioning Teams

As one of its delegated responsibilities ASO organizes spares provisioning teams to create initial spares orders for maintenance parts peculiar to a new airplane. Such provisioning teams are directed by an ASO Provisioning Board which interprets the many varied directives and policies of DCNO (Air), BUAER, and ASO as they should be applied to a specific airplane.

Intelligent spares provisioning, to avoid purchase of either too much or too little and delivery too early or too late, is extremely important in effecting economy; and it can be accomplished only when fairly comprehensive planning predictions are furnished as to where, when, and how much an airplane model will be operated.

In accordance with established naval policy, the total quantity of each spares item estimated as needed for the operating life of an airplane is scheduled for manufacture and delivery concurrently with the airplane on which used. This method has proved to be the soundest and most economical means of providing necessary maintenance and overhaul parts.

During the past three month several teams have been sent to airplane manufacturing plants, either to create initial spares orders for each new model airplane, to reprovision for an older model, or to review, revise, and reconcile through reprovisioning the spares orders applicable in the case of an airplane model bought under more than one fiscal appropriation, and therefore under different contracts, e.g. the P2V purchased under three different contracts. Provisioning has recently been completed for the following models and their configurations: AD-1's and -2's, P2V-1's and -2's, FJ's, AJ's, PBM-3A's, AM-1's and -2's, FD-1's, and F2H's.

Provisioning action is continuous, as no initial spares order is ever perfect or complete. Quantities of an item procured and even the range of the items selected must be changed. These changes of an initial order are a Stock Control function and are accomplished by the five Stock Control Divisions of ASO. They make changes as a result of stock usage and issue experience. Quantities for some items will be increased, for other items decreased; entirely new items may be added, while others may be terminated. However, when a major change occurs in the planned utilization of a model, or when increases or cutbacks are made in the quantity of airplanes being procured, then ASO calls for help again from the field and from BUAER by reconvening a "reprovisioning team." For a typical airplane, spares manufacture and delivery continues over a period of two to three years, and the Stock Control changes made by ASO will be found to average about 15% of the total money value involved.

Usage and consumption data are of para-

mount importance in creating and later stock controlling a spares order. In the case of a new model, the provisioning team is given usage data on a preceding model of considerable similarity. The team must exercise considerable judgment in using such consumption data in creating the initial order. Later, ASO will be guided in making changes by BR's sent in by the Fleets and other commands which show actual usage experienced in operations of the particular model plane. Fleet and Air Station personnel, experienced in maintenance and material supply, are of invaluable assistance to BUAER and ASO personnel in provisioning.

Fleet and other commands are always invited to send representatives when at all appropriate. It is hoped that cognizant authorities in the field will recognize the importance of this work and of their sending well qualified representatives. On the other hand it should be realized that handsome dividends in economy can be obtained through the careful selection of support material, because the direct cost of provisioning can be offset many times through savings resulting from careful, efficient spares provisioning.

Spare Parts Recovery Ends

The spare parts recovery program for wartime models of aircraft is being terminated by BUAER in accordance with ASO recommendations. Needed spare parts will continue to be recovered from stricken aircraft in the routine, unscheduled procedure. The so-called "Spare Parts Recovery Program" was instituted at the end of the war as a means for recovering predicted future needs from military aircraft declared surplus and not salable by the War Assets Administration. Very few of these aircraft now remain in existence—hence the termination of the scheduled program in the case of airframes. Some surplus engines, however, still remain to be "cannibalized" as scheduled A&R workload.

Additions for ASO Catalog

The following Sections of ASO Catalog were distributed during the month of July 1947:

Class & Section No.	Edition Date
1729—Insulation Material	1st—Feb. 1945
2701—Dry Goods	2nd—June 1947
8536—Strainers	2nd—June 1947
8501B—P&W Engine Spare Parts	2nd—May 1947
8810B—Jack & Heintz Instrument Tools	1st—June 1947

Detailed listings and how to obtain new sections is published in *INFO from ASO*.

In the August 1947 issue of *Supply News* the item "New Sections for Catalog" contains an error in listing. Section "8696E" should read 8686E.

Reporting Battery Stocks

Careful stock control is necessary for short-life material such as dry batteries. Accordingly "Monthly Inventory Reports" are required for batteries instead of the customary quarterly report.

Procurement Slow, Costly

The procurement lead time on most materials peculiar to aviation is now much greater than it was during the war, partially because of the relatively low production volume. For example, most items of aluminum sheet, tubing, extrusions, etc., formerly could be delivered three months after date of order; whereas today many such items require a 12 to 18 month procurement lead time. ASO is taking this into consideration when reviewing stock positions and placing new orders.

The cost of practically all aeronautical materials has doubled since the war ended.

Progress in Standardization

A second joint Army-Navy-Industry conference on standardization and simplification of aeronautical materials was scheduled for October at Dayton with the Army Air Forces as host. This conference, on aircraft power plants and power plant accessories, parallels the one held at ASO on airframes during May. The Aircraft Industries Association later will be host to a third conference, similar in nature, but devoted to other airborne equipment and accessories.

Study Maintenance Methods

The Supply and Maintenance Requirements Committee of the Aeronautical Board is sponsoring the possible standardization of aircraft periodic maintenance practices and procedures (with a view towards establishing common forms and check-off lists to the greatest possible extent, especially for trainers and transports used commonly by both the AAF and the Navy). Considerable modernization of such practices also appears likely.

Electronics Items Identified

ASO is actively participating in an electronics re-description and cataloging program sponsored by the Material Division of the Executive Office of the Secretary of the Navy, with administrative supervision by the Navy Material Catalog Office.

It appears that approximately 100,000 items used in the construction of airborne electronics will require pattern re-description. With the help of a commercial contractor, ASO has worked up to an identification rate of approximately 800 items per week, 3200 per month, which appears to be the optimum production level with personnel available. This program will have great incidental value in improving the standardization and simplification of electronics components and bits and pieces.

Two-Year Restriction Lifted

Recently Congress removed the two-year restriction of the use of appropriated funds for the purchase of new aircraft and support material peculiar thereto. This is considered a most progressive step, facilitating better stock control especially in the procurement of spares peculiar, with resultant economies.

SEPTEMBER PUBLICATIONS INDEX

AVIATION CIRCULAR LETTERS

Title	Order No.
§ Maintenance Stocks of Ordnance Type Synchros.	A.C.L. 56-47
§ Aeronautical Information, Continental United States.	A.C.L. 74-47
Ground Controlled Approach (GCA).	A.C.L. 75-47
§ International Civil Aviation Organization (ICAO) Documents, Distribution.	A.C.L. 76-47
§ Aircraft Service Change Kits—Allocation, Distribution and Disposition.	A.C.L. 77-47
§ AD-1, AD-2U and AD-2N Aircraft Model Designations—Establishment of.	A.C.L. 78-47
§ Carburetors, Pressure Type and Fuel Valve Diaphragms—Maximum Storage—Time of.	A.C.L. 79-47
§ F9F-2, XF9F-3, F9F-3 Aircraft Model Designation; Establishment of. (Restr.)	A.C.L. 80-47
§ FH-1, XF2H-1, F2H-1 Aircraft Model Designation; Establishment of. (Restr.)	A.C.L. 81-47
§ FJ-1 Aircraft Model Designation; Establishment of. (Restr.)	A.C.L. 82-47
§ F6U-1 Aircraft Model Designation; Establishment of. (Restr.)	A.C.L. 83-47
§ KD3G-2 Pilotless Aircraft Model Designation, Establishment of. (Restr.)	A.C.L. 84-47
§ Thunderstorm Research Project—Operational Aspects of.	A.C.L. 85-47
§ Turbo-Jet Engines—Official Army-Navy Designations for. (Confidential)	A.C.L. 86-47

TECHNICAL NOTE

§ Modification to Radar Training Assembly AN/APS-30-T1 to Improve Operation for Single Unit Installations.	T.N. 16-47
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TECHNICAL ORDER

§ Model PK-2 Paraff Kit Description, Operation and Use of.	T.O. 22-47
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GENERAL

§ Preliminary Handbook of Preservation of Naval Aircraft for Shipment and Storage, July 15, 1947.	NavAer 00-85A-501
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INSPECTION MANUAL

§ Aeronautical Technical Inspection Manual Volume 3, Section 4 Magnetic Particle Inspection, July 1, 1947.	NavAer 00-15PC-503
§ Overhaul Instructions for Aircraft Engine Model O-335-1, Mar. 25, 1947.	AN 02-70DA-3
§ Parts Catalog for Aircraft Engine Model O-335-1, Mar. 25, 1947.	AN 01-70DA-4
§ Parts Catalog for Model J35-C-3 Turbo-Jet Engine, Revised July 3, 1947.	AN 02B-105CA-4

INSTRUMENTS

Operation, Service and Overhaul Instructions with Parts Catalog for Airspeed Indicators, Army Types B-7, C-14, D-7, F-2, Rev. Jun. 13, 1947.	AN 05-10-21
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NAVIGATION EQUIPMENT

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RADAR PLAN SAVES STRAYED AIRCRAFT

A "BRING 'em back alive" plan under which ground controlled approach and ground control intercept squadron units cooperate to rescue lost planes was worked out in China by Marine GCIS-7 and the Navy GCA Unit 5.

For eight months the two coordinated to save planes lost up to 150 miles from their station. The fact that a lost plane is seen by radar and under positive control until touchdown helps the morale and adds assurance to a pilot flying in inclement weather. In event of GCA failure, GCI established a procedure by which aircraft could be landed by PPI approach similar to GCA.

Under the system worked out in China, when a lost plane was reported, GCIS-7 with its AN/TPS-1B, SP-1M and direction finder, SCB-575, and GCA unit 5 with AN-MPN-1A were alerted. First control was passed to SCR-575, which has the greater range. The direction finder guards four VHF channels and one MHF.

At the time of giving the lost plane a steer, information is passed by D/F to GCI which starts a radar search with its AN/TPS-1B and SP-5M, covering the quadrant established by D/F bearing. This search covers 80 miles. On loading radar target, GCI gives, identification turns to establish positive radar contact. GCI then directs the plane within search pattern of GCA, at the same time informing GCA of its position.

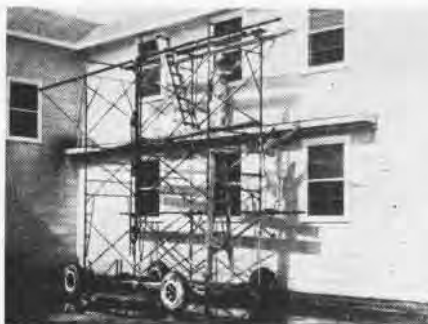
The GCA unit maintains a search from the first alert and if it makes first contact it notifies GCI of this and assumes control until the plane has landed. During the entire proceeding, vital information on bearings, distance, altitude and the like is exchanged.

Each unit, D/F, GCI and GCA, is equipped with direct land line phone, a secondary VHF channel, and can use any one of 10 VHF frequencies. This enables each unit to talk with any other without interfering with communications being used by the plane.

Here's Another Good Idea

A mobile scaffold built for \$100 has saved NATTECHTRACEN MEMPHIS an estimated \$30,000 in one year. The new-type structure, built mainly from scrap material, has been equipped for painting and for fire-fighting.

Results from the use of the first scaffold built proved its adaptability and usefulness. Seven more were constructed and used for putting on eaves trim, painting sides of buildings, carpenter repair jobs and other such work. Several were constructed with a full length landing gear strut assembly to give them sufficient height to straddle shrubbery which grows alongside of the buildings.



SCAFFOLD SAVES MAINTENANCE TIME & COST

Four of the scaffolds were also equipped with adjustable stand-pipe and perforated pipes to make water curtains for fire fighting purposes. Such portable water curtains can be rolled to the scene of a fire almost instantly, where there is need to gain access to a second story or where buildings are close and danger of fire spreading exists.

R5D Fuel Gauge Is Changed

VR-4, MOFFETT FIELD—R5D aircraft now undergoing heavy maintenance at VR-4, will have the gasoline gauges calibrated according to a new system. Formerly a full tank was indicated on the gauge by the needle aligning on the "full" calibration mark even though the figure indicated on the gauge was not the actual capacity of the tank.

The gauges for the No. 2 and No. 3 main tanks in the R5D-3, for example, when full read 510 gallons; after these gauges are calibrated, they will indicate 490 gallons, which is the actual fuel contained in the tank. The same technique will be employed in calibrating the left and right auxiliary tanks. Formerly a full auxiliary indicated 440 gallons, but under the new system the gauge will indicate the actual fuel capacity of the tank, which is 420 gallons.

The advantage of this system is that it enables the pilot to reconcile the gauge reading with the actual capacity of the tank for purposes of flight plans, pre-flight inspection and cruise control.

Some thought is also being given in regard to modifying the gauge face to read "full" on a single calibration mark which will also indicate the capacity of the tank. This change will probably be forthcoming, if investigation shows that it is feasible to make the modifications and that this gauge is not also used on another aircraft which has a different tank capacity.

Dimpling Set Aids In Repairs

A metalsmith helper at MCAS CHERRY POINT has developed a tool to improve the



DIMPLING DIES ARE WELDED TO C-CLAMP JAWS

dimpling of aircraft skin during repair operations, particularly in restricted areas.

The set consists of a C-clamp to the jaws of which are welded the male and female die portions of the dimpling set. The clamp is placed over the hole to be dimpled, with the male die on the outside of the skin and the female die on the inside. The dies are then centered, and pressure is applied by means of the screw, which ordinarily will complete the operation in two and one-half turns. This produces a hole of the required depth without injury to the metal.

The tool is accessible to many types of repair jobs and is especially useful in dimpling skin of .025" or .032" thickness.

Submitted under the Navy Employees' Suggestion Program, the tool has been in use for several months at Cherry Point and will make possible an estimated saving of \$500 per year. [DEVELOPED BY WILLIAM J. SYKES]

Guided Prop Dome Remover

NAS ALAMEDA—A guided dome wrench for use in removing propeller domes has been developed by the machine division, A&R department. This can be operated by one person without risk of either wrench or dome slipping. It had been found that use of the standard wrench, unless operated by two people, created the hazard of the tool and dome slipping and falling to the deck, with



IMPROVED DOME WRENCH ELIMINATES SLIPPING

possible damage to the dome. The new guided propeller dome remover is in wide use at NAS ALAMEDA.

➤ **BuAer Comment**—The guided dome remover appears to have advantage over the standard wrench. BuAer will be interested in comments of other activities on this tool.

Marine Idea Saves Money

NATS, ASIA—The Shanghai detachment reported winds up to 75 mph, hit the field, damaging four ATC transports when one was tossed around freely. Passenger ramps belonging to civilian airlines, empty oil drums and debris were blown across the field and runway. Power lines and antenna were blown down, shutting off service for a time.

Safeguarding Hydraulic Gear

MCAS CHERRY POINT—The engineering department of VMP-114 has found it advantageous to remove the hydraulic selector valve and displace all hydraulic selector valves and all hydraulic lines leading to the main landing gear and tail hook before a plane (F4U-4) is turned over to service squadron for Bureau Change No. 254. Not only are the planes back in operation sooner but also the hydraulic lines formerly twisted and kinked by the riveting necessary for the change are now returned undamaged, resulting in a saving.

LETTERS

MUSTANG PILOT CHALLENGES NAVY'S GUNNER

SIRS:

This squadron noticed in the June issue of NANews that VA-3B had made a debut aboard the USS *Sicily* with the first carrier qualification tests in the AD-1.

We don't want to discredit the Atlantic Fleet with what these two squadrons have done, but of the many "Firsts" Air Group 19 has made, we feel we should get credit for making the first carrier qualification landings in the AD-1 aboard a carrier. On 5 and 6 February 1947 this squadron successfully completed 120 landings aboard the USS *Boxer* (CV-21).

Enclosed is a snapshot of our then Skipper, LCDR W. H. Craven Jr., USN, getting the first cut. This squadron has also, with VA-20A, qualified at night aboard the USS *Boxer* on 27 and 28 August 1947.

R. C. McGRATH, LCDR, USN
COMMANDING OFFICER, ACTING
VA-19A



SIRS:

The book "Shangri-La to Bikini," is now available to all Naval personnel. It is a memory book covering the period from the commissioning of the *Shangri-La* to the time of the atomic bomb test at Bikini. The book will be of great interest to personnel formerly of the *Shangri-La* and may be obtained by writing to the Commanding Officer of the USS *Shangri-La* (CV-38), c/o Fleet Post Office, San Francisco, enclosing check or money order for \$3.00.

The *Shangri-La* is now being inactivated at the San Francisco Naval Shipyard and is scheduled to be completely inactivated by November 7, 1947.

J. A. THOMAS, COMDR, USN
COMMANDING OFFICER
USS SHANGRI-LA



SIRS:

Just a simple sketch to check the boys out on where "base leg" lies, and will remain permanently. They usually call base anywhere from turning crosswind to the last stages of final approach. It also serves to show an embarrassing position can be attained rapidly if the call is put off.

FLOYD M. MALONE, SPY3C
NAS ANACOSTIA



MCAS EL TORO—All corners of this station are served by the mobile PX which makes the rounds during the day. Busy personnel during working hours can buy coffee, cold pop, doughnuts, candy, cigarettes, sandwiches, toothpaste, shaving cream, razor blades and other toilet articles.

BY USING some ingenious mathematical calculations, Capt. Edward F. Kelley III, AAF, challenges the fixed gunnery record of Lt. (jg) Harlan R. Chevront, whose 87% hits in aerial firing was featured in the June NANews.

Kelley, now at Brooks Field, San Antonio, said he got his record while with the Eighth Air Force at Catfoss, England, in August, 1944. The two in-board .50 cal. guns of his P-51-B were boresighted at 750 feet for a plane speed of 225 mph. Each gun was loaded with 167 rounds. This odd figure was standard operation for *Spitfires* which were being flown by his classmates at the RAF gunnery school.

Targets were towed by *Martinets* at 130 mph at 4,000 feet. Level quartering attacks were made on the target with initial approach from the opposite direction turning at the 90° side approach position until an angle of 20° off the tail position was reached, at which time firing was ceased and breakaway was made and the plane circled away.

This gave about 30° of firing position to a P-51 since the target does not come into view from under the nose until you are approximately 50° angle off position. The tow ship and tow line were used as a reference point when the target was not in sight. A standard A-10 target was used which measures 4'x20' and scored in the same manner as Chevront's target. Lt. Chevront was using an A-6A target, 1½ times the size of his, Kelley, figured, so that in order to make a comparison of scores, Kelley multiplied his hits by 50%.

Here is Kelley's "weighted" record: One mission 300 hits out of 334 rounds—average 90%; two consecutive missions on the same day, 498 hits out of 668 rounds—average 75.5%; six consecutive missions 948 hits out of 1762 rounds—average 53.8%.

(Editors note: NANews does not subscribe to Kelley's method of scoring (multiplying his hits by 50% because his target was smaller), but presents his story only for its readers' edification. Even without multiplying, his aerial shooting was excellent.)

NATS Licks Heat in Plane Cuts Time Before Take-off in Half

Did you ever climb into a transport plane on a hot day and almost suffocate in the closed fuselage while the pilot and co-pilot went through their long pre-flight check?

NATS Squadron 6 has figured out a way to cut down on its passengers' suffering by chopping this check period in half. The complete engine run-up and pre-take-off checks are made on the line before the plane pulls up to load passengers. All gauges and instruments have been checked and the autopilot has been bled and checked on the line.

Then when the plane is taxied to the terminal for loading, only No. 1 and No. 2 engines are cut, the starboard engines being allowed to idle. On reaching the end of the take-off-runway, since engine operating temperatures are already within their limits, the only checks that have to be made are the before-take-off part of the check-off list and the run-up check.

VR-6 planes cut the elapsed time from block time to take-off time from 15 minutes to from 5 to 7 minutes.

OY Crashes in Soft Mudflat Soft Goo Brings Airplane Disaster

How "not" to land a light plane on a dry lake bed was discovered by a NATS ferry pilot when he had to make

forced landing due to engine failure.

He landed in the center portion which it turned out had only a thin layer of dry surface soil over the mud. After rolling about 150 feet, the wheels broke through the surface layer and the plane nosed over on its back. The pilot was unhurt but the plane was a complete loss.

There was no other possible landing place within gliding distance. Nevertheless, a landing near the edge rather than in the middle of the lake might have been better. NATS points out that multi-engine pilots should not forget their elementary training habit of keeping a constant lookout for a suitable place for a forced landing.

U. S. Fliers Given Medals Flood Aid Wins Bolivia Decoration

Heroism in evacuating refugees from the flooded areas of Trinidad, Bolivia, won decorations for four members of the PBV-5A's crew, headed by Cdr. Porter F. Bedell.

He was awarded the Bolivian decoration *Orden del Condor de Los Andes* in the grade of *Comendador*. Captain Gildo S. Codispoti, USMC; Richard L. Middleton, ACMM, and George Soloff, ACRM, were awarded the medal in the grade of *Caballero*.

Presentation was made by the Bolivian Ambassador to Chile since the men were attached to the U. S. Naval Mission to Chile stationed at Lima.

LETTERS



SIRS:

Featured in the Navy's twenty million dollar exhibit at the San Diego County Fair at Del Mar, was a display of the Navy's latest combatant type aircraft, including jet planes now in operational use.

Naval Aviation also displayed an exhibit of non-classified guided missiles furnished by the Naval Air Test Center, of the Eleventh naval district.

The entire exhibit was operated by a miniature "Naval Base" at the fair grounds, where 12 officers and 170 enlisted men were quartered and messed during the period of the Fair.

PUBLIC INFORMATION OFFICER
NAS SAN DIEGO

SIRS:

VP-MS-3 is now in the process of cutting the original quota of nine planes to six. Three of our aircraft are being prepared for the trans-Pacific flight to the west coast and will depart singly when fully prepared.

For the benefit of all hands, a different piece of survival equipment is being placed on prominent display in the hangar each week. This week the AR-10 rescue boat is on display, fully rigged. Inasmuch



as this squadron's main function at present is readiness for search and rescue flights, familiarity with various types of safety and survival equipment is the objective.

The cartoons distributed by the Navy Training Division are being used to advantage. The cartoons are posted on the officers' and crew's bulletin boards and are changed daily.

The accompanying cartoon was drawn by one of our pilots. Its humor and appropriateness seem to be in line with those that NANews has published in the past.

J. D. WEST,
COMMANDING OFFICER
VP-MS-3



SIRS:

Fighting Squadron 20-A has established a permanent trophy for excellence in air-to-air gunnery. The trophy will be awarded at completion of the initial and maintenance phases of the training cycle as set forth in the *Air Force Pacific Fleet Training and Competition Manual*.

First winner of the new trophy was Lt. Jack W. Griffith of Tulsa, Okla. Lt. Griffith is ground training officer of VP-20-A.

NAS ALAMEDA E. LEAVITT JR.

SIRS:

Your story on "NATS Pilots Like Power System" (NANews July 1947) is not new news to ex-VRE-1 (now VR-6) pilots. This system was used unofficially by most plane commanders and advocated by Cdr. Jack Thornberg (then CO) as far back as May, 1945.

VRE-1 planes (R5D's) were constantly arriving at Oakland airport from Honolulu an hour earlier than VR-11 planes and had approximately the same amount of fuel consumption for the flight.

BARTON D. MILLS, LT. USNR
120 E. 43rd Street
KANSAS CITY, MO.



The Cover. Tough and fast is the description of the AD-1 Skyraider, with its six HVAR's, a Tiny Tim rocket and torpedo slung on underside. This new attack bomber will be aboard CVR's shortly, after squadrons are set.

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