

NAVAL AVIATION

# NEWS



Jets On Carriers  
Tarawa World Tour  
NavAer 00-75R-3

MAY 1949





**CAN YOU IDENTIFY?** Three new planes are presented here to test your recognition. Two are operational fighting aircraft; the one above has an engine for each rotor. *Answers last page.*





# RIDE THE WILD JET

UNTIL fairly recently, aviation has progressed at a steady rate. In 1906 the aircraft speed record was copped by a gent named Santos-Dumont who flew 25 mph. For the next 30-odd years aircraft speeds increased at approximately 14 mph a year. Some years the gain was a little higher, some a little lower, but the 14 mph yearly average prevailed.

The military aviation industry became tuned to this regular advance. There were adequate instruments for the latest plane types. Structures stayed abreast of power plants. Navigational aids and techniques met the challenge of increasing ranges and speeds, and the whole of aviation moved forward as a unit.

In the Navy, when a new aircraft type went into production, there already was a carrier ready to take it aboard. The whole process was orderly and effective. It remained so even through the last war. Developments in all branches of industry continued apace. But at the war's end something was amiss. Rocket and jet propulsion suddenly had appeared on

the scene and put the whole industry out of tune.

In 1939, when a speed record of 470 mph was established, engineers predicted that aircraft speeds would go very little higher. People began to hear of a sonic barrier having something to do with top speed of aircraft. Propellered planes could not expect to penetrate this drag-heavy, unpredictable and possibly dangerous speed range.

But in 1949 jet-propelled aircraft had moved the official world's speed record up to 670 mph, and an Air Force rocket-powered plane was reported to have achieved a speed some hundreds of miles faster than the speed of sound. Jets were aboard carriers and every major military power in the world was rapidly shifting to the new-type power plant. It made a very fine machine. But it had pushed power plant progress too far and too fast for other branches of aviation.

Of course, the jet as is, is a long stride in the right direction. Its performance is somewhat hampered by the lack of modern facilities for its new problems.





IT TAKES THREE GAS TRUCKS TO SIMULTANEOUSLY FILL ALL TANKS ON THE FJ-1 WHOSE ENGINES IN THIS CASE ARE BURNING JP-1 KEROSENE

JET PROPULSION cannot be fully utilized until the whole gang catches up. If the sudden spurt had come from advances in reciprocating design, all other branches of military aviation could have spurted too. There would always have been a foundation to build from. But the jet was a new power plant with a new set of requirements. Other integral aviation components, just as essential to the aircraft's military performance, had to begin anew or do a major redesign job.

So, while jets are already in operation, and doing a good job, they'll do a better one as they begin to receive new "fitted" equipment.

The "instruments" section of BUAER is up to its elbows in the task of further taming the jet monster. There is, for

example, the matter of a power indicator for jet thrust. For years power of an engine has been rated in terms of horse power. On some types of aircraft a BMEP gauge kept the pilot informed as to just how much HP he was pulling. However, for most types, the RPM and manifold pressure furnished a good enough check on power output. Along comes the jet and it has no HP at all; instead, it has jet thrust to propel it merrily along. Now how to measure thrust? Especially how to measure thrust in the air so the pilot can get a reading?

Up to the present, power is more or less determined by compressor RPM and tailpipe temperature; however, a relatively minor change in RPM in the jet, results in a major change in thrust. Also, thrust is affected by temperature,

altitude and pressure which are the stuff jets use a lot of. The difference in airspeed at the stalling point with a full gas load and a near empty weight is considerable. To give the pilot a ready reference as to what is a safe approach speed with varying weight, an angle-of-attack indicator will be added to the jet. Correct angle-of-attack at approach speed remains the same regardless of airspeed. It is nice to know, when one approach speed may be as much as 15 knots lower than another, the safety margin angle-of-attack.

Another instrument that jets can use very handily is a fuel-flow indicator. The jet uses a lot more fuel than the reciprocating engine, and fuel becomes a very critical factor in flying this type plane. Some type of fuel-flow indicator

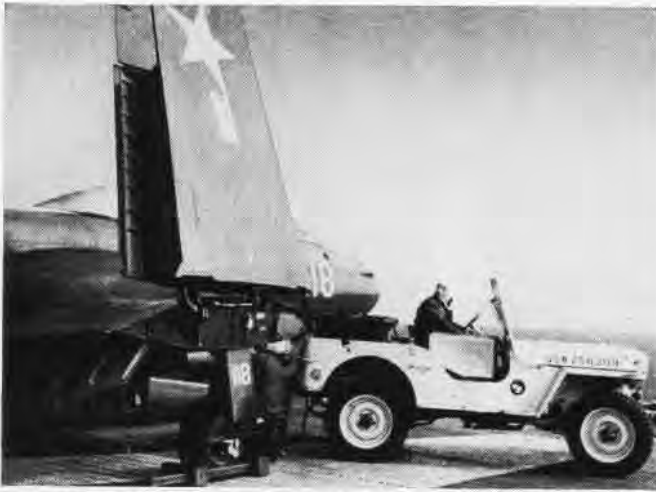
turns a jet makes require a pretty stiff bank if the pilot does not want to use two states as turning pylons. The attitude gyro has not proved too successful, so a new type of non-tumbling artificial horizon is being installed in all new jet aircraft.



NAVY'S NEW F3D TWO-MAN FIGHTER SHOWS OFF ITS SLEEK CONTOURS

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A majority of



NEW THREE-WHEEL JET STARTER JEEP WILL REPLACE THIS OLD TYPE



TODAY'S CARRIER JET PILOTS CAN USE MANY AVIATION REFINEMENTS

will go into all jets in the future. The most promising one in the mill now hooks up with the fuel gauge and furnishes both present fuel-flow and fuel remaining. This fuel remaining reading may be transformed into a reading giving minutes of flight remaining at present rate of fuel-flow, or just pounds of fuel remaining. Both readings will be on the same dial, and will lighten the jet pilot's load a bit more.

**T**HE HIGH speeds and altitudes and critical gas consumption combine to complicate the navigation problem. The same factors will give fighter directors trouble, and might hinder carriers from getting the lads home. This situation makes aircraft radar a most desirable feature for jet aircraft, both for most efficient interception and for navigational use.

An improved aircraft radar has been ordered installed on all future production models of jet fighters. In most cases this radar will be installed in the nose. The performance of the new radar is superior to the APS-19 gear. Another change suggested by the navigation-sensitive jet pilots, is the addition of some type of VHF homing equipment. This will go on new models in the near future.

Present armament provided on operating jets is considered a bit out-of-date by jet pilots. By the time the jet is in range with its .50's, the pilot has to start getting out of the way to avert a collision. So, 20 mm guns are going aboard all production jets. Some future jets will have rocket installations. A number of rocket studies are underway.

Jets went aboard carriers with much greater ease than was anticipated. However, to properly handle the world's fastest airplanes, the carriers are re-decorating. All active carriers are undergoing certain changes to speed up jet operations within the limits of funds available. Many of the changes are

minor, but nonetheless important for jet operation in the event of hostilities.

With the greatly increased fuel consumption of jet aircraft, more fuel is required and faster fueling and defueling methods are needed. On the CV-9 conversions the fueling rate is being tripled. Degassing facilities are being improved and an additional supply of aviation fuel will be carried. Many more gassing stations are being provided, and facilities for carrying two types of aviation fuel with maximum flexibility so as to permit selective fueling, are being installed.

All jets will have to be catapulted when carrying military loads, and higher capacity catapults are being installed. A method of automatic catapult spotting is being studied.

Power outlets for starting will be provided at or adjacent to the catapult. Power outlets for servicing will be provided on the edge of the hangar and flight decks.

Inasmuch as the jet aircraft uses engines at a rather rapid rate, engine changes will be multiplied a number of times. Additional engine storage facilities will have to be made available, and enough hoists added to do an engine change almost anywhere on the hangar deck.

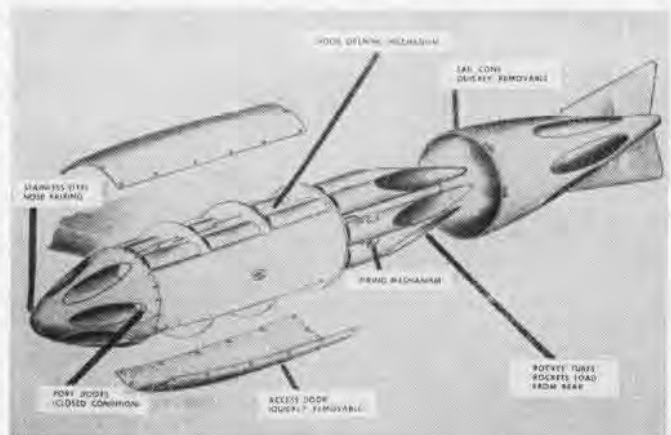
Many of the changes that are desirable for increased efficiency in jet aircraft mean additional weight. Some of the boys in the fleet can't understand why their perfectly good demands aren't immediately filled. They can't understand why, if an aircraft needs some radar, and the Navy has the radar,

it can't be installed and have an end to it. It isn't so simple.

An aircraft, especially a jet airplane, is designed to fit very rigid specifications and to meet certain performance requirements. If, after the design is passed along to the fleet, a change is required which adds weight to the configuration, performance will suffer. To add *one* pound of useful load to an aircraft and still maintain the identical performance that the plane had before the pound was added, another three to 10 pounds of fuel, engine or structure weight must be put into the aircraft. So an extra 100 pounds—and that isn't much—of equipment may mean up to another 1000 pounds of airplane to keep performance as it was.

This is the reason why a great deal of consideration and weighing in the balance is done before anything is added to a new design. Is it worth the performance loss it will incur? This is the reason why a jet fighter doesn't have a built-in self-starter or automatic landing device or cockpit cooler as yet.

And this weight problem doesn't stop here. More weight further complicates carrier problems. After all, catapults, barriers and decks are only so big now—even though we're working on this.



DROPPABLE 'PACKAGE GUN' FOR FIRING ROCKETS MAY BE GOOD IDEA





LIQUID OXYGEN WILL DROP BULKY CYLINDERS

PROGRESSING from the general to the specific, BUAER has a number of projects underway to adapt jet aircraft for better use on carriers and vice versa. One of them is to develop a new starting jeep, a highly-maneuverable three-wheeler with the guiding wheel in the rear.

Larger jet and turboprop aircraft some day may come out with self-starters such as the small gas turbine model described in NANews February issue. These weigh from 88 to 95 pounds, and adding that much to a jet fighter is quite a step. So in the interim, the Navy will continue to use starting jeeps. BUAER is procuring 100 of the three-wheel jobs for carrier use. Although still in the development stage, first deliveries are expected to come in from O. E. Szekely & Associates, Philadelphia, this summer. A larger, shore-based starter jeep is in the mill and will come out later.

Today's standard jeeps with eight batteries (*photo pg. 3*) work all right with early jet planes, but new aircraft coming out require a higher capacity and different type of "juice." It is to supply late production models of such planes as the F9F and F2H that the three-



PATROL PLANES WILL HAVE THIS OXYGEN TANK

wheel jeep was designed.

The jeep has a gasoline-driven generator to turn out 24-volt D.C. and also various amounts of alternating current. It will be a supplementary power source for carriers so jets can be started elsewhere on the flight deck than at the catapult where 24-volt deck power outlets are installed. The jeep will permit starting jet engines anywhere for servicing or at the rear of the flight deck for fly-offs.

The 2200-pound jeep has fixed front wheels and the straight-up-and-down steering wheel controls the single rear wheel. This permits the jeep to turn on its own radius.

Use of oxygen in fighting aircraft promises to occupy the military mind more and more as jet and rocket planes are developed. This is a certainty because those aircraft operate more efficiently and have longer range at high altitudes where a pilot cannot live without oxygen.

Just as an example, a jet plane flying at 12,000 feet has only 60% as much range as the same one flying at 30,000 feet. Thus if the jet is to have maximum fighting range and have enough gas to get home on, it must fly at its

most efficient altitude — and that means so high as to make the use of oxygen a necessity.

To meet this need, BUAER is studying ways to increase the oxygen capacity of planes and carriers and one way is the use of liquid oxygen instead of gaseous oxygen. At present, indications are that



JET PILOTS WILL RELY HEAVILY ON OXYGEN

it would not be too practical to put liquid oxygen in fighters. Patrol and multiplace aircraft, on the other hand, will find it a great weight saving to use that instead of carrying many gas cylinders.

HAVING tested a system developed by Bendix Aviation Corp., at Patuxent River, the Navy plans to install it in a photographic plane for service evaluation. Since these photo planes are about the only high altitude aircraft the Navy has in the multiplace field, it was decided to test the 25-liter liquid oxygen converter system in them. Total weight of this unit is 122 lbs. filled with liquid. It will provide oxygen for 10 men for 10 hours. To provide gaseous oxygen for that load, it would require 600 pounds of gas cylinders taking up 400% more space.

The Bendix plant has been flight tested up to 30,000 feet at Patuxent and 40,000 feet by the Air Force at Wright field. Bureau of Standards, under contract with BUAER, developed the converter, which looks like a glorified moonshiner's still with a coil around it.

When you consider liquid oxygen equipment for a fighter plane the picture changes. A 2.5 liter size has been developed by Bureau of Standards which weighs 16 pounds, as against 22.4 pounds for the standard pilot's oxygen gas cylinder. However, other things have to be considered since it is a fighting aircraft we are talking about. Armor plate has to be provided to protect the vulnerable liquid oxygen storage tank. The pilot's oxygen cylinder will withstand shrapnel or any but direct hits by .50 cal machine gun bullets. The liquid tank will not, so to protect it, armor has to be added and the weight saving of a liquid system over gas in a fighter plane thus is lost.



PORTABLE OXYGEN UNIT ON TRAILER NOW SERVICES BOTTLE IN FURY

# DID YOU KNOW?

## P2V FLIES OFF CVB

EXISTENCE of a carrier-based version of the P2V *Neptune* was revealed recently when it was announced a P2V-3C with a load equivalent to 10,000 pounds of bombs had taken off the CVB *Coral Sea*. Admiral Louis E. Denfeld said the feat demonstrated the Navy's ability to deliver long-distance atomic bomb attacks from aircraft carriers if requested.

Both the P2V and the XAJ-1 are capable of carrying atom bombs, he said. The latter plane has not yet passed its carrier qualification tests. It is powered by two reciprocating engines and a jet in the tail.

The P2V took off the *Coral Sea* with a dummy 10,000 pound bomb, flew 2,000 miles to the west coast and returned more than 2,000 miles to land at NATC PATUXENT RIVER. The exercise indicated naval aviation could, by using carriers, hit any target anywhere in the world with A-bombs. Adm. Den-

feld emphasized it was not the Navy's intention to make strategic bombing a major Navy mission, but that it could do that type of bombing if required by the nation's top military command.

The March 7 20-hour flight was the second time the *Neptune* had taken off a carrier. Previously a P2V with 55,000 pounds gross weight flew off the *Coral Sea*. In the new test, total weight was 74,000 pounds, heaviest load ever flown off a carrier deck. JATO was used in both exercises. The plane has not yet been modified to make carrier landings, nor have arresting gear systems been beefed up to handle such loads. Heaviest planes to make carrier landings today are TBM's, weighing 15,000 pounds.

The P2V still holds the world's long distance non-stop record, set in 1946 when the *Truculent Turtle* flew from Australia to Ohio, 11,236 miles.

### Helicopter Rescuers, Ahoy! Sikorsky to Give Awards to Men

Have you been rescued by a helicopter lately?

If you have, then you are eligible to receive a certificate and symbolic pin from the Sikorsky Aircraft Corp., which is organizing an informal "club" of men who have been rescued by "pin-wheels." Also eligible for an award is the pilot of the helicopter who did the rescuing.

Personnel who fit in either of those categories should send their names, dates and facts of the rescue to Herbert F. Kroeger, Sales Dept., Sikorsky Aircraft Co., Bridgeport 1, Conn. The award idea is along lines of the *Caterpillar Club* for men who owe their lives to parachutes and the *Salty Dunkers Club* sponsored by a manufacturer of life raft equipment.

### Engine Fails in Deep Gorge R5D Flies Arizona-Moffett On Three

VR-44, MOFFETT FIELD—Almost overlooked in the bustle of the Arizona haylift was a prime example of Navy resourcefulness and "Can Do," involving some engine trouble while dropping hay bales to snowbound cattle.

Lts. C. E. Morrison and R. M. Tuft had taken off from NAF LITCHFIELD PARK with a six-ton load of hay and

were in the midst of dropping operations, flaps down, deep in a ravine, and with low airspeed when the #4 engine failed.

Feathered immediately, the engine was secured and the pilots climbed the disabled plane out of the gorge and returned to Litchfield. Since R5D replacement parts were not available at the temporary base, it was decided to fly the plane back to Moffett Field on three engines. The prop was removed. Relief crew LCdr A. W. Cramer and Ens. Fred Arthur flew the R5D back to the San Francisco bay area, climbing to 13,000 feet.

### Navy Backs Model Makers Program Begun for Year-Round Aid

To provide year-round support for model airplane enthusiasts, the Navy

recently launched a new seven-point program of cooperation with the National Academy of Model Aeronautics and allied groups.

The program, in which naval commands were requested to participate as a youth training project, involves the promotion of model airplane building; local, regional and national air meets; and the sponsorship of Navy national perpetual trophies for model carrier-type jet plane and model radio-controlled plane competition.

As part of the program, Naval Air Reservists will again be hosts to the 18th National Model Airplane Meet, scheduled for 26-31 July, 1949, at the naval air station, Olathe, Kansas, scene of last year's national meet.

Under the program, naval air stations under the Chief of Naval Air Reserve Training, will be open to annual national model competition. Contestants will be housed and allowed to buy mess privileges at these stations during such events. Commanders of individual air stations are also being asked, where practicable, to provide facilities for local model airplane clubs or groups and to encourage participation in the hobby-sport by station personnel.

### Rescue in the Wide Pacific An Alert Aircrewman Spots Signal

VA-15, PACIFIC—Ens. A. L. Whipkey and R. H. Doyon, ARM3, recently proved that vigilance in aerial search still pays off in spotting carrier aviators who have turned amphibious.

As Ens. Whipkey piloted his TBM through the rain squalls preceding a cyclonic low southwest of Guam on a search for three downed F8F pilots, Aircrewman Doyon sighted a faint wisp of smoke in the distance and called the pilot's attention to it.

Investigation brought about the rescue of a grateful pilot of VF-132 who had been in the water for several hours following a water landing in an F8F. The rescued pilot later reported that this was his last smoke signal and he had abandoned hope of rescue when the TBM turned toward him.

Doyon received a letter of appreciation from Admiral Ginder, Task Force Commander, and was granted 30 days leave as a reward for his alert attention to duty. Also, there was a word of praise for Ens. Whipkey whose navigation was right on the nose.



DR. GOOD SHOWS MODEL PLANE TO ADM. EWAN



# GRAMP AW PETTIBONE

## Costly, Eh?

Ever have a friend walk up and hand you the Hope Diamond, the Star of India, \$200,000 in currency, plus the deed to a 20-room-3-bath house, and the title to a new Cadillac convertible?

If you were asked to keep an eye on this stuff for a few days you'd probably want to rent some bunk space in the vault of the Chase National Bank, or set up housekeeping in the basement of the U. S. Mint.

But remember, when you push the throttle forward for take-off in any one of several new jet fighters, you've been entrusted with something just as valuable. If you start thinking of "Jeannie With the Light Brown Hair" or why you drew to that inside straight the night before, and forget to watch your fuel consumption, you can make Jesse James look like a small time operator in very short order. You may find yourself looking at a cool half-million dollars of wreckage.

Similarly, if you're detailed to service one of these platinum-coated babies, it's a job that demands your very best attention. If you're not sure of the smallest detail, be sure, before you sign the yellow sheet.

A few weeks ago a group of 9 F4U's stopped at a Naval Air Facility, refueled, and continued on their cross-country flight. An hour after take-off both engines stopped abruptly on one F4U. A few minutes later the left engine stopped on another. Ten minutes later both engines quit on a third plane. These jets were at 20,000 feet and about 50 miles at sea when the first failure occurred.

A well conceived and perfectly executed squadron doctrine was responsible for minimizing the resultant damage. Two planes peeled off from the formation and escorted the first stricken plane towards the beach. One of the escorts pulled ahead as they neared the shore line and searched for a suitable landing area. A safe wheels-up landing was made on a sandy stretch of beach, and this plane was later repaired on the spot and flown out a few days later with the assistance of JATO.

The other two planes which were closer to the beach when their engine failures occurred were escorted to safe "dead stick" landings at nearby airfields.

Subsequent investigation revealed that the planes had been refueled with a



mixture of gasoline, water, and sludge. A sample from the plane that landed on the beach contained 70% water, while a quart sample from one of the other planes that made a dead stick landing was the color of orange juice and contained only the slightest amount of gasoline. Sludge and water comprised approximately 95% of this sample.

This mistake could very easily have cost the Navy close to \$2,000,000. Fortunately a real "heads-up" performance in the emergency held the damage to one class D accident. Congratulations to VMF-122.

## Use It All

The pilot of an F8F landed after eight field carrier landings to receive instructions from the L.S.O. He re-manned his plane and took off after a routine check, starting his take-off roll abeam of the landing signal officer's platform. After a run of about 1000 feet and at an altitude of 20-30 feet his engine failed completely. The pilot placed the landing gear lever in the up position to avoid rolling off the end of the wet runway and made a satisfactory belly landing.



*Grampaw Pettibone says:*

This lad showed good judgment in retracting his wheels rather than run the risk of going over on his back off the end of the runway. However, his take-off was started more than 1000 feet from the down-wind end of the runway. After the plane skidded to a stop there was nearly 1000 feet of runway remaining. If he had taxied down to the end of the runway

before take-off and USED IT ALL, he would have had plenty of room to make a safe emergency landing after his engine failure.

## Ever Been Run Over?

The following pilot's statement describes a ditching in an F4U immediately after a carrier take-off and the subsequent helicopter rescue operation:

"It was a deck launch with a full belly tank, with 27 knots of wind on the deck and 380 feet of deck run. My mags had checked out at about 50 and 50 and I was in all respects ready for take-off (hatch locked open, shoulder straps tight, and chute unbuckled). On the signal from the flight deck officer, I applied full throttle and started my run.

"After about 50 feet of deck run the engine began to backfire and lose power. The loss of power became more and more pronounced and about 50 feet from the bow, I retarded throttle to a point where it seemed to run more smoothly. As the plane left the flight deck I pulled up the wheels and decided to maintain an attitude just a little less than three-point, even if the plane did lose some altitude, because I knew that my speed was critical. I eased on a little more throttle but the engine began running rougher.

"Suddenly the right wing went down. It didn't snap. It just began to drop. Full corrective controls had no effect and I had to nose over to regain control of the plane. It seemed like I was in a very steep dive toward the water before I regained control. Then I just had time to pull the stick back into my lap before the impact.

"I remember nothing about the crash until I realized that I was in the water going down. I reached down with my left hand and unbuckled the safety belt and shoved off with my feet. I had no trouble leaving the plane and with a few strokes of swimming was on the surface, where I saw the fire and the tail section of the *Corsair* still afloat.

"Just when I was beginning to feel good about the whole thing, I saw the carrier bearing down on me. It was about 50 yards away when I saw it and heading directly toward me. I kept waiting for it to turn, but it never seemed to turn a bit. The last minute I threw myself away from it and tried to fend it off with my feet, but it plowed right on through and the exact center of the bow hit me very hard right on the buttocks and between my legs. I felt myself sliding down along the hull and then after a few seconds I seemed to be rising so I began swimming again and popped to the surface right under the island. I saw people lining the catwalks and waved to them to let them know that I was all right.

"Not too long after that the helicopter



descended over me with harness hanging down. I was waiting for it, feeling pretty good, although occasionally I would be ducked by a wave. I was having no trouble staying afloat even though I did not have my Mae West inflated. I felt pretty good although I was rather dazed, I imagine, because I thought that if I really needed the thing I would jerk the strings, but as for now I was getting along OK. The same reasoning applied to my parachute. Although it was never buckled, either legs or chest straps, it came out of the plane with me as it was looped over my shoulders. After that I just kept it with me because it never actually hindered me. It was a little bother but not enough to make me shrug my shoulders and get rid of it.

"The first attempt of the helicopter to pick me up was not successful because after I had gotten into the loop, he came lower and the iron that weighs the rope went under the surface and dragged me under with it. I got panicky and started to get out of the harness when it came out again and he started to lift me up. I had only one arm well secure so I motioned to the crewman to let me down again; so they let me back into the water. Later I figured out that the helicopter altitude had been steady enough, but that the waves which I estimate were four to six feet high, moved me up and down so I should have expected to be dunked at least once while climbing into the harness.

"The helicopter made another circle and this time the pickup was successful. However, I made one mistake which caused me some discomfort and should be emphasized to all pilots who are ever liable to have such pickup. The pilot must be sure to get into the loop or to twist around once he is in it so that the strap is across his shoulder blades in the back, comes up under his arms and up in front of his face. I went in head first with the band across my chest and the lines up my back. I was secure enough but I had to keep constant pressure on my arms to keep from falling off. Then when I got up to the height of the cabin and reached my hands forward to get a hold, the band could have slipped right off my arms.

"The helicopter pilot also stated later that it would have been easier to make the rescue if I had put out some green dye marker. We had been briefed to do that, but for some reason, the idea never entered my mind since he was there so quickly and seemed to have no trouble staying over me."

**Grampaw Pettibone says:**

Well, son, you can't say you've never been run over now.

Thanks for this very descriptive account of your rescue. While we're on this subject I'd like to recommend that every carrier pilot make it a point to talk to the helicopter pilots aboard and examine the type of harness used in rescue operations. Remember you're likely to be dazed or very cold when the helicopter arrives to save you from a watery grave. That's no time to get checked out on how the harness works and how the pick-up is accomplished. If you've talked to the search and rescue pilot and know just how the harness works, the rescue will be easier for both of you.

## High Speed Turn

The pilot of the F8F-1 pictured below made a normal landing and decelerated at a constant rate until he reached an intersection where he wished to turn off the service runway. He unlocked his tail wheel and started a turn to the right while still traveling at a good clip.

The result was a tight ground loop during which the propeller struck the runway. The F8F ended up on its nose headed almost 180 degrees from the direction of the landing.

**Grampaw Pettibone says:**

How hot can they get?

This type of accident is so unnecessary that it really gets my goat. The F8F will require a new propeller and an engine change. The prop alone costs over \$2000, and the engine will have to be torn down to see whether or not it was seriously damaged.

All because this fellow was in too much of a hurry!



## No Aileron Control

Immediately after take-off an F4U commenced a sharp turn to the right. The pilot started to level the wings, but with full left aileron and left rudder the plane continued to roll to the right. At this time the pilot had about 25 feet and was still gaining altitude. He realized that he would have little chance of surviving if the roll continued to the inverted position. At about 40 feet and an airspeed of 100 knots he cut the throttle. By this time the plane was approaching a 90 degree bank.

The F4U struck an intersecting runway on the right wing tip and slid 200 yards to a stop. The right wing was shredded, the fuselage buckled, and the engine and propeller badly damaged. Fortunately the pilot had his safety belt and shoulder straps tight and climbed out of the wreckage uninjured.

Subsequent investigation revealed that the ailerons failed to respond to movements of the control stick. A small bolt used to connect the upper end of the push-pull rod to the control stick torque tube was missing. The bolt was later found in the fuselage; however the nut and cotter pin were not located.

Apparently the bolt, minus the nut and cotter pin, joined the push pull rod and torque tube during taxiing and some portion of the take off run until vibration allowed it to back off and thus destroy all aileron control.

Maintenance personnel of two squadrons had worked on the aircraft earlier in the day in connection with the incorporation of Service Change 251.

**Grampaw Pettibone says:**

In aviation maintenance a job that's only half-done is worse than one that isn't done at all.

This pilot had a close brush with death because the provisions of BuAer Manual, Article 5-502—"Maintenance Inspection," were not complied with. Had these procedures been followed the discrepancy would have been discovered and the necessary steps taken to insure proper operation of the flight control system.

## Dear Grampaw Pettibone:

To end considerable controversy, would you please explain in your column under what circumstances Co-Pilot time would be logged in the Aviator's Flight Log Book, Form NAVAER-4111 (Rev. 9-44), for a naval aviator.

C.O. \_\_\_\_\_

Dear Grampaw Pettibone:

As the operations officer in a Jet Transitional Squadron, I have seen the entries of many an experienced aviator's log book. I can't help but notice the various and conflicting methods of logging Instrument, GCA, Night, Combat, and Range Let Down flights in all the colors of the rainbow.

As we are unable to locate any directives on the use of colored ink in the logging of flight time, it would be appreciated if you would give us the ungarbled word of some accurate references.

Major \_\_\_\_\_

**Grampaw Pettibone says:**

There was an old pilot named Brink  
Who said, "Why raise such a stink?  
Some like red for their night time  
And green for straight flight time  
But I do the whole thing in pink."

His good friend Rodger De Pew  
Made all of his entries in blue  
Till the day of his ditching  
When he knocked off his bitching  
And used a pale lavender hue.

Actually the only directive that I know of in regard to logging pilot times is contained in Aviation Circular Letter #97-47. Section 135 of this ACL explains when copilot time may be credited as pilot time, and lists the symbols for various types of flights. From here on out you're on your own. You may use the other columns for a detailed breakdown of your flight experience, and there is nothing to stop you from doing the job in technicolor if you like.



HORNET ON DAY IN 1944 WHEN V. ADM. MITSCHER PRESENTED AWARDS

SCOREBOARD ON 1 MAY 1945 IS A PROUD RECORD OF HORNET PROWESS

# SALUTE TO THE HORNET

IT WAS the initial good fortune of the USS *Hornet* to receive a highly appropriate name, one that not only commemorated the past of its seven like-named predecessors from 10-gun sloop to aircraft carrier, but signified also, according to Webster, its future—"it is very pugnacious and its sting is very severe."

The CV-12, successor to the first aircraft carrier of the same name, was a product of American speed and ingenuity, a triumph of men over time. No comparable ship had ever been made so quickly or had such a short shake-down cruise. Seven months after she was launched, the *Hornet* went into action in the Pacific war.

On March 4, 1944, the *Hornet* set out from Pearl Harbor for Majuro and began to cut a twisting, 150,000-mile swath of destruction through the Pacific, leaving in her wake the dazed Japanese to face a loss of 1,270,000 tons of shipping sunk or damaged and 1,410 airplanes destroyed.

As part of Task Force 58 and flagship of Rear Admiral "Jocko" Clark, the *Hornet* exacted her terrific toll of the enemy by hammering the Japs in every major operation from March 1944 to June 1945. And it was not, in the end, the enemy who put her out of action, for the Japs hadn't been able to hit her in spite of the fact that they sent hundreds of planes on some occasions to strike the *Hornet* out. Nor had kamikaze pilots and baka bombs done any better. It took a 120-knot gale and a mountainous wave to send the *Hornet* home for repair.

But in the 15 months of steady battle, so certainly victorious in operation after operation that triumph must have seemed a customary prize, the *Hornet*

★ In honor of the men who served on the HORNET, this brief account of CV-12 takes the place of the squadron history for this issue. A reunion of CV-12 men is being held in Washington, D.C. on May 7.

rolled up an impressive record of accomplishment.

- The *Hornet* struck the first blow for the liberation of the Philippines.
- She was the first to hit Tokyo in a full-scale carrier-air attack.
- She was the first to hit the *Yamato*, 45,000-ton pride of the Japanese fleet, which now rests on the bottom of the East China Sea.
- She weathered two typhoons.
- She attacked the enemy fleet anchored in its homeland bases.
- She set what is believed to be the record for enemy planes downed by a carrier in a 30-day period: 255 between March 18 and April 16, 1945.
- She spent a total of 52 days under enemy air attack without being hit by as much as a machine gun bullet.

Under the command of Capt. Miles R. Browning, USN, the *Hornet* struck first at Palau the middle of March 1944. Shortly afterwards she supported landings at Hollandia, New Guinea, made a stab at Truk and others at Satawan and Ponape.

On June 6, the *Hornet* sortied from Majuro under their second skipper, Capt. W. D. Sample, USN, and headed for the Marianas. Never to be forgotten is the Marianas Turkey Shoot when the Japanese fleet, after almost a year and a half in hiding, finally ventured forth to contest American supremacy in the waters of the western Pacific.

When the task force was attacked on June 19 by more than 500 enemy planes in the Battle of the Philippine Sea, the *Hornet's* planes accounted for 52 of them. The next day of the battle, the *Hornet* bombers bagged the

biggest prize of all, the destruction of a big *Shokaku* class carrier. At the same time, the torpedo bombers scored a hit on a *Chokai* class cruiser, while the fighters dropped a 500-pounder on a carrier of the *Mitaka* class. By that time the carrier was credited with 11 ships sunk, 7 probably sunk and 65 damaged.

All aboard the *Hornet* will long remember the confusion and helplessness they felt as the air group was "sweated" home that night after their audacious mission, all of them low on gas, many badly shot up, others forced to crash-land in the water. Hours later, the cup of triumph overflowed as it was learned that all but one bomber crew had been safely rescued.

Immediately after the Battle of the Philippine Sea, the *Hornet* went to Pagan and the Bonins, then to Eniwetok Atoll and back to the Bonins. In July, she supported the Guam invasion—and during that time her planes carried out the longest carrier-air strike against enemy shipping on record—then hit Yap, Ulithi and, for the fourth time, the Bonins.

The frequency of Rear Adm. Clark's attacks on the Bonins, which were designed to knock out as many enemy aircraft as possible and eliminate the danger of air attack from the north on our forces, gave rise to the "Jocko Jima Development Corporation" which was formed aboard the *Hornet* "for the purpose of developing and selling shares in real estate within 500 miles of downtown Tokyo."

During the Marianas operation which had lasted two months, more than 3,000 sorties were flown off the *Hornet*, and the ship's air group shot down an unprecedented number of airborne planes,



233 of all types, with a score of 67 on June 24 during the second visit to the Bonins.

On August 8, Capt. Austin K. Doyle became the third skipper of the *Hornet*, took her through her subsequent campaigns and brought her safely home.

In September, the *Hornet* moved into the Philippines and conducted strikes against Davao, Mindanao, Cebu and Negros Islands. On September 21, she steamed up the coast of Luzon and launched the first attack on enemy shipping, installations and airfields in and around Manila.

**I**N OCTOBER Okinawa and Formosa were her targets, and on the 20th the *Hornet* protected the Army landings in Leyte Gulf. Four days later, she joined the other fleet units in beating off the three-pronged attack of the Japanese Fleet in the Battle for Leyte Gulf, one of the great naval victories of all time.

The *Hornet's* plan-of-the-day for October 26, the last day of the battle read:

"Today will be a Field Day! Air department dust off all overhauls, removing any snoopers which may be adrift and sweep out all corners of the Philippines, sending to incinerator or throwing over the side (first punching hole in bottom) any Nip cans, AP's or AK's still on topside. Gunnery Department assist as necessary. Engineering, continue to pour on the coal. Medicoes, stand by with heat rash lotion. Damage control, observe holiday routine."

During the months which followed, the *Hornet* ranged through the Philippines, supporting landings, attacking enemy installations. On several occasions, she turned back Jap convoys trying to reinforce their Philippine garrisons.

In early February, the *Hornet* moved to keep a date made for her 34 months before by another *Hornet*. In the pre-dawn hours of February 16, her planes were launched and joined wave after wave of aircraft from other carriers for

the first full scale aerial attack on Tokyo. What General Doolittle had promised with his daring flight in 1942 was fulfilled by the Navy in 1945. For two days, the *Hornet* steamed 200 miles off the coast of Honshu, unchallenged and unmolested, while her planes shuttled back and forth through heavy overcast and foul weather to carry explosives to the Japs' front yard.

The *Hornet* schedule was a heavy one, crowded with brilliant attacks: support of Iwo Jima landings, attacks on Tokyo, raids on Okinawa, attacks on Kure and Kobe which carried her within 40 miles of the coast—and then the invasion of Okinawa!

The officers and crew of the *Hornet* expected a violent enemy reaction to the invasion of Okinawa April 1. On April 6, it came in the form of more than 500 planes that swept down upon Rear Admiral Clark's group. When the smoke cleared away, the group had accounted for 152 of them, and of that number more than a third of them were credited to the *Hornet's* battle score.

Early in the morning of the 7th, an enemy task force was reported headed into the East China Sea. The American task force raced northward at top speed, and *Hornet* pilots recognized and attacked the *Yamato*, scoring four torpedo hits and three bomb hits on the dreadnaught. Then they proceeded to slam bombs into the escorting cruiser and four destroyers of the enemy force.

Throughout April, the fighters and bombers of the *Hornet* ranged the length of the Ryukyu chain and up into the home island of Kyushu. On the 14th, her fliers downed two Jap twin-engine planes carrying *baka* rocket bombs and their suicide pilots. The following day the ship was at General Quarters continually as Jap air attacks were beaten off. On the 16th, the ship and her planes downed 54 enemy planes.

Finally on April 27, the ship turned toward its advance base. For 40 days, beginning March 18 when she repelled the first enemy attack off Kyushu, the *Hornet* had been in almost continuous action against the enemy. She had launched attacks on 32 of those days and had been attacked on 105 occasions during that period. The fliers flew more than 4,000 sorties, the anti-aircraft gunners fired more rounds than they had during the entire previous year, and the ship was at sea longer without dropping anchor than at any other time in her history.

But on May 13, the *Hornet* was back again, this time to destroy a huge new Jap aircraft factory on the home island of Kyushu before it had time to manufacture a plane.

The *Hornet* would have probably continued its sledge-hammer drive against the Japanese to the end of the war if it hadn't been for the typhoon of June 5. She had been through one typhoon down in the Philippines, but it didn't compare to this one. Catching the *Hornet* 150 miles east of Okinawa at 2 A.M., the gale bounced the 27,000-ton carrier about like a chip. Suddenly her bow rose atop a tremendous wave and crashed downward with such force that the forward corners of the flight deck folded down along her sides. After that the engines were stopped, and the ship drifted before the wind like a sailboat. The *Hornet* limped into Leyte Gulf and then headed for San Francisco for repairs.

With the end of the war, the *Hornet* was used as a troop transport in the "Magic Carpet Operation," bringing the veterans of the Pacific home.

A great aircraft carrier bearing great warriors had proved worthy of its illustrious name. The Japanese had learned the hard way that the sting of the *Hornet* was more than "very severe," it was deadly.



CAPT. DOYLE PRESENTS THE PURPLE HEART TO A. E. GRIBBLE, ARMI/C



A BOMB FROM A HORNET PLANE HITS AND SINKS A JAP DE OFF KYUSHU

# DEEP FREEZE FOR PLANES



ROHBACHER, AM1, GIVES GRAPHIC PROOF THAT IT IS COLD IN EGLIN HUGE CLIMATIC HANGAR

THE NAVY is finding out how four of its combat aircraft function in extremely cold temperatures. The planes—a P2V-2, AD-2, F4U-5 and F8F-2—are undergoing cold tests at the Air Force's Eglin, Florida, climatic hangar as a part of the all-weather research program.

In the huge ice-box, temperatures as low as  $-65^{\circ}$  can be secured. Each plane is being tested to see how it will operate and at how low temperatures it still is a fighting machine. Though flight conditions cannot be evaluated, the operation of every system and piece of equipment is being fully tested at  $15^{\circ}$  F, 0,  $-20$ ,  $-40$  and  $-65^{\circ}$  F.

In January, several score of officers and men, plus their aircraft and equipment, arrived from NATC PATUXENT RIVER. The group dubbed themselves

the "Ice Box Raiders" and pitched in to prepare the planes for the tests and to learn the special techniques and procedures of the program.

Items of typical "preflight check" or even the fine-tooth comb treatment of a 120-hour check soon were accepted as mere fundamentals compared to the thorough going-over with precision instruments that the airplanes received at each test temperature. A question such as: "What was the prestart percentage of oil dilution in the front sump?" was readily answered.

Where possible on the ground, no source of a malfunction or failure is left unchecked. The landing gear is cycled and brakes checked while the plane is on jacks. Ram air is introduced to test the heating system, and an echo

box reflects the radar pulses.

Whether it is electronic, engineering or armament, it is included. Test service rooms located in a tunnel below the hangar deck are centers for gathering the test data. Information is received by phone from key men in the hangar and by instrumentation wires to recording machines. Forces, pressures, volts and amperes; times, temperatures, travels and torques are recorded.

The Naval Air Test Center detachment is acquiring more than the know-how of cold weather operation of the four airplanes. For instance, they are realizing how time consuming a routine maintenance job can be when no cold metal can be touched with bare hands, and how almost unbearably cold propeller slipstream is when a few seconds in it is required.

They soon found how the guns can be fired while the airplane is in the hangar, and how the engines can be run up for an hour at a time without contaminating and heating the confined air.

The project comes under the direction of the Tactical Test division of NATC Patuxent headed by Cdr. C. S. Minter, Jr., and O-i-C of the detachment is LCdr. R. C. Mueller. Personnel are from every test division of NATC except Flight Test. Most of the 56 enlisted men are on temporary assignment from the Atlantic Fleet and will return to their commands on completion of the project, expected about May 1.

In addition to the Patuxent River group, the Navy also has a detachment from Port Hueneme at Eglin, engaged in cold weather tests of a Douglas Arctic hut. One civilian technician and 15 Seabees are working on this job, under LCdr. Mueller's administrative control. NAS JACKSONVILLE and PENSACOLA help out by providing logis-



P2V-2 SPOTTED AND INSTRUMENTED FOR COLD TESTS IN EGLIN HANGAR



F4U, F8F, AD READY FOR TESTS; NOTE DUCTS TO CARRY OFF EXHAUST





CHIEF HOLDER GETS HERMAN NELSON UNIT GOING

tic support.

A sizeable group of technicians from the aircraft companies whose planes are represented also are at Eglin. These include Lockheed, Douglas El Segundo, Chance Vought, and Grumman, plus men from Hamilton Propeller Co., Pratt and Whitney, and Wright Engine Corp.

Assisting LCdr. Mueller on the project are LCdr. T. W. Heath of Service Test, LCdr. A. B. Hanger, Elec. W. L. Wormwood and CHRELE B. M. Beckham of Electronics Test, and LCdr. N. E. Spurling of Armament Test, Patuxent.

The photograph below shows some of the personnel responsible for making the Eglin "deep freeze" project click. Left to right, they are: Freddy Ferrara, ADC, the project chief for power plants. He has one of the coldest jobs, that of engine run-up controller. LCdr. Tom Heath of Service Test. He is project officer for all engineering phases. LCdr. Rick Mueller of Tactical Test. To him falls the responsibility of all phases. He organized the expedition and now acts as coordinator. He is dressed for an operational run in one of the carrier planes. Bones Zangs, ACD, the project chief for structures. Novel methods of tests and trouble shooting are his business. Pappy Friesen, AMC, in charge of supporting facilities. Instrumentation records, graphs and charts are haunting his dreams.



KINGPINS OF 'DEEP FREEZE' POSE FOR PICTURE

MCAS EL TORO—To improve enlisted barracks here, a crew of Public Works employes have been working on a \$100,000 project. Barracks, installed hastily during the wartime rush, are being insulated throughout and new electrical wiring and fixtures installed to make life comfortable.

# Mars Is Well Inhabited



PART OF THE PASSENGER LOAD CARRIED BY THE CAROLINE MARS IN RECORD-BREAKING FLIGHTS

THERE'S no doubt about it, the *Caroline Mars* is a big airplane. Recently this JRM-2 went on a world record-breaking spree, increasing the number of her passengers per flight from an almost unbelievable figure in February to an even more spectacular load in March.

The record now stands at 263 passengers plus six crew members, making a total of 269 persons carried by the aircraft from San Diego to Alameda, California, on 4 March 1949. A majority of the passengers aboard the *Caroline Mars* on the two hours and 41 minutes flight were officers and men of Air Group 15 being transported to Alameda in routine transfer of personnel.

The big plane thus broke her own previous record made on 25 February when she had carried 202 passengers plus a four-man crew from Alameda to San Diego, and then after landing and discharging her passengers, took aboard 218 other passengers, plus crew of four, to make the return trip and break the world's record twice in one afternoon.

Both flights of the JRM-2 eclipsed the existing world record for heavier-than-air craft established by the German 12-engine Dornier DO-X flying boat in 1929 when it flew successfully with 169 persons aboard. Also broken was the record of the dirigible *Akron* which carried 232 passengers and crew in 1933.

Unlike previous high marks set under overload and test conditions, the record-breaking *Mars* flights were routine throughout and incidental to the coast-wise movement of carrier group and seamen recruit personnel of ComFair-

West Coast and ComFair Alameda.

Even with the 269 persons aboard, plus their personal gear, the *Mars* had a gross weight of only 160,000 pounds, which is 5,000 pounds less than her maximum gross weight.

All passengers had seats equipped with safety belts, and there was ample room for at least 30 more men.

LCdr. James F. Merritt was plane commander and Lt. William L. Garrett copilot on the 4 March flight. On the 25 February trip the plane commander was LCdr. Robert Hunt and the copilot Cdr. James Lang, CO of squadron VR-2.

According to reports from VR-2, the squadron to which the *Caroline Mars* is assigned, a quick freeze and packaging system for human beings is being studied to add to the passenger load in case the record is jeopardized at any time in the future.

The *Caroline Mars*, most powerful of the *Mars* fleet, operates with her four sister planes between Alameda and Honolulu on regular schedule under Fleet Logistic Support Wings, Pacific.



WITH 269 MEN ABOARD, SEATING IS INFORMAL

# AVIATION TREASURE TROVE



FIRST PLANE TO CROSS THE ATLANTIC—THE NC-4 LANDS AT LISBON



SECNV DANIELS, ASST. SECNV ROOSEVELT AND CREWS OF NC-BOATS

**I**F YOU WANT to see for yourself just what kind of aircraft the Navy's pioneer pilots flew in World War I, a visit to the National Air Museum is a "must" the next time you land in Washington, D. C.

Here, along with other famous trail-blazing planes, is the hull of the Navy's NC-4—the first aircraft of any type to span the mighty Atlantic ocean—the 30th anniversary of whose history-making flight is being celebrated on 8 May along with Naval Aviation Day.

Although naval aviation has come a long way since 1919, no aircraft went farther in its day than the NC-4. On 8 May it took off, along with the NC-1 and the NC-3, also in Seaplane Division One, for Halifax, N. S., the first scheduled stopping place. Mechanical difficulties almost knocked the NC-4 out of the flight. But on 16 May all three Navy-Curtiss flying boats took off from Trepassey Bay, Newfoundland, for the Azores—1200 nautical miles away.

Despite the rough air that set the plane to "wallowing" and "plunging," the crew of the NC-4 were able to check their course that day by sighting the Navy ships which had been stationed at intervals to mark the route and by picking up the vessels' searchlight and rocket signals that night. In the morning, however, a dense fog set in. Then a rift appeared and they set the NC-4 down at Horta. The trip took 15 hours and 18 minutes despite tail winds which helped them average 78 knots.

Meanwhile the NC-1 and the NC-3 had been forced to alight at sea to get their bearings. Thirty-foot waves prevented their taking off again. But the crews were safe and, in fact, the NC-3 crew managed to taxi their aircraft into harbor under her own power.

On 20 May, the NC-4 made the short hop to Ponta Delgada, and on 27 May flew from there to Lisbon, Portugal, to chalk up this important "first across the Atlantic" for naval aviation. The final leg of the flight to Plymouth, England, was completed on 31 May.

**T**HEN CAME the triumphal return of the officers and men of the Navy-Curtiss flying boats to the United States. A typical picture, taken at that time, is shown above. In this photo, from left to right, were: *first row*, LCdr. Albert C. Read, CO and navigator of the NC-4; Secretary of the Navy Josephus Daniels; Cdr. John H. Towers, CO of the Division as well as CO of the NC-3; Assistant Secretary of the Navy Franklin D. Roosevelt; LCdr. P. N. L. Bellinger, CO of the NC-1; *second row*, Ens. H. C. Rodd, NC-4 radio operator; Lt. (jg) H. C. Sadenwater; Lt. L. T. Barin; Cdr. H. C. Richardson, NC-3 pilot; Lt. D. H. McCulloch; *third row*, Lt. J. L. Breese, NC-4 engineer; LCdr. R. A. Lavender; *fourth row*, CMM E. C. Rhodes, NC-4 mechanic; CMM R. Christansen Lt. Elmer Stone, NC-4 pilot; and Lt. (jg) Walter Hinton, NC-4 pilot.

The NC-4 itself, was shipped back to the States and was displayed at Battery Park. Later it was taken on a recruiting tour. In 1923 it was assembled at Washington, D. C. for the Shriners' convention, and three years later was an exhibit at the Philadelphia Sesquicentennial Celebration.

Then, believe it or not, the NC-4 was slated for survey. In fact, it would probably be scrap today, were it not for the continued efforts of Paul E. Garber, now curator of the National Air Museum who was then in charge of the Smithsonian aircraft collection. In his effort to "save the NC-4 for posterity,"

Garber first found a ready ally in Admiral Strauss, who agreed to have the Navy store the wings at the Alexandria torpedo plant, if the National Museum would take the hull, which of course it did. When that plant was reactivated, Garber obtained permission to have the wings stored at Norfolk.

**H**ERE AGAIN, space requirements threatened to consign the wings to the scrap heap. This time, Garber sought out Rear Admiral Bellinger, who settled the matter once and for all by arranging for permanent storage at Norfolk until the Museum could provide proper housing. The wings are still there.

Another interesting Navy exhibit at the National Air Museum is the F9C-2 Curtiss *Sparrowhawk*. This miniature parasite fighter was built to be pouched in a dirigible of the *Akron* class. It was launched, through an opening, on a trapeze swing to which a special hook was attached. The pilot then started the engine, disengaged the hook-on gear, and was ready to defend the dirigible or conduct reconnaissance. His mission completed, he returned the plane to the dirigible and once more hooked on. The F9C-2 was an early forerunner of the McDonnell F-88 that hooks onto the B-29.

Visiting firemen will also want to examine the hull of the F5L, a World War I P-boat, and Al William's *Gulfhawk*, a plane of the F3F type which was one of the last biplane types to be used aboard a carrier.

Prowling about the Museum, you will also find a large group of miscellaneous items, each one of which tells an interesting story. There is the flight suit worn by Rear Admiral Soucek when he smashed the altitude record in 1930,



and the everyday coveralls casually donned by Lt. Col. Marion Carl when he set the new speed record in the *Sky-streak*. Two large wooden propellers from the *Shenandoah* frame the inside doorway of the Aircraft Building. A two-bladed wooden propeller from the *Akron* and a three-bladed metal propeller from the *Macon* are also on display.

Other exhibits include the aperiodic compass used by Rear Admiral Byrd on his flight across the North Pole and a group of early navigation instruments transferred from the Naval Observatory collection, as well as the first flag to be flown by a Navy plane under fire in a military operation.

If you visit the Museum during May, you will see also a special exhibit of Navy plane models, which trace the dramatic strides which have been made in naval aviation.

**T**ODAY, to prevent a repetition of the NC-4 snafu, the Navy is carefully earmarking planes and other significant aviation material from World War II for future transfer to the National Air Museum and is providing regular storage facilities either at Norfolk or at individual activities.

This policy is in keeping with the present public awareness of the value of preserving aviation items of historical importance—an awareness which owes much to the men who have built up the aircraft collection at the National Air Museum throughout the years.

Actually the concept for a national aeronautical collection goes back to James Smithson who established the Smithsonian Institution for the increase and diffusion of knowledge through exhibits, publications, and lectures. When the National Museum became a separate bureau after the Philadelphia Centennial Exhibition in 1876, the first aeronautical specimens, consisting of Oriental kites, which had been displayed at the Centennial, were acquired.

When "Professor" Samuel Pierpont



ADM. PRIDE AND GARBER LOOK AT NC-4 HULL

Langley became secretary of the Smithsonian, he set aside significant items that were evidence of his own accomplishments and also informally collected a few early specimens such as the Stringfellow engine. The end of World War I brought an influx of aircraft of that period. At this time, too, the Aircraft Building, a long hangarlike affair, was acquired to house the growing collection. During the war it had been used as a testing laboratory for Liberty engines.

It was not until 1931, however, that a regular Section of Aeronautics was set up in the National Museum. Paul E. Garber, who had come to the Museum as a model maker in 1920, was made a curator of the National Museum and was placed in charge of this section. A pioneer U. S. mail pilot and a keen student of aeronautics, he brought to his job an unusual combination of practical knowledge and historical appreciation. Under his guidance, the aircraft collection, which up to this time had more or less "jest growed," was put on a scientific basis and streamlined procedures for acquiring new items were set up.

With the coming of the war aviation acquisitions practically ceased, and Garber himself was called into the Navy to apply his model-making know-how in connection with the enemy aircraft recognition program. Here he was responsible for turning out some 7,000,000 scale models of about 400 different types of enemy aircraft. In addition,

Cdr. Garber invented a maneuverable kite to train machine gunners in flexible tracking.

In 1946 Congress authorized the establishment of the National Air Museum as a bureau of the Smithsonian, and in 1947, when the necessary funds were voted to set up a staff and to plan a permanent building, Paul Garber was selected to serve as curator of the new Museum. Today he is busier than ever tracking down new acquisitions with all the earnestness of an FBI super sleuth and helping plan the new building for the National Air Museum.

On his staff are two other Naval Air Reservists, Stephen L. Beers, one of the associate curators, and Stanley L. Potter, the exhibits preparator, who share his enthusiasm for the collection. Both Lt. Beers, who saw action in the Pacific as a PBM and PBY pilot with VP-22, and Potter, a motor machinist's mate in the first World War, take weekend training with the Organized Reserve at NARTU ANACOSTIA.

**R**EAR ADMIRAL Alfred M. Pride, Chief of BUAER, serves as the Navy representative on the National Air Museum's Advisory Board, having replaced Vice Admiral H. B. Sallada on the latter's change of duty. Spurred on by Admiral Pride's realization of the function of the National Air Museum, the Navy is working to further the Museum's program. Besides earmarking planes for future transfer, it has turned over a collection of enemy aircraft models, has donated such captured equipment as a *Baka* bomb and an *Emily* engine, has aided in preparing engines for exhibition purposes, and just recently helped the Museum bring home the famous Wright brothers' *Kitty Hawk*.

Alfred V. Verville, who designed and built the Verville flying boat as well as many early international racers, serves as coordinator for the Navy's program of assistance.



R. ADM. PRIDE AND A. VERVILLE VISIT THE NATIONAL AIR MUSEUM



CURATOR PAUL GARBER AND S. BEERS COMPARE MODEL WITH THE F9C-2



EVEN COLLISION WITH A BIRD CAN BE SERIOUS

## Unwary Bird Batters JRB-4 Fowl Failed To Follow Local Pattern

NAS NORFOLK — Air Transport Squadron 22 reports a minor skirmish between an *Expediter* and a fowl of unknown origin. Apparently the bird was ignoring the administrator's regulations and local air traffic rules. A question of "priority of domain" may have been the cause of the incident, but it is felt the bird might have been "tilting at windmills," so to speak, inasmuch as he undoubtedly came off the worse for the collision.

The JRB-4 was in the landing traffic circle of Chambers field, when the bird appeared very close to the windshield. The pilot attempted to avert the impending disaster by kicking rudder, but only managed to exchange contact points. The plane was traveling at an estimated 120 knots in a straight-forward manner, while the bird was apparently flying backwards, perhaps boastfully, but not fast enough.

After colliding, no adverse characteristics developed in the plane although the mark of the fowl remained on the rudder. The pilot reported his side of the incident to proper authorities, but the bird failed to appear to present his side of the case. The bird's plumage which remained with the rudder was forfeited in lieu of the fowl's appearance.

## Training Gets Helicopters

### Pensacola Egg-Beaters Will Search

NAS PENSACOLA — The helicopter finally has reached the aviation training command here. Three of the Navy's HO3S-1's have been assigned to basic and advanced training, not to train aviators in but to do search and rescue work for pilots lost while on training flights, or off the CVL *Cabot*.

Their arrival marks another step forward for the "egg beaters" which have displaced scout planes on battleships and cruisers and are fast taking over destroyers' duties as plane guards during carrier launching and landing operations. The Navy will continue to train its helicopter pilots at NAS LAKEHURST.

## It Is Nice To Have Friends Tower Operators Help Neptune Pilot

PATROL SQUADRON TWO—During a routine instrument training flight, 4500 feet over San Diego, one of our pilots intercepted a message from Miramar tower stating: "Any P2V over San Diego area: 'San Diego Radio reports a P2V over Lindberg field trailing smoke'."

The pilot of the plane immediately sent the plane captain aft to check the engines and as he did so the port engine oil pressure dropped from 70 pounds to 10 pounds pressure and the plane captain reported much oil around the port engine nacelle.

The pilot feathered the engine, called Miramar for emergency landing and made a single engine landing without incident. The pilot is now very friendly toward all tower operators.

## Navy Lends a Helping Hand

### Air Lift to Hospital Is Appreciated

NAS CORPUS CHRISTI—A mercy mission recently carried out from this station gave badly needed air transportation to a victim of spinal tuberculosis. A Navy R4D took Mrs. Paul W. Graham of Corpus Christi to Denver for special hospital treatment not obtainable elsewhere. Completely encased in a full-length body cast, the patient could not be moved by commercial airline, and her physician vetoed an ambulance trip.

Letters from the Corpus Christi Chamber of Commerce and from the firm with which Mrs. Graham is employed expressed to the Navy grateful appreciation for its assistance in the emergency and commented on the courteous and considerate manner in which the transportation problem was handled.



Lt. Leo M. Sabota, first Navy pilot on the Berlin Airlift to complete 100 missions to the blockaded city, tallies his score on his baseball cap. Sabota made his first trip to Berlin on 24 November when VR-6 first arrived at Rhein/Main. He made his 100th just 100 days later.



WARNER, WOOD, ROWE WITH NEW AD-3 AIRCRAFT

## AD-3 In Cross-U.S. Flight Pilot Loses Wing Tank But Makes It

Long range versatility of the Navy's AD-3 *Skyraiders* was demonstrated on 10 March when three pilots from BUAER ferried a trio of the new aircraft non-stop from San Diego to Norfolk. One of the planes, through accident, lost one wing tank but made the flight without refueling, as did the other two. Time consumed was 9 hours and 40 minutes, following the ferry route.

Pilots were LCDrs. Hugh Wood, Jr., B. F. Rowe and M. H. Warner. The flights were planned nonstop to check range and fuel consumption of the AD-3. Each plane carried two wing tanks with 600 gallons of fuel, plus the internal supply—enough to make the trip.

Wood's plane lost its left wing tank west of Tucson, Arizona. When he landed at Norfolk, he had five gallons of gasoline left. Consumption by his *Skyraider*, thanks to leaning-out, was 700 gallons, while Rowe used 800 gallons and Warner 780.

The planes cruised mostly at 14,000 feet at 172 knots. Pilots were on oxygen all of the day. None reported any unusual fatigue from the long trip.

The AD-3 differs from the AD-1 and -2 by having a stronger landing gear structure and improved propeller. The Navy will receive AD-4's this summer.

## Reserve Middies To Train Pensacola Offers Summer Courses

NAS PENSACOLA—This station will "entertain" 2,160 NROTC midshipmen this summer for their aviation summer cruise. Half of them will report on 12 June and the rest on 24 July for six weeks aboard.

During these periods they will receive instruction in all aviation subjects: history, organization, operation, and capabilities of naval aviation. Also included will be a cruise on board the training carrier *Cabot*, highlighted by a visit to Havana, Cuba. In their spare time, the midshipmen will be given actual experience in aircraft maintenance and operation in a squadron and each will take part in five indoctrination flights.

● NAS BIRMINGHAM—At the close of February, records showed a gain of 57 0-2's in the Organized squadrons, for a 133 total.



# ARABS FETE VISITING AVIATORS



VISITING FIREMEN POSE AT ARABIAN AIRPORT

**L**ANDING just at sunset in a cloud of sand, four *Hellcats* of a FAWTU-PAC detachment from the CV *Tarawa* are believed to be the first carrier aircraft to land at Jidda, seaport for the Moslem holy city of Mecca in Saudi Arabia.

The occasion for the visit was a search for the USS *Chikaskia* (AO-54) which had been unreported for 30 hours. Although the search was fruitless, the tanker subsequently being located farther up the Red Sea, the flight provided the pilots, LCdr R. D. King, Lt. (jg) D. B. Shelton, Ens. D. T. Williams and Ens. R. L. Trout, with the distinction of having been catapulted while their carrier was at anchor.

The 18 hours ashore proved to be one of the most interesting episodes thus far in the odyssey of the first night-fighter detachment to cruise around the world. Already having visited such well-known ports as Tsingtao, Hong Kong, Singapore, and Colombo, with Bahrein island on the Persian Gulf thrown in for good measure, the four pilots from Fleet All Weather Training Unit found this out-of-the-way spot refreshingly free from commercial and western influences.

American pilots and employes from the Saudi Arabian Airlines and International Bechtel Corp., provided warm hospitality and the historic event was duly celebrated with an all-out social affair of the desert outpost variety. Meanwhile, the remaining pilot of the detachment, Lt. (jg) W. R. Smith, was enjoying a fabulous Arab banquet given at the palace of King Ibn Saud for officers of the *Tarawa* and CAG-1, to which they were attached on TAD.

The next morning after a tour of the picturesque coral and adobe Arab city, the favors were returned with a demonstration of precision U.S. Navy flying over the airport. That evening after a full day of air group and ship underway operations for the benefit of nearly 200 Arab and American guests, the *Tarawa* set course for Suez, Athens and Istanbul. A Saudi Arabian Airlines DC-3 circled the ship and rocked its wings in farewell in a gesture of goodwill.

In the accompanying photograph are the *Tarawa* detachment at Jidda airport: Nadji Atik, Turkish copilot for Saudi Arabian Airlines, Shelton, Williams, King and Trout. Pistols were worn for rescue signaling.

## Tie-Down Idea Save SNJ's Typhoon Fails to Injure Planes

NAF, NAHA, OKINAWA—Borrowing an idea from another squadron, printed in NAVAL AVIATION NEWS, this activity



**TIE-DOWN METHOD DEFEATS OKINAWA TYPHOON** developed a method of securing planes which worked successfully against 120-mile typhoon gales.

Planes so tied down withstood sand, coral, rain and flying debris without structural or power plant damage. Due to lack of hangars and airfields to which aircraft could be evacuated safely, a method of protecting them against the typhoon *Libby* had to be developed. So well did it work that the only damage incurred was loss of 24 sq. in. of paint from the vertical stabilizers, due to sand blast.

Fully-loaded fuel trucks were stationed in front of the SNJ's to break the wind and stop flying debris. Sand bags were loaded on the wings, wheels were retracted, cowling and canopy covered with canvas and battens put on the rudder. Tie-downs secured the wings to the ground.

## Navy Loses a Jet Aircraft Cutlass Disappears With Test Pilot

The Navy was down to two XF7U-1 *Cutlasses* today after losing one of the tailless jets over the Chesapeake Bay area the middle of March. Flown by Chance Vought's chief test pilot, William H. B. Millar, former Navy fighter pilot, the plane disappeared on March 14. Pieces were found on an island 20 miles from Patuxent.

It was last seen flying near its base at NATC PATUXENT RIVER. Two other *Cutlasses* are at Wright field and at the factory at Dallas, Texas.

Millar was an instructor at Pensacola in 1943, then joined VF-18 on the CV *Intrepid* where he participated in action at Palau, Philippines, Formosa and Okinawa. He won the Air Medal for bombing a carrier in Manila Bay and shot down one Jap plane, his records show.

## VP-40 Takes Nav Hop North

Idea Keeps Pilots Fresh on Airways

VP-40, COCO SOLO—Scarcity of radio aids to navigation in the Canal Zone has led this squadron to institute a series of navigation hops to the U.S. to keep its pilots brushed up on their flight proficiency.

After a two-year tour of duty in the Canal Zone a pilot frequently finds himself lost on current rules and regulations and communications procedures. To keep its men abreast, VP-40 began nav hops to the U.S. involving all the usual methods of over-water navigation plus one leg of civil airways flying. In addition to navigation and airways training, these flights present a good opportunity for training in instrument and night flying and for a few hours ashore back in the "Old Country."

Despite the Christmas leave by 30% of the crew and changeover of plane type in the squadron, it racked up 450 hours of flight time during December.



This snowy scene would not be unusual at Minneapolis or Glenview, but at El Toro it made big news—it was the first time the Marine Corps air station ever had seen snow. VMP-254 cameramen scurried around to record the world-shaking event, a feature of the recent western cold wave.

## VR-6 Pilot Has Troubles

Berlin Airlift Provides A Rough Time

VR-6, GERMANY—Some days you can't make a nickel. Take Lt. Harold V. Bryant, flying the Berlin airlift for the Navy, trying to take his "ten tons to Templehof."

Taking off from Berlin, his #4 engine developed trouble and he had to return to Rhein/Main on three engines. Later, as he taxied out from Rhein/Main and applied take-off power, his plane started "shaking like a leaf," so he cut the power and returned to the line.

On his next try he actually got into the air, but during the climb from Rhein/Main his #1 engine decided not to run. It was feathered and he returned on three engines.

Bryant walked into operations and exclaimed, "I've had it for today!" A relief crew was called out and operations continued without Lt. Bryant.

# BLACKOUTS, GALES TEST FLIERS

WEATHER makes news, sometimes bad, for Navy transport squadrons in such widely-spread places as Greenland and Hawaii.

VR-1 was called on to deliver a new R-3350 engine to a stranded P2V aircraft at Bluie West Eight in Greenland. With a nine-man engine change crew aboard, the flight left Argentia, Newfoundland, for BW-1 Greenland. It encountered an entire "radio blackout" and was unable to contact any station for more than four hours.

One position report was given over VHF to NMMB, a weather observation station vessel, but even the vessel was unable to forward the report due to the "blackout."

Although this condition is not supposed to affect low frequencies as much as medium or high frequencies, the crew reported range and radio beacon stations in Greenland were unreliable and at times unreadable as close-in as 25 miles.

Unloading the new engine and loading the old one at BW-8 proved to be a ticklish job, requiring the combined

use of BW-8's only (small) fork lift, a "cherry picker" crane and all the manpower that could be mustered, used as ballast at the aft end of the crane.

Although Greenland was experiencing a minor heat wave—the temperature averaged minus 10 degrees F—the crew reported working outdoors for any length of time was chilling to say the least.

At the other end of the picture, VR-21 ran into a storm on its Johnston Island-Hawaii run with 40-60 knot winds, heavy rains and near zero conditions. An R5D and JRB were damaged by sheets of roofing blown from the large nose bay hangar.

Highlight of the storm came when the *Mars* flight arrived in Honolulu under those conditions. After a short pass, the plane landed. Three hours elapsed before the throttles were cut and the plane housed in the U-dock without damage or casualties. With little hope for improving weather, the plane was sent out three hours later to remove it from the local storm area.

● **NAS OAKLAND**—During the recent "Micro-wex" exercises held off the Pacific coast, Organized Reservists participated in a three-day cruise "defending" naval installations in the San Francisco Bay area. Grounded for two days because of foul weather, the Reservists on the third day made a "strike" on the "attacking" fleet. A total of 368 flight hours were logged.

● **NAS AKRON**—Arrangements have been made to conduct field carrier landing practice at the Akron-Canton airport, located approximately eight miles from this activity. Organized Reservists have already conducted their first bounce drill there with good success.

## Helicopters Go To Cruisers Naval Aviation's Saltiest Swan Song

VO-2, NORFOLK—The beginning of the end for catapult seaplanes on board cruisers and battleships is in sight.

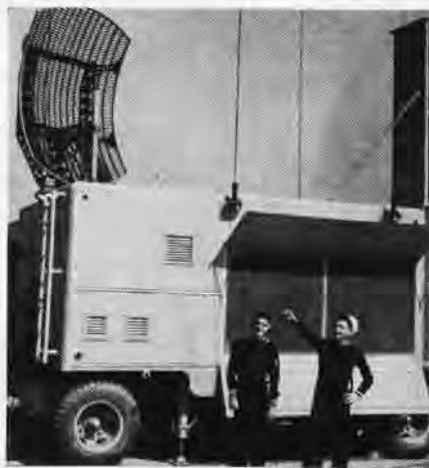
Observation Squadron Two, which is in the process of switching from SC-1 and SC-2 planes to HO4S-1 helicopters, will soon furnish detachments of the latter to ships of the Atlantic Fleet.

To expedite the changeover, pilots are being sent to HU-2 at Lakehurst for checkout, augmenting VO-2's own training program which is under the direction of Cdr. Ben Moore, Jr., squadron commanding officer.

New construction cruisers are undergoing conversion for installation of decks suitable for helicopter operations.



Ensign Jesse L. Brown, first Negro Naval Aviator and now pilot of VF-32, sits in the cockpit of an F8F. Ensign Brown, who entered flight training from enlisted ranks, operated from the U.S.S. *Wright*. He hails from Hattiesburg, Mississippi.



Two new recruits to aid in the Berlin Airlift are Clesson Blair and George Tinker, both radarmen, members of the GCA unit at NAS Grosse Ile. The men went to Weisbaden, Germany, to work on GCA there during foggy times.

## Marines Stress Recognition Photo Squadron Makes Own Slides

VMP-254, EL TORO—Recognition slides of the latest U.S. and foreign aircraft have been made by this squadron by copying photographs and drawings found in NAVAL AVIATION NEWS and other aviation magazines.

The photo or drawing which is to become a recognition slide is first copied. This copy negative then is contact printed on a thin-base film to a desired density and contrast for good projection. Because thin-base film is obtainable only in a high contrast emulsion, the copy negative is over-exposed and under-developed to bring out low contrast.

The final print is mounted between two thin glasses, obtained from obsolete slides no longer needed by ground training. As a result of this recognition project, VMP-254 has a fairly complete, up-to-date recognition kit which will be kept up so pilots will be trained constantly in aircraft and ships of the future.

## Submariners Turn Hunters ASW Pilots Take New Kind of Dive

VC-21, PACIFIC—"It takes a thief to catch a thief," seems to be the motto of this hunter-killer squadron.

The Executive Officer, Lt. Cdr. Charles M. Young and four other aviators are submariners also. Their experience in the undersea craft has been beneficial in training this lone carrier based ASW squadron of the Pacific.

Commissioned September 1, 1948 with Cdr. John P. Conn commanding, the squadron rolled up 391 carrier landings in the first three months, of which 55 were made at night.

VP-40, ATLANTIC—Two-thirds of the pilots of Patrol Squadron Forty have taken "hops" in East Coast submarines a day at a time in conjunction with the group's antisubmarine warfare.

The Commanding Officer reports, "All have reported it to be an interesting experience, but," he adds, "to date there have been no requests for transfer to the submarine service."

● **NARTU JACKSONVILLE**—The commissioning of the AVU(A) at the Orlando Air Force Base was accompanied by an air show which was subsequently termed the greatest naval air show in all Orlando history. Cdr. J. O. Hills is CO of the unit.

Approximately 7,000 persons attended the ceremonies at the base, while many more watched from outside the station. Gordon Gifford of the Orlando Chamber of Commerce supervised the civilian part of the program and introduced both the Mayor of Orlando, William Beardall, and President Keith of the Chamber of Commerce.





MINIATURE R5D FLIES AT AN ANGLE ON RIBBON

### Airlift Workers Get Award Clasp, Service Medal, Authorized

In recognition of Naval and Marine Corps personnel participating in the Berlin Airlift, Secretary of the Navy Sullivan has authorized the wearing of the Navy Occupation Service Medal and the Berlin airlift clasp and the acceptance of the Air Medal and commendation ribbon awarded by the Air Force.

Personnel must have served 90 con-



secutive days or more on permanent or temporary duty while assigned or attached to a unit which had directly supported the Berlin Airlift since its beginning, June 26, 1948.

The airlift clasp is a gold-colored miniature R5D with  $\frac{3}{8}$ " wingspan. It is worn on the service ribbon and suspension ribbon of the Navy Occupation Service Medal with the nose pointing upward at a 30° angle toward the wearer's right.

### Navy Squadrons Lead Pack Berlin Airlift Freight Mark Is Set

VR-6, BERLIN—This squadron was right on the heels of VR-8, the other Navy squadron in the Berlin Airlift, when efficiency marks were tabulated for February.

Eight led all Air Force and Navy squadrons with average efficiency utilization of aircraft at 120% and VR-6 was right behind with 117%. VR-6 carried 7,106 tons to Berlin during the month, averaging 24 tons a day for each assigned plane. The squadron carried 1,228 tons above its quota to the blockaded city.

On 26 February, the day the Airlift hauled a record 8,025 tons, VR-6 flew 32 round trips carrying a total of 338 tons.

Secretary of the Navy John L. Sullivan has congratulated the two Navy squadrons for their outstanding efficiency. The text of his message read:

"To the Commanding Officer, VR-6 and Commanding Officer VR-8:

"My heartiest congratulations to you and your men for the fine record set by your squadrons in *Operation Vittles* during February. Particularly I should like to compliment VR-8 for its outstanding achievement for the third successive month. Above all we watch with unceasing pride your exemplary cooperation as members of the unified team, the Combined Airlift Task Force, whose brilliant record of accomplishment in Berlin is an inspiration to this country and the world. Admiral Louis E. Denfeld joins with me in sending you this well done."

The infamous Rhein/Main fog that closed in on the field on the night of 18 February caught VR-6 with three out of four planes in the air flying with a prop feathered. Lt. (jg) G. P. Corrigan's plane was the only one with four engines in operation. Only one of the R5D's on three, piloted by LCdr J. B. Cannon and Cdr. H. P. Badger, squadron CO, was fortunate enough to squeeze into Rhein/Main just as the fog blanked out the field.

Lt. H. P. Buergey had to remain at Templehof. LCdr E. F. Williamson was diverted to Brussels, Belgium, where he stayed two days till weather cleared and he came home on three engines.

### Marines Set Annual Dates

#### Maneuvers to Be in July and August

Marine Air Reserves will hold their third annual maneuvers at Cherry Point and El Toro during July and August, according to information from the Reserve Training Command.

Reservists from east of the Mississippi will fly their *Corsairs* and other planes to Cherry Point for maneuvers to be held from 16 to 30 July. Western Marine fliers will hold their exercises from 13 to 22 August at El Toro.

### Multiple Crew Ejection Safe

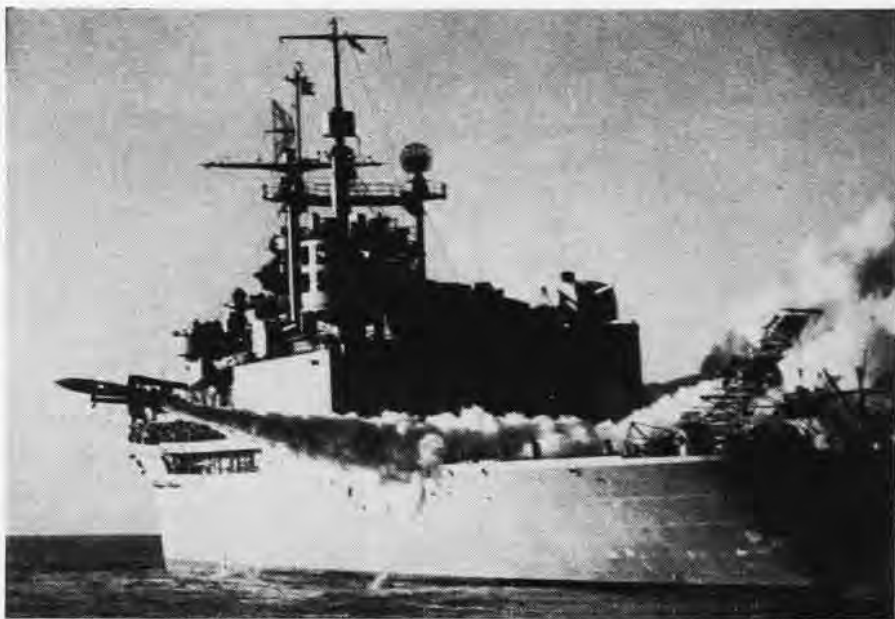
#### Deflector Will Divert Catapult Blast

Information on pilot safety in the April issue of NAVAL AVIATION NEWS indicated that the eviction of one man from a pilot compartment still containing a crew member might result in severe injury to the remaining man from powder burn or concussion.

Preliminary tests at NAMC PHILADELPHIA indicate that the effects of pressure, flame and flying particles being expelled into the compartment when the seat catapult tubes separate are not as serious as previously regarded.

Development of suitable deflectors will eliminate any undesirable effects on fellow crew members and will thus make multiple ejections from the same compartment both practical and safe.

It is expected that development of such a deflector will be completed in the near future and incorporated into designs of those ejections seats used in multiple-place aircraft.



Zooming over the side of the Navy's new experimental guided missile ship the converted seaplane tender Norton Sound is a Loon, American version of the V-1 bomb. A rocket assist unit gives the Loon its initial impetus before its pulsejet motor takes over. Later, the Navy launched the first of a series of Aerobee rockets to measure cosmic rays and terrestrial magnetic fields at high altitudes at the equator.



Even the weather at Istanbul, Turkey, cooperated in making the men aboard the *Tarawa* feel at home; many a sailor who

had been longing for a snowball fight had his chance when a snowfall turned the deck of the CV into a winter playground

## TARAWA TARS GO TOURING

SEEING the sights and putting on shows for others to see are the high points of the reports that have come back from squadrons embarked on the *Tarawa's* recent world cruise.

A memorable stop was made at Jidda, Arabia, where air operations were conducted for visiting dignitaries. Prince Monsour of Saudi Arabia and J. Reeves Childs, American Minister to Arabia,

together with 125 other official guests, came aboard to spend the day. Formation flying, rocket firing, and general carrier operations impressed the visitors. Some pilots who participated in the show are inclined to give a little credit to broken clouds for one spectacular attack made on the ship—simultaneous from opposite directions! The Arabs were most definitely impressed.

Istanbul was acclaimed the highlight of the cruise from a hospitality standpoint. That all the wonder at strange sights wasn't limited to the visiting sailors is evident from a Turkish newspaper report of the *Tarawa* vs CVG-1 football game staged in Inonu stadium: "The players spent much of the time running forward, falling down, getting up, running forward, falling again."



Ship's carpenters gave deck a new look with tower for trip through Suez Canal



Enlisted men's dance at Istanbul found Turkish girls adept at intricate steps



Turbaned Arab visitors view flight deck operations; air show proved sensational





**British** guests at reception aboard the carrier at Singapore; young miss finds her ice cream more interesting than sailors



**Capt. H. L. Young** greets HRH Prince Mansour of Saudi Arabia at Jidda; among his gifts were herd of live sheep



**Unloading** mail plane on flight deck appears to be a welcome job; TBM's were sent for mail that didn't catch the CV



**Football** game was staged in Turkey between *Tarawa* and CVG-1; 9,000 people enjoyed game but didn't understand it



**Transit** of Suez Canal took two days; crew members off duty crowded up to flight deck to see desert slip by beneath ship



**Men** on the *Tarawa* cruise had excellent opportunity to view different styles of architecture; here they gaze at Port Said

# SURVIVAL ON LIFERAFT

**S**URVIVAL techniques used by 33 Air Force men who spent 39 hours floating in the Pacific in two five-man liferafts make valuable reading for Navy fliers whose hops take them over water. Navy patrol squadrons and the CVE *Rendova* rescued the men. (NANEWS, Feb. 1949)

The men were in a C-54 en route from Hawaii to Johnston Island when two engines quit and the pilot had to set the plane down in the ocean. All loose equipment had been jettisoned. Passengers were fitted with Mae Wests, fastened safety belts and were given ditching instructions.

They lost all but two of the tied down liferafts through the jettisoned cargo door upon the ditching impact. Lt. Col. William R. Calhoun, the pilot, went back into the sinking plane to secure the Gibson Girl emergency radio transmitter. After several minutes trying vainly to unlatch it from its mountings, he abandoned the plane, swimming underwater through the cargo door which was by this time completely submerged.

Thirty-five salt water and gasoline-soaked men crowded aboard and hung onto the two little liferafts as the giant plane gurgled and sank from sight. It was not realized until later that two of the men aboard the plane had not reached the rafts.

The remainder of the night was spent hanging onto the rafts. Some of the men were half in and half out of the rafts, with one leg thrown over the side for support. Others floated in the water, hanging onto the raft, buoyed by their life vests. Men on opposite sides clasped hands across the raft for additional support.

During the remainder of the night they changed places and those in the raft got into the water alongside, allowing others to climb into the rafts to rest. Built to hold five men, the rafts supported 16 and 17 men respectively. They were completely submerged but retained sufficient buoyancy to keep the men, many of whom could not swim, afloat.

At one time, one raft was supporting 25 of the survivors. Many men were sick from swallowing large amounts of salt water and gasoline. Later one man went into a coma and died.

Morning came and with it came sunburn and heat exhaustion to a tired, spent group of men who had been and were still fighting to stay together. A Mae West was ripped and the straps and shreds used to tie the rafts together. Choppy seas and large swells threatened to capsize them, adding to the problem of keeping people awake so they would not drift away and be lost at sea.

One man lost his hold and was swept away by a huge swell. Excessive fatigue and nervous shock from the experience had so affected him that despite heroic attempts by two other men to save him, he was lost.

It was the next evening before any rescuers sighted the men. A B-17, seeing their flares, dropped a rescue boat in the darkness but the men did not know it had been dropped and made no attempt to reach it.

Repeatedly cuffing each other whenever one would doze from sheer exhaustion, the men kept up a constant stream of conversation because here sleep meant death. Late the second afternoon three Navy patrol planes and a B-17 appeared overhead. The *Rendova* arrived and sent a small boat to pick up the men in the rafts.

Col. Calhoun said that because many of the men were in the water at all times, they had to use a considerable amount of shark repellent from the Mae West vest and from raft provisions. "Either it works or the sharks weren't hungry," he said, "because I counted 17 sharks around us at one time.

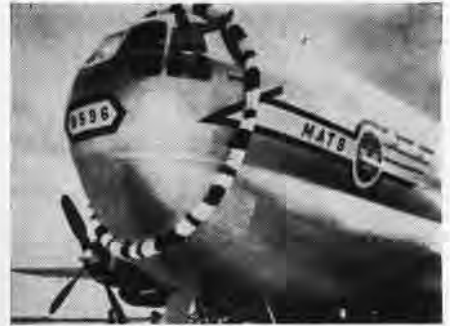
Calhoun praised all hands aboard the *Rendova* for treatment given them. Many of the crew, including the ship's medical officer, Lt. (jg) Peter Lister, worked 24 hours a day without sleep till the carrier reached Kwajalein.



Two more, Elmore!

NAF NAHA, OKINAWA—A certain rubber heel maker would probably swell with pride if he knew his product had been used to make rubber bushings for the gear shift lever linkage on the official station sedan.

VP-3, Coco Solo—Aviators of this squadron had a chance to see how submarines operate when two went aboard one to see how they operated with aircraft overhead. One big lesson learned was that fliers themselves are not always infallible in the air.



A lei to end all leis was hung on the nose of MATS' new Boeing Stratocruiser when it arrived in Honolulu recently to join the Pacific airlift. The 37-foot garland, made of paper, was put on the nose of the 80-passenger air freighter.

## New Skyraider Passes Tests Tow-RCM Version Gets VU-7's OK

VU-7, PACIFIC—This squadron has completed preliminary evaluation of the prototype AD-2Q, quick tow conversion model for carrier squadron use and found it satisfactory in most respects for this work.

Tests were conducted under supervision of LCdr W. E. Scarborough in liaison with Douglas Aircraft Co., representatives. The flying necessary for evaluation was done by Lt. F. L. Harris and R. T. Marrion, AOC. They ran complete night and day tests, at high and low speeds and with all service-type targets.

Installations of this aircraft are designed for conversion from the original radar countermeasures configuration to a tow configuration in two hours. Since CV groups have such an RCM aircraft assigned, this conversion more than doubles the utility of the aircraft with resultant benefits to the operating unit.

NAAS CORRY FIELD—Two minor failures of lockable tail wheels on SNJ's have been traced to the fillster head screws holding the centralizing spring for the lock. The screws break off at the cotter key hole.



It isn't every day that Reserves get a chance to ride a helicopter. NAS New Orleans Reservists, 50 of them, went for a ride in a pinwheel from the survey ship Tanner when it visited the city.



# ST. LOO SAVES AIR FORCE MEN



AIR FORCE MEN CONGRATULATE 'SAVIOR' BOOTH

WHEN YOU'RE up in the clouds at night buffeted by snowstorms, your gas running low and your radio acting up, you don't worry about inter-service rivalry and such. You just holler for help and the nearest GCA set, be it Navy or Air Force, is lovelier than a Hollywood starlet and a friend for life.

Take for instance the three Air Force planes that had a hairy time before the naval air station at St. Louis put its GCA to work rescuing them from their predicaments. Each was a separate night "save" for the Navy radar crew, two inside of one hour.

There was the B-25 on 21 January, en route from Omaha to Ft. Worth. All of its low range receivers failed. Weather at Fort Worth was approaching zero. The pilot decided to leave course and go to St. Louis which had been reported as clearing. This proved to be bum dope.

The plane was contacted by GCA Unit #32 at 2257 and located on the screen seven minutes later 24 miles south of Lambert field. Ten minutes later, eight happy crewmen emerged from the plane wiping the sweat from their brows with only 10 minutes fuel remaining aboard.

Number Two for St. Louis was an Air Force C-47 piloted by Capt. H. O. Peebles with 15 passengers and crew from Mitchell field to Scott Field, Illinois. When over Scott radio at 1815 on March 9 fire from electrical short broke out in the radio compartment. The crew chief put the fire out and all range receivers and the radio compass went out too. The pilot was sent to St. Louis and contacted there by GCA 28 miles out. Visibility was three-eighths of a mile and ceiling 500 feet obscured by a blinding snow and sleet storm.

A strong gusty wind caused the plane to miss its first approach and a second one was ordered. One tank ran dry and tanks were switched, with an estimated 15 minutes gas remaining. On second approach at 1940 the pilot made it. He had been O-in-C of the GCA at Mitchell Field and had been confident the

St. Louis unit would bring him in. Also very, very gratified.

Save #3, that same night, was another C-47 piloted by Lt. T. E. Anton. It lost its range receiver en route from Indianapolis to Scott Field but used VHF and broadcast band radio compass to hold over radio station KMOX in St. Louis. Visibility was a quarter of a mile and ceiling obscured at 400 feet with a snow blizzard.



CAPT. PEEBLES SHAKES HAND OF L/C FAHLGREN

Anton requested NAS St. Louis to use its GCA to bring him in as he feared a complete radio failure. The pilot, a former GCA instructor, made the landing on the first attempt at 2030, much to the relief of his four passengers. In this "save," J. R. Booth, AC1 was final controller and in #2 it was LCdr. J. S. Fahlgren. Controller in the B-25 save was H. D. Lound, AC2.

## Williams Cracks Up Bearcat Wheel Gives in New Bern Landing

MCAS CHERRY POINT—The only privately-owned F8F *Bearcat* in the United States is no more. Major Al Williams, ex-world's speed record holder, cracked up his F8F near New Bern, N.C., recently while attempting to land.

The plane burned and was a total loss. Williams blamed the loss on a landing gear failure, adding that either his left wheel failed to come down or collapsed when the *Bearcat* hit the runway. Wheel indicators were in "down" position, but the plane dipped its left wing, scraped its belly tank, igniting the gasoline. The tank exploded and Williams was completely enveloped by flames. He leaped through them to the runway.

For many years Williams appeared in air shows about the nation in a Grumman F3F fighter, now in Smithsonian Institution, replacing it just recently with the F8F. He held the world's speed record for a year after setting it, back in 1923, at 266 mph. He was the last American to hold the record until the Air Force recaptured it in 1947 with a F-80 traveling 623.8 miles per hour.



Commemorating the 21,000 landing without a fatality, officers of the CVL Wright gather to cut a cake. Left to right, they are: Cdr. J. L. Dew, executive officer; Cdr. F. L. Bates, air officer; Lt. O. L. Dauphin who made the landing, and Capt. D. Harris, Wright CO.

## New Program for Seniors Navy O.K.'s College Aviation Units

Groups of aviation-minded college and junior college seniors, who are accepted either as ensigns USN for flight training or as NavCads, will now be able to take their basic flight training as a unit under a plan recently set up by the Navy.

This plan provides that any group of not less than 10, or more than 20, four-year college men, who are prospective candidates for USN ensign commissions, can form a college aviation unit provided they are to graduate at the same time. Upon graduation and the successful meeting of requirements for officer candidates, the Navy will then commission these men ensigns USN, and barring physical defects or failures in flight syllabus training, keep the group together as a unit throughout basic training.

Similarly three or more friends or teammates in a junior college may form a college aviation flight provided that they will all be ready at the same time to enter the NavCad training program. Upon meeting the necessary requirements, they will be accepted as NavCads and kept together as a group throughout basic flight training.

Until the candidates have actually been ordered to flight training, the unit or flight will have no official naval status. The group, however, may meet unofficially, and the ONOP (under whose cognizance it has been set up) may schedule indoctrination talks or visits to local naval activities, if the group desires.

This plan for the formation of units and flights, which was developed at the request of a group of aviation-minded students at the University of Pennsylvania, is expected to arouse considerable interest among college and junior college groups around the U. S.



WEEKEND WARRIORS OF NARTU JACKSONVILLE FLY THE NAVAL AIR RESERVE SLOGAN AT THE 25TH FLORIDA CITRUS FRUIT EXPOSITION

## SHIFT IN RESERVE LINE-UP

TWO MAJOR changes in the Naval Air Reserve Training Command line-up have recently taken place. The military command of the naval air station at Seattle, Washington, was transferred to the Chief of Naval Air Reserve Training. The former activities of the Naval Air Reserve Training Unit were thus absorbed. At Memphis the procedure was reversed; the Regular Navy took over operation of the naval air station and a NARTU was set up on the station to continue the training of the Naval Air Reservists.

These changes were designed to bring the administrative control of both stations into line with their primary missions. Since Technical training predominates at Memphis and since Reserve training is to be emphasized at Seattle, the transfers of control were logical and will involve no major shutting-down of facilities. The change-over leaves the overall count of stations and units on the Reserve circuit at 27.

In addition to providing training for Reservists, NAS SEATTLE will also support an O&R department, aviation supply activities, an aircraft storage pro-

gram at the Boeing Renton plant, as well as a Fleet Logistics Support Wing. Headquarters of the Commander, Naval Air Bases, 13th ND, the air navigation office and Navy weather central are now located at NAS WHIDBEY ISLAND.

Additional Reserve stationkeeper officers and men are being assigned to take care of the new work load at Seattle. The present status of civilian employees will be relatively unaffected.

Captain A. E. Buckley, who recently took over as CO of the NARTU when Captain Greber completed his tour of duty, is the new commanding officer of NAS SEATTLE.

One of his first jobs will be to make arrangements for establishing an AVU(A) of the "expanded" (or permanent) type at Salem, Oregon. To provide continuous flight facilities for members of this AVU(A), four SNJ's and two SNB's are slated to be permanently based at Salem and two officers and 21 men will be assigned to take care of training and local maintenance.

It is expected that a formal lease allowing the Naval Air Reserve the use of necessary facilities at the Salem

Municipal Airport will soon be signed.

According to the new Reserve nomenclature, Salem, will be designated a Naval Air Facility (NAF) instead of an Outlying Facility (OLF), which is the title given to the place where intermittent flight facilities for a normal AVU(A) are provided.

The decision to locate a permanent type AVU(A) in the Northwest was made in response to the tremendous interest shown by Naval Air Reservists in the Portland, Oregon area. Salem was selected as the site, inasmuch as this was the nearest place where the required facilities could be obtained.

### Reserve Slogan Takes to the Air

Five weekend warriors at NARTU JACKSONVILLE have come up with their own version of skywriting, as shown in the picture on this page, to tell the public that the "Naval Reserve Packs Peace Power."

The five *Hellcats*, complete with slogan, were first flown at the Miami Air Maneuvers on Naval Air Reserve Day. They led a massive 60-plane salute by Reserve pilots from NARTU JAX and NAS MIAMI to Rear Admiral Whitehead, Chief of Naval Air Reserve Training.

The stunt was repeated again as part of a Navy "fly-over" in honor of the 25th Florida Citrus Fruit Exposition, held at Winter Park, Florida. The NARTU planes led a formation of 36 F4U-5's and AM-1's from Air Group 8, based at Fleet Air Jax. Approximately 20,000 watched the planes.

### League Leaders

NAS DALLAS points with pride to the 26 members of FASRON-154 from Durant, Oklahoma. Every drill day they depart from Durant at 0500 in the school bus they have hired at their own expense and two and one half hours later arrive at the station in time for a quick breakfast before muster. Their attendance record hits 95% for the enlisted men and 100% for the officers.



THIS NAS MINNEAPOLIS FLOAT SHOWS NAVY CARRIER AND PLANES 'OPERATING' IN AN ICY SEA



Lt. Cdr. Jack Cox of VF-56-A is another loyal Texan commuter, who shows up regularly for drill from his home in Breckenridge, 130 miles from the station. Lt. Cdr. Cox was recently elected unopposed to his second term in the Texas House, as representative of Stephens and Palo Pinto counties.

Out at NARTU SEATTLE credit is being given to J. J. Yeyna ADC and H. E. Hatzenbuehler AD1 for rigging up a mooring device on the tail wheel assembly of SNB/JRB aircraft to prevent damage to the tail-wheel housing when metal tie-down reels are used. This device consists of a spur-type adapter with mooring ring, which fits over the tail wheel housing and is secured by the lower oleo securing bolt. This device, which is made of 1" x 1/8" strap iron with mooring ring welded into place, can be installed in 30 minutes.

The ordnance department at Seattle recently designed an accurate "harp" and plotting board for use with glide angle calibration bombing and rocket firing. This was built by R. C. Clark AM1.

T. J. Howard of NAS OAKLAND receives honorable mention for constructing a flight weather board which gives immediate indication of flight weather conditions from Canada to Mexico and from the West Coast to points corresponding with Salt Lake City and Phoenix. The board, backed by five fluorescent tubes, indicates all the latest airways and airways changes for the area.

On the recruiting front, a one-day drive by J. L. Smith AD3 of NAS SPOKANE netted six men for the Organized squadrons. One of the six men recruited was Smith's younger brother.

The February issue of *QST, Amateur Radio Handbook*, revealed that the high scorer among Reservists in the Navy Day QSO party was CRM N. D. Sather, *W1SH*, a member of *VR-69* at NAS MINNEAPOLIS. Sather made 44 contacts



PRACTICAL DEMONSTRATION SUPPLEMENTS NEW MARINE JET ENGINE CORRESPONDENCE COURSE

in 24 states during the competition.

Commissioning Reservists from the ranks is part of regular Air Reserve policy. Among those who have recently been tapped for ensign are: Philip J. Nexon now an associated volunteer with FASRON-71 at NAS SQUANTUM, who enlisted in V-6 as a seaman recruit in June 1948; Allard C. Villiere of CVLG-53 at NAS NEW ORLEANS, formerly an HM3 with the same outfit; Albert Baril, Jr., of FASRON-163 at NAS NEW ORLEANS, an aircrewman during the war and a former ADE3 in FASRON 163; and James Noel Bennett, Jr., of NAS ST. LOUIS, a former aviation metalsmith first class. Ens. Nexon, a University of Chicago graduate, now attends Harvard Law School, while Ens. Villiere and Ens. Baril are enrolled at Loyola University and Louisiana State University respectively.

#### NAS Minneapolis "Launches" Ship

The float entered by NAS MINNEAPOLIS in the 1949 St. Paul Winter Carnival parade by far surpassed anything attempted by this station in previous celebrations. It depicted a carrier of the *Midway* class undertaking full flight operations. The planes used were *Panther* models donated by Grumman.

Riding in the elaborately decorated tractor, pulling the main float, were two WAVES and the inevitable penguin, which typifies NAS MINNEAPOLIS and its Arctic weather.

#### New Course on Jets for Marines

To give enlisted Marine Reservists the latest word regarding jets, the new correspondence course covering basic principles and developments in jet propulsion, offered by the Marine Corps Institute, is now available to personnel

in all Marine Air Organized squadrons.

The course, *Gas Turbines and Jet Propulsion for Aircraft*, is designed to acquaint Reservists with the construction, operation and maintenance of jet reaction engines. British and German turbojets and turboprops are discussed. Current American jet engines, including axial and centrifugal type turbojets and turboprops are treated in detail. Ramjets, pulsejets and rockets also are analyzed.

In the picture, Marines at NAS GLENVIEW are supplementing the correspondence course with a jet-cutaway demonstration lecture given by Capt. V. R. Martin. From left to right they are: Pfc. H. R. Chendron, S/Sgt. R. F. Albert, Sgt. A. A. Cotto, T/Sgt. L. S. Johns, and T/Sgt. C. J. Bujan—all members of the Marine Air Detachment.

#### Station Round-Up

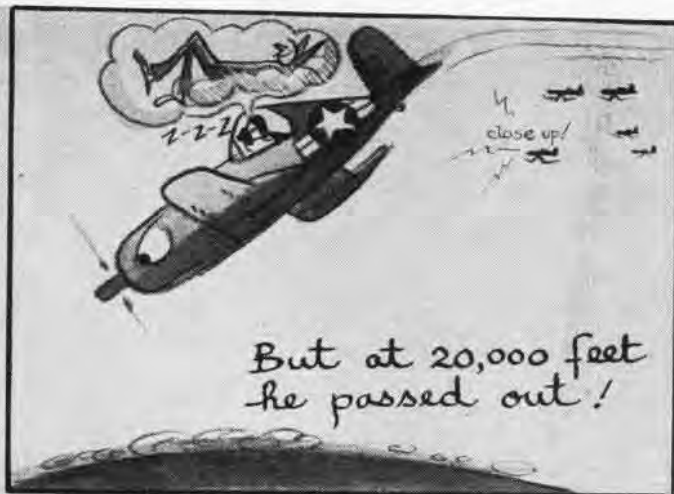
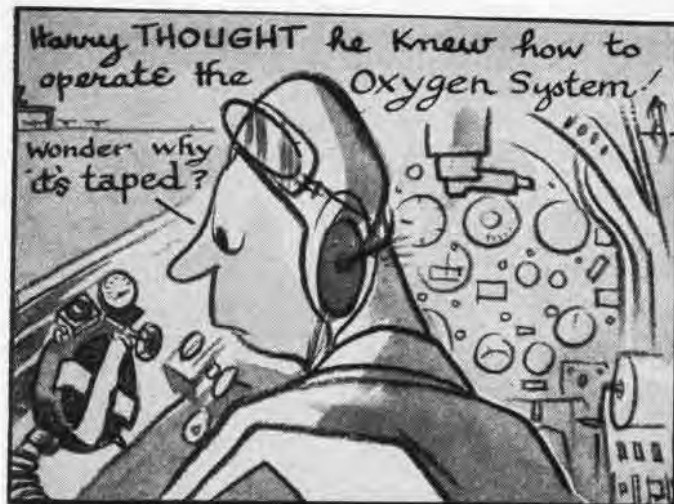
● NAS NIAGARA FALLS—As of February, all enlisted stationkeeper billets were filled and approximately 200 applications from enlisted personnel for the Organized squadrons were on hand. This looks like an excellent start for a new station.

● NARTU ANACOSTIA—CVEG-65 spent two complete drill periods conducting CIC practice at NAS PATUXENT. The CIC team was composed 100% of Organized personnel. Planes were controlled in the conventional manner through the use of radar installation at "Electronics Test." Approximately 10 intercepts were effected.

● NAS ATLANTA—Recent talks at morning muster concerning opportunities in the Naval Air Reserve are paying off. Last month 33 more men signed up for USAFI courses (bringing the total enrolled to over 200 men). In addition 9 GED high school level and 5 college level tests were administered and a class of six started in a special Academy and College Preparatory Class.



ENSIGNS VILLERE AND BARIL OF NEW ORLEANS



## Thin Air Accident

**D**URING the past six months a number of serious and near-serious accidents resulted from misuse of oxygen equipment. One principal cause is that the first symptoms of anoxia are not apparent to the pilot. By the time he realizes his condition, he is often so groggy that he cannot recall what it is that he ought to do. If he does remember he finds himself fumbling around with blurred vision and drunken hands trying to get his oxygen system going. By this time he's likely to be a dead pigeon in a matter of minutes.

*Case #1.* (Illustrated Above) When this pilot checked his oxygen equipment before take-off he found that the diaphragm breather control had been taped to prevent leakage. However the system appeared to be functioning normally, and he decided that this two-inch piece of tape must have been placed there for some purpose. He left the tape in position and climbed in formation to 20,000 feet, where his group practiced a break-up and rendezvous. At this time he passed out and his F4U-4 went into a steep left spiral. Repeated calls by his instructor failed to arouse him, but fortunately he regained consciousness at about 6,000 feet. His wind-screen was completely fogged, but he managed



to effect a recovery. However he pulled 9.5 "G" in this maneuver and wrinkled the leading edge of the left wing.

Although the practice of taping the diaphragm to prevent leakage was incorrect, the major responsibility for the accident was charged to the pilot because he wasn't sufficiently familiar with his equipment to know that it wouldn't work well in this condition. The system functioned perfectly when the tape was removed.

*Case #2.* Two Marine Corps pilots took off on an oxygen familiarization hop on which they planned to take their F4U's to the highest permissible level. Both commenced using oxygen at 5,000 feet. At 20,000 feet one pilot experienced engine surging when he shifted to high blower. At this time he made a number of transmissions which his wingman acknowledged by rocking his wings. When he asked for a voice radio response there was a slight delay and then the answer was heard loud and clear.

When the section leader's plane began to run smoothly again, power settings were increased and the climb was continued. At 39,000 feet a let-down was started. This descent was made in an oval pattern through a hole in the overcast, with periodic voice radio checks. The section leader noticed that there was a slight delay prior to each answer from his wingman. At 35,000 feet radio and sight contact were lost.

The wingman's plane was next seen tumbling and spinning towards the water. The pilot was killed in the ensuing crash. It was learned that on a similar flight the day before he did not have a microphone installed in his oxygen mask, and answered all transmissions with hand signals. When his effects were inventoried after the fatal crash, the mask microphone which he had been issued was in his locker.



# Naval Airmen Meet In Chicago

THE NAVAL Airmen of America, a national organization of former naval aviation officers from both world wars, held its annual midwinter dinner-meeting at the Chicago Athletic Club on 25 February.

Highlight of the occasion was the granting of an honorary membership to Rear Admiral I. M. McQuiston, Advisor to DCNO(Air) for the Naval Air Reserve who came from Washington for the meeting. Admiral McQuiston, the top-ranking Naval Air Reservist, who was commissioned a naval aviator in 1918, has done an outstanding job in helping to build the Naval Air Reserve program to its present effectiveness.

The principal addresses of the evening were delivered by Admiral McQuiston and by Edward M. Olson, a prominent Naval Airman. The former emphasized the important role naval aviation plays in national defense, while the latter stressed the responsibilities of the individual Reservists. Cdr. Olson, a naval aviator in World War I, now a well-known contracting electrical engineer, gave loyalty of his services on the home front during the last war and actively supported the many Navy programs in the district. He is national chairman of the Naval Airmen's Board of Directors.

Cdr. Carl G. Olson, national honorary chairman of the Naval Airmen and former national commander, served as master-of-ceremonies at the dinner. A tireless worker for the Naval Air Reserve program, with which he has been connected for many years, Cdr. Olson was recently recalled to active duty at NAS GLENVIEW in connection with the revitalized NavCad procurement program. During the war Cdr. Olson, who had served as a naval aviator in World War I, had an enviable



R. Adm. I. M. McQuiston (c) with Cdr. C. Olson, F. Kullman, Capt. L. Armour, F. E. Hubachek, Cdr. A. Rice, and Lt. Cdr. G. Benson at Naval Airmen's meeting

record as head of the NavCad Selection Board in Chicago.

Among the guests of honor were prominent Naval Air Reservists, including Captain Joseph B. Lynch, coordinator of policies for naval aviation personnel for the Bureau of Naval Personnel, and Captain Lester Armour, a prominent civic and business leader in Chicago. Honored guests from the Aviation Commandery of the Naval Order of the United States, a similar organization in New York City, were Cdr. Albert F. Rice, commander general; Lt. Cdr. John F. Hallett, vice-commander, and Lt. Cdr. Steven Van Sant. Also on the guests of honor roll were Francis Kullman, well-known Chicago business man, Arch Ward, Sports editor of the *Chicago Tribune*, and George Petty, the famous artist, whose son was a naval aviator in World War II. All of these men have been

most helpful to the Naval Air Reserve program.

The Naval Airmen of America, a rapidly growing organization, was set up on a national basis, shortly after the last war, by a group of Reserve naval aviators from both world wars who wished to keep alive their interest in naval aviation and to continue their wartime friendships. Its charter provides for state groups, called "Wings" and local groups, called "Squadrons," as well as for "Ladies' Auxiliaries," which meet regularly with the squadrons for social events.

AT THE helm of the Naval Airmen are a group of Reserve naval aviation officers who saw combat in World War II.

Lt. Cdr. George N. Benson is national commander. During the war he was a torpedo bomber pilot with VC-28, VT-28 and VT-100 and participated in many battles in the Pacific.

National vice-commander is Lt. (jg) Alcuin Tasch, a former PBM pilot now a partner in the Aerial Photograph Company, who saw action with VPB-210 and VPB-32. Lt. (jg) Robert E. Gallagher, a dive bomber pilot, who is now in the insurance business, is treasurer of the organization, while Lt. (jg) Clyde M. Buettner is the national secretary. Lt. (jg) Buettner, a Coast Guard aviator, was assigned to an air/sea rescue unit which operated from northern California to southern Alaska.

National headquarters of the Naval Airmen of America are located at 1511 West Jackson Blvd., Chicago, Illinois.



Present and past officers of the Naval Airmen of America—A. Tasch, R. E. Gallagher, national commander G. N. Benson, A. J. Gallagher and E. D. Corboy

## Committee of 100 Made Fine Record



**Committee** of 100 members, P. J. Lewis, J. E. Graffis, E. M. Olson, E. G. Frank, R. P. McDonald, F. O. McDermott are now active in Naval Airmen organization

**L**ENDING support and good wishes to the Naval Airmen of America are a group of World War I Naval Air Reserve officers, who are outstanding leaders both in industry and in civic affairs in the Chicago area. These men have a record of long-time service to naval aviation as pioneers during the first World War and then as staunch supporters of various important Navy programs during World War II.

Shortly before Pearl Harbor, they organized themselves into the First World War Naval Aviators Committee of 100 to assist more effectively. From then until 1946, when the Committee disbanded, they piled up a record of which any group would be proud.

Their main job was to help procure naval aviation cadets. Finding that many excellent prospects were being turned down because of minor physical defects, such as poor teeth, they set up a Naval Aviation Foundation with facilities and a health fund to have these defects corrected. As a result

477 men out of 500 passed their physical examinations and NavCad recruiting in Chicago boomed. Sampson Rogers, Jr., a W. W. I naval aviator, served as president of the Foundation.

Long before the war was over, the Committee recognized that many of the young men they had helped to recruit would need assistance in finding jobs on their return to civilian life.

A board of trustees, comprising many W. W. I aviators as well as other well-known Chicagoans, therefore, was set up and by December 1945 the Air Services Placement Center of Chicago was a going concern. Verne W. Lyon, a top man in the placement field and a former Naval Reserve officer, was selected to head a staff of five experienced personnel men. In addition members of the Industrial Relations Association of Chicago, representing 104 different companies volunteered their professional services as counselors. Radio and press coverage was obtained.

Soon requests for assistance began to

pour in. By the end of 1946, when the operation was rolled up, no less than 3178 aviators and aviation personnel, both officer and enlisted, from all the armed services had come to the Air Services Placement Center for counseling and placement. In fact, this was one of the most successful veterans' assistance programs in the country.

In all these activities undertaken by World War I naval aviators, Commander Carl Olson was a prime mover and he did much to keep them running on an even keel. It was through his efforts that the naval aviators were originally gotten together and it was through his vision that the need for the Foundation and the Placement Center became apparent. On his return from active duty in the Pacific, he was made a director and vice-president of the Center, where he put in one solid year of service without remuneration.

**O**NE OF the hardest workers on both the Committee of 100 and the Placement Center Board was Frank B. Hubachek, a well-known member of the law firm of Hubachek and Kelly and a Naval Airman. A low man on the naval aviator roster with a file number of 906 (now naval aviators' numbers are in the 500,000's), Frank Hubachek was commissioned at Pensacola in 1918. He had enlisted in the Navy as a seaman first class early in World War I after ambulance corps service in France, and had been one of the first 25 men to take ground training at Dunwoodie Institute in Minneapolis. Later he was sent to Moutchic in France, where he recalls that there were 2500 men to one plane.

After the war, Lt. (jg) Hubachek and other Reserve aviators, one of whom was Kenneth Salisbury, now a Captain who heads the Reserve Planning Section in DCNO(Air), organ-



'And there I was'—Captain Joseph Lynch spins a tale for S. Van Sant, Arch Ward, R. P. Mathiesson and J. F. Hallett



**Captain** C. P. Gill, commanding officer of NAS Glenview, talks with W. Thomas, C. G. Lamb, L. Ely before meeting





**Philip K. Wrigley**, a W. W. I naval aviator helped the program in W. W. II

ized an informal civilian Reserve group and obtained the use of an abandoned yacht club at Lake Calhoun. Later they managed to obtain and assemble an N-9 and held classes for training mechanics and pilots on an "everyone pays his own way" basis.

As president of the Aero-Club in Minneapolis, Hubachek was instrumental in obtaining Chamberlain Field (at that time a motorcycle race track) as the municipal air field, thus clearing the way for the Navy to establish a semi-official Reserve unit there in 1923 and to set up an official Naval Reserve Aviation Base in 1930.

During World War II, Frank Hubachek, Jr., carried the family banner on the combat front as a fighter pilot in the Navy.

**A**NOTHER outstanding member of the Committee of 100 was Philip K. Wrigley, who is chairman of the board of the William Wrigley Jr. Company and president of the Chicago *Cubs*. He is a ground floor occupant in the naval aviation structure, having enlisted as a fireman 3c (flying corps) at Great Lakes early in World War I as soon as he heard that Captain Moffett was forming an aviation unit there. Planes were hard come by, but Wrigley and the other "airship boys," as the first group of enthusiasts was called, managed to borrow a U-1 (1911) from the University of Illinois and to get Jack Vilas and Chicago businessman Mitchell to donate two old Curtiss flying boats. Later the group acquired a Verville flying boat and Philip Wrigley bought a Hall-Scott 125 engine for an experimental landplane which he obtained from the Packard Motor Company. Wrigley also paid for necessary equipment, tools and gas and the whole group became adept at "liberating" ad-

ditional materiel. Eventually N-9's and H-BOATS were acquired.

Although complaints were made even then that aviation personnel "had it soft," the "airship boys," who lived in tents right on the Lake front, often had to chip off the ice in the morning before they could wash.

In 1917 Wrigley was commissioned a naval aviator. He was then selected to organize and head the new aviation machinist's mate school at Great Lakes. Under the streamlined program he developed, 120 aviation mechs were



**T. C. Rodman**, an active member of Committee of 100, served in both wars

turned out regularly on Monday morning.

After the war Lt. Wrigley returned to civilian life but kept alive his interest in aviation by helping to found the National Air Transport (now United Air Lines) and to develop the Stout All-Metal Airplane.

During World War II, through his efforts, the William Wrigley Jr. Co. donated a weekly half-hour radio program from 1 January 1942 to 1 November 1945 to the Navy so that it could carry its message to the public. This popular program dramatized famous war incidents and the stories of naval heroes and proved a tremendous morale builder.

The combat side of the war was carried by Wrigley's two sons-in-law, Lt. William J. Hagenah, Jr., a Navy PB-4Y-1 navigator in the Pacific and 2nd Lt. George Rich, an Army pilot, as well as by his brother-in-law, Cdr. A. G. Atwater.

Another pioneer naval aviator at Great Lakes, Emory Wilder, also was active on the Committee of 100, serving as chairman of the ways and means committee. To aid the NavCad procurement program, he financed and set up the first blackout window in the



**Marshall Field III** took part in twelve Pacific engagements during the last war

country with a fluorescent display that could be readily seen at night. A loyal supporter of naval aviation, Wilder, now a well-known broker, continues his activities with the Naval Airmen.

Two other outstanding business leaders in Chicago who were prominent on the Committee of 100 are Captain Lester Armour, chairman of the board of the Chicago National Bank; and Commander T. Clifford Rodman, senior partner in the investment banking firm, Shields and Company. Both concluded their World War I duty as instructors at Pensacola and both saw combat action in World War II.

**C**APT. Armour, whose many civic activities include serving as vice-chairman of the Salvation Army, was recalled to active duty in 1942. He helped set up the ACI school at Quonset Point, and, after two months with the RAF was assigned there as a lecturer. Next he went to the Intelligence Center, Pacific Ocean Areas, where he was in charge of the aviation branch. His next tour of duty was in the South Pacific, and he finally served with the Office of Strategic Services in Europe.

A member of the famous Yale University Unit of the Class of 1919, which gave the Navy so many of its pioneer aviators, Cdr. Rodman enlisted as a seaman 2c. Learning to fly at his own expense at Buffalo, he won his commission in 1917 and was designated naval aviator #125. Recalled to active duty during the last war, he served in the Pacific on the staff of Admiral Ramsey aboard the *Saratoga* and on the staff of Admiral Sherman aboard the *Bunker Hill*, *Essex* and *Enterprise*. His particular post-war job with the Committee was helping to finance the Placement Center. He is a strong supporter of the Naval Airmen of America.



Lt. Cdr. Dick West, CO of CVEG-71 tells Wendell Clark and his two sons, Robert and Wendell, Jr., about carrier re-qualification training cruise aboard the Cabot

## W W I Aviators Aided W W II Vets

ANOTHER World War I naval aviator who was always in there driving hard when work was to be accomplished was Joseph M. Graffis, president of the Graffis Publishing Company, which puts out *Golfdom* and *Golfing*. When the United States entered the first world war, Joe Graffis, who was already in France with the ambulance corps, rushed to Brest to enlist in the Navy as a seaman 2c. Assigned to the air station at Moutchic, he learned to fly two French planes and was then transferred to Lake Bolsena, where he got his wings. Later he served as instructor in enemy warcraft identification from the air, finally ending up on patrol duty at Porto Corsini.

A long-time friend of naval aviation, Graffis was one of the outstanding members of the original board of trustees of the Air Services Placement Center, all of whom did such a fine job of getting the project underway. He served as treasurer of the group, which was headed by another World War I naval aviator, Warren V. Woody of the Equitable Life Assurance Society, with Martin H. Kennelly, now the Mayor of Chicago, as vice-president and Robert Crane as secretary.

Another alumnus of World War I service at Porto Corsini was also a member of the Committee of 100. He is Cdr. Richard P. Mathiessen, president and general manager of Economy Portable Buildings.

A junior on the campus at Cornell University in 1917, Mathiessen set up his own private Navy recruiting drive, bringing in some 500 students. Commissioned an ensign in the line, he served as liaison officer at naval aviation headquarters in Paris, later going to Lake Bolsena to become the only line officer to learn to fly there.

Before the outbreak of the second world war, Cdr. Mathiessen got together with the Junior Chamber of Commerce to sponsor the J. C. Glider Patrol for high school boys (a forerunner of the air scouts), with the idea that they would attend ground schools at college and learn to glide during the summers. Before the plan got into full swing, the Army requisitioned the gliders, which the group had donated.

Next Cdr. Mathiessen got into recruiting aviation mechanics for the Navy, managing to obtain "for free" an office in which to give the necessary physicals from H. L. Stuart of Halsey Stuart and Company. Here he worked with Francis McDermott, who did a fine job handling liaison with labor unions, as well as with the Chamber of Commerce. In all some 1300 mechs were enlisted through this drive.

From there, Cdr. Mathiessen returned

to active duty and saw combat action in the Pacific, where he served as air operations officer aboard the *Intrepid* for 13 months.

His son, Richard, Jr., a seaman 1c, also got into combat with a JASCO unit at Pelelieu. Also on the Navy team were his son-in-law, Lt. Paul E. Johnson, a dive bomber pilot aboard the *Ticonderoga*, who was awarded the Navy Cross, and his two brothers, Lt. Cdrs. Ira C. and Theodore D. Mathiessen.

DR. FRANCIS O. McDermott, who assisted on the mech enlistment program, himself served as an aviation mechanic 1c during the first war. In the last war he put his civilian experience as world's champion water polo player to good use as an officer in charge of swimming and the construction of swimming pools in the V-5 athletic program at naval air stations. Cdr. McDermott, an active member of the Committee of 100 and former president of the Placement Center, now is a director of the Naval Airmen of America.

Another World War I naval aviator, this time a lighter-than-air pilot, P. F. Lewis, is a wing director of the Naval Airmen for the state of Wisconsin. Also a member of the Committee and a Placement Center trustee, Lewis did a fine job during the last war in procuring NavCads in the Milwaukee area.

Francis Kullman, vice-president of the Bowman Dairy Company and president of the National Dairymen's Association, was another Navy veteran who helped the program materially during the last war. He arranged to have every Bowman milk bottle cap carry the slogan "Fly for Navy" and had Navy publicity placed in dairy publications throughout the country. Kullman was



Naval Airmen R. J. Marguerite, B. J. Burns, D. G. Cunningham, R. L. Schulte, R. D. Turgeon, C. G. McAndrews and H. E. Penner recall their W. W. II experiences





**J. Herbuveaux** discusses new television program with assistant R. Werrenrath

very active on the Placement Committee, as a trustee, and his company hired some 600 servicemen through the Center. For this and for furnishing the Center with a large number of volunteer counselors, the Bowman Dairy Company was awarded a citation in 1946 at a dinner sponsored by the Junior Chamber of Commerce. Kullman, who was a chief machinist's mate aboard a sub chaser during W. W. I, was recently made an honorary member of the Naval Airmen.

Another member of the Committee of 100, who was present at the Airmen's dinner meeting, was Wendell Clark, president of Samuel Harris and Company, one of the oldest wholesale distributors of machinery in the country. With him were his two sons, Bob and Wendell, Jr., who were naval aviators in World War II.

**A**CTIVE in the Naval Airmen are three men who have long-time records of service to the Navy. They are Captain George G. Lamb, professor of chemical engineering at Northwestern University, Cdr. Edwin G. Frank, sales manager, and Lt. Cdr. Glenwood H. Kershaw, assistant department chief with the Illinois Service Recognition Board.

Capt. Lamb, who claims to be one of the "ninety day wonders," was commissioned a naval aviator in the Reserve in 1927. During the last war he returned to active duty in the engineering power plants division in BUAE. Cdr. Frank, a member of the Committee of 100 and a Center trustee, organized aviation mechanics' schools and then wound up his W. W. II duty as CO of CASU-1 at Pearl Harbor. Cdr. Kershaw, commissioned a naval aviator in 1919, returned to active duty in 1942 as officer-in-charge of the 5 ND Nav-Cad selection board. He then became flag secretary to COMCARDIV 25 and later to COMCARDIV 26, operating in the Philippine and Iwo Jima areas. Last summer he took two-weeks active duty training at NAS GLENVIEW.

**J**ULES Herbuveaux, television manager of the National Broadcasting Company's Central Division and a leader in his field, has long been one of the Navy's good friends. During the war he did an outstanding job in keeping the first-class Navy band at NAS GLENVIEW supplied with additional professional talent. He also made arrangements for the band to broadcast regularly over a coast-to-coast network and later was instrumental in giving wide publicity to the work of the Air Services Placement Center. During the first World War, Jules Herbuveaux served in naval aviation as a chief gunner's mate.

His assistant, Lt. Reinald Werrenrath, Jr., son of the nationally-famous singer, saw action in the Pacific as CIC officer aboard the *Cabot*. On weekends he takes time out from his job as director of field operations for NBC television to drill with CVG-87 at Glenview.

Although the Naval Airmen of America includes on its rolls many naval aviators from World War I, the majority of its members served only in World War II.

Typical of this enthusiastic younger group are such men as Lt. Arthur J. Gallagher, Jr., a past national commander, and Lt. Cdr. Edward D. Corboy, the first commander of the Illinois Wing. During the war, Lt. Gallagher served as a transport pilot with VR-13 which operated in the South Pacific. He was plane commander of the first Navy transport plane to land in Manila. At present he is in the insurance business.

Lt. Cdr. Corboy, who was awarded the Silver Star, participated in nine major engagements in the Pacific, from Midway to Tarawa, as an anti-aircraft gunnery officer aboard the *Atlanta* and the *Mobile*. Selected for flight training, at the end of the war he was a PBY plane commander under instruction at Whidbey Island. Later he joined the

Organized Reserve at NAS GLENVIEW and served as CO of FASRON-56 during the first year of its organization. At present he lectures on advertising at Northwestern University.

Then there is Lt. Cdr. Marshall Field, Jr., vice-president and director of Field Enterprises, Inc., a company which owns, publishes or operates the Chicago *Sun-Times*, *World Book Encyclopedia*, *Childcraft*, *Parade*, Simon and Schuster, Pocketbooks, and four radio stations. During the war he served on the *Enterprise* and the *Cabot* and participated in 12 Pacific engagements. He was awarded the Silver Star, the Purple Heart and the Presidential Citation.

Another well-known member of the Naval Airmen is Wayne Thomas, the enterprising aviation editor of the Chicago *Tribune*, whose interesting and authoritative articles are widely read throughout the Midwest.

Many of the World War II contingent of the Naval Airmen also take part in Organized Reserve squadron activities or are on active duty at NAS GLENVIEW. Among this group are: Lt. Cdr. Ollie Ortman, assistant type training officer; Lt. Cdr. Dick West, CO of CVEG-71, the Reserve air group that recently completed a carrier re-qualification training cruise aboard the *Cabot*; Lt. H. A. Clinnon, a member of CVEG-71; Lt. Cdr. R. D. Turgeon of CVG-87; Lt. H. E. Penner of VF-87-A and Lt. C. G. McAndrews of VR-60.

Captain Cecil P. Gill, commanding officer of NAS GLENVIEW is much interested in the Naval Airmen and often arranges for them to hold their local meetings at the station "O" club.

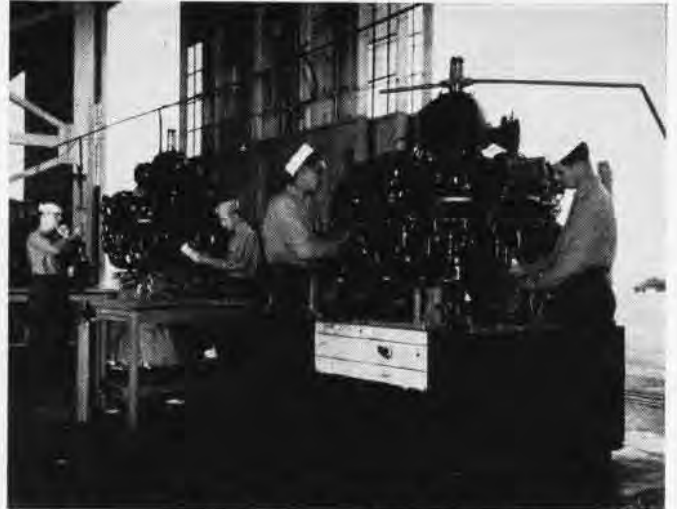
Membership in the Naval Airmen of America is open to any naval aviator or line of staff officer who served at an aviation activity of the Navy, Marine Corps or Coast Guard. Reserves and Regulars of these services are eligible.



**Naval Airmen** in the Chicago area entertain members of the Ladies' Auxiliary at their fall meeting which was held in the 'O' Club of Glenview naval air station



DISASSEMBLY OF ENGINE FOR INSPECTION AND PROCESSING COMES FIRST



ENGINE IS BUILT UP AGAIN AFTER CHECKING AND ANY NEEDED REPAIRS

# Canned Engines Rarin' to Go

CANNED engines are becoming a major product of NAS PEARL HARBOR. At a rate of about 100 a month, aircraft engines are being processed for storage in 2000-pound steel containers which measure more than eight feet high and twelve feet in diameter. The Pearl Harbor "cannery," largest in the Pacific area, employs 22 civilian workers and 31 Navy personnel.

The canning process has resulted from the Navy's continuous search for a more efficient and less costly method of preserving expensive engines until such time as they are needed for actual use. Previously each engine was kept in its original shipping box until it was needed. Under those conditions,

the waiting engine had to be re-preserved as often as six times a year at a cost of about \$400 a treatment.

Canned engines, however, have been left in forward areas of the Pacific in adverse weather conditions for two years or more, and when checked were found to be in perfect condition. The cost of the initial canning process is just under \$400. The program at NAS PEARL HARBOR is handling both new engines and those delivered from a major overhaul point.

A precise pattern is followed in getting an aircraft engine ready for canning. When an engine arrives at the Overhaul and Repair shop, it is inspected and the preserving requirements determined. The engine then is

disassembled and the parts sent to the shops for checking and such repair as is necessary. After the engine has been disassembled completely, all the parts are cleaned and checked for wear and corrosion. Minor improvement changes are made and the cylinders reworked or changed.

The engine then is reassembled and sent to the test cell for a test run. During the test run the engine must measure up to rigid Navy standards. Failure to do so results in local correction of minor discrepancies or a major overhaul. After the test the engine again is partially disassembled.

VARIOUS preserving materials are required to protect the engine parts from rust and corrosion. Preserving compounds are applied to all exterior surfaces such as cylinders, exhaust stacks, and wiring. Special preserving oil, which is easy to remove, protects the interior of the engine. Paper, treated with compounds which prevent passage of moisture, is used to wrap items that require handling. The ends of the shafts are wrapped with heavy adhesive tape after they have been coated with preserving compounds to protect threads and to prevent damage in handling.

Varnish-coated plywood plates are fitted over the opening left by removal of accessories. The accessories that have been removed from the engine are later individually mounted on an accessory board above the gear case of the engine. Special dehydrator plugs, resembling spark plugs in size and filled with silica-jell are screwed into the spark plug openings. The jell, which is blue when the plug is inserted, turns pink if mois-



MACHINIST'S MATE PREPARES ACCESSORY BOARD FOR LATER MOUNTING OVER THE ENGINE SHAFT





BAGS OF SILICA JELL ACT AS MOISTURE CURB



INSPECTION BEFORE ADDING ACCESSORY BOARD



TOP PART OF CAN GOES ON THE FINISHED JOB

ture gets into the cylinder. Various kinds of paper, wax or grease-treated and impervious to moisture, are used for protective purposes. After the special dehydrator plugs have been installed on the engine, wooden plugs are placed in the engine exhaust ports. The engine now is ready to be put into the airtight, water-proof can.

**T**HE ENGINE is lowered onto a mounting plate in the can and the accessory board is attached to the engine. Any places on the engine where the preserving grease has been damaged accidentally in handling are resprayed. A dehydrating agent in specially prepared bags is placed around the engine

in the can. The engine is then inspected before the top of the can is put into place.

After the top half of the can has been placed over the engine, the top is



BOLTED AND SEALED FOR FINAL LEAKAGE TESTS

bolted to the bottom half and sealed with a rubber gasket. The can is then charged with five pounds of air pressure. Every 24 hours for five days the can is checked for leaks. If any leaks have occurred, they are corrected before the can containing the engine is declared ready for storage.

When the can has been passed for storage, it is sent to the Aviation Supply Depot, Pearl Harbor, where a special dehydrator plug is inserted. The dehydrator plug acts as a watchman and tells when the moisture tolerances within the can have been exceeded.

The Aviation Supply Depot holds the canned horsepower in storage until the engines are needed for replacements.



CANNED HORSEPOWER ON WAY TO STORAGE AT ASD PEARL HARBOR; READY FOR USE, ENGINES WILL GO TO FLEET OPERATING UNITS WHEN NEEDED

# LETTERS



SIRS:

How are our esthetics today? 'Tis a small matter, but I wonder if anyone else has noticed the two different styles for arranging the wing insignia on sweptback wings.

Comparing that used on the F7U-1 (January issue) with that on the XF-88 (February inside back cover), I think the former is much better looking.

HARRY ALLWINE

15397 Lesure  
Detroit 27, Mich.



"I'll look NANEWS several hours of research to find the answer to that one. Air Force-Navy Aeronautical Specification AN-1-9 states: "In the normal flight attitude of the airplane, the top star point of the insignia points forward and parallel to the line of flight." This would indicate the insignia on the XF7U-1 was slightly at angle with the flight line. We still think it looks better.

SIRS:

The description of a *Privateer* pilot's encounter with a thunderstorm as described in the February issue of NAVAL AVIATION NEWS (pg. 8) proved extremely interesting and useful to the Department of Aviation at the U.S. Naval Academy.

It served as timely illustration material for both the first and second class midshipmen. The first class is studying aviation, which includes both the facilities for control of aircraft within the airplane and those on the ground. This latter group includes the services of the aerologist.

The second class course for this semester is meteorology (the text is CAA Bulletin #28, *Meteorology for Pilots* by B. C.

Haynes) and the assigned lesson for 23 February was *Thunderstorms*.

Your timing in presenting the article could hardly have been better. We are obliged to the pilot for his very graphic and impressive presentation. He is further to be congratulated on being available to submit his remarks in the first person.

To complete the picture, on the night of 22 February, Annapolis experienced a very unusual winter thunderstorm.

The combination of the article and the real thing (the only one since last summer) provided all the illustrative material our instructors could desire.

K. CRAIG, CAPT.

HEAD, DEPT. OF AVIATION

\*Grampaw Pettibone always aims to please, and herewith takes a bow.

SIRS:

Probably the first Naval Aviation Toastmasters club has been formed at NAS SAN DIEGO. Composed of officers (aviators and aviation duty), the club's first meeting was held on 10 February, 1949, and their request for a charter to Toastmasters International was made on that date. Regular weekly meetings on Thursdays have been decided upon and the welcome mat is out to any officer toastmasters who may be passing through.

LCdr. Norman Heft was elected president, Lt. C. E. Herzog, Sergeant-at-Arms, Lt. (jg) L. D. Carter, Vice President, Lt. (jg) I. L. Puckett, Deputy Governor, and Lt. (jg) W. W. Litchfield, Secretary Treasurer.

L. K. RICE, CAPT.

COMMANDING

NAS SAN DIEGO

SIRS:

The honor scouts of the various troops in Coronado, California, were given an annual escorted tour through NAS SAN DIEGO recently.

This year 13 scouts from four different Coronado troops came aboard for the tour. The trip included an inspection of the jet planes aboard, operations control tower, and most important, the messhall. One scout proceeded to make himself an expert on the fried chicken by eating five helpings. Apparently this lad will be a red-hot recruiting prospect in a few years.

L. K. RICE, CAPT.

COMMANDING

NAS SAN DIEGO



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### ● PHOTO CREDIT

Turbojet overhaul photographs at NAS Alameda courtesy of Acme Newspictures. Cartoon on back cover ad from Chicago Daily News.

### ● THE COVER

In honor of the CV Hornet, whose "alumni" are holding the first reunion in Washington, D.C. May 7, we present a wartime photograph of VF-11 pilots, taken in their ready room just before they look off on Feb. 16, 1945, to blast Tokyo. Today's pilots and ready rooms look pretty much the same.

### ● RECOGNITION QUIZ

(inside front cover)

Top—World's first twin-engine helicopter, the XHJD-1 built by McDonnell Aircraft Co. Two 450-hp P&W engines drive the rotors. Either engine is able to drive both rotors.

Middle—AD-2 Skyraider. Wright R-3350-26W engine propels this versatile, fast attack bomber by Douglas.

Bottom—De Havilland Vampire II single jet used by Royal Navy, equipped with two droppable wing tanks for added range.

### ● THE STAFF

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## SQUADRON INSIGNIA

SINCE the Naval Air Training Command trains the aviators, crewmen, and technicians who man the Navy's carriers, the insignie of NATC appropriately features the flattop. NAS Alameda, by some stylized geography, manages to get a corner of the station plus both the Oakland and Golden Gate bridges into its design. A happy hybridization from NAS New Orleans gives the Louisiana state bird a new type empennage, while the prowess of VP-6 is expressed in Popeye handling two weapons at once and making bullseyes through his smoke rings.





AFTER FLYING SOUTH WITH THE NAVY'S RESERVE AIR GROUP 71 FROM GLENVIEW, ILL., AND SPENDING THREE DAYS ON A CARRIER IN THE CARIBBEAN IN FULL COMBAT MANEUVERS, JOHN Q. PUBLIC IS LESS CONCERNED ABOUT OUR ABILITY TO DEFEND OURSELVES. HE SAW WITH HIS OWN EYES HOW SALESMEN, EXECUTIVES, SHOP WORKERS CAN, ON A MINUTE'S NOTICE, GET BACK INTO THEIR FIGHTING TOGS. JOHN IS SOLD ON THE COUNTRY'S 55 NAVAL RESERVE AIR GROUPS. THEY ARE GOOD INSURANCE AND HE'S HAPPY TO FOOT THE BILL

I'M PROUD OF ALL OF YOU!

JOHN Q. PUBLIC

SHOENAKER  
ABOARD THE U.S.S. CABOT

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