NAVAL AVIATION NEWS

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THE SAIPAN VISITS HONG KONG

The British Crown Colony of Hong Kong is one of the favorite tourist spots of Far East travellers. When the Saipan paid a five-day visit to the colorful port city, her crew saw the famous Tiger Balm Gardens and Pagoda, snapped pictures of younger residents and sought out the city's merchants so they could buy rich Oriental wares.

O AND R SERVES THE FLEET

TAKING TIRED old airplanes and, with the magic of "know-how," changing them into fighting, dependable youngsters again is the job of the nine Overhaul and Repair activities of BUAER. Their motto, "We Work for the Fleet," keynotes the efforts of the approximately 30,000 civilian employees and the men and women in uniform attached to Overhaul and Repair activities.

The Maintenance Division of BUAER, under Capt. J. F. Mullen, Jr., schedules and coordinates the O&R's. A quarterly workload is determined by the Programs Branch. The Maintenance Branch issues the specifications which must be met for all types of aircraft, and the Overhaul Branch determines and assigns the workload, according to capabilities, to the O&R's for their production planning.

Each O&R is given a master plan showing the type of plane and number of each type it is expected to overhaul or repair each quarter. One of BUAER's big aircraft "fountains of youth" is at Alameda's NAS.

METAL SHOPS MANUFACTURE JIGS, FIXTURES, AND STEEL AND ALUMINUM PARTS USED IN OVERHAULING, MODIFYING OR REPAIRING PLANES

GEARED and equipped to overhaul, repair, or modernize 14 aircraft types, ranging from F9F's and AD's to JRM's, the exact planning, scheduling and coordination of the activity's components permits a steady production flow. Although it is very unusual for the units of the activity to single out one particular plane for special attention, such was the case when AD-4, BUNO. 123791, arrived at Alameda in "strike" condition for its third overhaul.

The plane was first accepted by the Navy in August 1949 and was in service for 20 months. In March 1952, it received its first overhaul at Alameda, and was sent to VA-55. After six months of service, it sustained extensive combat damage in Korea and was returned for another overhaul.

VA-55 again accepted the veteran, but it was not destined to be a target for enemy gunfire on this tour. On 25 April 1953, old 791 again came a cropper while being used for FCLP at NAS MIRAMAR. Although the pilot sustained only minor injuries, the AD-4 received major damage. The engine was torn from its mounts, main landing gear sheared off, firewall and fuselage were buckled and torn, and in general, it was a mess.

Upon the arrival of the cadaver at Alameda, its first port of call, as with all incoming planes, was Examination and Inventory. Here the extent and nature of repairs and the number of replacements necessary to put each plane in acceptable condition were determined.

Repair of old friend 791 presented no problems of an unusual nature, but its history, combined with the fact that it was a variation from usual everyday work, sparked the interest of the structural repair crew.

After Examination and Inventory had finished its appraisal, the plane was dismantled and the parts, along with the completion schedule, were sent to the various shops concerned. Planes are dismantled only to the extent determined by the Examination and Inventory.

Electrical installations of 791 required 75% replacement, as did 90% of the hydraulic lines. Landing flaps, lower dive brake, ailerons and landing gear had been damaged beyond repair.

Repairs to an airplane in the condition of this AD-4, although time-consuming, can be accomplished without undue difficulty, and with an actual savings to the Navy.

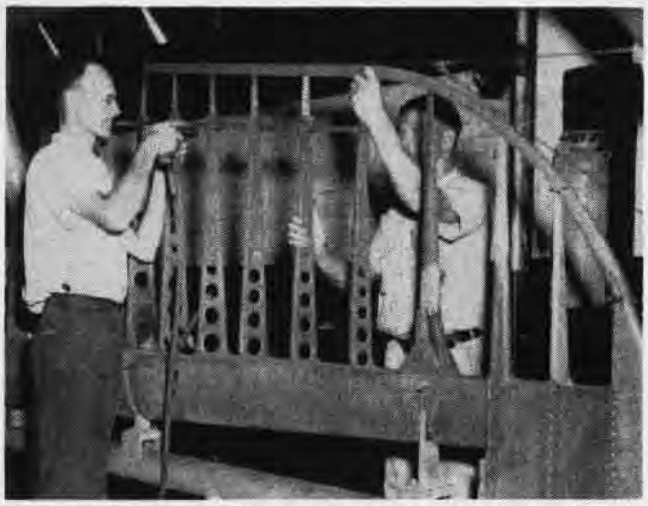
Repair schedules progressed without incident, and the numerous components arrived at the assembly line. After assembly came the ground tests, flight tests, and final inspection.

Flight tests are made by inspection pilots who make as many flights as are necessary to effect correction of discrepancies. The final step is to put the overhauled plane on the line to await a ferry pilot.

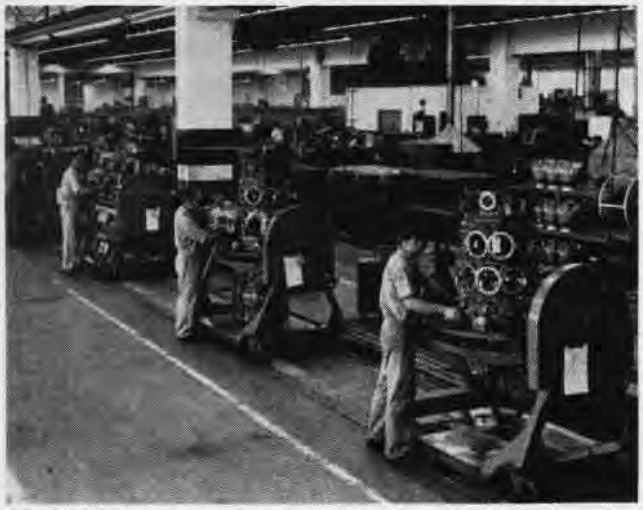
BUAER has bought new combat airplanes at a cost from $100,000 to over one million. The larger patrol type and latest jets cost closer to the one million figure, but assume a typical combat plane costs $200,000 when new.

After a service tour of around eighteen months, the plane begins to show signs of wear and "combat fatigue." In some respects it is a little out-of-date and requires many changes to install the latest improvements. Should this worn and fatigued $200,000 weapon be continued in service, salvaged for spare parts, or overhauled?

Safety factors must be given first consideration, but another is that the tired plane could be expected to require higher maintenance costs, and can be of little service to its operating squadron while in the shop. So economy and availability are other prime factors.



SMALL *surface repair shops examine, repair, overhaul and modify small detachable metal surfaces such as rudders, ailerons.*



THE ENGINE *assembly line is one continuous string of engines with individual component parts fed to each specialty station.*

DISMANTLED *parts are sent to the engine cleaning shop for solvent cleaning, grit or vapor blasting, buffing, polishing.*

Economically, it is better to spend about $30,000 to overhaul a typical aircraft than salvage it or sell it for scrap and replace it with a new $200,000 airplane. From an operational point of view, the overhauled plane is frequently better built and more modern and serviceable than when purchased new.

Average overhaul time for a carrier-type is 50 days. It takes about 70 days for patrol-types. To keep to these tight schedules, and yet produce aircraft conforming to the rigid fleet standards, requires hard-headed businesslike procedures, and highly technical knowledge. Officers for top billets in O&R's are hand-picked, generally AEDO officers with engineering or business degrees.

IT IS a big business, and treated as such. Superficial observation of O&R activities might give an impression that the Navy is competing in some ways with private industry, but such is not the case. It has been a long debated question, and the same answer usually results from such debates. It is better and cheaper for the Navy to overhaul its own aircraft, rather than the manufacturer.

The manufacturer is primarily concerned with the original design and airframe manufacture. Overhauling an airplane poses a problem entirely different from manufacturing; each has its particular requirements of tooling and part procurement. A local garage is especially equipped to overhaul an automobile. The automobile manufacturer is not.

Commercial as well as naval facilities have overhauled aircraft, and cost comparisons have been made. Overhaul by private concerns has cost more than naval overhaul of the same models, even when a generous allowance was made for air station overhead, amortization of buildings and equipment, and costs of other services. By the same reasoning, overhaul of combat aircraft by commercial concerns would cost more than present O&R costs. A part of this increase would of course be the manufacturer's profit.

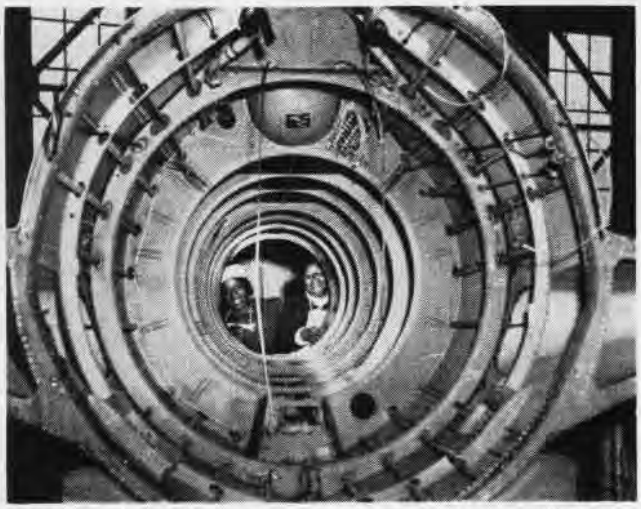
The naval O&R establishments are a sort of proving ground for many aeronautical engineering developments. It would be difficult, if not impossible, to use commercial facilities in the same manner since they do not have the same background of operating experience.

Determination of length of service tour varies with almost each type plane. In general, operating months, operating hours and type of operations are taken into account by the technical orders governing such calculations.

When an F9F crashed at Patuxent some time ago, the flames destroyed the cockpit of R5D 56497 which was nearby, and damaged the tail of another R5D. It was first decided to repair the least damaged plane, so 497 lost its tail and the tail-damaged R5D was soon back in service. It was then decided to rebuild 497, so the wreckage was loaded aboard the tanker, USS *Merrimac*, at Norfolk for transportation to Corpus Christi. This marked the first time an R5D had arrived there by ship.

O&R had to give the plane an almost complete overhaul inside, and replace a large amount of skin. Almost 20,000 man hours were required in rebuilding the *Skymaster* with an estimated total cost of repairs at $58,000. That is a lot of money, but seems incredibly inexpensive when the fact is pointed out that here is a serviceable plane instead of almost useless scrap for maximum expenditure of not quite one-fifth of the cost of replacement by a new transport aircraft.

TAIL *section of F9F gets an interior polishing and cleaning, prior to assembly, by workers at Norfolk O&R cleaning shop.*



POWERFUL *hydraulic contour presses are used to mold various aircraft parts. A steady hand is required to control power.*

ALL O&R activities must be versatile, and a listing of the type aircraft each is assigned for overhaul, crash damage, repair or modernization illustrates the point.

San Diego—F4U-4; F7U; F3D; FG-1D; F2H-1, 2, 3, 4; F3H; AJ; AU-1; AF; TBM; TV; PB-1W; P4Y; P4Y-2K; P5M; R5C; R4D; S2F-1; and many helicopter types.

Quonset Point—F4U-4, 5; F7U; F3D; AD; A2D; A3D; P2V; JRF; JR2F; UF-1.

Norfolk—F6F; F6F-5K; F8F; F9F; FJ-2, 3; AJ; AM-1; TBM; PB-1W; P4M; P5M; JD; N3N.

Pensacola—F6F; PBY; JRB; SND; T-28-A; B; TF-1; SNJ; HTE; HTK.

Cherry Point—F7F; F2H-1, 2, 3, 4; R5C; R4Q; OQ; OE; HRS.

Alameda—P7F; F9F; FJ-2, 3; AJ; AM-1; AD; A2D; A3D; P4M; PV-2; P2V; JRM; R5D; UF-1.

Corpus Christi—F8F; F9F; TV; PV-2; PV-2T; P2V; R5D; R6D.

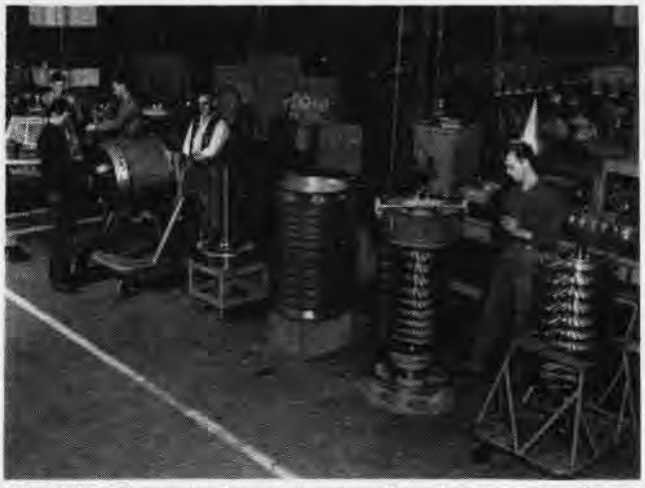
Jacksonville—FG-1D; FG-1K; F2H-1, 2, 3, 4; F3H; AU-1; AF; R4D; S2F-1; and many helicopter types.

Lakehurst—LTA.

Pilots can sometimes find fault with the best airplane. Ferry pilots are no different from others although they are usually much better informed on the intricacies of more particular planes than the average pilot. But a happy pilot will not find fault where none exists, and to keep the ferry pilots happy, the O&R sees that they are met with adequate transportation, well-fed and berthed, and as many minor irritants common to transient pilots as possible done away with. If, however, a ferry pilot finds a discrepancy during his acceptance check, immediate action is taken to correct it.

An occasional spot check is given to a plane fresh from overhaul by diverting it to the NATC PATUXENT RIVER, where it is given a complete evaluation just as if it were a new type fresh from the manufacturer.

Although the onus of ensuring a satisfactory distribution of aeronautical spares for the overhaul and modernization schedules is placed on ASO PHILADELPHIA, the Aircraft Maintenance Branch ascertains that the proper parts and equipment are purchased. An intensive aviation technical training program for O&R activities is administered by the Maintenance Branch. The devising and fabricating of train-



JET ENGINES *require immaculate precision in their manufacture and the same holds true on the O&R jet engine assembly line.*

ing aids is delegated to the ATT branches of the O&Rs, but syllabus and methods of training are standardized.

Competitive tactics are utilized by the O&R activities and result not only in giving the fleet better service, but assures the "customers" that the O&R is anxious and capable of meeting their technical requirements. Each O&R has an activity called "Customer Service."

THE OBJECTIVE of this group is to provide a service to O&R customers similar to that provided by private industries to their customers. It provides good will services for the purpose of improving the relationship and understanding between O&R and its "customers" or potential "customers." As a contact agency, it maintains on the spot contact service, as well as a field operating force who will foster good will, advise, counsel, direct, interpret, and evaluate matters which directly or indirectly apply to products furnished by the O&R. Personnel are provided to answer questions of a technical, mechanical, material, fiscal, training, or supply nature.

Technical and mechanical personnel are furnished to the

field to make alterations, adjustments, and train local personnel in the operation of O&R products.

Customers are instructed in properly preparing work requests and suggestions are made as to methods of financing such work. A status report is prepared on work being currently performed and furnished.

Customer Service prepares and distributes descriptive literature to commands and activities which may or do utilize O&R facilities. Advance information is furnished on new developments which may apply to equipment in use.

An important responsibility of the service is customer follow-up. Deficiencies sometimes show up in an airplane or one of its component parts after it has been accepted from O&R by an operating squadron. The squadron commander may then decide that it is easier and quicker to effect the necessary changes with his own personnel than to call on O&R. The squadron maintenance officer may, in some cases, be able to do this, but he and the squadron commander will henceforth maintain, vocally or silently, a slight skepticism of the quality of work done by the O&R for possible new ways to improve the parts salvage program.

One of the major expenses to industry is that caused by accidents involving injury to personnel. O&R activities are particularly proud of the low accident rate evolved through an aggressive safety-consciousness program. The rate has been steadily dropping the past few years to a record overall low at present of 1.32. Last year, the commercial aircraft manufacturers chalked up a 4.2, which is considered good, but O&R seems to lead the way in industrial safety.

"We work for the fleet" is the constant and foremost operating ideal of the O&R organization. From the receipt of raw materials, tired airplanes, beat-up instruments and other items in need of rejuvenation, to the completed products ready for use, all efforts are directed to serving the needs of naval aviation. The complexities met between the beginning and end of the process require concentrated planning, intensive personnel training, broad yet specialized experience, and cool, hard-headed, aggressive administration. The O&R's have all of these plus the physical facilities required, with many planned improvements and additions.

IN ENGINE *test cells, assembled engines are run up to test for any malfunction.*

WORKMEN *polishing Banshee during final finish stage of overhaul. The plane will then receive its final inspection and, if satisfactory, be ready for the fleet.*

concerned. Follow-up service prevents most such incidents, and very often leads to improvement of O&R procedures.

A typical case of follow-up effectiveness occurred recently at O&R NORFOLK. VF-84, at NAS OCEANA received an F9F-6 whose flying tail had been repaired by O&R NORFOLK. It was found to be defective, and personnel were sent to Oceana to iron out the difficulty. The problem was not solved at that time, however, and VF-84 was invited to send personnel to O&R to assist in correcting it. The result is that the flying tail will be bench-checked at O&R and overhaul procedures will be revised as found necessary.

Pennies soon mount into dollars. The parts salvage program of one O&R saves about $3,000 a month by sweeping up the decks and ramps, and mechanically sifting the debris for discarded nuts, bolts, cotter keys, lost tools and parts, for salvaging, renovating, cleaning, and plating.

Many of the employees used in this work are elderly or physically handicapped, but who, through a lifetime of necessary personal economy, are keenly aware that "a penny saved is a penny earned" and, consequently, constantly search

ACCEPTANCE *of this Panther by the ferry pilot means that O&R has again "served the fleet" with another fighting youngster.*

GRAMPAW PETTIBONE

FUBAR?

A pilot in an F9F-2 on a night section tactics flight out of Kaneohe Bay, T. H., was following his section leader on a let-down through an area of clouds. While letting down, the section leader misjudged the distance to the far side of the clear area and entered a cloud layer at 5500 feet. At this point the wingman lost sight of his section leader but broke through at 2500 feet and saw the field entry point below.

His fuel state at the time was 1200 pounds. Because of the mountainous terrain in the area, the wingman elected to make a 270° turn to the right in order to enter the traffic pattern from a better position. Increasing his power to 100 per cent, he commenced the turn. He entered a cloud bank and when he became contact a few minutes later, he was completely disoriented. Here we take up the pilot's statement.

"Coordinating my gyro compass with radio compass on Kahuku Homer, 18 miles northwest, I knew my position to be in the vicinity of the air station at 7000 feet. I thought I recognized the field and commenced letting down, losing contact with the ground at about 3500 feet. I climbed to 12,000 feet and took a bearing from the lights of Honolulu and followed the road to what I thought was Kialua, three miles south of the field.

"I had 300 pounds of fuel remaining and still could not locate the air station. I spotted what I thought was the Kaneohe Beacon through the clouds and again began a let-down when the engine flamed out. I did not attempt an airstart at 9000 feet as I assumed fuel exhaustion.

"At 7000 feet I pulled the ejection lever down and released it as the canopy came back. I pulled the face curtain with no results. The canopy began closing so I pulled the emergency release and tried to fire the seat three more times with no results.

"I slowed the aircraft down to 120

knots, broke all cockpit connections and rolled over in a nose-high attitude, pulled myself toward the right wing trailing edge and pushed away. I felt the tail strike my arm as I went by. The chute opened and I descended through the clouds, making visual contact with the ground at 3000 feet.

"Upon contact with the water, I rode the chute towards the shore, as it was partially inflated by the sea breeze, and inflated my Mae West. The chute collapsed near a fishing boat. I signalled with a night flare and whistle and was picked up by the boat in about ten minutes."

Grampaw Pettibone Says:

FUBAR! Fouled up beyond all recognition! And as the Hawaiian sea breezes played gently across the bow of the fishing vessel to the tune of Aloha, our hero took pencil and paper in hand and dreamed up a story to tell the Accident Board.

Maybe this lad could have made a few more mistakes, but I doubt it. With approximately 25 minutes of fuel remaining if he had conserved it, he full-bored the throttle and left it there. At no time did he declare an emergency on the radio.

He didn't use his radio compass or try to use his YG-ZB gear. He didn't lock the pre-ejection lever down and the canopy closed when he took his hand off the lever. He was either so confused at this stage of the game that he couldn't think straight or he just didn't know how to eject himself. In spite of his failures, he is still alive, for which we are thankful.

Since this lad has transitted into the ranks of "experienced pilots" the hard way, there is probably very little we can say about this accident that he doesn't already know. What gripes me is the system where pilots so obviously inexperienced in the use of the basic equipment are allowed to tool around at night in marginal weather in jet aircraft—any aircraft for that matter.

Flight Safety is and has been a command responsibility. It appears to me that there is something lacking in training when a wingman flounders around like a fish out of water the minute he finds himself without a leader. In my book, training a wingman starts the day he reports to the squadron, not the day he becomes senior enough to take over a section by virtue of his file number.

Pretty Good Stunt

A *Corsair* pilot recently performed a maneuver that was a little unusual. While operating over his carrier at 2500', the aircraft began losing power and a fire broke out. The pilot called for an emergency landing and started a 360° approach, losing 1000' on the final mile of straightaway. With a little assistance from the LSO, he landed aboard catching number three wire, and the blaze was extinguished by the prompt action of the crew. What might have resulted in the loss of a plane and a wet, if not injured, pilot turned into

a successful forced landing.

This isn't suggested as a steady diet, but it's a pretty good stunt since statistics show that of all emergency landings attempted at fields with several runways 75% of the accidents are caused by landing *short* of the runway.

Dear Grampaw Pettibone:

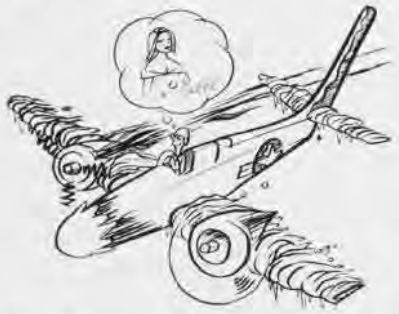
I have done a considerable amount of research and have been unable to reconcile with facts one of your statements on page 6 of the February 1954 issue of NANEWS: "A cowl speed ring was found obstructing fuel flow into the carburetor." Knowing your reputation for being correct and a sage in your own right, how about telling me how that could happen?

.....

CDR., USN.

Grampaw Pettibone Says:

Well, bub, it ain't easy. You see, this AF-2S sustained a high G impingement upon a barrier cable during carrier operations. This encounter caused the cowl speed ring to deflect upward thereby restricting the flow of ozone to the intake duct of the carburetor. The deformation of the cowl speed ring was such that it caused a severe twisting effect of the airflow across the fuel nozzles, which in turn — — all right, I give up. It was a slip of the pencil and a mistake in editing. Let me up, fellas.



Destination or Bust

An F7F-3N was cleared IFR from McClelland AFB to NAS SEATTLE to cruise and maintain 13,000 feet. A stationary front lay between Mt. Shasta and Medford with the freezing level predicted at 8,000 feet. The pilot was told he could fly at 500 feet on top at 16,000 feet and be above all weather. However, because of lack of oxygen equipment, the pilot elected to fly at 13,000 feet in the overcast.

In the vicinity of Red Bluff he noticed rime ice forming on the wings and windshield, so he called Red Bluff Radio and requested permission to climb to 15,000 feet. This request was granted. At 14,500 feet and at an indicated airspeed of 160 knots, the aircraft shuddered and went into a spin to the left. A successful recovery was made.

As any further back pressure on the stick resulted in a near stall, the pilot decided to return to Red Bluff descending at 150 to 200 feet per minute. Shortly thereafter, the plane again stalled and spun to the right. Once again a successful recovery was made.

A few minutes later the pilot noted a new hazard: A fire had broken out in the starboard engine and was spreading rapidly. At this time, the plane again stalled and spun violently to the left. He was unable to regain control of the aircraft.

With the knowledge that his last observed altitude was 11,000 feet over uncertain terrain, right engine on fire, a heavy load of ice, and an airspeed in excess of 300 knots; the pilot elected to abandon the aircraft—which he did post haste. He landed safely on the slope of a hill. The aircraft exploded and burned eight miles further south.

Grampaw Pettibone Says:

Jeepers Creepers! This one is really for the birds. About the only nice thing that this lad did for himself was to get out of his flying machine in one piece. He certainly wasn't doing himself any favors when he allowed himself to get into his untenable position.

You usually assume that a pilot holding a Special Instrument Rating and having better than 5700 hours of flight time would have been aware of the possible, if not probable, icing conditions that would be encountered in the clouds for the weather conditions predicted at the altitude requested. Knowing that he had no oxygen equipment and that the plane's only de-icing equipment was alternate air and pitot heater, he didn't use his old noggin when he decided to plow through the soup in order to reach his destination.

Personally, I'd be interested to know what was important enough at his destination to risk an expensive airplane and possible loss of his life to get there. Could it be reluctance to admit defeat in the battle of the elements? Or could Mabel have been waiting?

It's a lead pipe cinch there wasn't a whale of a lot of good judgement used in the planning for this flight. The decision to execute a 180° turn has saved many a pilot and airplane, but it was made before reaching the point of no return.

Let's take time to really look the situation in the eye before you push that throttle forward to take off into the wild blue blunder. Old Lady Luck is pretty well over-worked as it is.

Sans Briefing

Unexpected interplane communications failure can sometimes lead to a pretty sad sequence of events when pilots are not prepared for it. Cranking in the extra hazard of a known

radio communications problem without proper briefing on the use of visual signals is just asking for it. Take the case of a recent flight of F9F's on a tactics hop which ran into this problem and hadn't been briefed.

The lead plane had VHF and the wingmen had UHF. At 8,000 feet, the flight leader looked around and discovered Tail End Charlie pulling away from the formation with black smoke streaming out behind. He called on the radio for the pilot to bail out, but naturally his warning fell on deaf ears.

He motioned to his wingman who was between him and the stricken plane and pointed frantically. The wingman nodded and started to take over the lead. The flight leader then broke away and started down toward the aircraft on fire, but by this time the aircraft had gone into an uncontrolled dive and the pilot made no apparent attempt to bail out, therefore the plane crashed and burned.

Grampaw Pettibone Says:

The Ready Room is the place to brief,
The signals there rehearsed,
Not in the air where haste is waste
And meanings can be reversed.

THERE'S NO MARGIN FOR ERRORS HERE

THE SPOTTER DIRECTS TRAFFIC ON THE FLIGHT DECK OF A CARRIER

TELEPHONE TALKER KEEPS HIS EYES OPEN AS LSO BRINGS PLANE IN

THE YORKTOWN'S claim of possessing a "Penney" worth its weight in gold might bring a query as to what the men have been smoking, but it's true.

When Warren W. Penney, AB2, first enlisted in the Navy, he never dreamed that he'd some day be able to put his past experience as a traffic cop to further use. Now he's working as flight director on the Yorktown's "floating air strip," handling *Cougars* instead of Cadillacs, *Panthers* instead of Pontiacs and *Banshees* instead of Buicks.

During flight quarters, Penney's yellow director's sweater is constantly in a key position amid the multicolored jerseys swarming over the flight deck. In fair or foul weather, night or day, his job is to direct plane traffic and line up aircraft for "hooking" on the catapult prior to departure from the carrier. During recoveries, he directs the landing planes forward for "spotting," and, in event of a crash, helps supervise the rescue.

Penney reported aboard the *Yorktown* during her recommissioning period at Bremerton in 1952 and received basic instructions in his new job. He and the rest of the flight-deck crew were soon an efficient operating unit. In his own words, "Seeing green men, awkward at first, find by experience the right way . . . seeing the gradual rounding into shape is the real fascination of carrier life to my way of thinking."

Another *Yorktown* man who can't afford to make mistakes in his job is Robert E. Webster, AN, telephone talker for the LSO. From his position directly below and forward of the LSO platform, Webster performs as an integral part of the LSO team's job of directing incoming aircraft to a landing on the seagoing flight deck.

Through a set of sound-powered telephones, Webster maintains contact with primary flag air-plot, the nerve hub of all carrier air operations. From them he relays to the LSO such information as the fuel condition of incoming planes, incoming emergency aircraft and whether or not the flight deck is clear for the impending recovery.

HAGANS PUTS FINISHING TOUCHES ON 'CHUTE

Webster also keeps his boss posted on wind conditions from nearby windspeed and direction indicators. Speed and accuracy in relating these facts to an LSO concentrating on directing in an aircraft is essential for successful recoveries.

If an incoming plane's arresting hook hasn't disengaged and the pilot fails to pick up the signal from the LSO paddles, Webster phones the data to primary flag which immediately notifies the pilot by radio. During the actual recovery, if the hook skips over the arresting wires, he calls flight-deck control to give the plane a complete hook check-up.

Two other men whose jobs depend on accuracy are Raymond J. Pribek and Earl D. Hagans. They repair parachutes for VF-64, now operating from the *Yorktown's* flight deck. Their ability to thread the needle literally makes them valuable assets to flight operations.

Pribek and Hagans repack more than 100 parachutes monthly as a safety precaution, sew up any flaws in the silk lining and hang them up in a "dry locker" for 24 hours to remove all wrinkles. Besides parachute repairs, the two men assist the pilots in caring for aircraft survival equipment . . . oxygen masks, life rafts, *Mae Wests*, filling the planes' oxygen containers and checking most of the other life-saving gear.

THE 'ROMANY TRAIL' OF NAVAL AIR

COLUMBUS STUDENTS GET A THOROUGH CHECKOUT IN CRASH FIREFIGHTING AND RESCUE FROM DETACHMENT'S FIREFIGHTING TRAINER UNIT

THE FARMER blocking the narrow Maine highway looked as determined as the weapon he held in his hand. To the approaching naval officer and his "caravan" it looked like the biggest shotgun in the world.

"What's up?" the officer asked.

"You know what's up," the farmer replied, angrily. "You and them thar trucks go back a mile and cut over to the other road. You ain't goin' by."

"Why not?"

The farmer tightened his grip on the shotgun and raised it a trifle. "You know why not. Phone's been ringing all morning warning folks hereabouts that you're headed this way carrying an A-bomb in that thar trailer." The farmer pointed to the trailer van that, along with three fire engines, composed the Navy convoy.

"You've got us all wrong, sir," the officer explained. "We're kind of like modern gypsies . . . a mobile Navy school that travels all over the country." Looking down the barrel of the gun, he felt that he and his convoy were about as welcome as a gypsy caravan. "Right now we're headed for the naval air station at Brunswick."

The farmer cocked his gun. "Course you'd say that. You got them fire trucks to put out that thar A-bomb if it goes off. Well, it ain't gonna go off on my place."

More words followed and the farmer agreed to look into the trailer van "carrying the A-bomb." He found it full of lockers with a work bench and typewriter desk filling one end. All the lockers were opened.

Some of them contained the instructors' personal clothing, others were filled with helmets and firefighting clothing used by the students. The officer showed the farmer the lesson plans and tests used in conducting the "school on wheels," explaining how the convoy would set up the school and teach the students the newest method used in putting out fires in planes.

The farmer, still dubious, wanted to know what they did with the fire trucks. He was astonished to learn they were a part of the course of instruction too, since firefighting students learn how to maintain them as part of the Navy's method of keeping its personnel up-to-date.

The incident with the farmer is typical of the thousands of people, in the Navy and out, who never heard of such a "dang" thing. Actually, there are 59 mobile schools which service our Navy air bases no matter where in the world they are located. Of the six firefighting schools, one counts Africa, Asia and Europe on its itinerary.

These mobile schools are attached to the Naval Air Mobile Trainer Detachment at NAS MEMPHIS. The "school on wheels" was conceived during WW II when it was impossible for the Navy to spare its pilots and maintenance personel from the "shooting war" long enough for them to be returned to a training center and brought up-to-date on air developments.

IF THE Navy was to function successfully in its "key role," a method of training pilots and aircrewmen at forward installations had to be found. Early in 1942, CNO established mobile trainer detachments as a part of the Advanced Base Aviation Training Unit. In 1945, they were transferred to CNATECHTRA who, in turn, delegated the field administration to the Commanding Officer of NATECHTRACEN at Memphis.

In "saved transportation" alone, the nation's taxpayers are being saved a substantial sum each year as the instructors bring the schools to 50,000 students. Topped with the fact that the commanding officer can utilize the schools as their "work load" permits, the travelling schools have prevented many morale problems that might have arisen had the students been absent from their families.

With the schools travelling around Naval Air's "Romany Trail," students can attend school during the day and still spend the evening at home with their families. The motto of the Naval Mobile Trainer Detachment, "If the student can't come to the schools, the schools must go to the students," has proved most apt and has resulted in huge savings to the American taxpayer.

In today's detachment, headed by Cdr. John S. Reef, each unit is a miniature, mobile, technical school, complete with training courses, training aids and specially-trained instructors. The units travel to naval activities by van, ship and plane, carrying the "last word" in aircraft maintenance, operational flight training, ordnance and munitions equipment, and aircraft crash firefighting and rescue to the flying Navy.

Back in the detachment's office, M. D. Lenegar or another "homebody" distributes training publications to their mail boxes. Then the contents of each box are packaged and mailed to the trainers in the field once a week. This system keeps the travelling schools themselves up-to-date.

Each trainer unit is manned by seven to ten skilled and highly-trained technician-instructors and commanded by a commissioned officer. At each stop in its itinerary, the mobile school conducts a condensed course of instruction similar to that taught in the classrooms of NATECHTRACEN, Memphis.

Although the units represent no menace to the community, there's a close resemblance between them and the gypsy caravans that used to be a familiar sight throughout the American countryside. Single men in the crew travel with the five- to seven-van convoys in carry-all trucks, while the married men follow with their families in house trailers or private cars.

Once they reach an activity at which classes are to be held, they quickly set up shop in a suitable location and get down to the brass tacks of aviation technical education. Personnel from the activity's squadrons and shops are assigned to attend the newly-set-up classes and the travelling teachers from Memphis begin passing the word.

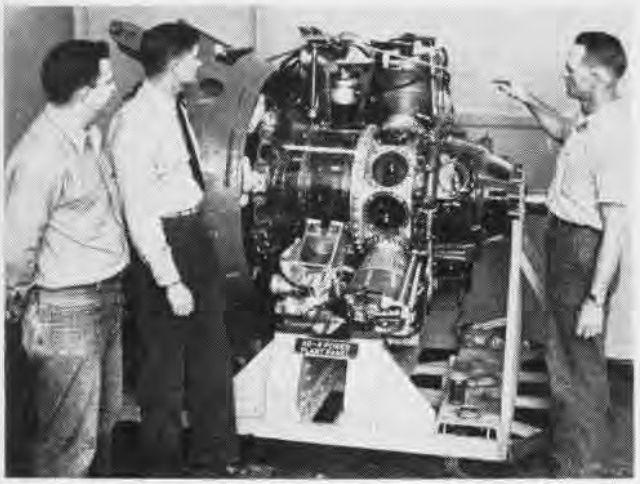
Preparation starts for the units' personnel when they report aboard the detachment. First, they attend the Center's Instructor Training School for four weeks. Then, the prospective crew is sent to the factory where their training panels were built. There they receive detailed instruction in all phases of the unit's equipment.

When they return to Memphis from "factory training," the crew begins two weeks of "shakedowns." These closely resemble a play rehearsal with each member of the crew lecturing to his fellow instructors until the lessons they will present in the field are down pat.

Techniques perfected, the crew loads their unit into waiting vans and start out on a teaching tour that could take them around the world. Japan, Italy, Kwajalein, Newfoundland, Cuba, Bermuda, Hawaii, Alaska, Panama and Guam aren't such "far-away places with strange-sounding names" to the men of the detachment, particularly the firefighting units. Yearly, they travel a distance equal to a trip around the world.

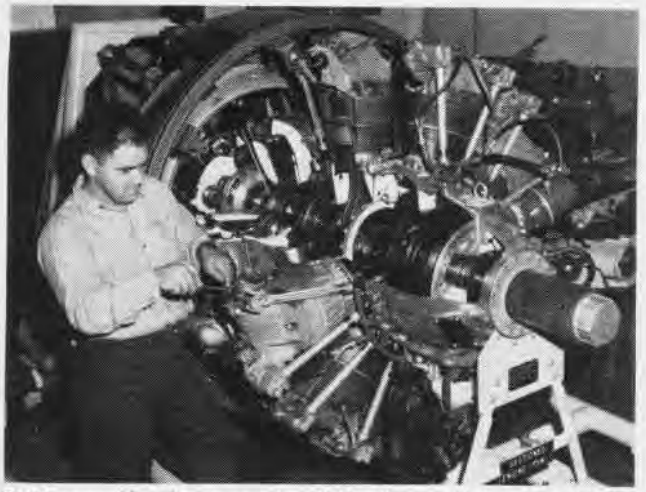
Each of the firefighting trainers consists of two crash fire trucks and a trailer van which transports the maintenance and instructional equipment. In addition to their regular course of instruction, the crews will, when requested, inspect air stations' crash firefighting and rescue equipment and procedures. They report deficiencies and recommend corrective measures.

Not as famous as the firefighting units, but equally as important, are the munitions, ordnance and rearming



MODIFICATIONS *on an AD-4 power plant are explained by J. Garrison, AD1, to H. E. Gier and J. E. Murphy at Jacksonville unit.*

GIANT *nose section of a P2V-5 easily houses Ebbie Hunter, AOC, of Jacksonville's detachment. OinC of program is G. Parker.*



FINAL *assembly of cut-away for P5M Aircraft Maintenance Trainer is done as J. J. Trexler, AD1, makes adjustment on valves.*

PART OF *first steps in preparing a cut-away is shown as D. B. Craddock, ADAN, touches up cuts on piece of engine cut-away.*

trainers. These units teach the operation, maintenance and handling of aircraft munitions and ordnance equipment. The course of study includes guns, sights, fire control, turrets, bombs, racks, shackles, rockets, fuses and jato.

A complete airplane in the form of panels composes an aircraft maintenance trainer. The airplane parts on these panels are authentic and interchangeable with those of a flying aircraft of the same make and model. Largest of all the mobile trainers, its instruction covers the aircraft from propeller to tailhook, piece by piece. These trainers teach the fleet's maintenance personnel everything needed.

THE MOST recent additions to the growing variety of instruction offered by the detachment are the operational flight trainer units. These trainers are self-contained special devices permanently housed in trailer vans.

They consist of aircraft cockpits containing all controls and instruments and allied electronically-operated flight simulators. They are used to train pilots and aircrewmen, where applicable, in type aircraft by duplicating the operating conditions and experiences encountered in actual flight.

One of the newest trainers teaches pilots how to operate the Navy's newest weapon for knocking enemy aircraft out of the skies. Details are secret.

"Any questions?" asked the instructor as he completed his lecture.

"Yes," replied one pilot. "Does the enemy have this weapon?"

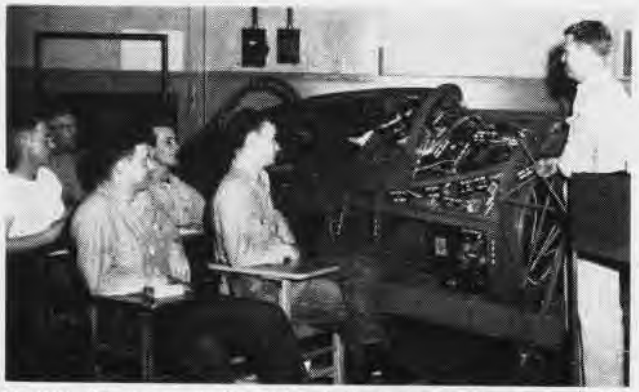
"Possibly," the instructor told him. "We're prepared if we assume he has."

"One more question then. Where do I turn in my wings?"

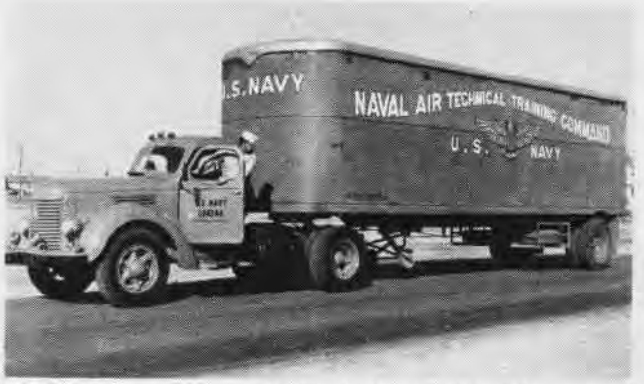
While these units are teaching out in the field, headquarters personnel are busy at Memphis with all of the routine jobs that maintain the mobile schools. Headquarters for the detachment, located in the southwest corner of NAS MEMPHIS, is made up of the administrative section, the modification shops and the mobile trainer units.

An unimposing row of five Butler huts, aluminum-sided structures, houses the administrative section and the modification shops. Within these buildings craftsmen fabricate, modify and assemble metal, wood, plastic, cloth and rubber into an array of mock-ups and cut-aways for use by the units.

The success of the Navy's venture into education is reflected in the ever-increasing demands for visits of the mobile schools. Naval installations all over the world depend upon the travelling trainers to keep their personnel up-to-date on the newest technical advances in the field of naval aviation.



TAKING *his turn at bat, electrical instructor L. Setzer, AEC, lectures to his fellow instructors during crew's "shakedown."*



ONE DOWN, *more to go. D. V. Anderson, CD1, takes a quick "last look" before starting out again with his mobile school.*

EMERGENCY ARRESTING GEAR PAYS OFF

SKYRAIDER *catches the wire of emergency aircraft arresting gear rigged across the runway. This flight deck principle has been applied to airfield use at about 35 naval and Marine stations and is expected to save between 200-300 planes a year.*

SAFETY is aviation's "watchword"—just ask Grampaw Pettibone. It's the result of years of effort and experience. In the early days of flying, the repair and replacement of aircraft involved in accidents didn't cost so much. Today, the replacement cost of damaged aircraft annually runs into many millions. Prevention of aircraft accidents has become a necessity. It has to be an all hands effort.

Corrective measures for accident prevention don't just happen. They're the result of considerable study and research into the broad area of causal factors. Accident preventive efforts must be geared to keep abreast of the development of new and faster aircraft and more complicated equipment.

With the advent of the jet carrier planes, airfield runways had to be lengthened. In spite of this effort to keep abreast of the times, many accidents have occurred as a result of aircraft running off the end of these runways, causing considerable damage to the plane and consequently getting into the taxpayer's pocketbook. A contributing cause in most of these accidents was loss of hydraulic pressure and eventual loss of the use of the brakes. Since the Navy had already mastered the technique of stopping an aircraft in a very short distance with arresting gear aboard carriers, the thought was advanced, "Why not apply this same principle and install arresting gear on the runways?" On this premise, BUAER began a series of tests to develop a satisfactory emergency aircraft arresting gear that would not be exorbitant in price.

Research into the problem by NATC PATUXENT RIVER determined that the most logical method of arresting aircraft was the adoption of the principle of dragging weights. The dragged weight must have sufficient mass and surface friction characteristics to arrest the plane in a reasonable distance. The drag force must be applied gradually to avoid impact loading of the arresting wire and aircraft hook structure. Anchor chain of proper weight and arrangement met both requirements.

CROSS-DECK *pendant support at NAS Miramar is inspected by Ltjg. Mosher and Cobb.*

A tensioning device to place sufficient static tension in the deck pendant to reduce the sag between supports and facilitate hook engagement was necessary. The cross-deck pendant must be designed either to be maintained in a ready condition at all times, or be designed so that the cross-deck pendant could be raised only in the event of an emergency landing. In October 1952, BUAER issued a standard set of instructions, *Emergency Runway Arresting Gear Bulletin No.1*, which incorporated all these principles. This bulletin included detailed instructions for the construction and employment of the emergency runway arresting gear.

The installation of the emergency gear on naval air stations soon showed the soundness of the idea as one after another successful arrested landings were made. Take the case of an F9F-7 which lost a wheel on take-off at NAS OCEANA. The decision was made to have a landing signal officer land it in the field arresting gear in a manner similar to that employed when landing jet aircraft aboard a canted deck car-

rier. The pilot didn't reduce power until he felt the aircraft start to decelerate. In this instance, a costly accident was avoided.

There are presently approximately 35 naval and Marine air stations with the emergency runway arresting gear installed. An unofficial survey of these stations indicates that there will be 200-300 emergency arrestments per year. These figures are based on arrestments already made over a uniform period of time. Although there is no way to estimate precise savings, there is no doubt that it is sizable in terms of saved dollars and aircraft.

IN SPITE of the proved value of the gear as a means of decreasing damage to aircraft and injury to personnel, several accidents have occurred through misuse of the equipment and inadvertent arrestment.

One such accident occurred on a West Coast air station. The pilot of an F2H-3 landed, extended his speed brakes, and raised the nose to reduce rollout speed. During the rollout, the housed tail hook engaged the arresting gear cable which was rigged across the runway for the opposite landing course. The aircraft was substantially damaged. This unintentional engagement caused the entire weight of 1,500 feet of anchor chain to take effect immediately instead of the gradual deceleration which would be normal for an arrestment of the opposite landing course. Correct rigging of the arresting gear anchor chain for the landing course in use would have prevented the accident.

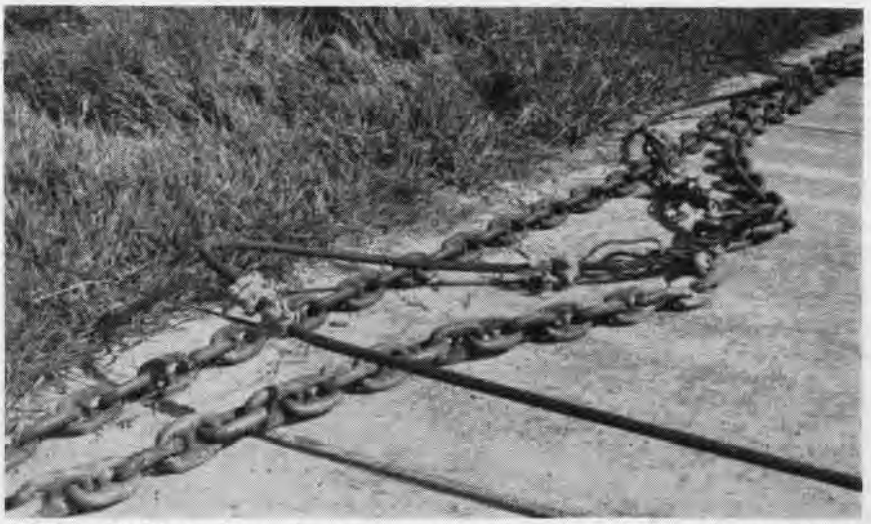
To preclude the possibility of a similar accident, and to provide an interim safety measure pending further research for satisfactory arresting cable supports, BUAER issued a directive in January this year which requires: the removal of all wire supports which have been attached to deck pendants; that all field operations be conducted with deck pendants unsupported until a known emergency exists; and that the stationing of tire supports under the deck pendants, unsecured, be accomplished only in the event of an emergency. This has temporarily reduced the overall effectiveness of the arresting gear inasmuch as prior notification is needed to accomplish the rigging of the equipment for an arrested landing.

NAS OCEANA'S *emergency aircraft arresting gear is rigged to receive an aircraft in the gear by stationing unsecured old tire supports under the deck pendants.*

The system for using the gear at NAS OCEANA has proved an effective one. All of the component parts of the arresting gear are laid out adjacent to the runway ready for quick rigging across its center. The arresting cable is not kept across the runway, but can be rigged by the crash and rescue crew in three to four minutes. In the event that it is necessary to reverse the anchor chain for landing on an opposite course, the entire procedure can be accomplished in approximately seven minutes. As an added safety factor, pilots who are to use the gear are briefed to land on the runway so as to reduce the speed of the aircraft before engaging the gear.

THE EFFECTIVENESS of the emergency runway arresting gear has been proved. However, anchor chain is costly and requires excessive length of run during the arrestment. Accordingly, other types of energy absorbers to accomplish the same result in an improved manner are being investigated. The aborted take-off is of equal importance from the viewpoint of accident prevention. Consequently, tests of new components of these installations will prove the effectiveness of each under the higher speed conditions of the take-off requirements.

To insure full effectiveness of the runway arresting gear, it is essential that personnel concerned — rigging crews, tower personnel, and pilots— fully understand its capabilities and correct employment. But at any rate, the results obtained from the gear to date have made a lot of people happy, particularly the pilots using it, and the taxpayers whose money was saved.



ANCHOR CHAIN *produces the proper mass and surface friction characteristics to arrest a plane in a reasonable distance. Linkage with pendant is shown here.*

'CHUTING DOWN THROUGH THE CENTURIES

AT 50,000 FEET, air speed indicating well over Mach 1, a terrific vibration set up in the newly designed XSSSH, twin-jet flying wing. With a rending crash, the plane virtually disintegrated, and the test pilot reached for his face curtain. As he was ejected, a piece of the debris sliced through his protective helmet, and he was completely unconscious.

What a spot to be in! Knocked out, falling free to the earth 50,000 feet below, with his ejected seat strapped firmly to his useless parachute.

It wasn't hopeless. When the pilot was ejected, a snubbing cord attached to the fuselage automatically opened his safety belt, all service connections, oxygen, lines, G-hose, etc., between the pilot and plane having been instantly severed, and the seat and pilot separated. How to open the 'chute?

GETTING *started for what is said to be the first parachute jump from an airplane. Pilot Tony Janus, jumper Capt. Berry. Conical contraption lower right is chute.*

BARNSTORMER *Rodman Law, pilot P. W. Page before 1912 Marblehead exhibition.*

Fortunately, the parachute rigger who had packed the 'chute pre-set the barometric control of the automatic opening device to 10,000 feet. So, at 10,000 feet, the 'chute opened and the unconscious man drifted earthward.

THE STORY sounds fantastic? It is fantasy, but it could happen in the near future, as far as the automatic opening of the parachute is concerned.

Two different automatic-parachute openers are being devised and evaluated by the Navy to improve existing devices. No completely satisfactory conclusions have been reached yet. When one or the other experimental projects has reached a perfected conclusion, a fully automatic sequence of plane ejection and chute opening will result, with no action required except the initial movement by the pilot.

Tests being made by the Naval Parachute Unit at El Centro, California and the Aviation Material Experimental Laboratory, in conjunction with Philadelphia's Naval Air Material Center, have shown that the perfect "all-in-one" bail-out may soon be ready for use.

SPREAD-EAGLE *position of jumpers often makes it very difficult to pull ripcord.*

The intensive search for a foolproof means of safeguarding the lives of those who are forced to leave their planes while in flight, will have been greatly advanced when the automatic 'chute is acceptable. Too many good men have been lost because, owing to injury, anoxia, or other causes, they have been unable to pull the rip-cord.

Rip-cords were no problem in the early days of the parachute, in fact, they didn't exist. The sketch of a 'chute by Leonardo da Vinci showed very little detail, and the first 'chute ever designed and fabricated was intended as a means of escape from a burning building. The Chinese, however, used them as the means for mysterious entrances by actors on crude theater stages many years earlier. One of the earliest records of escape by improvised parachute is that of a Chinese suitor who evaded an irate father by jumping from a roof top while holding a large coolie hat in each hand.

THE EARLY "barnstormers," who did so much to sell aviation to a skeptical public, started parachute jumps from balloons before 1900. The canopies were attached to the balloon basket during ascension, and instead of

a harness, there was more often a trapeze bar upon which the jumper did acrobatics on his way down. Jumps made at night often included fireworks set off by the performer, creating a brilliant spectacle of trailing sparks under the oscillating canopy.

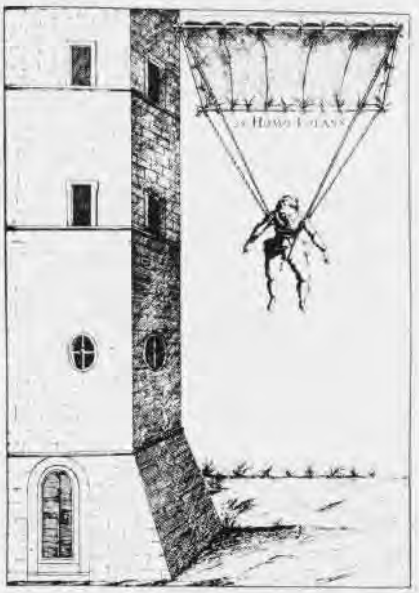
The first parachutes which were packed in a container, something like an upside down waste-paper basket, were pulled out of the container by the jumper's weight. When first used in airplanes, there was danger of the canopy catching on the tail of the plane, but the British partially solved this problem by filling the top of the container with compressed air (*Guardian Angel* 'chute) which assisted in pushing the 'chute away from the bottom of the plane.

It was very evident that the need existed for a parachute which could be opened by the jumper after he was clear of the plane. Credit for the first design of this type was given to Lt. Van Meter in 1911. It looked something like a wash-tub, and when opened, filled the air with debris including bedsprings, newspapers, and talcum powder.

About 1912, Albert Berry and Rodman Law, an early barnstormer, were using parachutes pulled from an inverted sack by the parachutist as he jumped. An early 'chute designer was Glenn Martin. Teaming with Tiny Broadwick, they developed a back-pack.

CHINESE *legend recounts parachute-like descent of escaping unwelcome suitor.*

COUNTY and state fairs, public parks and other similar attractions were the settings for performances by the early "aviation hucksters" who played an important part in pointing up the need for continued research in improved parachutes. Famous names of the period included: Jimmy Doolittle, Jim and Mae Haislip, Betty and Freddy Lund, Vernon and Phoebe Omlie, Gladys Smith, Wiley Post, Roscoe Turner, Art Chester, Frank Hawks, Harold Neuman, Rudy Kling, Marty Laird, Walter Beech, Al Williams, Benny Howard, Florence Klingensmith, Jacqueline Cochran, Amelia Earhart, Jack Storey, Ethel Dare, Dick Cruikshank, Willie Jones and Bessie Coleman (the first Negro Aviatrix).

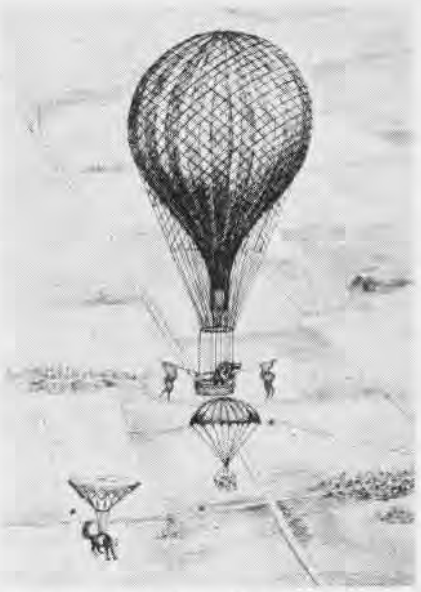


VERANZIO *(early Italian) parachute was designed for escape from burning buildings.*

Numerous accidents occurred, of course, but the show (and parachuting) always went on.

One veteran barnstormer, who claims 2500 parachute jumps, is now a Chief Parachute Rigger based at NAS OCEANA, Virginia. Jack Cope made his first jump on July 4, 1910 at the age of 16. He was working at the time for Mme. Zerae Moore, who was billed as the greatest balloonist of the day. Cope assisted in filling the balloon with hot air, and made the jump when Mme. Moore got sick, thereby starting his long career.

In 1932, Jack Cope jumped at the American Legion Air Meet at Curtiss Airport (now NAS GLENVIEW), with



GARNERIN *& Cocking chutes were demonstrated over Pennsylvania during 1850's.*

a new type 'chute. Leaving the plane at 2800 feet, he opened his back 'chute which "dish-ragged." His chest pack also streamed out without opening fully, and he plummeted to earth. Although severely injured, he recovered and made one more jump in 1934 before hanging up his harness for keeps.

IN 1919, the U.S. Army Air Corps asked manufacturers and designers to assist in perfecting a parachute. From all over the land, and several foreign countries came parachutes or ideas for them. At that time Major E. L. Hoffman was assigned the responsibility of perfecting a parachute which would work *every* time. Working at McCook Field, Dayton, he and his staff evolved a successful pack by 1923. The finishing touches were completed by 1925, and for the chest, back and seat packs evolved, he was awarded the coveted Collier Trophy in 1926.

A few improvements have been made to 'chutes since then, but the principles of design and opening process have remained basically the same as Major Hoffman's product. The chain-close back 'chute, with spring steel replacing the elastic cords, perfected by the Navy last year, was a major step forward.

But the fully automatic, all-in-one bailout, when perfected, will round out over 100 years of efforts by scientists, dreamers, military men, and barnstorming "Airborne Hucksters."

TRUDEAU EXPLAINS LOG TO LT. (JG) R. MOORE

This Log Has More Space

Aviators' Log Book is Redesigned

In the past few years, there have been many changes in aviation and new designs have been created to cope with them. A new design of the Aviators' Log Book has been originated to keep more accurate and up-to-date accounts of each flight made.

Instrumental in the redesigning of the book was Cdr. R. F. Trudeau, commanding officer of VF-14's *Top-hatters* at NAS JACKSONVILLE. He is the co-designer of the log book in collaboration with W. Henry Hill, a civilian employee of DCNO (Air).

The improved design contains space for information not previously included. For example, the column for instrument time is divided into actual and simulated time, giving the pilot an accurate record of instrument time logged. The log also has a column for special crew time, a new category for use when the pilot is neither co-pilot nor dual pilot, such as in the F3D-type plane where there are no dual controls.

With a new blue cover, the new book is easily recognized. Much work went into the various and sundry changes in the book to fit the modern aviator's log book needs.

IRGENS CLIMBS INTO 'COPTER AT SANTA ANA

Santa Ana Flier is the 'First'

Pilot Graduates from Novel Program

MCAF SANTA ANA — Lt. R. M. Irgens, the first cadet to graduate from the new helicopter flight training program at Pensacola has been assigned to MAG-36. Under this new deal for Nav-Cads, cadets who successfully complete the first 12 months of training in conventional aircraft are eligible to receive helicopter training. In the past, only pilots who had already received their wings qualified for 'copter instruction.

When Irgens received his commission as a second lieutenant, he became the first Marine officer to receive his wings and helicopter certificate at the same time. Since reporting to Santa Ana for duty, he has been following a rigid flying schedule, practicing techniques of evacuating wounded, airlifting equipment and supplies, and navigation and landing procedures in mountainous terrain.

VX-5 Pilot Flies Again

Polio Victim Conquers His Handicap

NAS MOFFETT FIELD—There's nothing new in a pilot who climbs into a fighter plane, taxis down the runway and takes off. But there is if that pilot happens to have been a victim of polio.

Lt. (jg) Otto Krueger of VX-5 was

WIFE BIDS ADIEU TO PILOT BEFORE JET FLIGHT

paralyzed in his right arm, his back and both legs. The attack came just as he was ready to join VF-831 for a combat tour in Korea. Rushed to Oak Knoll Naval Hospital, he felt the situation was hopeless and was convinced he would never walk again.

At this point, he began to study boys from Korea, missing arms and legs but determined to build a useful life. From then on, Krueger realized how fortunate he was to have his own limbs and he resolved to shoot for the top. He would fly again.

It took many months of therapy treatments, unending encouragement from his wife, a trained nurse and his parents, but after six months, he was examined by a board of flight surgeons and found fit to fly dual-control aircraft accompanied by a qualified safety pilot. This was his first big step back.

After eight months of therapy, exercise, calisthenics and disappointing physicals, he passed as a "lone fighter."

NEW SECNAV, *the Hon. Charles S. Thomas, and former SecNav, the Hon. Robert B. Anderson, now Deputy SecDef, both moved into their new offices on 1 May. Mr. Thomas served in the Aviation Branch of the U. S. Naval Reserve during World War I. During WW II, he was assistant to AsstSecNav(Air), and later to SecNav Forrestal. Until recently, he has been President of the Navy League in the Eleventh Region.*

Squadron Tops 1000 Hours

VP-26 Realizes Cherished Ambition

The big P2V-4, piloted by Lt. R. A. Eidson made an approach, landed and crew number five of Patrol Squadron 26 stepped from the plane to be greeted by their commanding officer, Cdr. P. J. George.

Realizing a long cherished ambition, these men had just completed VP-26's 1000th hour of flight time for one month.

During the first operating month of the squadron's present deployment, flight and ground personnel combined their efforts to successfully shatter what is believed to beat all previous records for the P2V-4 aircraft.

With 12 aircraft assigned, a total flight time mark of 1006 hours was established for the month. The squadron schedule included, along with routine training flights, an advance base fleet exercise during which time an availability of 100% was maintained.

All squadron personnel joined together in the effort to establish the new record, equalling the pace set by LCdr. E. N. Beeby, squadron maintenance officer.

Ground Bound is Jet Tested

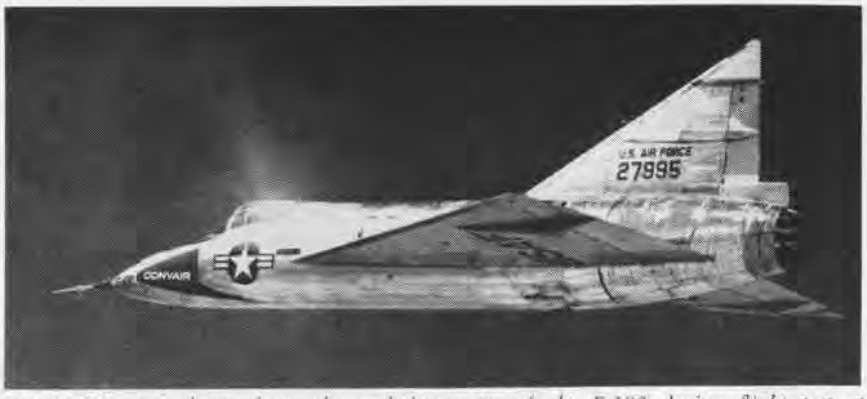
Actual Panther Conditions Simulated

The Aviation Medical Experimental Laboratory has received one of the Navy's operational flight trainers for project testing.

The basic part of the equipment is the actual cockpit of an F9F-5. The computers attached to the cockpit instruments can reproduce the feeling and appearance of practically all air emergencies—engine failures, crashes, landing gear failures and fires. Thus the steps necessary to combat each simulated condition are taught through the trainer without danger to either pilot or plane.

D. P. Henry, TDC, who is in charge of the third of a million dollar piece of gear, has many surprises in store for the pilot that "flies" in this OFT. An uncensored tape recording is made of all his comments from the cockpit, while a motion camera grinds out all his motions.

Upon completion of its job at AMEL, the equipment, designed by the Navy's Special Devices Center, will be moved to a permanent home at Alameda, California, naval air station.



THE DESERT *sun gleams from the cockpit canopy of the F-102 during flight test at Edwards AFB. The delta wing is the AF's first all-weather supersonic interceptor.*

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YOUR SQUADRON IN THE 'NEWS'

Has your squadron been in NA-News recently? If not, it can be. Naval aviation people are interested in the new and different things you're doing. If you've gotten new planes, visited new places, done some good shooting, or figured out new training or maintenance wrinkles, the other guy might profit by your experience. Let him hear about it, through NANews.

Look over the magazine. See what's new from other squadrons. Figure out what's new in yours, and send it in. OpNav Instruction 1560.1 of 2 Jan '53 will give you more ideas. No sports, cake cuttings or changes of command are wanted. Direct communication with the editor regarding news items is authorized. Let us hear from you.

★ ★ ★ ★

This is a Real Ripley Story

One Plane, One Pilot—Same ID

NAS JACKSONVILLE—A commissioned naval officer and a Navy plane, both wearing the same identification number and flying in the same unit is something comparable to the oddities recorded by the "Believe It or Not" man, Robert Ripley.

As a Navy plane rolls off the assembly line, it is "commissioned" with a bureau number. Likewise an ensign is assigned a file number when he is commissioned. The chance of an officer belonging to a naval unit which flies an airplane bearing the same six-digit number is a mathematical improbability.

That's the case, though, with LCdr. John H. Burton and a P2V-5 *Neptune*, each bearing the number 124866. LCdr. Burton, training officer of FAIRWING 11, joined the staff in May 1952 and the P2V-5 joined in August 1953.

MORE THAN *22,000 hp take the first turboprop seaplane, the R3Y Tradewind, off San Diego Bay for its maiden flight. The 80-ton high-speed transport took off in less than 30 seconds and remained in the air during a shakedown test program for more than two hours. The test pilot said, "This seaplane is the best I've ever handled."*

ALAMEDA'S 'JACK AND THE BEANSTALK'

PHOTO TAKEN IN 1937 SHOWS OLD NAVY DESTROYERS FORMING BREAK-WATER (FOREGROUND) TO AFFORD MOORING CHANNEL FOR CHINA CLIPPER

JUST AS Jack's beans grew into a giant beanstalk and an ultimate fortune, the land which President Roosevelt accepted from the city of Alameda for a total of $1 in June 1936 has grown. Although only 13 years old, NAS ALAMEDA has developed into a sprawling 2,468-acre giant site.

Unlike most areas with an interesting history covering eons of time, only 800 acres can boast a history. This small embryo of the air station was once an Indian burial ground, then a hunting site for Spanish grandees, later a haven for miners who didn't strike it rich in the '49 gold rush, then a celestial city for a Chinese tong and finally a refuge for evacuees of the great quake of 1906. Only 17 years ago, it was a scant, unattractive vegetable garden and terminal for the famed "China Clipper." A breakwater was devised by Pan American Airlines by sinking a group of old Navy destroyers to afford a mooring channel for the "Clipper" ship at the passenger terminal.

ORPHANS ARE ON RECEIVING END OF CHECK

CREW UNLOADS PANTHERS FROM PRINCETON

The remainder of the station was pumped from the bay. Construction began in February, 1938 when dredges began pumping the mountain of mud (16 million cubic feet) from the bay's bowels. Commissioning day was 1 November 1940. Today, NAS ALAMEDA has one of the largest aviation supply facilities plus one of the most complete naval aircraft overhaul and repair industries in the world. In addition, it is the stop-over, funneling point and gateway to the southern and western Pacific and to the Orient.

Now, instead of the Indian burial ground, 6,100 dying aircraft and 14,700 engines have been brought back to fighting life. In place of the hunting site for Spanish grandees, this is the resting place and training area for hundreds of crack naval aviators and their modern weapons. No longer a haven for unfortunate miners, the station is a bustling locale, offering a high standard of employment for some 8,000 civilians and approximately 6,000 naval personnel who donate hundreds of thousands of dollars annually to the nation's needy.

IN THE recent East Oakland - San Francisco Bay Area United Crusade, these people showed up as the "biggest-hearts" on the Pacific Coast. With everyone trying to better the other fellow's department or section record, their contributions amounted to a whopping-big check for $100,000.

The Supply and Fiscal department is the "business" center of the station. A proud feature of the department is one which is a tremendous money saver—the scrap and salvage unit. This is composed of an aluminum sweating furnace, a scrap yard and a surplus sales store room. The salvage unit

accumulates all salvageable and scrap material and smelts it down into valuable aluminum ingots. The process returns hundreds of thousands of dollars each year to government coffers.

Speaking of economy, many of the nation's housewives could take a tip from the Commissary department and employ its "waste not, want not" policy. Nothing is thrown away—not even the garbage.

WOODEN boxes are chopped up and sold for firewood. Cardboard boxes are processed into liquid mass from which cardboard boxes are remade. Scrap paper is shredded and used for packing articles for storage. The garbage is segregated with the meat fats and trimmings rendered into oils for soap and plastics. Bones are ground for fertilizer meal and gelatin. "Wet" garbage is sold to hog ranchers for feed. Here again, the taxpayer's dollars are made to do double duty.

With economy the watchword in the Commissary department, it was quite natural that Donald A. Franklin, CS2, of the NAS bakeshop would get involved in a cooking school initiated to teach more people how to have better meals at lower cost. Sponsored by Alameda's American Legion Auxiliary, one of the highlights of the school was a cake baking contest. Franklin was chosen to be one of the presiding judges.

To justify his being chosen to judge the work of some of the East Bay experts, the baker whipped up a masterpiece, a Malay Coast cake, for the First Class Petty Officer's mess. Although it weighed in at 65 pounds, in culinary

SWEETHEART MARIE ALDEN VISITS SQUADRON

vernacular "it was light as a feather." Franklin won't divulge his formula, saying only that he got it in a roundabout way from an aged Chinese cook in the Philippines.

During the past few years, NAS ALAMEDA has become known as a "home away from home." In addition to the 2,000 personnel on shore duty, the station is home for the staff personnel of ComFAir Alameda; the carriers *Boxer, Yorktown* and *Oriskany;* transport carriers *Windham Bay* and *Cape Esperance;* seaplane tenders *Onslow, Corson, Gardiners Bay* and *Salisbury Sound;* carrier air groups two and nine; VP-47, -50, -9 and -19, FASRon-8 and -116; TACRon-1, FLOGWINGPAC, Naval Overseas Air Cargo Terminal and the *Mars* squadron VR-2.

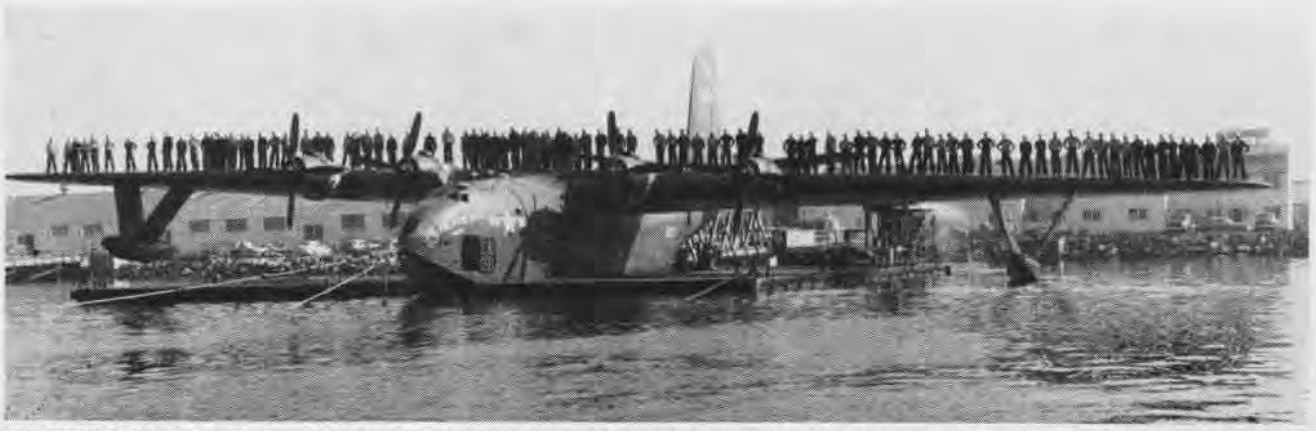
Since acceptance of the *Mars* planes in 1946, these workhorses have a near average of a Pacific crossing a night without injury to any passenger. Old familiar figures in the Bay area skies, the planes are scheduled for a well-earned retirement in 1954, when they are replaced by R3Y *Tradewinds.*

Military personnel enjoy the benefits of one of the largest recreational programs in the Navy at absolutely no cost to the taxpayers. To name a few, there's a well-stocked library, a fully-equipped boat house, a large and extensive hobby shop and a well-rounded sports program. Many squadrons indulge in pulchritudinous diversion, selecting a squadron sweetheart who is usually a bright, young Hollywood starlet.

These are but a few of the many things this sprawling young giant has

FRANKLIN PUTS FINAL TOUCH ON MALAY CAKE

accomplished in 13 formative years. Bay Area residents shake their heads in wonderment as they peer out their windows at the naval air station nestling in their bay. Many don't know "how" it was all accomplished so swiftly, but as they watched powerful carriers moving out on their way to Korean waters, they knew the reason "why." One dollar invested in a strip of mud has changed their destiny.



TO DEMONSTRATE THE SIZE OF THE PHILIPPINE MARS, 125 MEN LINE UP ON THE WINGS AT ALAMEDA. R3Y'S WILL SOON REPLACE THE MARS

STRAIGHT UP ON STANDING START WITH VTO FIGHTERS

THE NAVY'S *Convair XFY-1 vertical take-off fighter plane is shown in a horizontal position as the plane will appear in straight and level flight when it is airborne.*

A SPECIAL *mobile vehicle for transporting and raising and lowering the XFY-1 permits the plane to be tilted into various positions, making its maintenance easier.*

LOCKHEED'S *XFV-1 vertical take-off fighter plane is shown in a "four-point" attitude as the plane rests on auxiliary landing gear during special test operations.*

WITH THE announcement of the Convair XFY-1 and the Lockheed XFV-1, the shadow of Buck Rogers stepped out of the comic strips into reality. The two vertical take-off fighters are undergoing engine and preflight tests. These experimental planes normally rest on the ground in a vertical position, will take off vertically and assume a normal flight position after getting in the air. Both are equipped with specially-designed propellers powered by turbo-jet engines. A seat arrangement which is rotatable will enable the pilot to assume suitable positions for take-off, landing and flight positions of the airplane. The planes will be able to land on a dime by backing straight down onto a small plot of ground.

THE PROBLEM *of easier maintenance was encountered by Lockheed designers on the XFV-1. This is their vehicle for transporting, raising and lowering their plane.*

VW-4 Helps to Build Levees

Engineers Receive Hurricane Records

NAS JACKSONVILLE—Information compiled during harrowing flights through hurricanes by the *Hurricane Hunters* of VW-4 is being used by the U. S. Army Corps of Engineers to build levees in the Everglades.

Two representatives from the Jax District Corps of Engineers conferred with VW-4 aerologists. The topic centered about the problem of how to build levees in southern Florida strong enough to withstand the violent hurricanes that sometimes strike in that region. VW-4 gave them all the hurricane information they had compiled that might help determine the design and specifications of the new levees.

Placed at their disposal were numerous aerial reconnaissance maps, hurricane-tracking charts and other related data the aerologists use for determining the maximum force with which a hurricane could hit. They showed the representatives how to establish the maximum wind velocity of a hurricane by measuring the speed with which the barometric pressure drops before the eye, or center, of the hurricane arrives. They also told the district officials some of their personal experiences encountered while flying directly into some of these storms.

Marine 'Copters Assist AF

1,300 Pounds Heaviest Load Lifted

MCAS SANTA ANA—Air Force personnel at Luke Air Force Base had a big problem that Marines from MCAS EL TORO solved for them recently.

Consisting of two Sikorsky transport helicopters piloted by Majors R. E. Fletcher, P. E. Heinley, C. H. Rushfeldt and E. I. Lupton, the air lift was used to set up a simulated enemy resistance front in the inaccessible area around the Gila Bend Air Force Base about 95 miles southwest of Phoenix.

Because the terrain around Gila Bend is so rugged and the loads so heavy, the only possible way to get the equipment in place was to utilize the helicopter lift. Signal mirrors were used to bring the copters into the general area, and then a new type hand portable radio was used to direct the equipment into place.

The helicopters delivered 45 guns and 19 searchlights to the site and the heaviest load lifted was 1,300 pounds.

TOP SHOOTERS

Squadron Honors

Fighting Squadron 84
36.9%

Individual Honors

Ltjg. John C. Barrow, VF-21
72.6%

Joins 10,000 - Hour Club

Lt. Short is Fifth Pilot to Qualify

NAS PATUXENT RIVER—On February 8, while flying at approximately 7,000 feet over Lafayette, La., Lt. T. G. Short, Assistant Operations Officer, FLog WingLant/Contl, passed his 10,000th accident-free hour of flying.

He was piloting an R5D from Corpus Christi to Patuxent when he passed his year and one-tenth in the air, becoming the fifth pilot from FlogWing to do this.

He entered the Navy in 1940 as an apprentice seaman and completed flight training in 1943 while an aviation structural mechanic first class. He was commissioned in 1944 and has since been designated an Airline Transport Pilot Examiner and is a CAA Aviation Safety Representative.

The other FlogWing pilots to pass the 10,000 hour mark were LCdrs. Herman, Reid, Renner and Walker, ADC(AP).

He Didn't Wave Goodbye

Yorktown Chief Risks Life for Plane

USS YORKTOWN—Most men, when they see a million dollars worth of plane rolling to Davey Jones' locker, might be apt to wave goodbye or stand wide-eyed, glued to the spot where they were standing. Not so with Chief A. Moreno, VC-3's Team "Able" Leading Chief.

The *Yorktown* was enroute from Hong Kong to Sasebo. The sun was shining, but the sea swells were heavy, typical of that area in the Sea of Japan. As the ship pitched and rolled, the planes secured to the flight deck strained against their tie-down lines.

A VC-3 *Banshee* tie-down line was a bit too slack, and the plane captain climbed out of the cockpit to secure it more firmly. A sudden surge of the ship broke the two remaining tie-downs, freeing the plane to the mercy of the ship's roll.

Parked on the port side of the carrier near the center of the flight deck, the *Banshee* began to move toward another plane secured in the middle of the deck. An opposite roll of the ship reversed the plane, and it began to move toward the side of the ship.

Moreno, who was standing near, sized up the situation at a glance. Other men surrounded the plane but couldn't hold the 23,000-pound aircraft. He raced for the plane and leaped for the cockpit. In an instant, he applied the brakes and stopped the plane when its wheels were six inches from the edge of the deck 60 feet above the water. The tail section and more than half of the fuselage of the jet extended over the water.

Looking back on the experience, Moreno said, "I didn't have time to think of the possible consequences . . . just to move."

Wanted Water, Not a Dime

Pilot Thirsts after Salt Bed Walk

NAS SAN DIEGO—Lt. Henry Zieba of VR-32 didn't say, "Buddy, can you spare a dime?" when he reached civilization after walking 15 miles over a dry salt bed. He was just plain thirsty.

The ferry pilot was flying a TV-1 jet trainer when a wing tank dislodged itself, causing the plane to go into an inverted spin and flame-out. He managed to right the plane and level off after falling from 18,000 to 3,000 feet.

His canopy was jammed and the engine was dead, but he crash-landed in a dry salt lake bed. Not knowing how badly he was injured, he climbed out of the plane and started walking toward a small airport 5 miles south.

He had an overpowering desire to lie down, but he walked all afternoon and far into the night with the airport beacon acting as a guide. When he finally walked into the operations room, he asked the astonished operator, "Can you spare a drink of water for a poor ferry pilot?"

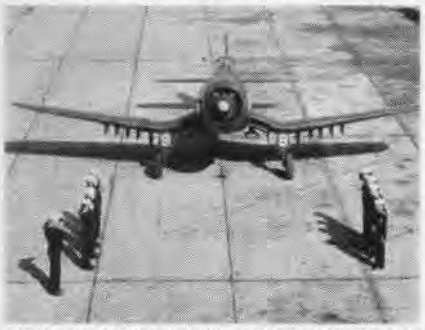
Later, after a rescue search plane flew him to an El Paso hospital, he learned that he had suffered three fractured vertebrae in his back.

WARRIORS *of the sky, three newly-christened A3D Skywarriors, are shown in an unusual picture. Early experimental and production models of any aircraft are rarely test flown simultaneously and it's even more unusual when they are together in formation. The long-range, swept-wing, twin-jet bomber is now in production at the Douglas Aircraft Company, El Segundo.*

VF - 74 Gets Banshee Jets

Honors Rendered to Last of Its F4U's

The last of the Navy's fleet fighter squadrons to use the F4U *Corsair* exclusively has said "farewell" to the famed gull-winged fighter. The *Corsairs* are being replaced by sleek F2H-2 *Banshee* jets in VF-74 at Quonset.



EIGHT SIDEBOYS, BOSUN'S MATE HONOR F4U

An honor usually reserved for the highest military and government officials was bestowed upon the veteran in ceremonies at NAS QUONSET POINT when the men said goodbye to the last of their old fighter planes. The colorful tribute, complete with eight sideboys and with the Navy's traditional ceremony of "piping it over the side" by a boatswain's mate was held for an old friend they were losing.

Although the *Corsair's* production days are over, it's still too much of a fighter to be counted out. The latest model of the plane, the F4U-7, has just begun its fighting life with the French Navy.

Flying Sky Pilots Arrive

Church Comes to TF-77 Via Choppers

Task Force 77, operating in Far Eastern waters, has solved the problem of conducting Sunday religious services aboard the small ships of the force that do not have their own chaplains aboard. Each Sunday, the chaplains are shuttled from ship to ship via helicopter.

On one Sunday, 19 services were held by the aerial-delivered sky pilots. The six chaplains conducting these services worked from daylight to dusk to complete the rounds of their seagoing "parish."

Marine Force Gets 'Hams'

New Unit To Save Taxpayers Dollars

MCAS KANEOHE BAY—The term "hams" is a term generally aimed at people with dubious talent who aspire to theatrical greatness or operators of amateur radio stations. Now MAG-13 of the 1st Provisional Marine Air-Ground Task Force has an entire squadron of them and, what's more, there's not an actor in the lot.

HAMS-13 is the title for Headquarters and Maintenance Squadron of the task force's aviation element. It combines the air group's headquarters squadron and air maintenance squadron into a single unit under command of LCol. Kenneth H. Black.

The merger was effected in accordance with an order issued by Gen. Lemuel C. Shepherd and is primarily aimed at saving taxpayer dollars for the Marine Corps. The merging of the two squadrons will reduce the amount of administrative personnel formerly required and will cut out duplicated administrative effort.

STRAINING *Panama Canal Company tugs nudge the giant Franklin D. Roosevelt against Dock 16 in Balboa, as the carrier paid a visit to the Pacific port of the Panama Canal en route to Bremerton for modernization. Being too big for the trip through the canal, the carrier had to go around Cape Horn on its trip to the west coast. The ship was tied up alongside two Army barges which allowed it to rise and fall with the tide without fouling the carrier's tremendous overhang on the Balboa dock.*

FOR WANT OF LESSONS A LIFE IS LOST

L. EBERHARDT, AO3, LOOKS ANXIOUSLY FOR FAULTS IN REGISTER'S SHOOTING FORM ON M-1

THE SLIDE of the .45-caliber automatic pistol streaked home. The sound should have been no more than the harsh clash of metal on metal but, instead, it was a jarring roar. The guard mail messenger had forgotten to take the ammunition clip out of his gun before checking the action. A hole was blasted in the overhead, but no one was injured . . . this time.

A young seaman guard writhed on the concrete floor of a gate house with a gaping hole in his abdomen. A slug fired accidentally from his own gun had hit him. It happened because one of the basic rules of firearms safety had been violated.

Such incidents as these, some grimly humorous and others tragic, spurred a group of ordnancemen to action at NAS MEMPHIS last summer. Today, because men like Chief Ordnanceman G. L. Tucker and his fellow division members became concerned, no one can say "For want of a lesson, a life was lost." Memphis has an efficient small arms training program that has attracted the attention of top Navy officials and is being considered for Navy-wide expansion.

The program, under the direction of Lt. R. C. Dolce, has mushroomed from an idea to a training program of major proportions in less than a year. It is operating six days a week with a student load of around 200 personnel weekly. After seven months of operations, 2,905 officers and men had blasted their way through 150,000 rounds of pistol and rifle ammunition in the interests of safety and preparedness.

This course is designed to teach and promote the principles of firearms safety, but it also provides some important secondary advantages. It qualifies personnel quickly and efficiently in military practical factors and other duties requiring sidearms. It also furnishes a nucleus of trained men who could be called upon in an emergency to act as infantry units.

The course has been tailored to fit three different audiences. Course A is a one-day officers' affair designed to acquaint them with sidearms which they would most likely use in their military duties. The five lectures on small arms include range and sighting procedures. The officers are introduced to the .45-caliber automatic pistol, the M-1 carbine and the .38 Smith and Wesson revolver. They spend three-and-one-quarter hours on the pistol range firing the .22- and .45-caliber automatic pistols and the S&W.

Officers are assigned to attend this course as part of their professional training and attendance is mandatory. The same attendance rule applies for enlisted personnel.

Enlisted personnel attached to NAS, NATTC or CNATechTra staff for permanent duty receive their assignment through division officers. They are enrolled in a detailed three-day course designated Course B.

This is the most comprehensive of the three and provides instruction on, and range firing of, the .22- and .45-caliber automatic pistols, the S&W revolver, the 12-gauge shotgun and the .30-caliber M-1 rifle and carbine. Half of the course is spent in the classroom with lectures and field-stripping exercises and the other half is spent on the pistol and rifle range.

THE BULK of the training load goes through Course C which is for students in the schools of the Training Center. It's held at night and on Saturdays to reduce interference with regular training schedules. Approximately 60 percent of the students attending the basic schools go through the small arms training course before they leave Navy Memphis.

Two one-hour classes Monday through Thursday each week give students instruction in the use of the .45-caliber automatic pistol and a short but pointed course in proper watch-standing procedures. The four classes meet in the firing range on Saturday where each class spends an hour-and-a-half on the firing line with the .45-caliber automatic pistol.

It might seem that such a forced draft program coupled with the mandatory attendance aspect would kill interest in extra-curricular firearms activity. Strangely enough, interest in shooting is on the rise at Memphis.

Activities aboard the station boast 11 authorized competitive rifle teams with applications pending for three more. An enthusiastic Rod and Gun club made up entirely of Navy and Marine personnel maintains headquarters aboard the station. Pistol teams are flourishing and shooting is a popular sport in the intramural program.

"WEREWOLF" *skipper, Maj. J. C. Vance, prepares to board one of the first FJ-2 Fury jets to be delivered to VMF-122 at Cherry Point. Vance, LCol. B. G. Moore and Lt. L. R. Van Deusen flew the planes, a Navy adaptation of the famed Mig-killing F-86 Sabre, from North American's factory. The three planes were the first production models of the Fury to be received by Naval and Marine Corps aviation.*

Miramar Has 'Arab City'

Fleet Air Photo Lab Move is Big Job

NAS MIRAMAR — There's a new construction program under way these days that's giving this station a "new look."

When the Fleet Air Photo Lab shifted from one end of the field to the other to make room for new hangars and aircraft space, it wasn't a question of just moving into new quarters. The photo mates, building and all had to be transported. To handle the problem of the building, civilian contractors were called in. They cut the building in half and rolled it away, a section at a time.

The task of moving the equipment and supplies was handled by the photo mates, chiefs and officers. Thousands of pounds of supplies, equipment, office furniture and incidentals necessary to run a photo lab were moved by hand, truck, push cart, tractor and anything else with wheels. First of all, they moved into temporary quarters in an area known as "Arab City" because of its desert-like appearance.

Lab personnel went right on with photo production with the aid of two trailers borrowed from Transportation and strips of canvas stretched between the trailers. In one trailer, aerial work was processed. In the other, Public Information and ground work was handled. Outside, the washers were placed beneath the canvas and across the street a space was found for the driers.

After the lab building had been moved to its new site, equipment and supplies were moved all over again into permanent quarters.

LCdr J. H. Reid Hits Top

Flies 10,000 accident Free Hours

VR-24 PORT LYAUTEY—After flying nearly 2,000,000 miles or 80 trips around the world, Cdr. J. H. Reid has logged his 10,000th accident-free hour in the air.

Reid first started flying in 1933 while attached to the old USS *Nevada* during off-duty hours. He was commissioned an ensign in 1942. He flew with VP-44 during the battle of Midway and has served in sea and land-based patrol squadrons as an instructor and in various transport squadrons.

He has logged 300 training hours, 1700 hours in sea-based patrol aircraft, 1600 in land-based patrol planes and a total of 6400 in transports.

ESCORTED *by a U. S. naval officer, part of 320 officers and student officers of the Japanese Coastal Safety Force who visited the Essex in Yokosuka inspect a Skyraider on a conducted tour of the carrier.*

New T-28B to Replace SNB

New Plane for Single Engine Pilots

NAS CORPUS CHRISTI — The All Weather Flight School is the proud recipient of the first of North American's T-28B trainers that have been contracted for by the Navy.

With delivery on 4 February of the T-28B, the SNB will be put to pasture as a basic instrument trainer. Scheduled first to replace the SNB as this essential trainer, the T-28B will alleviate the inherent difficulties experienced by students who are required to make the transition from single to multi-engined aircraft during the relatively short time at the school.

It will be assigned to the three instrument advanced training units stationed in and around the Corpus Christi area and will be under the control of the commanding officer of the parent station. To accomplish one of its major missions, that of providing the fleet with instructor pilots, the school will operate the T-28B in conjunction with the TV-2 and possibly the P2V for multi-engine training.

Although a propeller driven plane, the new trainer is basically an interim jet trainer having many features similar to subsonic jet aircraft. Accordingly, the instrument training course devised for the T-28B will closely parallel the TV-2 syllabus now in effect. Indicative of the changing trends in instrument flying is the accent on DF and high altitude jet penetration procedures for students under training.

ENROUTE *from Atlantic City to St. Louis, Lt. (jg) Jack Quinn of VC-4 ejected and parachuted to safety seconds before smoke-filled Banshee crashed and exploded near Lockbourne AFB. Parachute rigger F. Kowalik and VC-4 skipper, Capt. A. Matter, join in the fun after he was awarded squadron "Nightcapper" medal, enthroned in ejection seat labeled, "I've had my ups and downs." He's Caterpillar Club candidate.*

COLD WEATHER SURVIVAL FOR MARINES

SAFE AT LAST, REDMAN HAS THAT "ASIATIC STARE" AFTER SUCCESSFULLY ELUDING THE ENEMY

THERE were crunching footsteps in the snow, a sudden glare of light from a tripped flare, shadowy figures outlined against the mountainside . . . then darkness and silence, ear-shattering in its completeness.

Heart pounding, hand over mouth to muffle the sound of labored breathing, Marine Lt. Carroll G. Redman lay prone beside a clump of brush. White-clad enemy troops probed the underbrush with bayonets, scanning each bit of protective cover. More than 60 Marine pilots and aircrewmen were pitting their skill against a trained group of aggressor troops in the final phase of their Cold Weather Survival and Escape and Evasion training high in the Sierra Nevada's near the Cold Weather Battalion training camp at Pickel Meadows.

The footsteps receded into the darkness. Assured of apparent safety, Redman oriented himself by the north star and began crawling over the crusted snow, ever alert, using every bush and tree for concealment.

Only 500 yards to go. He didn't hurry, making sure of every move. He crawled ten yards past a small boulder and then rested for a minute. The boulder seemed to unfold and behind him stood a man. His heart sank. It was almost too much to bear to get this far and then lose.

Thoughts raced madly through his mind. Should he attack, make a break for it? Unbelievably, the strange figure rubbed his left eye with the back of his right hand. A dozen emotions, then relief, filled the pilot as he recognized the sign of the friendly agent.

There was a word of caution from the agent and the pilot continued his flight to safety. He went around a thin strip of wire and looked for a place to cross the river. It was too deep, so he crawled until he heard the sound of rushing water.

The rocks were slippery and he stepped carefully, afraid of slipping or making a sound that would bring flares, the enemy and capture. He had made it. Lt. Redman slowly trudged into the firelight on Walker's Island, the first man back from the problem.

Redman had spent three days at MCAS EL TORO being indoctrinated in Cold Weather Survival techniques and Escape and Evasion procedure. Through a series of lectures, films and actual demonstrations by competent instructors before departing for Pickel Meadows, the pilot had learned his lesson well.

Packing the barest essentials for survival on his back the Marine trekked high into the Sierras, built a one-man shelter, started fires under adverse conditions, foraged for food, made air-distress signals in the snow, studied star identification and land navigation, and learned how to make many articles which enabled him to survive under arctic conditions.

During the problem, one more Marine pilot acquired the knowledge he might someday need to survive and successfully escape and evade capture.

MARINES MOVE OUT TO LINE OF DEPARTURE

MARINE AD BUZZES DOWNED PILOT IN SIERRAS

AIRMEN LIVE IN THE MUD ON VIEQUES

WORKING PARTY UNLOADS OIL DRUMS FROM LCM ON BEACH AT VIEQUES

POWER LINES ARE STRUNG BY COLE AND PATCHETT IN FASRON CAMP

WHEN THE rainy season comes in the tropics, the wise man stays indoors. Outside a sea of mud bogs down any living creature that tries to move in it. Personnel of FASRon-121 coped with it and learned to live in it during their 90-day deployment on the island of Vieques, Puerto Rico.

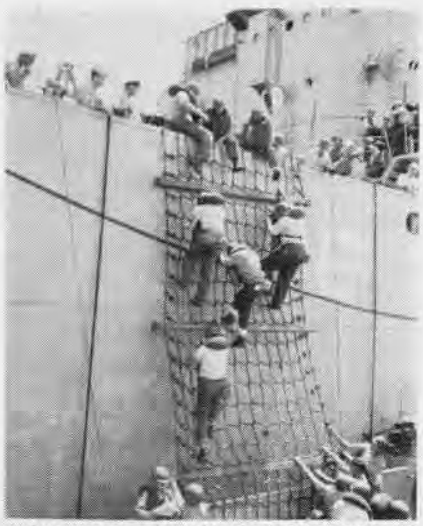
The experiment, conducted amid seasonal rains, may herald a new and important phase in the mobility of land-based Navy patrol squadrons. Reinforced by approximately 90 *Sea Bees* and supplementary supply and commissary personnel, the NAS OCEANA squadron took to the high seas aboard an AKA and two LST's. Arriving at Vieques, the unit was placed ashore under conditions that would be found at any barren, advanced site with airfield potentialities.

The FASRon's goal was to establish an airfield capable of providing early aircraft maintenance support and base support to land-based squadron aircraft and minimum squadron personnel. While placed on minimum physical facilities to maintain maximum mobility consistent with the accomplishment of assigned missions, FASRon-121's tasks included the support of one squadron for limited periods of time.

Once ashore on Vieques, the hard work began in earnest. The unit took over an airstrip in poor condition and undertook measures to combat the destructive damage and hazards created by heavy tropical rains. The men policed the runways daily, making the field usable with a minimum of danger to landing and departing aircraft.

The maintenance of the field wasn't their only concern. They were required to establish habitable living areas consistent with good health standards. All hands lived in tents during the entire operation and ate C rations until the *Sea Bees* and commissary personnel erected a permanent mess.

Within 48 hours after the landing, the field was ready to receive aircraft. For three months, P2V *Neptunes* attached to VP-3 at NAS JACKSONVILLE and VP-11 and VP-8 at NAS QUONSET POINT operated from the field without a major accident. Each squadron operated singly in the order mentioned above, utilizing the equipment and supplies for the maintenance of aircraft.



OVER THE SIDE ON WAY TO BEACH TO UNLOAD

The 25 officers and 375 enlisted men of FASRon-121 and CBED-1 under Cdr. R. J. Celustka, FASRon CO, made the barren field a functioning unit by supplying field lighting by generator-powered portable lights, air-to-ground communication, aerological forecasts, and fire-fighting and crash equipment. Photographic services were available for photo reconnaissance work but were used mainly for evaluation purposes.

AERONAUTICAL spare parts in sufficient number for Class D (single squadron) maintenance were available to support aircraft operations. Aviation gasoline and oil servicing were initially carried out from supplies that were carried in drums and delivered to storage tanks existing on the island. Ammunition and pyrotechnics were supplied from stores carried ashore.

Most of the camp construction and maintenance was furnished by the *Sea Bees*, headed by Chief Carpenter Browne. Motor transportation and vehicle maintenance, lighting and heat, and ration support (replenished by air and sea) were cared for by *Sea Bees*.

As a unit of FAirWingsLant's anti-submarine patrol command, FASRon-121 has been under the close scrutiny of ComFAirWingsLant, ComAirLant, BUAER and CNO. These departments will determine the practicality and validity of maintaining a mobile FASRon unit as a permanent factor in the ASW defense program. The 90-day experiment is going to bear considerable weight in the decision.

A SAILOR'S DREAM COMES TRUE

LIVING in a foreign country without relatives, knowing very little about the country's customs and language proves to be a definite challenge for any adult. It was even more of a challenge to young Demetrios Pilitsis as a teen-aged youth.

The final reunion link in a separation chain of eight years was held when the *Randolph* dropped anchor in the harbor of Salonika, Greece. The entire village of Livadikion, 11 miles from Salonika, turned out to welcome home Pilitsis, HM3, who left the small but colorful settlement at 15 to become an American citizen.

Young Pilitsis' father, Livanios Pilitsis, a naturalized American citizen, was killed while serving aboard the SS *Muskogee,* an American merchant ship. The ship wrote a mysterious page in the history of Allied naval warfare when she disappeared with her entire crew in March 1942 while enroute from Halifax to Trinidad. It is assumed that she was torpedoed by a U-boat which was itself sunk before being able to make a report of the torpedoing.

After his father's death, with his mother's consent, the American Consulate in Greece made necessary arrangements for young Pilitsis to enter the U.S. as an American citizen. In June of 1946, the youthful Greek lad was making final preparations to cross the Atlantic for the first time.

Pilitsis had hoped to enter the U.S. when he was older and had learned more about American customs and the English language, but immigration laws required entrance prior to his next birthday. In the beginning, he encountered many difficulties since he had no relatives in the U.S. and could speak only broken English which he'd learned in his native village.

Some of his father's friends came to his assistance and, during the next four years, he lived with one of his father's colleagues in Red Hook, New York. He studied diligently, always visualizing his boyhood dream of becoming a physician.

A long medical education at that time was too expensive, so he joined the Navy and was accepted for corpsman training. After completion of his training, he went on duty at the Naval

GRANDMA, MOTHER WAVE GOODBYE TO SAILOR

Hospital at Oakland and continued his studies, each day watching his life's dream becoming more and more of a reality.

He served first aboard the *Yorktown* and then the *Valley Forge.* When the carrier put into Portsmouth, Virginia, for drydock repairs, he learned that the *Randolph* was leaving for a Mediterranean cruise in 48 hours and was slated for a four-day visit to Salonika. This was the big break he'd been awaiting . . . a chance to visit his mother, his home and loved ones he'd left eight years before.

The next 48 hours were busy ones, Pilitsis had to make arrangements for transfer with another corpsman aboard the *Randolph* and secure Navy approval. Everyone cooperated with the young Greek American and he boarded the *Randolph* just eight hours before she sailed. His dream of home was fulfilled, thanks to the Navy.

THE HONORABLE *James H. Smith, Jr., Asst. SecNav for Air talks to LSO's on station during a visit aboard the Bennington. He witnessed day and night simulated attacks and live bombing and strafing attacks on a towed spar during his overnight visit.*

Long Lay-over for Pilots

VR-31 Pilots RON 9-days at St. Louis

Five VR-31 aviators set out recently from NAS NORFOLK, on a routine ferry hop. The itinerary read "NAS San Diego via St. Louis," with never a mention of delay enroute.

When they reached St. Louis, however, they ran into cold fronts which brought ice and snow. The five were forced to delay for nine days. After discovering that dollars and clothes ample for a routine hop can scarcely be made to last indefinitely, they sent the following telegram to their wives:

The St. Louis Detachment has lost its grip
We are sorry we asked for this fouled up trip.
After nine long days we're in a rut
No clothes, no money, no you know what.
Anheuser Busch is going dry
The fearless five is ready to fly
But aerology forecasts no relief in sight
Our best regards to R. C. White

Though they didn't reply, squadron operations officers expressed their sentiments.

We're sorry to hear of your awful plight
Here is the word from R. C. White; Go, Go, Go!

Cdr. R. C. White is squadron operations officer.

VR-24 Now Flies to Madrid

U. S. Bases Need Logistic Support

Twice-weekly planned flights to Naples by VR-24 planes are now in operation. Enroute stops are made at Madrid, London and Paris. The flights are scheduled to depart each Sunday and Wednesday at 1400 from Port Lyautey and arrive at Naples at 0930 on Monday and Thursday. Return flights depart Naples at 1400 each Tuesday and Friday and arrive at Port Lyautey at 0930 each Wednesday and Saturday.

The flights have been designed to connect with planned flights operated by VR-1 at Port Lyautey and Naples. Previous VR-24 flights didn't make enroute stops at Madrid, Spain. However, because of construction of U. S. bases in Spain, the enroute stop at Madrid should be beneficial for construction personnel and cargo during the initial buildup. These flights are designed primarily to airlift cargo to terminals.

PROP JOBS ON WAY OUT OF RESERVE VF

NOT JET, BUT SOON. IN THE COMING YEAR RESERVE FIGHTER SQUADRONS WILL SHIFT TO HIGH GEAR IN COUGARS LIKE THE F9F-6 ABOVE

ONE OF the best bits of news for Reservists in a long time is that before long prop-driven fighter planes will disappear from the Reserve scene. The "horse-and-buggy" days of the Naval and Marine Air Reserve are drawing to a close, and by the end of fiscal year 1956, no propeller-driven planes will remain in either command, if the present plans are carried through.

Although the shift to jet-powered planes has been spotty up to the present, it is indicated that package units (14-16 planes), enough to support one to four squadrons, will be moved into Reserve activities in increasing numbers. By the end of September, at least 96 F9F-7's are going to be Reserve-operated. Fourteen F9F-4's are slated to arrive in June, and enough F9F-6's by December so that a package unit will be aboard two stations. The build-up of the F9F-6's will continue, so that by the end of fiscal 1955 there should be over 200 in operation.

By the end of fiscal year 1955, the F2H-2 *Banshees* should begin to make an appearance on Reserve flight lines.

Reserve fighter pilots will become *bona fide* members of the "jet jockey" fraternity, whose members get priority on take-off, break-up and landing. No more waiting at the warm-up spot while sleek blow-pipes whine past into take-off position. No more circling the traffic pattern after a hot and heavy gunnery hop while fuel-eating jetsters are cleared to land from five miles out. Pounds of fuel, Mach indications will become ready-room jargon instead of recriminations against the "old, beat-up clunkers."

Perfect Safety Record for VA-724

Boys from the "Windy City" area are proud of the safety record and accomplishments of Glenview's VA-724 during its ATD cruise at NAAS SANFORD. In spite of a recent conversion from AM1Q's to F4U-5's (10 to 12 hours per pilot before the cruise), and poor plane availability during the first week, the 15 participating pilots racked up an average of 35 hours each.

There were no wheels-up landings, no taxi accidents, no mid-airs, no ground loops, no forced landings, and not one mishap among the line crew, ordnance men or mechanics. Flight syllabus covered included cross-country, navigation, formation, dive-bombing (on a harp), glide bombing, rocket firing, strafing, camera gunnery, high side gunnery (using 20 mm) on a banner, and night flying hops. The ordnance men were kept busy loading 20-mm cannon, rockets, and bombs, and the mechanics had their hands full keeping the flight line full of planes in an "up" status.

All hands agreed that Sanford is a nice town, and that the people are just as nice as their weather, which was perfect. First reaction to a last minute change in original plans to cruise at NAS JACKSONVILLE was disappointment, but the target for subsequent cruises of the squadron may be a Sanford, Sunshine, and CAVU repeat.

SWEET WELCOME FOR GLENVIEW'S VA-724 FROM SENIOR SANFORD USO HOSTESSES, LUCKY GUYS

THE "THREE WHIRLYBIRDS", LCDR. BARUFALDI, LT. PAUL BERKMOSE, AND LT. WALTER CROCKER, JR., COMPRISED FLIGHT DEMONSTRATION TEAM

Bean-Eater 'Copters Cop Trophy

Skyrocketing to top place among Reserve helicopter squadrons less than one year from inception has been taken in stride by NAS SOUTH WEYMOUTH's HU-911. The proud recipients of the coveted Noel Davis Trophy, yearly presented as a result of nationwide competition in excellence of squadron operation and administration, are determined to maintain their first-place position among the rotating skyhooks. If experienced personnel, high morale, and hard work will effect the goal, they have a good chance to do it.

Commissioned on Armed Forces Day 1952, under the command of LCdr. William F. Mitchell, HU-911 seemed destined for success at the start. Aggressive leadership, attention to detail, and intensive training soon welded the squadron into an highly effective unit.

On Armed Forces Day 1953, in observance of the first anniversary of their commissioning, members of HU-911 formed a helicopter flight demonstration team known as the "Three Whirlybirds," and astounded wide-eyed spectators with their intricate and seemingly impossible maneuvers.

Later, during the summer, LCdr. Donald Phillips, Executive Officer for the squadron, flew "air spot" for the National Model Airplane Association during their annual meet at NAS WILLOW GROVE, Pa. LCdr. Phillips and his crewman, Hubert Foote, ADI, made literally hundreds of "saves" as they spotted small model aircraft which landed in fields and trees. The location of the models was radioed to the Willow Grove tower and owners were directed to the scene.

FREQUENTLY the squadron is called upon to perform rescue and mercy missions. Although the HTE-2 helicopter is not designed for rescue operations, LCdr. Mitchell and his Operations Officer, LCdr. Eli W. Barufaldi, devised a special sling which would enable them to rescue pilots and personnel from the chilly waters of Boston Harbor. Recently a stretcher carrier was contrived for the helicopters which will enable the plane to carry a stretcher patient. Lt. John W. Widmer, Liaison Officer for HU-911 successfully demonstrated the carrier at a military-medico symposium at the U.S. Naval Hospital, Chelsea, Massachusetts.

At the beginning of the summer training season, the need for additional rescue facilities during the heavy weekend training periods became apparent. LCdr. Mitchell, together with his squadron officers, worked out a helicopter plane guard which was on duty during flight operations. Fortunately, it was never necessary to use the additional rescue facilities for other than training purposes, but pilots expressed approval of the plan and urged that it be continued. HU-911 happily assumed a continuation of the vigilant watch.

LESLIE *McCullock, ALC, and James Swanson, AL2, place the improvised stretcher carrier on HTE-2 flown by LCdr. Barufaldi.*

READY *for any of the many jobs in the scope of 'copters are Lt. (jg) Joseph Mallahan, and Lts. John Widmer, Donald Provost.*

AMONG the handful of officers which make up the unit, several are veterans of the Korean campaign. Few can top the experiences of Lt. Francis "Yip" Yirrell, and Lt. Richard Stephansky, the principals in a daring night rescue mission to the front lines.

When other means of evacuating a severely wounded officer from the fighting area had failed, the two lieutenants volunteered to fly to the front in a helicopter.

The fact that it was dark and all planes had been grounded due to high winds seemed unimportant. With Yirrell at the controls and Stephansky acting as "navigator", the pair took off on the first leg of their mercy flight. Through the precipitous Korean hills, Yirrell flew the helicopter guided only by instruments lighted by a flashlight held by Stephansky. Death was often inches away as they groped their way to the front.

Arriving at the designated area, Yirrell landed the helicopter in the light provided by two parked jeeps. The patient and a doctor were waiting. However, only three could crowd into the tiny cockpit. Stephansky remained behind and the doctor took over the duties of the navigator.

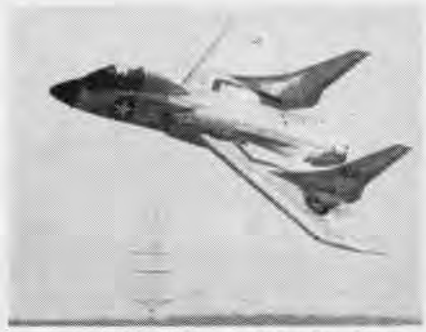
The mercy flight arrived at the evacuation hospital without a mishap, and Yirrell and Stephansky were credited with making what was believed to be the first night helicopter rescue on record.

COMMANDING Officer of HU-911, LCdr. Mitchell, is a landscape artist, and specializes in building and designing golf courses. His Executive Officer, LCdr. Phillips, is an architect. Cdr. Parker Gray's "Knotty Pines Restaurant" is well-known on Nantucket Island, and the Administrative Officer, LCdr. A. C. Whelan, is Principal of Revere High School, Revere, Massachusetts. Lt. Charles F. Herberger, Personnel Officer, is professor of English at Colby Junior College, New London, New Hampshire. Like most Reserve squadrons, this is a cross-section of civilian vocations and interests.

The only member of the squadron engaged in aviation activities in civilian life is LCdr. Barufaldi, who is a helicopter pilot for a local crop dusting group, but on drill weekends, all hands shed their earthbound vocations along with their tweeds and pin-stripes, and concentrate on keeping HU-911 on top.

"RIDING *the crest" of official recognition, the pilots, ground officers, and crewmen of HU-911 are determined to keep their position as a winning, efficient team.*

LCDR. MITCHELL *"instructs" Cdr. Parker W. Gray, a 20,000-hour war-time ferry pilot.*



SHUTTERBUGS *may be interested in the rather remarkable "blow-up" (right) from a 35 mm movie film frame. Taken with a 20-inch telephoto lens on a 35 mm camera of a F7U-3 immediately after takeoff, sharpness of the picture was obtained by cutting the 170 degree slot in the rotary shutter down to 15 degrees so each frame gets about 150th of a second exposure instead of the usual 30th of a second.*

Jet Record Shot at Gitmo

VF-84 Gets AirLant Honors in F9F-5's

During recent AirLant competitive exercises at Guantanamo Bay, VF-84 set an air-to-air gunnery record at 15,000 feet by shooting an overall average of 36.9% with their F9F-5 *Panthers*. This score also put them in line for current top squadron honors in the *NANews Shootin' Match*.

None of LCdr. H. V. Ladley's pilots had fired in jet competition previously, but their score bettered the old AirLant record by more than one percent. Twenty of the 21 competing pilots earned individual "E"s. Lt. (jg) W. M. Austin fired a 66% score, and Ens. T. B. Green followed closely with 61.3% to place them second and third in overall AirLant competition. VF-84 also claims records for the number of hours (1439) flown by a 16-plane jet squadron, and for the number of rounds fired (93,613).

The squadron gives credit to all hands in making these scores possible, marking the ordnance and line crews for special praise on their work.

Prior to the Gitmo cruise, the squadron had participated in the evaluation and demonstrations of the *Antietam's* canted deck, logging more than 1200 landings during a six-month period. This outfit also took part in the demonstration of the *Antietam's* deck to the British Admiralty during July 1953 in the English Channel. Last September it was aboard the *Tarawa* helping evaluate the new mechanical LSO and a new low-visibility carrier controlled approach.

Shown in the picture are pilots of VF-84 during their training cruise: Kolbek, Rogers, Iglesias, Ringe, Plimmer, Anderson, Solveson, Kivlen, Austin, and Ogle. Rear row: Felderman, Kurth, Garbee, Riley, Green, Kennedy, Lewis, Hoover, Hall, McNerney, and the squadron's C.O., LCdr. Ladley.

He Knows Three Services

Went from Navy to ANG to Marines

When Marine 2nd Lt. James F. Coleman finally received his commission in the Marine Corps, he decided to call a halt to his changing services.

In September 1942, he donned the Navy blue and became a naval aviator. He was in Hawaii when he was returned to inactive duty as Lt. (jg). He obtained employment as an air traffic controller at the Honolulu National Airport, promptly accepted a commission as a 1st Lt. in the Air National Guard and returned to his first love, flying on weekends.

Prompted by the outbreak of hostilities in Korea, Coleman decided that he wanted to return to active military service. The adventurous aviator had an urge to realize a life-long ambition. Paying his own transportation, he flew back to the United States and enlisted as a private in the Marine Corps.

He rapidly rose to the rank of sergeant. However, the rooted urge to fly again got hold of him and he applied for an aviator's commission. His application accepted, he was sent to Quantico for a five-month training course. He is now stationed at MCAS CHERRY POINT as an AD night-fighter pilot with VMA-20.

VF-84 PILOTS HAVE MADE OUTSTANDING TOTALS IN THEIR RECENT GUANTANAMO BAY CRUISE

Technical Aids for NACA

Four Navy Officers Among Electees

The National Advisory Committee for Aeronautics has selected four naval officers to serve as members of the technical committees and subcommittees.

Interested primarily in the scientific laboratory research in aeronautics, NACA is assisted in the coordination of research programs by more than 400 specialists whose collective talents represent leadership in virtually every branch of the physical sciences.

Four naval officers have been selected because of their technical ability, experience, and leadership in special fields. Providing material assistance in the consideration of problems related to their technical fields, they will review research in progress both at NACA laboratories and their own organizations. Another phase of their job will be to recommend research projects to be undertaken and assist in the coordination of the programs.

Working with eleven civilian experts who were also selected by NACA will be: Capt. M. H. Goodwin, MC, special subcommittee on aircraft noise; Capt. J. C. S. McKillip, subcommittee on meterological problems; Cdr. D. M. Walley, subcommittee on compressors and turbines, and LCdr. F. F. Reck, subcommittee on seaplanes.

REGULUS MISSILE GETS 'CANNED' ON CROSS-COUNTRY

THE POWERFUL *Regulus* guided missile can travel through the air at tremendous rates of speed. But it was a different story when the missile was ground-bound on a trip from its home factory to its desert testing grounds in California. It crept along at a snail's pace until Chance Vought missile engineers came up with a way of "canning" it for a safe cross-country trip.

The idea may have had its beginnings in problems which the aircraft maintenance department at NAS DALLAS has encountered in transporting damaged aircraft from remote areas in the southwest into its shops for repair. The aircraft company and the Reserve naval air station have long enjoyed a neighborly exchange of ideas and cooperation.

Remembering how the maintenance men at NAS DALLAS made a 200-mile haul with a disabled *Panther*, the engineers knew that their own knotty problem had an answer. They took a page from the Reservists' book of ingenuity and worked out a shipping concept that led to the eventual development of a unique, missile-carrying semi-trailer.

The sleek missile, guided by a loading crew, is lowered into the specially-designed missile carrier. The container's shape conforms to the shape of *Regulus* with its wings folded.

Nestled snugly in the container, the guided missile is effectively sealed against the weather and any tampering by the upper half of the cylinder. When it is ready to roll down the highway on the long haul to California, the *Regulus*-carrying truck takes up no more space on the road than an ordinary truck does.

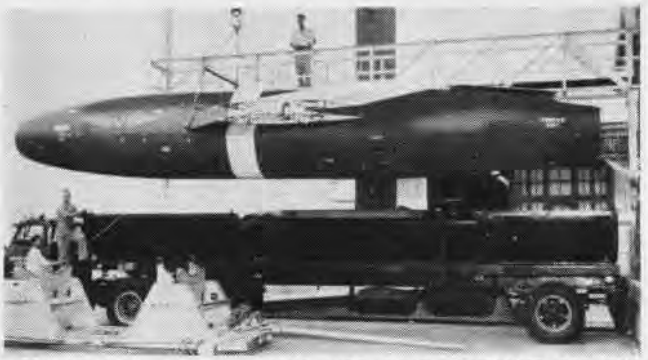
Previously, it was necessary to ship the missile on a flat bed truck. This method of transportation posed a tough problem which started the engineers on their search for a suitable solution. The missile's wings extended out too far on the highway with the result that travel was both slow and costly. The new truck with its "canning" method has done away with all of the old obstacles.

ONCE THE *Regulus* missile is locked in its cylinder, it is simply rotated so that both wings no longer protrude over the highway. There's no danger for either the missile or the other traffic using the highway.

Loading and unloading of the *Regulus* are accomplished in no time at all. Since the missiles are thoroughly ground-tested at the factory, when they reach the desert testing grounds, they're ready to start flight operations at once.

With the rapid delivery of complete missiles, the company is able to reduce both time and the cost of transportation and, at the same time, increase the security of the deadly weapon. As an added feature, the cylinder can even be used to store the missile at advanced bases or during waterways shipment, keeping it safe from salt water.

MISSILE-CARRYING SEMI-TRAILER IS READY TO RECEIVE REGULUS



LOADING CREW LOWERS MISSILE INTO SNUG CONTAINER FOR TRIP

CONTAINER'S SHAPE CONFORMS TO THE SLEEK FORM OF REGULUS

NO LARGER THAN ORDINARY GASOLINE TRUCK, REGULUS TRUCK ROLLS

VS-26 FIRST TO RECEIVE NEW S2F

POISED LIKE A HUGE BIRD READY TO START FLAPPING ITS WINGS IS THE NEW S2F DUAL-PURPOSE HUNTER/KILLER PLANE AT NAS NORFOLK

THE SNUB-NOSED, twin-engine plane moved slowly alongside the TBM "Guppy" hunter and killer and relieved the two planes on station. Pilots of the three planes saluted smartly and the hunter and the killer aircraft turned and headed for home. A new era for VS-26, "the Ready Squadron," had begun.

With the mass flight in February of seven of these new deadly S2F aircraft from Grumman's Bethpage plant to Norfolk, VS-26 became the first squadron to be equipped with this new sub hunter/killer. RAdm. W. M. Beakley, ComHuKLant, was on hand to inspect the first seven planes and to congratulate Cdr. V. V. Eason, Squadron C.O. on being the first to receive the new plane.

Combining the capabilities of both hunter and killer, the S2F carries a crew of four. Seated well forward, the pilot and co-pilot have a wide range of vision. The radioman and radarman are seated just aft of the cockpit.

The cockpit itself is a well planned, compact unit. A folding control console gives ready accessibility to the seats. Each member of the plane has an escape hatch just above his seat, which is used in ditching and doubles as an outlet for fueling the plane. For single engine flying, the S2F has a new hydraulic "rudder boost," which takes the strain off the pilot.

The S2F carries sonobuoys in a special housing aft of each engine and ejection is effected from the pilot or co-pilot's seat. During hunter/killer operations the co-pilot's controls lock locked forward by a special type lock bar, giving him wider and easier use of his confined space. Each yoke is equipped with three buttons which serve much like the firing button on the control stick of a fighter plane.

To the right of the co-pilot, the searchlight controls have been installed, and from this pistol grip type control, the co-pilot directs the arc of the light.

Equipped with a fast opening and closing bomb bay door, the S2F carries the homing type torpedo on the port side of the plane. During exercises or actual submarine hunting, the radar dome, a spun glass housed unit, is telescoped from the inside automatically and the "barber pole" MAD equipment juts from below the rudders. Each wing is equipped to hold either depth charges, rockets or bombs.

FOR CATAPULT shots, the plane incorporates a new retractable handle for gripping during the actual shooting. By placing the throttle forward and gripping this handle, a pilot is not apt to slow his speed on take-off. Another feature in the cockpit is the control lock. With this handle pulled to the "down" position, the engines cannot be revved beyond 1500 rpm, which is insufficient power to raise this killer into the air.

Commissioned in September 1950, VS-26 officers and men have been flying day and night in all possible weather conditions, in the Mediterranean, the North Sea, the north Atlantic and the Caribbean, in a constant effort to improve its anti-submarine detection methods.

Because of the exacting nature of ASW activities, all squadron personnel must be highly trained and proficient in their jobs. Pilots are required to have three years of specialized training including two years of flight training and one year of flying with the squadron, before qualifying with two years of both theory and practice.

Owing to the round-the-clock operations necessary to guard our shipping

FULLY ARMED, THE S2F CARRIES EITHER ROCKETS, BOMBS OR DEPTH CHARGES AND INTERNAL HOMING AERIAL TORPEDOES. SHE CRUISES AT 130K

constantly against the possible harassment of enemy submarines, the pilots and aircrewmen must be in a constant state of readiness.

As in other ASW squadrons, each fighting team of VS-26 was composed of two aircraft, one employed as a search aircraft and one as a lethal weapon to destroy the submarine. With the inauguration of the S2F, VS-26 will soon put the hunter and killer aircraft to pasture and utilize this one plane for its twofold job.

In 1952, VS-26 was assigned to engage in *Operation Mainbrace,* an operation comprising all 14 NATO Nations and involving extensive land, sea and air maneuvers in the treacherous North Sea. During this exercise, the squadron succeeded in detecting and simulating kills on seven "enemy" submarines.

During *Operation Mainbrace,* the squadron visited such ports as Greenock, Scotland, Oslo, Tangiers, Gibraltar, Naples, Cannes, and Algiers.

LIKE any other squadron which goes through the growing pains of aircraft transitions, VS-26 will continue to find new twists with the S2F until all the problems have been faced and met. Squadron engineers and linecrewmen are quickly adapting themselves to the S2F and the vote of confidence voiced by the squadron's power plant chief, Elmer C. Stamm, ADC, seems to prevail when talking to line crewmen. Stamm, a veteran of two wars, has nothing but praise for the ready accessibility of working space in the engine cowlings and said, "It's just like any other new plane. Until you get used to the new features, it is a novelty. Once you have that licked, you have it made."

Ens. Noble G. Davis who recently joined VS-26 has nothing but praise for the S2F and said, "Yes, sir, this is really and truly a gentleman's airplane." His words were confirmed by R. E. Allen, AOC(AP) a VR-31 ferry pilot, who is checking out in the plane for ferrying it around the country.

S2F CREW RECEIVES BRIEFING PRIOR TO FLIGHT

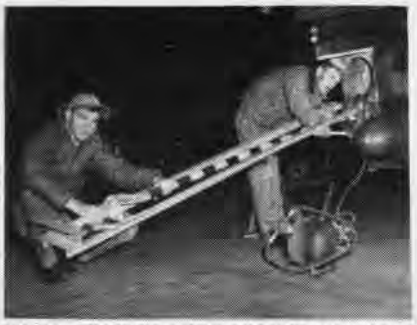
Allen, who is checked out in 23 different types, calls it "the sweetest plane I have ever flown."

The officers and men of VS-26 anticipate the early delivery of 15 additional S2F's, which will bring the squadron up to strength. With the big transition, one member of VS-26 looks forward to what he fondly refers to as "many hours of leisure." J. E. Brouillette, ADC, smiles broadly when he says, "With the big switch-over, once I familiarize myself with this new plane, I get rid of one Beech, a guppy and a killer. That makes it simple!"

One of the first cross-country flights made in the S2F was made by Cdr. A. J. Kelly head of the S2F class desk with BUAER. Kelly, a Grumman test pilot and two service test officers from NATC PATUXENT, Cdr. Badger and Lt. Heath, ferried three of the new planes to introduce them to western naval air commands. After their introduction to ComAirPac, the three planes were turned over to VS-38. Although VS-38 received these first planes, VS-23 will be the first squadron on the West Coast to receive a full complement of the new hunter/killer.

In the event of another war, the submarine would be one of the most destructive threats that any enemy could employ against our country's defenses. With squadrons such as VS-26, this threat can be minimized.

VS-26 personnel train to live up to the title of the "Ready Squadron."



P'POOL, JOHNSON SHOW OFF RIG THEY MADE

Tail Hook Fix is Designed

NAS NORFOLK—VS-22 maintenance personnel have designed and manufactured a compression rig which reduces the time required to install an AF-2S/2W spring-loaded tail hook from over an hour to 10 minutes. It also reduces the number of men required to make the installation from five to one. Charles E. P'Pool, AM3, and N. K. Johnson, AM1, invented the device.

Previously, the installation was accomplished by compressing the spring with a shop tractor backed against the tail hook's point. One man in the cockpit held the brakes to steady the aircraft, another manned the tractor, two steadied the tail hook while a fifth attempted to insert the retaining pin.

The Johnson-P'Pool rig is bolted to the tail hook assembly at the crank assembly. Then the tail hook yoke is placed in position on the trunnion while the point of the hook is placed in a bracket on an hydraulic jack built into the rig. Manipulating the jack through a linkage lever, the mechanic can align the openings quickly and precisely. He then inserts the retaining pin.

Resourceful CPO's on Job

NAS ALAMEDA — Three resourceful CPO's of VF-91 have developed some useful ideas for the maintenance department of all jet aircraft squadrons, especially those squadrons with F9F-6's.

The problem of removing combustion chambers with the weldment bound in the supporting ring has been solved by Robert D. Smith, ADC, and James F. White, ADC, with their "Little Jiffy Jug Puller."

The problem is to get the combustion chamber forward and out of the turbine section supporting ring, after the chamber has been moved aft and the spacer taken out at the forward end of the chamber. This was previously done with a mallet and tended to break the flanges on the combustion chamber, resulting in a survey of the chamber.

The "Little Jiffy Jug Puller" consists of scrap material fashioned into a jack that pushes the "jug" easily and quickly out of the engine, thereby reducing the time involved in removing all the "jugs" from a J-48 engine to fifteen minutes.

A combination rudder and elevator batten has been invented by Arnold M. Carlson, ADC, VF-91 Line Chief, to replace the unwieldy batten previously used. The batten consists of two pieces of wood shaped to fit the side of the tail and rudder of the F9F-6, a long bolt to go through a hole in the tail, one side of which is drilled in manufacture, and part of the elevator linkage. The batten is small, easily installed, cannot be blown off in high wind conditions, and has been found completely satisfactory for use on the F9F-6.

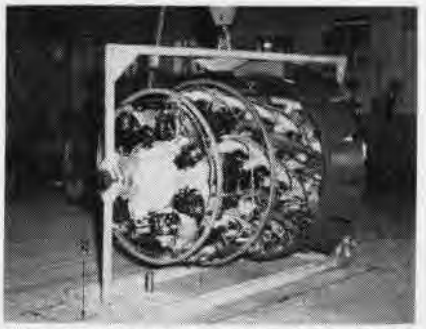
Tire Changer is Improved

USS YORKTOWN—CAG-2 is using an improved tire changer based on an idea of Lt. Oren E. Gibson.

The necessity for developing a new tire tool arose from the increased maintenance problem created by the presence in an air group of three jet squadrons, instead of the usual two. Lt. Gibson took his idea to Elmer E. McCord, ADC. Using spare parts, McCord built a piece of equipment superior to the standard tool used. Ordinarily it takes 20 minutes to remove the casing from the rim of a wheel, but Chief McCord's new hydraulic tool cuts down the time to less than one minute.

The base of this tool is a discarded F4U-4 tail jack and its enclosed hydraulic double action strut, on which a circular table 16½ inches in diameter made from ½ inch boiler plate is welded. A ring two inches deep and 16½ inches in diameter is also welded onto this plate. The tire is then placed on the plate with the projecting lip down. The upper ring, which is only one inch deep, is placed upon the tire. The nut is screwed to the end of the strut and the strut retracted. Usually, seven strokes of the handle is sufficient to break both sides of the tire.

MCCORD (L) DESIGNED, BUILT TIRE CHANGER



UNIT SHOWN WITH CAROLINE MARS ENGINE

VR-2 Designs Engine Stand

NAS ALAMEDA—To improve handling and air shipment of spare engines for JRM's, L. R. Peterson, AM2, of VR-2 has developed lightweight QEC units.

The stands used previously were heavy and unwieldly structures of steel and wood. By using lightweight design, Peterson saved 1000 lbs. on the R4360-4T stand and 600 lbs. on the R3350-8A engine stand. The stands are a boon to loading crews because of the ease with which they can be handled.

They are made of 2"x3" 24ST aluminum channels assembled with ½" bolts. The hoisting frame is made from 2¼" chrome-molly tubing.

Corpus Marks 500th R5D

CORPUS CHRISTI — When R5D 90387 rolled out of O&R recently for delivery to ACTRU and a return to flying service, it was a significant event. For this particular plane, it was the fifth trip to Corpus Christi for heavy maintenance overhaul. For the entire R5D fleet, it was the 500th job of the kind accomplished at this station.

In November of 1949 the Navy assigned future work on the big transports to the Corpus Christi station, and this has been the bulk of the work load since that time. O&R records show that there have been 57 overhaul jobs along with 443 heavy maintenance jobs. Records also show every R5D they have in the fleet has made at least one trip to this station for this purpose. Therefore it can be said, according to O&R authorities, that wherever anyone flies in an R5D, they are in a plane that has been serviced at Corpus Christi.

Capt. R. F. Mahachek, O&R officer, states that since over one quarter million miles are now logged by these planes between trips to Corpus Christi, the maintenance cost is only slightly over 20 cents per mile, a figure which compares favorably with that of an automobile, when passenger miles are considered.

● NAS QUONSET — The Navy's only canted deck carrier, the USS *Antietam*, began operations from Quonset recently. Her 1734 officers and men will call Quonset "home port." VS-39 was aboard.

Modern Sky-Sounding Gear

Aerological soundings at heights in excess of 20 miles are becoming routine. Naval Station at Adak reports soundings at 138,886 feet; Fleet Weather Central Kodiak, at 104,000 feet, and Fleet Weather Central Norfolk, at 102,539 feet.

Research in upper atmosphere has been enlarged by constantly improved equipment. Representative of this development is the Rawin set (AN/GMD-1A) which has been installed at stations selected in coordination with national and international weather services.

The Rawin set is a radio-direction-finding, automatic-tracking equipment which successfully receives aerological data from radiosondes carried aloft by aerological balloons. To achieve similar improvement in aerological soundings at sea, a shipboard wind finding equipment has been designed. BUAER is now testing the prototype.

To meet another shipboard problem, a modernized hand-held wind measuring set, the AN-PMG-3, has been issued to aerological units and other activities requiring wind speed and direction on board ship. This equipment is also suitable for use at shore stations.

Still another equipment for shore station use is the new *rotating beam* ceilometer which measures the heights of the base of the clouds. A limited number of these are being procured for test and evaluation. The improved system uses a rotating beam projector with the detector unit trained in a fixed vertical position. Accuracy is claimed for the system on the order of a few feet up to altitudes of 7000 feet.

In addition to the increased accuracy, the rotating beam ceilometer has another advantage over the present AN/GMQ-2, the increased speed of measurement. This has been increased from a six-minute to a six-second frequency.

Mobile Link Trainer FAWTU's

A new mobile link trainer has recently been installed at the Key West Fleet All Weather Training Unit, Atlantic. The cockpit design of this trainer is constructed to correspond with the cockpit of the F2H-2 *Banshee* jet fighter and includes a complete panel of flight and engine instruments.

The mobile trainer is operated to simulate instrument flying, radio navigation and emergency procedures to help aviators adjust themselves to the numerous problems and hazards of all-weather flight.

The new trainer, manufactured by Link Aviation, Inc., is the first completely mobile trainer in its field. Its mobility stems from the fact that the entire unit is mounted on a 15-ton trailer truck. Several similar units have been built for different types of aircraft and are deployed around the country to meet the training needs of the Navy.

JAGGARD AND FULLER ASSEMBLE POWER UNIT

Lightweight Power Unit

NAS JACKSONVILLE — An hydraulic power unit designed by two VF-31 men has taken the place of a regulation power unit 10 times it size.

Parts salvaged from other planes were used by Luie R. Fuller, AMC, and Joseph F. Jaggard, AM1, in building their 150-pound power unit.

In satisfactory operation for VF-31, the small unit equals the performance of its big predecessor during routine maintenance and safety checks. It can supply hydraulic power wherever needed, aboard ship or on shore.

Hydraulic Pump Modified

USS ORISKANY—The Air Department recently solved the problem of producing volume and pressure necessary for making system checks on F9F-6 *Cougar* jets. Previously, a Dennison portable hydaulic test machine was used but it did not produce the necessary pressure for tests.

The machinists aboard the *Oriskany* removed the Dennison pump and adapted a F9F-6 engine-driven, hydraulic pump in its place. The drive connection consisted of a somewhat ingenious device involving two three-inch metal discs with raised keys on their mating surfaces and a piece of micarta with grooves to fit the keys meshing the discs.

The machine functions efficiently and yields power for test and maintenance work equivalent to that provided by the plane itself while in flight.

Marine Makes a Handy Tool

MAW-2 CHERRY POINT—SSgt. Charles E. Whitaker has designed a tool which has been highly successful in removing the oil pump orifice assembly to check the cleanliness of the screen.

Before this, removal had been accomplished by using long nose pliers, but this had caused damage to the external threads of the orifice assembly.

The tool Whitaker devised does not cost much since most of the material can be procured from scraps or salvage.

The tool removes the orifice assembly efficiently without damage of any kind.

SMALL TOOL WORKS EFFICIENTLY, SMOOTHLY

Inspector Invents New Gauge

A new gauge that permits a 12 to 14 percent saving in parts-inspection time has been designed by a civilian inspector for the Navy attached to Pratt & Whitney Aircraft's Meriden plant and is now in use there.

An invention of Tom Metropolis, the gauge simplifies inspection procedure by eliminating two of three gauges formerly required in the threaded parts-checking operation. Prior to adoption of Metropolis' gauge, which combines three testing steps, separate gauges were used to check concentricity, squareness and pitch diameter of parts.

The gauge was assembled originally from spare parts and relies on rotation of the gauge instead of the part being inspected. Gauge standards experts at Meriden term the simplicity of gauge-loading as the primary feature of the new design developed by the inspector.

Attached to the second shift at Meriden, Metropolis is in charge of two civilian Navy inspectors. Their main job is to spot-check the work of P&WA parts inspectors and submit reports to the Navy.

Use Drift Signal for Rescue

In the Arctic Circle and high latitudes, an improved method of indentifying survivors of ditched aircraft is needed. In a heavy sea and overcast, it is virtually impossible to spot survivors farther than a few hundred yards from the search plane.

Under Navy Awards and Incentives Program, John D. Liverman of VP-5 has made a suggestion that has been approved for optional adoption by other activities. He has suggested using the Mk 5 Mod 4 drift signal as rescuing equipment. This signal offers definite advantages over the Gibson girl and the Mk 13 Mod 0 (day smoke and night flare) signal.

These are good signalling devices, but there is a possibility that the Gibson Girl may go down with the aircraft. The Mk 13 Mod O burns only for approximately 18 seconds, a great disadvantage in overcast.

The Mk 5 Mod 4 drift signal burns with a large flame and considerable smoke for approximately 20 minutes and can be seen for long distances day or night. It can be detonated by hand with an instrument ½" diameter and nearly one inch long.

AVIATION ORDNANCE

Disarming Aircraft Speeded

Time, whether it's hours, minutes or mere seconds, often means the difference between victory and defeat, life and death in battle.

Aboard our modern day carriers, battle conditions are constantly practiced to a fine point so that every second in actual combat may be utilized.

Recently, a safety device has been developed for disarming 20 mm aircraft cannons by Lars J. Nolan, AOC, serving with VF-12 at NAS CECIL FIELD, allowing precious time to be saved during landing operations.

Whenever an aircraft is landed aboard a carrier, a trained team of ordnancemen scramble to the aircraft and disarm it of its unused 20 mm shells. Thanks to chief Nolan's invention, the ever important element of time used for disarming 20 mm aircraft cannons has been cut down considerably and the chances of a "mishap" have been reduced to a minimum.

The life, limb and time-saving invention won for Chief Nolan a letter of commendation from ComAirLant.

Rocket Carrier Withdrawn

Acting upon several reports of the hook bending under the weight of the 11.75 rocket head, BUORD in NAVORDINST 8650.4 has directed the withdrawal from service use of the Mk 17 Mod 0 carrier (Stock number J943-C-775, drawing number 440586).

Investigation has revealed that the hooks of these carriers were improperly heat-treated. The Mk 17 Mod 1 carrier (Stock number J943-C-775-10, drawing number 512557) should be used instead.

High-Temperature Gel Cells

During the past two summers, several fighter squadrons have reported that high ambient temperatures in cockpits of parked aircraft have caused melting of the plastic gel cells on sight unit Mk 8.

In some F9F aircraft, this condition was aggravated by a coating of black non-reflecting lacquer applied to the gel cell by the aircraft manufacturer to reduce windshield reflection.

New high-temperature gel cells are now available in the aviation ordnance supply system under stock number J942-C-2615-100. Squadrons are advised to requisition these units before the hot weather season.

The use of aluminum reflective coated dust covers on sight units Mk 8 on parked aircraft is still recommended since high temperature may have other adverse effects on the sight unit. (NANEWS, November 1952, page 39, *Keep Cool with Dust Covers.*) These gel cells may also be used on gunsight Mk 18.

Springs for AN-M4 Triggers

BUORD has just purchased a quantity of new sear nut locking springs with attaching rivets which will be stocked as kits J941-K-910-10, and should be available very shortly.

Supplement 1 to NAVORDINST 8710.3 directs replacement of these springs which are in kits J941-K-910. These springs have been declared unfit for service use. The new springs will provide a more positive locking of the sear return nut in the electric trigger AN-M4.

Mk-7 Feed Mechanisms

BUORD is issuing a NAVORDINST for modifying 20 mm aircraft gun feed mechanisms Mk 7, manufactured by the Hughes Aircraft Company. Modification kits, stock number J941-K-925-10, known as the "inertia block kits," consist of replacement parts of the drive slide assembly designed to prevent "bouncing" of the drive pawls. These provide a more positive feed. All Mk 7 feeders manufactured by Hughes Aircraft Company will be affected by this change.

Marines Design a Jeep Cover

CHERRY POINT, N. C.—Two enlisted Marines of MAW-2, Corp. W. A. Deem and Pfc. K. J. Walsh, have developed and made a protective cover for the can of the NC-5 aircraft starter jeep, a $15,000 "power-house on wheels."

The open cab of the NC-5 houses delicate instruments and electrical equipment, including a powerful generator. These are exposed to the elements during rainy weather, which frequently results in damage.

The two Marines stopped the exposure and the damage with their simple cover, which costs about $5 complete. It's made from a piece of canvas, a zipper and a set of snaps, and is provided with a detachable zip-on flap directly over the driver's seat.

The cover is fastened with snaps along the body of the jeep, completely sealing the cab. When it is necessary to operate the vehicle, the zip-on flap over the driver's seat is removed, still keeping the equipment in the opposite side of the cab dry.

New Depreservation Method

FASRon-106—This squadron is using a new method of depreserving aircraft engines. Theodore Krynitzky, ADC, assisted by other members of the squadron developed the method.

This method is unique in that it employs

BENOY AND ROOKS DISPLAY PORTABLE BLASTER

no machinery, utilizing only the heat available from the hangar heating system. In the past, using the gasoline-burning Herman Nelson heaters, it had been necessary to conduct the depreservation outside, a very inefficient method owing to the low temperatures and high velocity winds which prevail in Argentia. Now the entire depreserving operation is completed in the hanger.

The engine is first mounted on a Universal Engine Stand and covered with any reasonably air-tight material. Hot air is then directed from an overhead heating unit to the engine by means of two tow target sleeves sewed together. Approximately two hours are required to bring the engine up to maximum temperature, and then the cover is removed, the drain plugs opened, and the preserving fluid allowed to drain out. To insure complete drainage of all fluids, the engine is rotated slowly on the stand during the draining period.

Transosonde System Tested

The Naval Research Laboratory has just completed an evaluation of 11 transatlantic and continental balloon flights using the Trans-Ocean Sounding System, conveniently called Transosonde.

The new system is proposed for launching and tracking large balloons to obtain winds, temperatures and humidity at constant pressure levels over unaccessible ocean areas.

Balloons were launched from Minneapolis and floated at approximately 35,000 feet for an average flight of 66 hours and an average distance of 4,540 miles. Wind data obtained by this system over the United States compared closely with wind data obtained by present systems.

Future plans include further tests over the Atlantic ocean to determine the applicability of the wind data obtained to the improvement of weather forecasting.

'PULSE PICKUP' IS A 'PIPPIN'

DEVICE MADE OF FIVE BUCKS WORTH OF JUNK

MAINTENANCE shops throughout the Navy will long remember Edward W. Dumann, ADC, for his ingenious use of $5 worth of "junk." The chief is an instructor in the Engine Analyzer phase of the Aviation Machinist's Mate School, Class "B" at NATTC MEMPHIS.

He and the other instructors used to spend most of their free time discussing what they termed "the one big thorn" in what was otherwise a pleasant teaching job. The most important thing necessary to the use of an engine analyzer is cylinder recognition. Called "timing," it means determining which pip on the analyzer screen is caused by the firing of which cylinder. Once one of the pips is definitely identified as a certain cylinder, then the other pips and cylinders are identified by using the firing order.

The pips appear on the screen in order as the cylinders fire. Once this is established, the analyzer is "timed" and ready for the operator to start analyzing the engine for troubles. Obviously, the first step and the biggest "thorn" in the side of an analyzer operator is establishing definitely that one of the pips is caused on the screen by the firing of a specific cylinder.

The old standard way of doing it is by introducing a trouble into one of the engine's cylinders and watching the analyzer screen for that trouble to show up in one of the pips. Difficulties arose by the numbers with this method.

The waste of time and energy was too much for Chief Dumann to take. He put his nimble brain to the job of evolving a substitute for the complicated procedure. Taking one small juncture box, one high tension ignition lead and two BG spark plugs, he came up with a gadget he calls a "pulse pickup." It works on the condenser principle and is easy to build since it requires no special tools or parts.

It is attached to the engine at the same time the engine analyzer is attached. Small in size, it fits between the spark plug and the ignition lead from the distributor.

NORMALLY the spark starts at the distributor and travels through an ignition lead to the cylinder spark plug. With the "pulse pickup" attached, the spark starts at the distributor and travels through the regular ignition lead to one of the modified BG spark plugs in the junction box. Instead of jumping to ground here, it continues through the BG plug and through the "pulse-pickup's" ignition lead to the cylinder's spark plug.

The remaining BG spark plug in the junction box is soldered to a piece of copper shielding that is around the rubberized part of the ignition lead. This homemade condenser builds up a charge that is carried off through the modified BG plug and a vibration pickup lead to the engine analyzer.

This method makes the cylinder with the "pulse pickup" attached to it give a pip that can easily be distinguished from all other pips; it is still possible to distinguish any trouble that might be in the cylinder, even while the "pulse pickup" is attached to it; absolutely no harm is done to the engine; and the timing procedure is relatively simple and fast.

● USS LAKE CHAMPLAIN—The bugler who blows "Reveille" took a morning off the other day and even the skipper was happy about it. A jazzed-up version of the traditional morning call was sounded by a "solid" trumpet trio. The carrier was celebrating its birthday, the first anniversary of its recommissioning.

● NAS JACKSONVILLE—Last member of Fleet Air Jax fighter squadrons still flying *Corsairs* was VF-44. Their gull-winged planes have been replaced with F2H-2 *Banshees*.

LETTERS

SIRS:

I noticed in the March issue of NANEWS, page 8, reference to Navy Chaplains who were formerly Navy pilots.

There are three more on duty with units of Marine Aviation. They are:

Lt. Robert E. Anderson, ChC, USN
Marine Corps Air Facility, Santa Ana, Calif.

Lt (jg) Henry M. Stroman, ChC, USNR
Marine Air Group 12, First Marine Air Wing

Lt (jg) Elvin D. Leavell, ChC, USNR
Hedron, AirFMFPac

MERLE N. YOUNG, CDR., CHC
AIRFMFPAC

SIRS:

In reading the March issue of NANEWS, I noticed on page 8 your photo of a naval aviator turned "Sky Pilot," with the query, "Do you know any more?" I do . . . Lt. (jg) Kenneth Carlson, DesRon Six Chaplain, with whom I recently served in WesPac.

J. A. LARSEN, LT. (JG)

SIRS:

I noticed in the March issue of the magazine that you have printed the Ten Commandments for an Instrument Pilot. Since the subject has been brought up, I felt that you might like to have a copy of the Ten Commandments for Helicopter Flying. I have had a copy of this for quite some time now and think it's rather clever too.

"He who inspecteth not his aircraft giveth his angels cause to concern him.

"Thou shalt not become airborne without first ascertaining the level of thy propellant.

"Let infinite discretion govern thy movement near the ground for thy area of destruction is vast.

"Thy rotor RPM is thy staff of life. Without it, thou shalt surely perish.

"Thou shalt maintain thy speed between 10 and 400 feet, lest the earth rise and smite thee.

"Thou shalt not make a trial of thy center of gravity, lest thou dash thy foot against a stone.

"Thou shalt not let thy confidence exceed thy ability for broad is the way to destruction.

"He that doeth his approach and alloweth the wind to turn behind him shall surely make restitution.

"He that alloweth his tail rotor to catch in the thorns curseth his children and his children's children.

"Observe thou this parable, lest on the morrow thy friends mourn thee: Safety dwelleth with the safest man who flieth his bird as safe as he can."

E. F. HAYES, CDR.
HU-1

LETTERS

SIRS:

I was one of the many to qualify on the *Wolverine* and was also on the *Sable*, and I can remember it as if it were yesterday. After being in Florida for a year, it was quite a shock stepping off of the train in Chicago with the mercury settled at the bottom of the tube (20°F).

We thought we were the Navy's hottest pilots, but the wind was taken out of us the next day when we had to requalify on the field before going to the ship. The runways were covered with ice and snow and were a hazard to even an old experienced pilot. The air was filled with snow either blowing from the ground or out of a cloud and visibility was down to about one-quarter mile. We were doing fine until about the fourth pass. I couldn't see the old tree I'd been using as the 180° turning point but came in anyway.

The first thing I saw was two LSO's about 50 yards away run and dive over the six-foot snow banks at the edge of the runway. They weren't very happy about it, but after a pep talk, we were sent to the *Sable*. We rode her for a week waiting on the weather without a landing. The next week we went aboard the *Wolverine*.

Those eight landings went so fast I didn't know what happened and was so cold I cared less, but the records said we were carrier-qualified pilots. Don't know if it was the landings or the cold weather, but somehow I didn't feel quite so hot as before and began wondering how I stayed alive so long.

All the memories of past days, flying over freezing waters without the old "poopy bag" really shake me. As I see all the new improvements coming out, it reminds me old age is catching up and I'll soon be sitting back reading about fly boys instead of being one.

CHARLES A. JOHNSON, LT.

● TALE OF TAILS

Answers to quiz on inside back cover: Clockwise are 1—Grumman F9F-6, 2—Douglas AD-4NL, 3—McDonnell XF3H-1, 4—Douglas F4D, 5—Chance Vought F7U-3, 6—North American AJ-1, 7—Douglas A3D, 8—Grumman AF-2W, 9—North American XA2J-1, 10—Convair YF-102, 11—Convair P4Y-1, 12—Convair R3Y.

SIRS:

Under the caption "Where Are You" on the lower inside of the front cover of the January issue is a picture of a "city" identified on page 32 as the Marine Corps Air Station, Kaneohe Bay, Hawaii. On page 19 is another picture of the same MCAS. Obviously, the editor missed the apparent dissimilarity. The inside cover picture is undoubtedly a view of Kialua, Hawaii, showing part of Kalama Beach in the foreground, and the famous PALI pass in the background. Kialua is about one-and-one-half miles east of MCAS KANEOHE BAY.

Touché! WHERE ARE YOU?

D. M. MINNER, CDR.

USS FRANKLIN D. ROOSEVELT

¶ Now we're more confused than ever. Last month LCol. R. R. Burns called it Kailua, while a caption from the Public Information Section of the 1st Provisional Marine Air-Ground Task Force calls it Lanikai.

SIRS:

On 1 November 1946, Marion Carl, then a major in the Marine Corps, piloted a P-80A for two catapult launches from the port catapult on the Franklin D. Roosevelt, then CVB-42.

Can you tell me if there had been any jet plane catapult launches prior to this time from a U. S. carrier?

GRANT R. SQUIRE, ADC

VR-2, NAS ALAMEDA

¶ The catapult desk in BuAer advises that, so far as they can determine, Major Carl's cat launches were the first made in a jet from a U.S. carrier.

SIRS:

On page one of the February issue of NAVAL AVIATION NEWS, there is a picture of an OS2U being manned and readied for a catapult shot. The picture is most interesting, mainly because I believe I am the one who is taking his place as safety pilot in the aft cockpit.

The picture must have been taken sometime in the spring of 1942, for I was commissioned an ensign 25 June of that year. Capt. Chambers was Lt. Chambers at the time the picture was made. He was also one of our best-liked instructors.

If there is any way of ascertaining the affirmative or negative concerning my contention about the picture, I would be most appreciative.

T. F. BRENNAN, JR., LCDR.

NAS NEW YORK, AAU-833

¶ The Capt. Chambers referred to by LCdr. Brennan is not the same Capt. W. I. Chambers who was considered Director of Naval Aviation from 1910 to 1913, although not officially designated as such.

CONTENTS

● THE COVER

This month's photograph of Jack Walton, ex-Marine Corps pilot, posing atop a Cutlass, is by Art Schoeni.

● PICTURE CREDITS

Photograph of early Alameda mud strip on page 18 was taken by Aerial Photographer Clyde Sunderland of Oakland, California. Photographs on pages 28 and 29 are from collection of parachute historical pictures, Smithsonian Institute.

● THE STAFF

Cdr. Matthew H. Portz
Head, Aviation Periodicals Unit

LCdr. William A. Kinsley
Editor

Lt. Dorothy L. Small
Managing Editor

Izetta Winter Robb
H. C. Varner, JOC
Associate Editors

Cdr. Samuel G. Parsons
Contributing Editor

Doris E. Ingalls
Editorial Assistant

James M. Springer
Art Director

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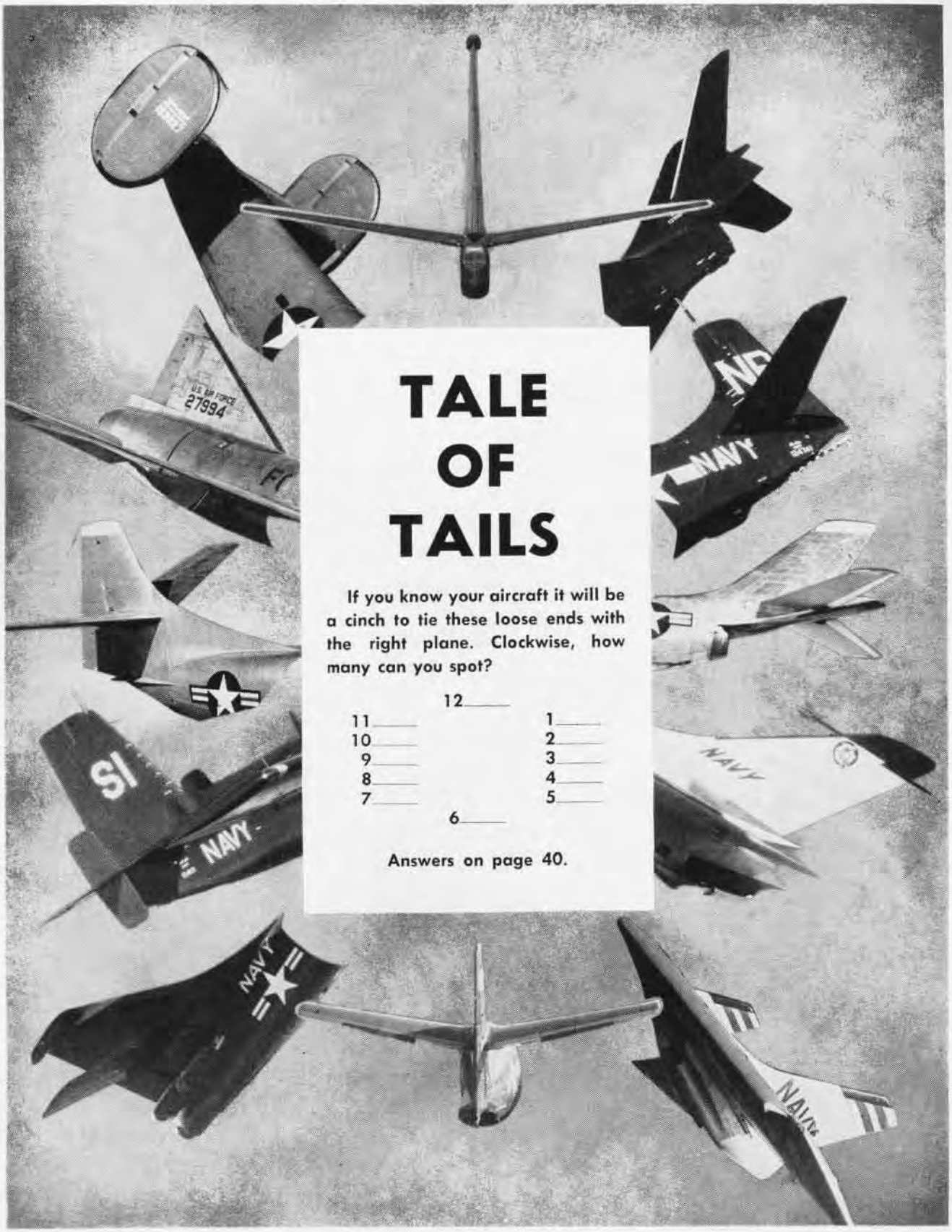


TALE OF TAILS

If you know your aircraft it will be a cinch to tie these loose ends with the right plane. Clockwise, how many can you spot?

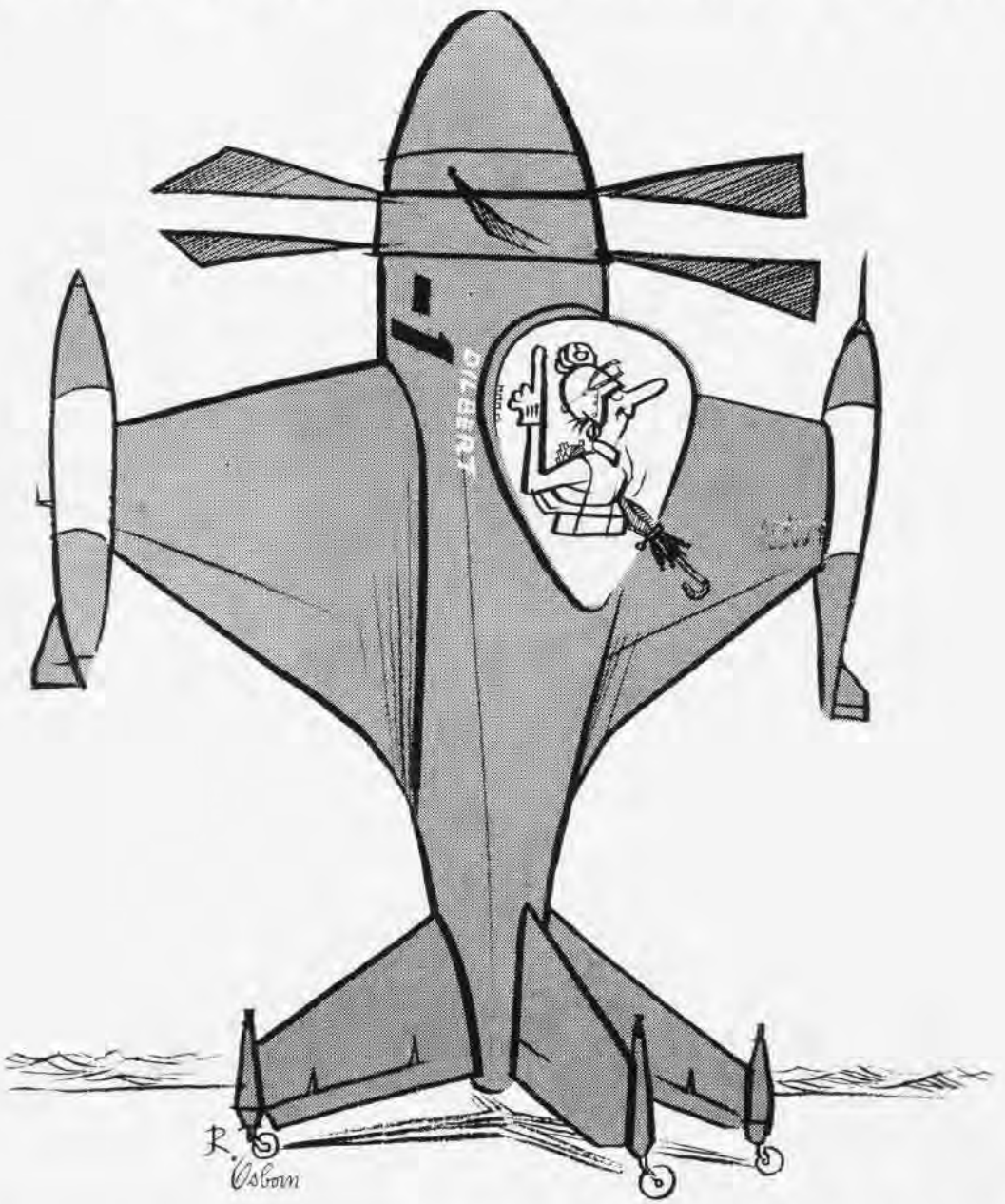
12____

11____ 1____
10____ 2____
9____ 3____
8____ 4____
7____ 5____

6____

Answers on page 40.

WE'RE STUCK WITH HIM!!?



NAVAL AVIATION
NEWS

We don't know how he's lived so long, but Dilbert is still amongst us. Plenty of his cousins are too. This crowd does things to expensive aircraft that shouldn't happen to a dog. NANews believes that exposure may make 'em straighten up and fly right, so from time to time we're going to print Dilbert's sins of the past and present. Watch for the first of the series soon.