NAVAL AVIATION

NEWS

40th Year of Publication

FEBRUARY 1959

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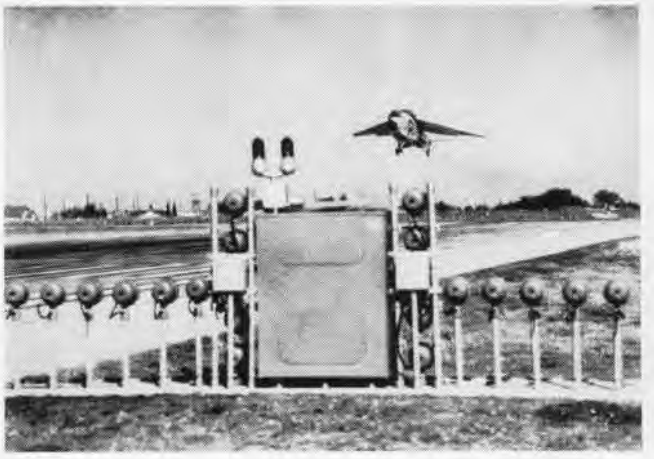
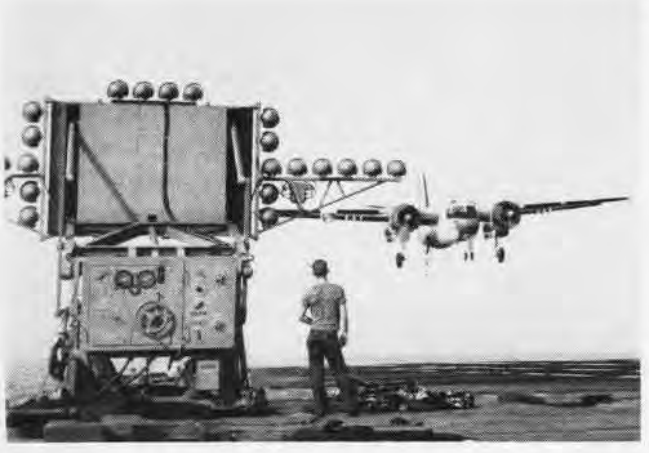




On land and at sea, the "grooved look" is a trademark of Naval Aviation. Most precision approaches—guided for years by the Navy's sterling LSO's—are done today with mirrors. Now installed at some major Naval Air Station, these Optical Landing Systems are used on approaches to enhance carrier pilot techniques and flight safety. Aboard the USS Antietam (CVS-36), an S2F pilot chases the mirror's "meatball" on one of his qualification landings.

NAVAL AVIATION NEWS

OUR FORTIETH YEAR OF CONTINUOUS PUBLICATION FEBRUARY, 1959

Life at Two G for 24 Hours

Biophysicist is the Guinea Pig

For 24 hours, Dr. Carl C. Clark rode the big Navy centrifuge at Johnsville, Pa., at two G. Dr. Clark is Head of the Biophysics Division of the Aviation Medical Acceleration Laboratory, U. S. Naval Air Development Center.

During his "flight" Dr. Clark cooked, ate, slept, stood up, made medical observations on himself, wrote them down, typed some of them, and generally carried out living activities. When he moved his head, he did it slowly in order to minimize rotational illusions and nausea.

Toward the end of the experiment, he found that sitting upright at two G was accompanied by faintness, just as a sudden raising of position at one G can lead to faintness. Exercises to take in the reclining position before sitting upright will be developed.

Although no motor is yet available that could drive a space vehicle at a two G acceleration for 24 hours, these medical experiments indicate human capabilities to utilize such motors, which undoubtedly would be nuclear powered. Only by utilizing long duration thrust can the immensities of space be covered in reasonable time.

For example, if this Navy experiment had involved two G acceleration in a straight line, the subject would have been traveling 3.8 million miles per hour and would have covered 45 million miles in 24 hours. If two G acceleration were to be used half way and two G deceleration in the other half, the trip to Mars would take 42 hours instead of the several months of coasting orbital flight following brief acceleration on chemical power contemplated with motors now being developed. The trip to the moon would take 3.5 hours, and the trip across the country would take fifteen minutes.

DR. CLARK READY FOR TWO G 'FLIGHT'

DSM Posthumous Award

VAdm. J. H. Flatley Jr. Honored

The Distinguished Service Medal has been presented posthumously to Vice Admiral James H. Flatley, Jr., former Director, Air Warfare Division of CNO.

The presentation, made in the name of the President of the United States by Secretary of the Navy Thomas S. Gates, Jr., was received by Mrs. James H. Flatley, Jr., the late admiral's wife.

Cited for exceptionally meritorious service from July, 1953 to June, 1958, VAdm. Flatley was commended for skillfully carrying out his assignments as Officer in Charge, U. S. Naval Aviation Safety Activity and Commander, U. S. Naval Air Bases, Fifth Naval District.

The citation reads in part: "A strong advocate and a relentless worker in support of aviation safety, he developed sound aviation training programs producing results which will remain forever an integral part of the evolution of Naval Aviation."

As Commanding Officer of the aircraft carriers USS *Block Island* and USS *Lake Champlain,* the citation noted that VAdm. Flatley won two Battle "E" Pennants. His subsequent service as Head, Special Weapons Plans Branch, Strategic Plans Division; and Director, Air Warfare Division of CNO was praised highly:

"Throughout his entire naval career, he has contributed, by his understanding, experience, advice and example, to the moral standard of the Navy. During the later months of 1957 and the early months of 1958, his advice concerning the Navy's moral leadership program was frequently sought and used."

MRS. FLATLEY ACCEPTS DSM FROM SECNAV

VW-4 Earns Commendation

Praised for '58 Hurricane Flights

The Chief of Naval Operations has commended Airborne Early Warning Squadron Four for "outstanding services performed in hurricane weather reconnaissance flights during the 1958 hurricane season."

According to the citation, flights made by VW-4 provided accurate and detailed meteorological data, obtainable in no other way, which was essential for the preparation of hurricane forecasts and warnings by the National and Naval Weather Services.

McDonnell F4H-1 Chosen
To Replace Current A/W Fighters

The McDonnell Aircraft Company, St. Louis, Missouri, has won the competition for a new Fleet all-weather fighter with its F4H-1.

The F4H-1, and its companion development, the Chance Vought F8U-3, have been in competitive flight tests and evaluations at Edwards AF Base since June of this year. They are probably the fastest, most heavily armed, and longest ranged all-weather fighters flying today.

The decision in favor of the F4H-1 signifies that it is the aircraft which best meets the Fleet requirement for an all-weather air defense fighter. That it carries a radar operator in addition to the pilot, and is powered by two J-79 turbojet engines were decisive factors. The choice was made on the basis of data developed from operational experience with all-weather fighters in the Fleet.

The F8U-3, *Crusader III*, a single-seat aircraft, is powered by one J-75 turbojet.

McDonnell's new fighter is scheduled to replace, in the early 1960's, the current all-weather fighters, F3H-2 *Demon*, also built by McDonnell, and the Douglas F4D-1 *Skyray*.

Selection of the F4H-1 will lead to quantity production contracts with the Bureau of Aeronautics.

Ejection Seats Developed
Systems are Powered by Rockets

Successful tests of two new ground-level ejection seats have been announced; one developed by BuOrd and the other by North American Aviation.

BuOrd's system is called *Rapec* (Rocket-Assisted Personnel Ejection Catapult) and has been fired at China Lake. It works in two phases.

First, gasses from a small rocket propellant charge push the pilot's seat out of the plane. A second rocket propellant charge then ignites and projects the seat to the desired altitude where the seat and pilot become separated. The pilot's parachute then lowers him safely to earth.

In preliminary static tests, a dummy was catapulted successfully 225 feet skyward and parachuted back to earth. *Rapec* can eject the pilot safely at ground level or at high altitudes.

The system developed by North American has not been named. Designed for use in the T2J trainer, the seat has been fired from a moving aircraft. The T2J was piloted by Bill Morse, engineering test pilot from the Columbus Division of NAA.

Morse piloted the T2J down the runway at 75 knots before ejecting a back-seat rider, an anthropomorphic dummy. As the seat was ejected, automatic separation of the seat from the dummy took place. A drogue chute pulled the seat away from the dummy.

Seconds later, the main chute opened above the dummy's head, and he was parachuted safely to the ground.

RAPEC EJECTION SEAT SYSTEM IS TESTED

DUMMY LEAVES FAST-MOVING T2J TRAINER

Five Awards for HS-4 Men
Presented during CVS-37 Cruise

Five awards were given to members of Helicopter Anti-Submarine Squadron Four deployed aboard the USS *Princeton*, CVS-37, in the Pacific. They were presented by the commanding officer of the carrier, Capt. W. L. Dawson, following monthly personnel inspection.

Sikorsky "Winged S" certificates and rescue emblems were given to Cdr. W. S. Orndorff, Jr., skipper of HS-4, Ltjg. C. K. Cole and C. W. Wilkerson, SO3. These awards are given to both rescued and rescuer when Sikorsky helicopters are involved.

For service with Carrier Air Group Five and Air Task Group One on the *Valley Forge* during Korean Operations, Chief Yeoman R. D. Harper received the Navy Unit Commendation. Ltjg. A. T. West was awarded the Presidential Unit Citation for a tour of duty with HU-1 in Korea.

The *Princeton*, with HS-4 and VS-23 embarked, has ended her seventh Far Eastern tour since the Korean conflict.

13th CV Landing is Lucky
Ltjg. Scores 80,000th Aboard FDR

Ltjg. E. D. Mendenhall's 13th carrier landing in a *Photo-Crusader* was not a tale of hard luck. In fact, it was a record—the 80,000th landing to be made aboard the carrier, *Franklin D. Roosevelt*.

The record landing was the 22-year-old's second in his three years as a Naval Aviator. In 1956 he made the 69,000th landing aboard the USS *Saipan*, flying an SNJ.

Ltjg. Mendenhall has 740 flight hours, 400 of which have been in jets.

Saves Crusader Fighter

Marine Earns Navy Commendation

Marine TSgt. Bose L. Martin has been awarded the Navy Commendation Ribbon with metal pendant for outstanding performance of duty in helping a *Crusader* pilot land his aircraft at Kaneohe Bay when the pilot was almost out of fuel and the weather was below minimums.

The award was presented by Col. M. M. Magruder, MCAS KANEOHE BAY commander, after a parade and review had been staged for TSgt. Martin.

TSGT. MARTIN ON DUTY AT KANEOHE BAY

Martin was supervisor of tower activities when an F8U pilot tried to establish radio contact with NAS BARBER'S POINT. The carrier-based pilot said he was low on fuel and asked for a radar controlled approach by Barber's Point GCA. At 20,000 feet he was flying in rain and grey mist.

Meanwhile, at Kaneohe, the picture was no brighter. There was a low ceiling of clouds with overcast, extending upward from 400 to 600 feet, and rain.

The pilot was having communications trouble and was simultaneously picking up a signal from Kaneohe's TACAN. Realizing that the F8U pilot was unsure of his location and was rapidly losing contact, Martin (at Kaneohe) took the initiative and had the pilot turn his radio to the guard channel.

He then alerted the radar control center of MACS-2, the crash boat, fire crash crew, and a Marine helicopter squadron, in addition to the Pearl Harbor Rescue Center.

With Kaneohe Tower radioing additional instructions, the pilot made a fast, one-time-only radar-directed approach, landed on the runway, and hooked the arresting gear. He had 20 gals. of fuel remaining when he landed.

CUTTING WAY OUT IS SHOWN IN SEQUENCE

ATU-213 Stresses Safety

Lesson in Can(opy) Opening Given

It took Lt. C. P. Anderson, Assistant Safety Officer of ATU-213, NAAS CHASE FIELD, just 28 seconds to hack his way through the plexiglas canopy of a surveyed F9F-8T, using a standard Navy knife. It was only a demonstration, but NANEWS has heard of several trapped but quick-thinking pilots who have emerged from submerged aircraft by using this can-opening know-how.

Top Crash Crew Gets Axe

Crew Rated Tops at Beeville Base

The "Axe" (in this case an award) has been given the best crash crew at NAAS CHASE FIELD, Beeville, Texas.

Capt. C. H. Duffy, commanding officer, presented a silver fire axe with a white handle to the Chase Field crash crew of the month in recognition of the crew's outstanding work, good discipline record and keen spirit.

The award will be given monthly to the crew scoring the highest number of points in personal conduct and professional performance. At year's end, a trophy will be presented to the crew which has claimed the axe the most consistently.

THIS CREW EARNED FIREMAN'S SILVER AXE

With the axe goes the honor of flying an "axe pennant" from the crash trucks while the crew of the month is on duty. The blue pennant bears the white axe symbol.

The crew selected for the initial award was led by P. C. Murphy, AB2.

Marine Corps Institute

Course in Maintenance of HRS-3

Marine Corps Institute has announced the addition of a new course for Air Facility Marines.

Subject of the course is "Helicopter Maintenance, HRS-3." Designed to increase the military proficiency of the helicopter mechanic, it offers a means of acquiring a working knowledge of the maintenance procedures peculiar to the HRS-3.

Course provides instruction in airframe maintenance, power plant and related systems, transmission system, main and tail rotor assemblies and blades, flight controls, rigging, utility and hydraulic systems, aviation technical administration, safety and taxiing.

GRAMPAW PETTIBONE

Born Too Late

A young ferry pilot departed from an East Coast base in an HTL-6 helicopter on a 146-mile VFR cross country flight with an enroute fuel stop. Shortly after he left the Naval Air Station local area his chart was blown out of the open cockpit. Undismayed, the intrepid aviator continued on his way, following a highway with the avowed intention of landing at a service station to secure a "road map" which he felt was more suitable for navigation on his trip!

He found a suitable vacant field in a rural community, with a service station nearby, so a landing was attempted. After descending and coming to a hover, he decided to move to a smoother section of the field. A slow turn to the right was started, but the tail rotor skag hit a stump and one of the tail rotor blades was broken off. With rudder control lost, the helicopter struck the ground, wiping out the main rotor blades and buckling the fuselage. The pilot had his lap belt and shoulder harness tight and locked and was uninjured, although the aircraft suffered overhaul damage.

Grampaw Pettibone Says:

Sufferin' catfish! I guess we been wastin' money all these years printing aeronautical charts and Radfacs. This young man likes the oil companies' products a lot better. The HTL-6 has a good bird dog mounted right in front of the pilot's face where he can see it all the time. His route was a major airway, absolutely straight, with strong range stations at each end. Total enroute distance was only 146 miles, and he had an approved fuel stop enroute. Needless to say, he should have turned back when he lost his chart.

Throughout military and civil aviation, the "state of the art" has progressed considerably in the past 30 years, to put it mildly. We no longer proceed from point to point utilizing land marks, road signs or town names painted on roofs. This young man was born 30 years too late.

Cool Heads

It was a stormy day at sea in WestPac. The heavy seas following passage of a typhoon were causing the deck of the big carrier to pitch through an estimated 40-foot arc.

An FSU *Crusader* was approaching for a landing aboard, but touched down just as the deck was pitching up. Both the main landing gear and the nose wheel assembly were smashed and sheared from the plane. The FSU slid down the deck and its hydraulic fluid ignited just as the pilot pulled his plane into the air. It was a bolter.

The pilot cut in the afterburner as he went off the deck edge and proceeded to make a nearly vertical climbout, trailing fire and smoke. At 5500 feet his controls froze and he ejected. The automatic equipment functioned perfectly and he floated down gently to the water.

Meanwhile the ever watchful helicopter had followed his every move and was on station for his water entry. The resourceful copter pilot flattened his 'chute with rotor wash and had the uninjured pilot aboard the whirlybird in less than two minutes.

Grampaw Pettibone Says:

I'm so proud I could bust my buttons! This quick-thinking tiger

turned what could have been a lily-gatherin' into a successful ejection by using what he had *fast*, and knowing the limitations of his safety equipment.

He traded airspeed and power available for *altitude* and gave his seat, auto lap belt, and auto 'chute opener the 4 to 7 seconds they need to save him. With the nose up *attitude* in his steep climbout, after he passed 1000 feet he had it made! The extra altitude gave him precious seconds to prepare for water entry.

The whirlybird pilot, by being watchful, properly positioning himself to flatten that 'chute as soon as it hit the water, and clearly demonstrating his skill in the copter, was a real professional aviator. Both of these men are the type we all want in our outfits when the going is tough.

And Then There Were None

While flying at 35,000 feet on a simulated strike mission from his carrier in WestPac, the Plane Commander of the A3D *Skywarrior* became increasingly concerned over erratic fuel quantity and center of gravity indicator instrument readings.

He depressurized the cockpit and sent the gunner into the bomb bay to investigate for a possible fuel leak or inoperative CG fuel valve. The plane captain was ordered to take station at the entrance to the companionway to visually observe the gunner within the bomb-bay.

The gunner hooked up to the bomb bay oxygen regulator but could not reach the CG valve, being restricted by the length of the oxygen hose. He disconnected his oxygen, proceeded to the valve, and lost consciousness in the middle of the bomb bay while attempting to reconnect to the oxygen supply.

The plane captain had now lost sight of the gunner, so he went back aft to investigate, with the bombardier-navigator in the visual watch position.

When the navigator reported losing sight of the plane captain too, the pilot established an immediate high rate of descent and descended to 10,000 feet.

As the aircraft was descending, the navigator went aft and found both men unconscious, one on top of the other in the center of the bomb bay. He pulled the gunner's bail-out bottle and was connecting the plane captain to the bomb bay oxygen station when the men regained consciousness. Both men were then helped into the cockpit and placed on 100% oxygen.

The pilot flew the A3D directly back to the ship, made an immediate landing aboard, and the stricken men were transferred to the sick bay for medical observation. Both subsequently recovered and were returned to duty. The aircraft discrepancy was a malfunctioning coaxial cable which was giving false fuel readings and sending false signals to the CG indicating system.

Grampaw Pettibone Says:

Holy Smokes, this was a close one! Although the plane commander's concern was understandable, the nature of the mission did not justify sending a man into the bomb bay at pressure breathing altitude. His subsequent action, descent to 10,000 feet, was what he should have done *first*. Second guessing is easy, so to profit from his mistake, the Heavy Attack outfits better either carry small walk-around oxygen bottles for use when the mission precludes a descent to safe breathing altitude, or have the hose on the bomb bay oxygen regulator replaced with one sufficiently long to reach all portions of the bomb bay.

In the Rough

Three F8U *Crusaders* returned to their home field after a night air intercept training mission. They had been out almost two hours and the flight leader suggested two touch-and-go's before final landing. Response from the flight was not enthusiastic, but the pattern was set up and landings commenced.

One *Crusader* took a voluntary wave-off on the first pass after he lost sight of the preceding aircraft position, a touch-and-go on the second pass, and set it down for a final landing on the third go 'round.

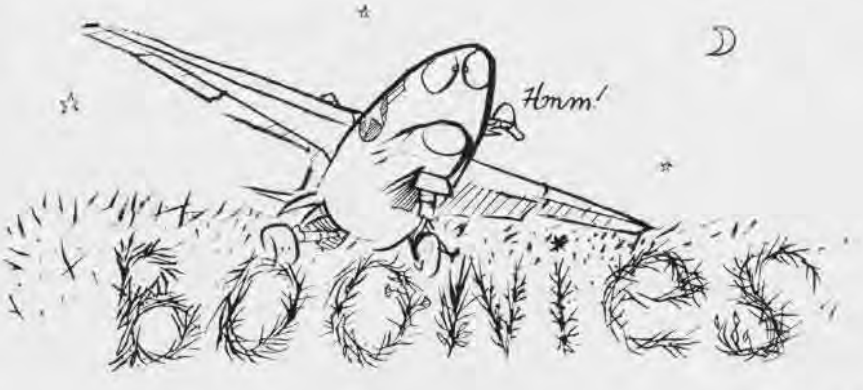
The landing was good and rollout normal, but the pilot was trying to be too easy on the braking and ran some 20 feet off the end of the runway. The overrun was in bad condition, a fairly hard surface, but defaced and torn up by construction work, for the past several months.

The pilot knew this—it was pitch dark—but the terrain looked smooth; so he commenced a right turn to get out of the rough and back to the taxiway. Using plenty of power, he swung around, dimly saw an embankment ahead, and cut the power. He was too late! The *Crusader* hit the 16-inch obstruction, sheared the port main gear, and settled in on the port wing.

Grampaw Pettibone Says:

Brother, you've had it! The only reason for trying to drive out of a bad spot was to save some personal embarrassment and some good natured kidding from your buddies.

In today's aircraft, a professional attitude toward every phase of flying, including ground operations, must replace arbitrary snap decisions. Op's could have had some of the duty line crew out to help pronto. Instead of the few minutes job towing you out of the boonies, you probably worked 'em all night hauling in the wreck.



FCLP TECHNIQUES ARE DIAGRAMMED BY LANDING SIGNAL OFFICER

BTG-5 SOLO STUDENT TAKES 'CUT' DURING BRONSON FCLP HOP

LSO PADDLES GUIDE STUDENT PILOT TO LANDING ON CARRIER

STUDENT IS CARRIER-QUALIFIED AFTER SIX SUCCESSFUL LANDINGS

PRODUCING THE PEERLESS PILOT

THE ADAGE concerning a man's learning to walk before he runs is given its aviation slant by the expert personnel of Saufley's Basic Training Group Five (BTG-5) at Pensacola.

Their mission is *Carrier Qualification* —turning out pilots who can "walk" with skill in the exacting specialty of the Naval Aviator.

The "run" portion of carrier training is dealt out in a postgraduate course at one of Naval Air's two Replacement Carrier Training Groups (see NANEWS, January 1959, p. 7) where pilots are checked out and carrier qualified in high performance jets like the F8U, A4D, and F11F.

The BTG-5 student, a proficient pilot nearing the end of his flight training, is braced for the fine art of carrier flying by generous doses of procedures and practice.

He is indoctrinated in procedures by lecture, chalk-talk and demonstration. Such things as landing signals are mastered in a classroom before they are used in field carrier landing practice.

A day in the life of a CQ pilot is an arduous one. It begins when he musters around 0630 at either Barin or Bronson Fields.

Scheduled for his first flight in one of the group's 78 North American T-28C trainers, he will find one of BTG-5's eight Demonstration Pilots (called "Demos") in the rear seat ready to teach him slow flight procedures at low altitude and approach pattern.

If he has already completed his dual phase, he will be scheduled for solo FCLP. During each FCLP period, he will make several approaches to a simulated carrier deck while being "waved" or guided by the LSO. The average student makes approximately 70 landings before being okayed for actual carrier qualification landings. It is reported that the same student sometimes gets an equal number of waveoffs.

Once he is qualified in simulated landings, the young pilot is scheduled for his final hop—carrier qualification aboard the *Antietam,* Naval Air Training Command aircraft carrier.

As one of a flight of five students, he is led out to the carrier by one of BTG-5's instructors. After arrival over the carrier, the instructor leads the flight through two touch-and-go's on the *Antietam's* angled deck. Then he takes them in for arrested landings.

The T-28's come in over the deck low and slow—15 feet above the ramp at 78 knots. Given the "cut" signal by the LSO, the pilot chops his throttle and the four-ton aircraft drops to the deck. The tail hook engages a wire and the aircraft comes to a stop. Six successful arrestments qualify the student pilot.

After BTG-5, which handles approximately 30-35 students a week, the qualified CQ pilot heads for Advanced Training and his wings — running.

THE 1958 NAVAL AVIATION REVIEW

IN THE FORTY-EIGHTH year of Naval Aviation, forces deployed in the Mediterranean and Western Pacific were again called upon to represent the nation in international crises. Their immediate arrival upon the scene ready for action, and their ability to sustain operations at sea reaffirmed the importance of the sea and the values to be derived from strong, mobile naval forces.

Increased activity in advanced areas required readjustment of planned deployment, overhaul and logistics programs. There also was a need to readjust to requirements imposed by advances in weapons and particularly to the difficult conditions of maintaining a high level of combat readiness in the face of reducing budgets, higher costs.

Carrier strength was increased by one new *Forrestal*-class carrier. A fourth *Forrestal*-class was launched. The keel of the world's first nuclear-powered carrier was laid. Supersonic fighters reached the fleet in increasing numbers. New and old carrier aircraft outperformed the best by establishing world records in two categories. Three carrier aircraft under development made their first flights.

By Adrian O. Van Wyen
Aviation Historian, DCNO(Air)

PRESENTING HARMON AWARD TO HUNT

All-weather antisubmarine helicopters reached the fleet. A larger airship, with an internally mounted radar antenna, made its first flight. A long range early warning plane with an externally mounted rotodome antenna was accepted.

There was wider employment of guided missiles of all types. Progress in equipping and building missile ships enhanced operating ability. *Sparrow III,* with several advantages over the first of its family, was ready for fleet assignment. *Bullpup* designed for use in close support and interdiction, entered operational test. *Talos* and *Tartar,* air defense missiles, neared operational status. Development of the *Polaris* Fleet Ballistic Missile System was on an accelerated schedule.

There were reductions in support facilities, operating aircraft and officers and men on board. Carrier aviation and the Air Reserve were reorganized. Units representing new fleet training concepts appeared. Facilities supporting missile development were expanded and construction of missile ships was increased. Study of the adaptation of nuclear power to aircraft reached an advanced stage.

McDONNELL F4H TWIN JET INTERCEPTOR CARRIES SPARROW III'S

The year began with portentous rumblings in parts of the world. Repercussions from events in space made headlines as the country's scientific attainment, its educational program, and progress in missilry were questioned. Successful orbits of Explorer I and Vanguard provided convincing answers. Problems of controlling a congested air traffic were dramatized by a series of mid-air collisions and near collisions.

JANUARY

9—The *Princeton* with Navy and Marine aircraft embarked and two destroyers from Seventh Fleet and the tender *Duxbury Bay* from the Middle East Force, ended seven days of relief operations for flood victims in Ceylon.

9—Pacific Fleet air units began delivery of emergency supplies to inhabitants of several islands in the Marshalls, severely damaged by typhoon Ophelia.

10—Distinguished Public Service Awards were presented to Dr. Ralph E. Gibson, Director of the Applied Physics Laboratory, Johns Hopkins University, and four members of his staff, for their outstanding contributions to the development of the *Terrier* guided missile.

13—The dual command CinCPac and CinCPac Fleet held by Adm. F. B. Stump was separated; Adm. Stump remaining as CinCPac and Adm. M. E. Curts relieving him as Commander-in-Chief, Pacific Fleet.

14—The Fleet Air Photographic Laboratory at NAS JACKSONVILLE went into operation.

20—Flight tests of the jet seaplane *Seamaster* resumed as Martin pilots took the YP6M on its maiden flight.

During the month VAH-15 and VAH-16 were commissioned, VX-2, NATTU EL CENTRO, and NAS ST. LOUIS were decommissioned, and NAS IWAKUNI became MCAF.

FEBRUARY

1—Adm. H. G. Hopwood became CinCPacFlt.

3—The Navy announced award of a contract to Westinghouse to design and furnish reactor components for three nuclear powered Fleet Ballistic Missile submarines.

4—Keel of the world's first nuclear powered aircraft carrier, the USS *Enterprise*, was laid at Newport News.

5—Dr. Karl Arnstein, a foremost designer of lighter-than-air craft, received the Distinguished Public Service Award for his outstanding contribution to the Navy in scientific research and development and for his method of installing large radar antennae within an airship envelope.

13—Mr. C. S. Fliedner, associated with power plant development since World War I, received the Distinguished Civilian Service Award for his distinguished performance as a Technical Assistant and his exceptional service over a period of years in guiding and directing power plant research and development.

13—Incorporation of the entire Naval Air Reserve into the Selected Reserve was approved by CNO.

13—Award of a contract to General Electric to construct the propulsion machinery for three nuclear-powered Fleet Ballistic Missile submarines, was announced.

14—Operational evaluation of the air-to-air *Sparrow III* began as VX-4 fired the first missile.

During the month AEWTULant was commissioned; NAS LINCOLN, NAS AKRON, Naval Air Reserve Facilities HOUSTON and SPOKANE were decommissioned.

MARCH

1—An early warning WV-2E prototype, with a rotodome radar antenna mounted on the fuselage, was accepted from

F8U-2, SECOND OF THE VOUGHT CRUSADER LINE, IS IN PRODUCTION

Lockheed and assigned to the Naval Air Development Unit at NAS SOUTH WEYMOUTH for preliminary evaluation.

7—The USS *Grayback*, first submarine built with guided missile capability, was commissioned at Mare Island.

10—The Chief of Naval Operations approved a reorganization of carrier aviation that would consolidate training units, create uniform air groups, provide a more permanent air group assignment, and permit reduction of units and aircraft assigned without also reducing combat readiness.

13—The Navy announced a contract with Convair for the pilot line production of *Tartar* guided missiles.

17—The *Vanguard* rocket successfully placed an earth satellite into orbit.

19—Development Squadron Four launched the first missile in the operational evaluation of *Bullpup*.

19—*Regulus II* completed its 25th flight and the first in which the entire operation was handled by a Navy crew.

23—The first practical test of the Fleet Ballistic Missile underwater launching apparatus, successfully sent a dummy *Polaris* missile into the air.

During the month, Fighter Squadrons 73 and 171, and Attack Squadrons 16, 45 and 173 were decommissioned.

In the second quarter, crisis in Algeria disrupted the government in France and General de Gaulle was recalled. There were signs of growing unrest in the

Middle East. The Vice President's good will tour in South America was marred by mob violence. Sputnik III joined Explorer III in orbit. Fears of an economic recession swelled and abated.

APRIL

8—F3H-2N's at NAOTS CHINCOTEAGUE began airborne firing tests of HIPEG, a high speed twin barreled 20 mm gun in an externally mounted pod.

11—RAdm. John S. Thach issued the first Operation Order to Task Group *Alpha,* formed in the Atlantic Fleet to accelerate the development of antisubmarine tactics and to improve fleet readiness in antisubmarine warfare.

18—LCdr. G. C. Watkins, piloting an F11F-1F at Edwards AFB, broke the world altitude record for the second time in three days, this time setting the mark at 76,938 feet.

18—In the Third Annual Naval Air Weapons Meet at El Centro, top honors in their class went to: VF-111 in Air-to-Air (Day), VF-213 in Air-to-Air (All Weather), VA-126 in Air-to-Ground, and VAH-5 in Heavy Attack.

21—To clarify command relationship and permit closer integration into the Single Manager Airlift Service, it was directed that Navy squadrons assigned, be formed into Naval Air Transport Wings for the Pacific and the Atlantic.

25—The Helicopter Mechanics School at NATTC MEMPHIS, first of its type, graduated its first class.

26—The airfield at NAS NEW ORLEANS was dedicated as Alvin Callender Field in honor of a local aviator who lost his life in aerial combat as a member of the RAF in WW I.

During the month VF-124, VF-143, VF-194, VA-54, VA-96 and VA-125 were decommissioned and VA-26, VF-53, VF-123 became VA-125, VF-124, and VF-53.

MAY

4—Practical test of an all-jet program in basic training began as 14 students reported to ATU-206 at Forrest Sherman Field for instruction in the T2V *SeaStar.*

8—The Under Secretary of the Navy presented the Distinguished Public Service Award to Dr. Karl Klager of the Aerojet Corporation, the Distinguished Civilian Service Award to Mr. Elliott Mitchell of the Bureau of Ordnance, and a Letter of Commendation to Cdr. W. J. Corcoran, USN, for their contributions to the development of solid propellants to be used in the Fleet Ballistic Missile *Polaris.*

THE THIRD AND FASTEST OF THE CRUSADERS FIRST FLEW IN JUNE

NORTH AMERICAN A3J COMBINES SPEED WITH VERSATILE ATTACK

11—LCdr. Jack Neiman completed a 44-hour simulated high altitude flight in the pressure chamber at NAS NORFOLK under conditions existing between 80 and 100 thousand feet.

14—First full scale production of high energy boron-based chemical fuels for aircraft and missiles began as the Secretary of the Navy sent a "begin operations" signal from Washington to the Navy plant at Model City, N. Y.

17—Four F3H *Demons* and four F8U *Crusaders* completed trans-Atlantic crossings in Operation *Pipeline,* a practical test of the speed with which carrier aircraft could be delivered from the east coast to the Sixth Fleet.

21—A special flight of five SNJ's at Corry Field marked the retirement of the veteran trainer after 20 years of faithful service to Naval Aviation.

22-23—Maj. E. N. LeFaivre, USMC, piloted an F4D-1 at NAMTC PT. MUGU, to five world records in speed of climb to 3, 6, 9, 12 and 15 thousand meters with marks of 44.392, 66.095, 90.025, 111.224 and 156.233 seconds.

26—VAdm. Robert B. Pirie reported for duty as Deputy Chief of Naval Operations (Air) relieving VAdm. W. V. Davis who was detached 22 May.

27—The twin jet F4H all-weather interceptor made its first flight at St. Louis; R. C. Little, Chief Test Pilot for McDonnell Aircraft was at the controls.

28—The USS *Galveston,* first *Talos* missile cruiser, was placed in commission.

During the month Naval Air Transport Wing, Pacific and NATWLant were commissioned, VF-122 and VF(AW)-3 were decommissioned and FAWTUPac became VF(AW)-3.

JUNE

2—Piloted by Vought Test Pilot J. Konrad, the F8U-3 all-weather fighter made its initial flight at Edwards AFB.

6—The fourth *Forrestal*-class carrier, the USS *Independence,* was launched at the New York Naval Shipyard.

8—During Operation *Knockout,* CVA *Shangri-la* and AO *Kawishiwi* put on a record performance in transferring fuel oil at the rate of 7,655 barrels per hour.

15—Major "Al" Williams, Naval Aviator No. 1820, Navy test pilot, world speed record holder and master of precision acrobatics, died at Elizabeth City, N. C.

16—The Secretary of the Navy formally established the expanded test range areas of NAMTC POINT MUGU as the Pacific Missile Range, a facility designed for use by all services in conducting missile tests on the West coast.

26—Goodyear Aircraft was awarded a contract covering the preliminary work of developing and producing the anti-submarine missile *Subroc*.

26—A TF-1 of VR-21 at San Diego delivered a J-34 engine to the USS *Yorktown* 300 miles at sea; first delivery of an aircraft engine by COD.

27—The USS *Hornet* was reclassified as CVS-12.

30—The Naval Aviation Safety Center reported a new record in aviation safety for fiscal year 1958, with a major accident rate of 2.83 per 10,000 flight hours.

During the month VW-13 was commissioned; VF-22, VR-2, Fasron-101, FAWTULant, HATULant, NAS HUTCHINSON and NAAS CORRY FIELD decommissioned.

In the third quarter, Sixth Fleet in the Mediterranean went to the aid of Lebanon and Seventh Fleet was called upon to quell warlike action in Taiwan Strait. Summit conferences were proposed and reproposed. United States intention to stop nuclear testing for one year was announced. The Submarine Nautilus made an historic voyage under the polar ice. Alaska was voted in as the forty-ninth state.

JULY

1—The Pacific extension of Continental Air Defense Dewline went into full operation.

1—The first joint Civil-Navy Radar Air Traffic Control Center (RATCC) went into operation at NAS MIRAMAR, California.

1—Subron 14, first Fleet Ballistic Missile Submarine Squadron, was established, Capt. N. G. Ward commanding.

15—While aircraft from the USS *Essex* flew cover and ships of the Sixth Fleet stood by, amphibious units landed 1800 Marines on the beach near Beirut to support the Lebanese government and to protect American lives.

21—A ZPG-3W non-rigid airship, designed for airborne early warning, made its maiden flight at Akron, Ohio.

21—Adm. James S. Russell relieved Adm. H. D. Felt as Vice Chief of Naval Operations.

21—Announcement was made of a contract with Martin Aircraft that assured continuance of studies on the adaptation of nuclear power to seaplanes.

21—USS *Ranger* rounded Cape Horn to join Pacific Fleet.

28—The Secretary of the Navy presented the Navy Distinguished Public Service Award to Dr. Jerome C. Hunsaker for his outstanding contributions to the Navy and to Naval Aviation during a life-time of service as naval officer, scientist, educator and administrator.

29—Cdr. M. D. Ross and M. L. Lewis made a balloon ascension to 82,000 feet carrying a record load of 5,500 pounds and remaining in the air 34½ hours.

29 and 31—Project *Blackbody* experiments in weather modification were conducted from NAS JACKSONVILLE.

30—The new 1000-foot pressurized hyper-ballistic range at Naval Ordnance Laboratory was operated for the first time in tests for the *Polaris* ballistic missile.

During the month NAS ATLANTIC CITY was decommissioned, NAAS CABANISS FIELD inactivated and NARTU MIAMI was designated Naval Air Reserve Facility Miami.

AUGUST

1—Adm. H. D. Felt relieved Adm. F. B. Stump as Commander-in-Chief, Pacific.

6—Department of Defense Reorganization Act was approved by the President.

12—A ZPG-2 airship, commanded by Capt. H. B. Van Gorder, returned to South Weymouth after a flight over Canada and across the Arctic Circle to deliver mail and supplies to the IGY weather research team stationed on T-3, otherwise known as Fletcher's Island.

20—First production model F8U-2 *Crusader* made its initial flight at Hensley Field, Dallas.

21—The "Big E", famed carrier of World War II, made her last voyage pushed by tugs from the New York Naval Shipyard to Kearny, New Jersey, to be scrapped.

24—Units of Seventh Fleet moved to the Taiwan area as warlike action began in Taiwan Straits.

25—Keel of the fourth nuclear power Fleet Ballistic Missile Submarine was laid at Newport News.

26—The first HSS-1N assigned to a fleet unit arrived at Key West for HS-1.

ALL-WEATHER SIKORSKY HSS-1N BECAME OPERATIONAL IN ASW

28—The USS *Essex* and four destroyers left the Sixth Fleet and made transit of the Suez Canal enroute to join Seventh Fleet forces off Taiwan.

29—The Lockheed *Electra*, selected in April as the plane most closely meeting requirements for long range ASW, made its first flight in the external configuration of the P3V-1.

31—The A3J-1 *Vigilante*, carrier attack plane built by North American, made its first flight.

During the month VA-214 and GMU-22 discommissioned; VF-94 and VF-152 became VA-94 and VA-152.

SEPTEMBER

1—A detachment from NAS ATLANTA was established under an Officer-in-Charge at Dobbins Air Force Base as the first step of the eventual joint service use of Dobbins.

2—Construction of a *Polaris* missile assembly plant at Naval Ammunition Depot, Charleston, S. C., was approved.

5—A Coordinator, Missile Ranges, was established on the staff of the Deputy Chief of Naval Operations (Air).

8—Lt. R. H. Tabor, wearing a Goodrich lightweight full-pressure suit, completed a 72-hour simulated flight in the pressure chamber at NAS NORFOLK, in which he was subjected to altitude conditions as high as 139,000 feet.

F11F SET NEW ALTITUDE RECORD IN APRIL

F4D TYPE WHICH SET FIVE CLIMB RECORDS

FURY FIRES A BULLPUP SUPPORT MISSILE

TEST POLARIS UNDERWATER LAUNCH GEAR

FIRST REGULUS II FIRING FROM GRAYBACK

TALOS AIR DEFENSE MISSILES ARM CLG-3

9—The Navy announced a contract with Martin Aircraft for the production of the air-to-surface missile *Bullpup*.

11—VAdm. R. B. Pirie, Deputy Chief of Naval Operations (Air), announced CNO Safety Awards to 38 aviation units for outstanding records in flight safety during fiscal year 1958.

16—In its first launch at sea, the *Regulus II* was fired from the submarine *Grayback* and under radio command flown inland in simulated bombardment to Edwards AFB.

25—Mr. Lynwood Cosby of the Naval Research Laboratory received the Distinguished Civilian Service Award for initiative and leadership in conceiving new techniques and new electronics countermeasures equipment constituting a major advancement in naval force defensive capabilities.

28—In a preliminary test of equipment to be used in IGY solar eclipse studies, an ASP rocket accelerated by a *Nike* missile booster was fired from the LSD *Point Defiance* near Puka Puka Island to 800,000 feet, the highest altitude ever reached by a ship launched rocket.

30—VAdm. C. E. Ekstrom relieved VAdm. C. R. Brown as Commander, Sixth Fleet, and VAdm. F. N. Kivette relieved VAdm. W. M. Beakley as Commander, Seventh Fleet.

30—Last of the Marines in Lebanon embarked in Sixth Fleet ships preparatory to leaving Beirut.

30—*Deepfreeze* IV began as RAdm. G. Dufek, Commander Naval Support Force, Antarctica, arrived at McMurdo Sound.

During the month HMR(M)-463 was commissioned; Carrier Air Group 17 was decommissioned.

In the last quarter, the situation in Taiwan Strait remained tense. The disarmament conference at Geneva was marred by disagreement and continuing nuclear tests. Recognition of East Germany was tied to threats to close off the city of Berlin. A national space agency was formed and rockets to the moon were attempted. Next year's budget made headlines before it was presented to Congress.

OCTOBER

1—Project *Vanguard* was transferred from the Navy to the National Aeronautics and Space Administration.

1—USS *Kearsarge* was reclassified as CVS-33.

8—FJ-4B's of Marine Corps Attack Squadrons 212 and 214 landed at NAS ATSUGI, Japan, after a trans-Pacific flight from MCAS KANEOHE with layovers at Midway and Guam. Designated Operation *Cannonball*, the flight in two sections of 12 aircraft, refueled from Air Force KB-50 tankers in the vicinity of Wake Island and from Navy AJ's near Iwo Jima.

8—John Lansing Callan, RAdm. (Ret) died at Hudson, N. Y. A pioneer pilot and Naval Aviator 1442, he served in France during WW I and commanded U. S. Naval Aviation Forces, Italy.

10—Announcement of 1958 Naval Air Reserve Trophy awards cited: for the most proficient station, the Edwin Francis Conway Trophy to NAS MINNEAPOLIS for the third straight year; for the unit showing most improvement, the Chief of Naval Air Training Trophy to NARTU ANACOSTIA; and for the highest efficiency of their types, the Noel Davis Trophy to 11 squadrons in all parts of the country.

15—Antisubmarine Defense Groups *Bravo* and *Charlie* were formed in the Atlantic Fleet with missions paralleling those previously assigned to Task Group *Alfa*.

21—CinCLantFlt announced formation of a new Amphibious Squadron composed of the converted aircraft car-

rier USS *Boxer* and four LSD's equipped with helicopter platforms, to provide a unit capable of operating in the fast landing concept of vertical envelopment.

23—The Navy announced a contract with Johns Hopkins University for continuation of the Bumblebee program, a missile research project from which *Terrier*, *Talos* and *Tartar* anti-aircraft missiles were developed.

During the month, MCAS MIAMI and NAAS MUSTIN FIELD decommissioned; NAAS BARIN FIELD inactivated.

NOVEMBER

6—Dr. E. H. Dix, Jr., Assistant Director of Research for Alcoa, received the Distinguished Public Service Award for his contributions in developing the high strength, corrosive resistant aluminum alloys used in modern aircraft.

10—The first permanent Marine Aviation Detachment afloat was activated aboard the *Boxer* to support operations of Marine helicopter squadrons and troops assigned.

10—The Navy announced a contract with Douglas Aircraft for the production of an all-weather A4D-2 *Skyhawk*.

12—The President presented the Harmon International Trophy for Aeronauts to Cdr. Jack R. Hunt for his accomplishment in commanding the ZPG-2 airship on her record breaking flight in March 1957.

17—A *Firebee* KDA-4 target drone reached a new high of 48,000 feet during technical evaluation at Pt. Mugu.

19—Plans were announced to equip operational P2V's with new electronics detection equipment that would provide a major increase in antisubmarine capability.

24—It was announced that P6M *Seamaster* procurement would end with delivery of 14 aircraft which would be used to explore the operational potential of jet seaplanes.

26—In a public demonstration at Portsmouth, Va., the experimental ship *Observation Island* conducted her first missile test with a successful launch of a dummy *Polaris*.

28—Capt. Newton H. White, USN (Ret.), Naval Aviator No. 2281 and first skipper of the USS *Enterprise*, died.

29—It was publicly announced that the air-to-air missile *Sparrow* III was operationally employed with the Seventh Fleet in the western Pacific.

DECEMBER

1—A sub-hunting unit built around the USS *Hornet* was activated in the Pacific Fleet with a mission closely following that assigned to similar units in the Atlantic.

3—A *Regulus II* bombardment missile, fired from Pt. Mugu, guided itself to a pre-selected point over a dry lake bed near Tonopah, Nevada, and was recovered intact.

5—The USS *Observation Island*, equipped with launching, fire control, navigational, and other devices called for in the Fleet Ballistic Missile testing program, was commissioned at Norfolk Naval Shipyard.

7—The Navy announced award of a contract with Bendix Aircraft to develop the *Eagle*, a new, long-range high performance interceptor missile.

16—The Intermediate Range Ballistic Missile portion of the Pacific Missile Range at Pt. Mugu, was inaugurated with the successful firing of a *Thor* from Vandenberg AFB.

17—Announcement was made that as a result of competitive flight tests and evaluation, the McDonnell twin-jet, twin-place F4H all-weather fighter had been selected for quantity production.

18—The Navy announced termination of the *Regulus II* bombardment missile program as a measure necessary to achieve an overall balance in missile weapons systems within available resources.

25-26—Navy helicopters and aircraft from Port Lyautey rescued 134 persons and delivered emergency food supplies to others caught by floods in northwestern Morocco.

31—Plans to build a new class of nuclear powered Fleet Ballistic Missile submarines were announced.

During the month NAAS NEW IBERIA, La., was established, NAAS EDENTON, N. C., was disestablished, NAMTC PT. MUGU was redesignated a Naval Missile Center, and the USS *Philippine Sea* was placed in the Reserve Fleet.

WORKMEN READY THE USS INDEPENDENCE FOR HER COMMISSIONING AND EARLY OPERATIONAL DEPLOYMENT WITH THE ACTIVE FLEET

NEW LOOK FOR THE NEW YEAR

By Robert P. McGrath
Navy Hydrographic Office

MILITARY SKY drivers started the new year with the latest model of one of the most important tools of their trade. It's the joint USAF/USN publication, called *Enroute* for short, which replaces the very venerable and very familiar volume, Radio Facility Charts — U. S., LF/MF and VOR editions, affectionately known as RAFACS, and less widely used Radio Facility Chart (Sheet).

Although the chassis of this new model has been put to limited use, *Enroute for 59* is new in design. Every conceivable effort has been made to increase performance and efficiency and promote the true meaning of "riding on air." It is designed to meet the needs of aviators in the left seat, right seat, front seat, back seat or only seat.

The full title of this innovation is *Enroute Flight Information (Low Altitude)* and its structural components consist of the following: 12 basic sheets, printed back to back, providing 24 charts of variable scales ranging from 1": 8NM to 1": 24NM depending on the density of the area; one chart devoted exclusively to blow-ups of congested areas, which in the near future will depict preferential arrival procedures; one data booklet containing tabulated data to supplement chart information; airway's planning chart for LF and VOR airway systems; a special plastic holder to accommodate the compact accordion fold of the charts.

Enroute for 59 will show the combined system of LF/MF and VOR airways for low altitude flight, thereby eliminating the use of multi-publications to accomplish one flight. Airway systems will be distinguished by color.

Enroute Flight Information is the middle part of a three-stage package of improved aeronautical publications. These parts define the three major components of flight information: Planning, Enroute, Terminal.

• The initial stage was launched in July 1958 by the issuance of the Flight Planning Document, a loose-leaf binder containing individual bound sections of categorized data. As its name implies, this publication is for flight planning and grounds the Supplementary Flight Information Document.

• Enroute Flight Information (Low Altitude), the second stage, was launched in January and, as mentioned before, shot down the old faithful book-type Radio Facility Charts — U. S., LF/MF and VOR editions, and the Radio Facility Chart (Sheet), presently in limited distribution. Enroute Flight Information (High Altitude) received an early shot and will remain in orbit and continue to be published.

• Terminal Flight Information, for the present, will be supplied in the form of the Low Altitude Pilot's Handbooks of Instrument Approach Procedures. Jet Pilot's Handbooks, East-West U. S. are now titled "Terminal Flight Information" and are being published in bound volumes and divided into East, Central and West penetration charts.

A few solemn words and a minute of silence should accompany the sonorous notes of "Taps," as we say farewell to the book-type RAFACS which have almost become a part of the aviator's seat-pack. The service performed by these well-thumbed pages might well be termed "above and beyond the call of duty." This old Model T of the aeronautical publication era has remained in service while the majority of the aircraft it served have long since retired. To maintain a degree of reliability Old Faithful had to double its output with the adoption of the Victor Airway system. Duplication was its biggest burden. The majority of this mass of flight information could be found in either of the literally black-and-blue editions, some could be found in one or the other, and some, owing to this burden of duplication, could not be found.

Increase in air traffic control, speed, communications, and the requirement for immediate pilot reaction to these advances have all contributed to the departure of our ill-fated hero. While he was treated with care, securely enclosed in the plush leather suitcase of the multi-engine type navigation kit, or used sparingly between the pilot and co-pilot, while the equipment laden aircraft was auto-piloting onward, his ego, efficiency and fate fell upon him when the single-engine pilot received a split clearance. With the pilot juggling books on both knees, flipping pages with both hands, tuning stations and pulling the aircraft out of an unusual attitude, an ATC request for an estimate at an obscure reporting point has all but broken our hero RAFACS.

And so, just as we reluctantly gave up the spark, choke, hand throttle and third pedal of the Model T, we move on to the new design for 59 and wish the service-worn book-types a hearty "well done."

While *Enroute Flight Information (Low Altitude)* is a definite improvement, it is by no means the ultimate goal. Research and development will continue for scale and area coverage adjustments, additional blow-up charts of high density areas, the inclusion of preferential inbound routings and the possible adoption of terminal area departure charts.

To some, the transition will be sudden and complicated, but it's here to provide more effective flight information. Study it, then use it.

● USS *Nitro* (AE-23), recently launched at Bethlehem Steel's Baltimore yard, will have improved machinery for conducting rapid replenishment-at-sea operations of ammunition and explosives. She will have elevators in the storage holds for handling ammunition and will be able to service ships simultaneously to her port and starboard sides.

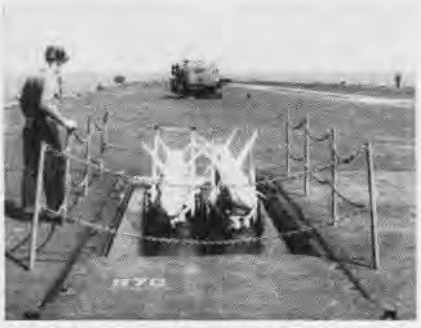
NAVY'S SPARROW III READY

INTRODUCTION of the *Sparrow III* into the Fleet brings a much needed new capability to naval air defense.

Enemy targets can now be destroyed in head-on attacks and at distances beyond normal visual ability. The high speeds of modern aircraft make it increasingly important to attack in this manner since the enemy can penetrate too deeply into a defended zone if the extra time for getting on his tail is required. Guns, rockets, and less capable guided missiles cannot cope with the very high closing speeds of head-on attacks. *Sparrow III*, however, was particularly designed for this kind of problem; and this, combined with its other special features, including reliable all-weather operation, high single shot kill probability, and relatively long range performance, have made it probably the most capable air-to-air missile in use anywhere.

In weight, shape, and size, *Sparrow III* is very similar to *Sparrow I*. It is long, slim, has four controlled wings and four fixed tails. It is different in that it contains a radar seeker that homes on its targets and computes the proper lead angle in the missile. This computation is continuous and corrects the missile's course as the target maneuvers. *Sparrow III* has a warhead at least 50 per cent larger than any other air-to-air guided missile.

The fleet now has received new F3H-2 aircraft outfitted with fire control systems which include the radar launch computer, and auxiliary equipment necessary for operating the *Sparrow III*. Each aircraft will normally carry several *Sparrow III* missiles mounted on external pylons. Air Development Squadron Four has conducted a full evaluation of the *Sparrow III* system on the carriers *Midway* and *Bon Homme Richard*, to test the operational effectiveness of the system, its maintenance and handling problems and to de-



SPARROW III *missiles come up ordnance elevator to the flight deck of aircraft carrier.*

NAVY CREWMEN *on the USS Midway (CVA-41) load Sparrow III missiles on Navy fighter.*

CLOSE-UP *of the new missiles, mounted and ready on the McDonnell F3H Demon fighter.*

velop pertinent tactics. The first operational fleet squadron is VF-64 whose commanding officer, LCdr. Howard Greer, made a very successful interception of a target drone in his first pass after only five familiarization hops.

Sparrow III was developed by the Raytheon Manufacturing Company for the Bureau of Aeronautics. It employs a unique radar technique which has been in continuous development at Raytheon for more than 13 years. BuAer has supported the research on this technique since 1946 when airborne radar moved from BuShips to BuAer cognizance. In 1952, BuAer let the first contract to start work on the *Sparrow III*.

In spite of the high degree of sophistication, the reliability of the missile has been excellent. The third missile launched at a drone target in the early development flights was a successful intercept. Over 200 missiles have been launched at aircraft drones to date.

The relative sophistication of the *Sparrow III* has been necessary to acquire the operational capability that is demanded in high speed air battles. Around-the-clock attacks, all-altitude operation, relaxed aiming tolerances, long range, and a high degree of semi-automatic operation characterize the system. Pilots can fire at aircraft targets at higher altitudes than they themselves can attain. The missiles automatically tune themselves and test their seeker systems when the armament switch is turned on. Green lights on the missile control panel indicate those missiles which are tuned and checked out. Any number of missiles may be selected for firing in rapid sequence or individually.

When the pilot has followed his acquisition and attack presentation to where he is in position to fire, a light on his display scope will indicate he is in range and he need only "push the pickle" to launch his missile.

Sparrow's III's "wide angle vision" allows the pilot to get his shots off in many tactical situations impossible to do with other air-to-air missiles. He can fire from any approach angle with a sizable margin of aiming error and still hit the mark. With earlier "birds," the pilot had to jockey his plane into exact firing position for a definite period of time before firing.

Also helping him fire first and devote full attention to other duties are the missile's relatively long range and automatic operation. The pilot has a zone in which he can fire at maximum range or hold off until a fairly close range if for any reason this is desirable. The missile's kill probability is constant over the entire firing range.

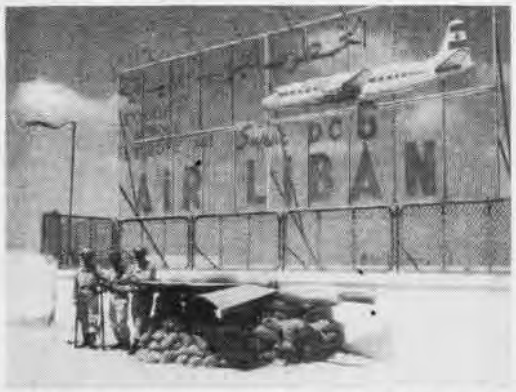
Sparrow III has been designed to be as easy to handle aboard carriers as is possible with such a weapon. The warhead and rocket motor are constructed to permit separate storage from the guidance components. The guidance section is tested on semi-automatic equipment aboard ship, and if it is in proper working condition, it will be assembled with the warhead and rocket and placed in ready storage. Missile sections that do not check out are sent ashore to special maintenance depots where trouble shooting and corrective repairs are made with production line techniques.

The Navy plans to use *Sparrow III* for some time since its design makes it capable of handling targets with much higher performance than those expected today. Slightly modified versions which permit launching at higher speeds are already being made. Techniques used in the *Sparrow III* guidance system set a high standard for air-to-air missiles.

THESE UNUSUAL PICTURES *depict, instant by instant, the launching of a Raytheon Sparrow III missile, its progress from the moment of launch until it reaches a point just ahead of the Demon aircraft.*

FJ-3 FURY FUELS FROM ITS 'BUDDY TANKER' AJ

GERMAN NAVAL OFFICERS WATCH CARRIER OPS



TROOPS AT BEIRUT AIRPORT MET ESSEX PILOTS

ESSEX SAILORS, CAMERA-LADEN, VISIT ACROPOLIS

ATG 201 CREW MEMBERS SPELL OUT THEIR MISSION ON ESSEX. CAPT THOMAS A.

ESSEX 1958 'TR

In 1958, the USS *Essex*, CVA-9, one of the oldest major combatant U. S. warships now on active duty in the Fleet typified the impact of carrier striking power as she completed her 16th year of service by supporting the Free World in three oceans. She blazed a fitting trail of glory from the east coast to the Mediterranean with the U. S. Sixth Fleet and then to the Western Pacific with the Seventh Fleet.

From early February to middle November, the *Essex* was overseas. In March the 38,000-ton carrier participated in a major NATO exercise which involved simulated strike missions into Greece.

USS ESSEX TRANSITED SUEZ CANAL ON AUGUST 28

THIS IS DOCKSIDE VIEW OF

A. CHRISTOPHER (INSET) WAS SKIPPER; THE NEW C.O. IS CAPT. THOMAS W. SOUTH II

RAIL OF GLORY'

Her most celebrated mission came in midsummer when aircraft from the *Essex* Air Task Group 201, commanded by Cdr. E. H. English, Jr., flew air cover for the U. S. Marine Peace Force landings at Beirut, Lebanon, July 15.

From the Mediterranean, the *Essex* went to another "brush fire"—this time half across the world to Formosa. After a month of operations with the Seventh Fleet, the *Essex* returned to home base, Mayport, Florida, via the Philippines, South Africa and Brazil. She had completed more than 75,000 miles, or three times the distance around the world.

OF CAPETOWN, SOUTH AFRICA

TIGER BALM GARDENS OF SINGAPORE ARE VISITED

AD-5W GUPPIES OF VAW-12 FLY IN FORMATION

THRONG OF DEPENDENTS CROWD CVA-9, MAYPORT, FLA.

MARINE DETACHMENT STANDS REGULAR INSPECTION

BATTERY SALUTE MADE TO CITY OF PALMA, MAJORCA

STUDENTS GO SUPERSONIC

F11F-1 TIGERS LIKE THIS WILL ENABLE FIRST STUDENT PILOTS TO GO SUPERSONIC

STUDENT PILOTS now receiving basic and primary flight training at Pensacola who choose jet fighters have an opportunity to become the first student aviators to receive advanced flight training in supersonic fighter aircraft.

Nearly 100 F11F's will be assigned to NAAS KINGSVILLE, Texas, during 1959. Eighteen have already been delivered.

To evaluate the *Tigers* for use in the advanced training command, the Chief of Naval Air Advanced Training established a new Advanced Training Unit, ATU-222. The new unit's mission will be to determine the planes' effectiveness for student training and to provide a training syllabus which will insure the most effective use of the F11F as an advanced jet trainer.

Further responsibilities will include assisting other Advanced Training Command units in instructor training and "on-the-job" maintenance personnel training.

Cdr. V. F. Kelly, senior flight instructor of ATU-203, NAAS CHASE FIELD, Beeville, Texas, has been assigned as officer-in-charge.

The *Tigers* are being flown to Kingsville from fleet units.

Capt. R. L. Willett, Naval Air Advanced Training Command training officer, said: "Advanced training command plans contemplate a six-month evaluation period for the plane, instructor indoctrination and maintenance training before any actual training is attempted. We plan to put the first student through training in the F11F about June."

The planned syllabus for jet fighter training at Kingsville is for the student to enter the advanced training command and take his first 120 hours in the F9F-8T two-seater *Cougar* currently in use. The final 20 hours will be flown in the *Tigers*.

However, the F11F will be used more as additional planes are received. Training in the F11F will consist of modern weapons firing and afterburner precision flying at high speeds.

Capt. Willett said that each student will be required to break the sound barrier. However, all training flights exceeding the speed of sound will be made over the Gulf of Mexico above 30,000 feet to insure that no one will be disturbed by the sound of the sonic boom.

Carquals for AF Captain

Qualifies with Marine Aviators

An Air Force exchange pilot serving with Marine Composite Reconnaissance Squadron 2 at MCAS CHERRY POINT shares the Marines' claim of triple threat capabilities—land, sea and air.

The pilot, Capt. Virgil L. Dahle, earned his sea-legs when he qualified in carrier landings with six other VMCJ-2 pilots aboard the USS *Antietam*. According to Capt. Dahle, "Air Force pilots have an opportunity to qualify in carrier landings only when serving with Navy and Marine Aviation units on the exchange duty program."

Capt. Dahle began his 18-month tour with the squadron last May. His duties with VMCJ-2 include reconnaissance missions and flight schedule planning.

Other VMCJ-2 pilots qualifying aboard the USS *Antietam* were: Capts. J. J. Mitchell, W. J. Geiger and R. Thusen; 1st Lts. H. J. Bond, W. A. Browning, Jr., and C. E. Griggs. The pilots utilized F9F-8 *Cougars* this tour.

Hook-up Record is Broken

204 Connections Made in One Hour

An AJ-2 *Savage*, piloted by Lt. Ted Steckbauer of Heavy Attack Squadron 16 teamed with an F9F-8P *Cougar*, flown by Maj. Joe Lynch of Marine Air Group 13, to establish an in-flight refueling plug-in record of 204 connections in one hour. No fuel was passed between aircraft.

VAH-16, regularly based at NAS NORTH ISLAND, maintains a four-plane refueling detachment in the Western Pacific. MAG-13 is based in Hawaii.

The previous aerial refueling hook-up record was held by the Air Force.

LT. STECKBAUER, MAJ. LYNCH CHECK PROBE

Mugu Hosts Missilemen

High Level Symposium Held There

More than 700 of the nation's leading military and civilian missilemen attended a three-day symposium at the Naval Missile Center, Point Mugu. The first of its kind to be held at the Headquarters Pacific Missile Range, it provided the opportunity for a vital and valuable exchange of information.

Principal speaker was Mr. Robert J. Gutheim, Staff Director for the Director of Guided Missiles, Department of Defense, whose topic was *National Missile Range Policy*. Other subjects covered were: function and general plans of the National Aeronautics and Space Administration, recovery of manned space capsules, underwater launch and instrumentation, Army and Navy missile systems, and capabilities of the Pacific Missile Range.

RAdm. Jack P. Monroe, Commander, Pacific Missile Range, was host.

OPERATION SAUVETAGE, *undertaken by U. S. Naval Activities at NAS Port Lyautey, commanded by Capt. J. L. Counihan, brought airborne aid to flooded areas in Morocco. One big Navy Sikorsky helicopter and two USAF helicopters participated. Flood waters from the Ouegra and Sebou rivers inundated miles of farmland. At left, Navy men tank up at the base of operations. Center, a five-year-old flood victim is handed out of the helicopter assisted by Naval Aviation Pilot Earl Flint and LCdr. J. E. Buchanan, who directed rescue enterprise. Right, helicopter crewman Larry A. Brown unloads a case of rations and though his boots are muddy, he looks like Santa Claus.*

FLICK SWITCH FOR SAFETY

When you wearers of the Wings of Gold are tooling along in your trusty jets, mulling over the latest OpNav airway control directive, do you ever stop to consider just what goes into formulating the policy set forth?

Consider OpNav Notice 3722 of 17 November 1958 for example, bearing the impressive subject: *Enroute Radar Flight Advisory Service for Civil Turbo-Jet Air Carrier Flights along certain Specified Jet Routes; provisions for.* It sets down procedures to be followed by Naval aircraft "when operating on or within 20 nautical miles from the centerline and at altitudes from 24,000 to 35,000 feet MSL" on the routes given in the Notice. Additional routes have been designated in later directives.

In its simplest translation (but don't neglect becoming familiar with all the fine print), it means: "When entering the specified areas, adjust your IFF (radar beacon transponder) to operate on mode 3." Since all Navy jets are equipped with IFF, a flick of the switch and the usual alertness, will take care of compliance in most instances.

How did this seemingly simple solution to an increasingly difficult problem come about? All users of the airways, and all agencies concerned with use of the airways, have one primary consideration—safe separation of aircraft. There are numerous other factors of importance to individual groups, but all must play a subordinate role to safety.

Since June 1958, positive control has been established along certain East-West routes between 17,000 and 22,000 feet. No aircraft can enter these airways without filing IFR. An ATC clearance is required to even cross them. Then, last fall, the civil airlines started jet passenger flights. The positive control routes couldn't be used by them because they were not effective at jet trans-continental operating altitudes. Seeking the same security as at lower altitudes, the airlines requested that control measures be inaugurated.

Positive control at jet operational altitudes would so seriously hinder military training missions that combat readiness would be imperiled. After many meetings and some concessions, the solution found in OpNav Notice 3722 was worked out. The Air Force agreed to use their Air Defense Command radar network in conjunction with FAA radar to provide civil turbo-jet aircraft with radar traffic information on all observed targets that might be hazards.

Radar Flight Advisory Service is much less restrictive than positive control. Military jet operations can continue in a relatively unhampered fashion with small strain on the pilot.

Navy Librarian Retires

Headed BuAer Technical Library

Mrs. Chellie R. Penny, head of the Bureau of Aeronautics Technical Library, retired in December 1958. Mrs. Penny's retirement marked the end of over 40 years of federal service, 34 of which were spent in the Library.

Following six years of career service with the War Department, Mrs. Penny, in 1924, raised her right hand and was welcomed by BuAer as a "typewriter." Her prime responsibility soon became the technical and scientific books and literature used in reference and research by staff scientists and engineers. Her first appropriation for books was $100. Today this sum has grown to more than $13,000 annually. Mrs. Penny also assisted in the organization of the David Taylor Model Basin library.

RAdm. Robert E. Dixon, Chief of the Bureau of Aeronautics, paid tribute to Mrs. Penny's loyalty and service.

AIRSPACE IS THEIR BUSINESS

NARASPO is not the name of a new way to cook rice in the Philippines, but a title for a Naval officer who does a special kind of work today. In less than two years since **N**avy **R**egional **A**ir**s**pace **O**fficers, located in New York, Fort Worth and Los Angeles, came into existence, these trouble shooters for airspace problems have time after time proved their value to the Navy.

They certainly are not supermen—though time and again they wished they were—nor do they have a wonder drug that cures all airspace ills, but they have been selected and trained to give commanding officers at air stations the best advice and assistance available on the use and procurement of airspace.

The tools, techniques and procedures for controlling air traffic have not been able to keep pace with the rapid technical advances of aviation and the phenomenal growth in the use of air transportation. This is the root of most airspace problems.

Several years ago the Chief of Naval Operations determined to set up machinery to protect Navy airspace requirements, effect better utilization of airspace and to provide for increased coordination between the Navy and the Civil Aeronautics Administration. And so—NARASPO billets.

Cooperation by the CAA (now the Federal Aviation Agency) made space available for Navy in the CAA regional offices at New York, Fort Worth and Los Angeles. Officers to man these posts were selected on the basis of experience; and after an indoctrination in the office of CNO and several weeks training at the U. S. Naval Air Technical Training Unit, Olathe, Kansas, and a jet refresher course, they reported for duty. After a certain amount of begging, borrowing and midnight requisitioning, enough furniture, office equipment and supplies were collected to open shop, and the regional airspace officers were ready for operation in the spring of 1957.

SPACE EXPERTS *discuss the effect of a tall tower in New York area; left to right, M. E. Phillips, subcommittee secretary, Cdr. J. F. Betak, NARASPO, and V. T. Guccione, Federal Aviation Agency.*

Today these offices are a going concern. They have available up-to-date files of all airspace publications, aeronautical charts, aids to air navigation, pertinent regulations, airspace cases and a raft of correspondence. These offices are now manned by a commander, a quartermaster (cartographer), and a GS-4 or 5 clerk-stenographer. An additional commander is being assigned each office since the demand for NARASPO service is on the increase.

As absorbing as a jigsaw puzzle to solve was determining where the

ALFRED McCLURG *prepares an overlay of an airspace proposal for submission to members of Kansas City Regional Airspace Subcommittee.*

STANLEY KINGHAM, *Senior Air Traffic Controller, N. Y. ARTCC, tells how UNIVAC "memory drum" stores essential air traffic information.*

By Commander Robert E. Pine, USN
Head, Airspace Section, CNO

CDR. BETAK *and Romnie Pattison of Pan-American World Airways, discuss thrust loss as a result of noise suppressors on the Boeing 707.*

SEATED IN COCKPIT *of the big Boeing 707, Mr. Pattison explains civil jet operating features to Navy Representative, Commander Betak.*

NARASPO should fit into the Navy command structure. He was to be physically located in the CAA regional offices. He had either to be attached or have ready access to CNO in order to represent top-level Navy policies. At the same time he would be working with practically all Navy/Marine commands at all levels within his area of responsibility. He had to be able to establish work priorities and personally determine where his efforts could best be used.

There was still another complication: the areas of responsibilities were large, and each NARASPO represented the Navy on two distinct regional airspace subcommittees located some thousand miles apart. Provisions for administering records and funds and providing aircraft for flight time could not be overlooked.

Don't ask a NARASPO where he is attached; he probably doesn't have the time to explain it clearly. But this will give you an idea of what we mean; the West coast NARASPO maintains his office at FAA Fourth Region Headquarters, Los Angeles; he is attached to Commander Naval Air Bases 11/12 (COMNABS-11/12) for military control; to COMNABS 13 for additional duty; to CNO for technical and coordination control; to U. S. Naval Air Station, Los Alamitos, for administrative control—and he flies Bureau of Aeronautics Representative aircraft. He is the Navy member of the Los Angeles and Seattle regional airspace subcommittees, and his area of responsibility covers the entire western part of the U. S., extending as far East as Denver, and includes the 11th, 12th and 13th Naval Districts as well as part of the 8th and 9th.

One of the primary functions of a NARASPO is representing the Navy on regional airspace subcommittees which are located in New York, Kansas City, Atlanta, Fort Worth, Los Angeles and Seattle. These are part of the President's Air Coordinating Committee. Recommendations and positions are forwarded to the Washington Airspace Division for approval, disapproval or public rule-making action by the FAA Administrator.

In the first year of their existence, NARASPOs represented the Navy on approximately 1,923 subcommittee cases. The breakdown goes as follows: aids to air navigation, 359; new airports, 83; control areas, 177; control zones, 107; federal airways, 720 (most cases include several airways); obstructions to air navigation, 223 (mostly TV and radio towers); restricted areas, 113; warning areas, 75; controlled firing areas, 22; and policy matters, 44.

GROUPED ABOUT *a radar scope, Kingham and Betak observe air traffic control as it is directed at the New York International Airport.*

KINGHAM AND BETAK *study manually prepared fixed posting at local sector position. Data will soon be provided by electronic computers.*

NARASPO, *Cdr. A. B. Haseltine (C), visits BAR Fort Worth, Cdr. J. M. Richardson (R), talks over airspace needs with Bell pilot F. W. Carlson.*

RADM. G. B. H. HALL, *COMNABS-11, and West Coast NARASPO, Cdr. W. T. Harding, meet and discuss special Pacific Missile Range problems.*

During the same period they investigated well over a thousand radio and TV towers for informal approval.

Another responsibility is to educate Navy personnel within his area in the use of airspace. To accomplish this mission, one NARASPO in a year's period visited some 53 major and subordinate commands; traveled well over 40,000 miles; was on Temporary Additional Duty 100 days, and attended 106 meetings.

Each area in the United States has its unique problems. The New York office is confronted with the Golden Triangle —New York, Washington, Chicago— which claims the highest density of air traffic in the world. Heavy civil traffic between the East coast cities and Miami and the Caribbean, on shore and off, poses a constant threat to Navy training areas and other installations along the coastal area. Coordination with the Canadian government is also a requirement in this area.

The Los Angeles office is also faced with heavy coastal traffic inland, but in addition is confronted with problems of rugged mountainous terrain, the Los Angeles-San Diego complex, the San Francisco Bay area complex and the Pacific Missile Range. The State of California has taken an active interest in airspace utilization and NARASPO Los Angeles has represented the Navy at legislative hearings on aeronautics.

Things are big in Texas, including TV towers and restricted areas. NARASPO Fort Worth looks after the needs of the training command and is responsible for the entire southeastern part of the U. S. and Puerto Rico. A special problem along the Gulf is the continental shelf which underlies Navy warning areas and where various oil companies would like to be left alone so they can drill oil wells without being a target. Negotiations with the Department of Interior are frequently required in this connection. Helicopter and light seaplane traffic in this area is the densest in the entire U. S. NARASPO Fort Worth has learned that Texans use aircraft to sow rice and herd cattle, and that mink and turkey farmers and the raisers of other excitable creatures, as well as the Audubon Society, have an interest in airspace. In this area it was discovered that eight separate training bases operated by the Army, Navy and Air Force had overlapping local flying areas.

There is little glamor in being a NARASPO. Battles are won with polite words, working hours are long, and there are dozens of sticky new problems cropping up daily. One NARASPO says, "The job defies description!" Another has a large sign over his door: "Airspace is for the birds."

But despite these circumstances, the NARASPO will tell you confidentially that he likes his job, he's made more friends than ever before in his life, and it's one of the most interesting billets in the entire United States Navy.

MEMBERS OF NEW YORK *Regional Airspace Subcommittee, representing the Navy, Air Force, Army and Federal Aviation Agency, discuss an Army proposal for a certain restricted area.*

Declassification Authorized
Downgrading of Documents Begins

The first program for accomplishing bulk declassification of old classified military documents accumulated during the past 50 years is now in effect. The Defense Directive 5200.9, which was signed on 27 September 1958, became effective 60 days later.

It is designed to rid the classified files of millions of papers which originated prior to January 1, 1946 and which no longer warrant security safeguards. In addition, the directive downgrades to Secret all Top Secret documents which are exempted from declassification. The high cost of storing and handling such documents should be materially reduced.

Under the old procedures, key personnel had to be diverted from their regular duties to review the documents and then go through the time-consuming process of locating the originator of the documents or his successor and getting agreement on declassification. Since the cost of this system was prohibitive, the backlog of classified documents continued to grow.

The documents themselves run the gamut from single sheet messages to bulky technical manuals, motion picture films and old unit records. From these, historians may be able to glean new information on past campaigns, and scientists and engineers acquire valuable technical information. For example, one collection of 33,000 documents from the former Office of Scientific Research and Development are among the records that will be affected by the directive.

Both storage and shipping costs vary with classification. For example, the annual storage cost of a cubic foot of unclassified documents is only 80 cents, while it costs $2.00 for Top Secret documents. Cost of shipping a cubic foot of documents from Washington, D. C., to St. Louis would be approximately $20.00 if they were Top Secret, $3.10 if they were unclassified.

● The jig used in construction of wings for a modern transport is so large that workers using the tool must communicate by telephone.

● The Navy's high altitude sounding projectile, HASP, is designed to make meteorological observations at altitudes in excess of 100,000 feet. At about 2600 feet, the rocket motor falls away and the forward portion coasts on up to its 20-mile summit at 3000 miles per hour.

INSTRUCTORS NEEDED

APPROXIMATELY 2000 chief and first class petty officers in 11 aviation ratings are required to fill the instructor billets in the seven aviation schools and at other Naval Air Mobile Trainer sites.

Ratings required are AD, AE, AM, AO, AQ, AT, GF, PR, AK, AB, and PH; to train students at Memphis, Olathe, Lakehurst, Pensacola, Philadelphia, El Centro, and at other activities which employ Mobile Trainers.

Personnel from operating squadrons and ships are particularly desired for this duty.

Successful applicants may expect earlier rotation to shore duty to fill vacancies because normally they will be selected for transfer first in their segment of the Seavey. Once ashore, there is a good probability that their instructor tours will be extended because BUPERS looks with favor on extending tours of outstanding instructors.

Eligibility requirements are contained in BUPERS Instruction 1306.22C. Candidates must be eligible for shore duty and must request this duty in accordance with the procedure established in BUPERS Instruction 1306.62A.

Ratings required for specific duty stations are listed in BUPERS Instruction 1306.58B and 1306.22C. Men who have already applied for shore duty may submit changes to their broad preference in the Seavey Data Cards as indicated in enclosure 1, section 3 of BUPERS Instruction 1306.62A.

EIGHT OF THE NAVY'S *nine enlisted pay grades are represented in this photograph of members of the Personnel Accounting Machine Installation, Pacific Fleet. In Master Chief Machine Accountant Harry Smith, left, to Seaman Apprentice Lester A. Socha, right, the Pacific Fleet PAMI installation has the only full slate of MA's in the Navy. The reason? Chief Smith was the only man in his rating group to be promoted to Master Chief Petty Officer.*

HATWING ONE BOMBING DERBY

A SEGMENT OF NAVY'S 'BIG STICK' ARE COMPETING SKYWARRIORS

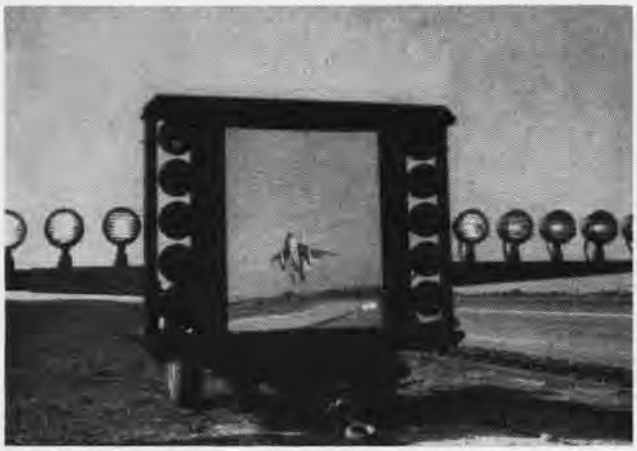
WITH ALL the pageantry and precision of a medieval tournament, Heavy Attack Wing One's Sixth Bombing Derby was held the second week in December at NAS SANFORD, Florida. Flight suits replaced armor; mighty A3D *Skywarriors* supplanted the chargers of yore; and a more impersonal form of weapons delivery was used instead of vis-a-vis jousting. But the spirit of competition was the same.

The squadrons carried into the competition the colors of the aircraft carriers to which they are assigned: Heavy Attack Squadron One of USS *Independence;* VAH-7 representing the Navy's first nuclear carrier, USS *Enterprise;* VAH-9 from USS *Saratoga;* and VAH-11, newly returned from operations in USS *Franklin D. Roosevelt.* VAH-3 entered only the Carrier Airmanship Event and VAH-5, deployed in the Sixth Fleet aboard USS *Forrestal,* did not compete. Four crews were selected from each squadron.

The rules of the Derby were designed to simulate, as closely as possible, the operation of the A3D from the decks of a carrier. Only pre-spotted aircraft could be used, launch times were exact with increasing penalties for each minute early or late, and recoveries were made with the landing mirror aid. The Derby lasted 5 days.

Event I—Promptly at 0800 on Monday, 8 December, the Derby got underway with complicated special weapons loading exercises. Skilled ordnance crews were graded on each phase, as they raced against time for a possible 100 point score. The *Checkertails* of VAH-11 got off to an early lead when their team, headed by Ltjg. J. S. Salisbury, made a perfect score.

Event II—A *Skywarrior* of VAH-1 took to the air at 1900, followed at ten-minute intervals by the other competing jets. They were off on a night mission that required them to fly more than 2000 miles, striking targets made known to them only hours before.



VAH-3 SKYWARRIOR APPROACHES 'ON MEATBALL' WITH PRECISION

SKYWARRIOR FROM PRIZE-WINNING VAH-9 COMPLETES ITS MISSION

Radar reconnaissance runs were made on small airfields at Troy, Alabama, and Hattiesburg, Mississippi, followed by a radar bomb scored drop on a site in Dallas, Texas, from a height of nearly seven miles and at a speed of approximately 600 mph.

As the aircraft returned to Sanford in the midnight darkness, an unseasonable fog blanketed the area and the all-weather flight capabilities of the crews were tested as Ground Control Approach guidance, coupled with the landing mirror aid, brought in the *Skywarriors* safely.

Umpires spent the remainder of the night analyzing and interpreting scores and photos, gathered during the mission. The *Owls* of VAH-9, who had returned barely two months earlier from a Sixth Fleet deployment aboard USS *Saratoga*, forged into the lead spot.

RADM. SWITZER PRESENTS FERNANDEZ WITH AIRMANSHIP TROPHY

CAPT. ARTHUR, GOVERNOR COLLINS, AND CAPT. RAMAGE MEET

Event III—On Tuesday, each crew carried out a complete special weapons operational mission in the VAH-3 "Op" mission trainer. Malfunctions were introduced into the equipment during the simulated ground runs and crews were graded on the manner in which the discrepancies were corrected.

A VAH-1 *Tiger* crew, consisting of LCdr. Dick Davis, as aircraft commander, Ens. Bill Blackmore as bombardier/navigator, and Ed Sykes, AD3, made a perfect score. However, they were tied by LCdr. Ralph Mattus, Ltjg. Abe Fennell and radar/gunner Gordon Mitchel, AM1, all of VAH-9.

At the halfway mark, the *Owls* had increased their lead to 63 points over the second-place *Checkertails*.

Event IV—A bomber stream departed NAS SANFORD at ten-minute intervals at 0730 Wednesday, 10 December. The jets were off on another 2000-mile simulated combat mission to drop a bomb "shape" on a grounded target ship near Cape Hatteras. Observers scored the crews on the accuracy of their drops, as the bombs plunged from seven miles overhead.

The "Niners" once again increased their lead, this time by 184 points.

Event V—The most severe cold front of the season moved in. Frigid air brought rain and low ceilings with cloud tops to 43,000 feet as the A3D's roared off at 1930 Thursday on an extended over-water flight. With all electronic navigation equipment sealed off, the crews—as mariners have for centuries—relied on the stars for guidance. On the return flight radar bomb scored runs were made on Richmond, Va., and on Charlotte, North Carolina.

Saratoga's VAH-9 increased their lead to a final score of 2827 points; VAH-1 of *Independence* surged into second place with 1960; Eleven and Seven finished third and fourth.

Event VI—Capt. Bob Elder, Director of Flight Test at NATC PATUXENT RIVER, judged this phase, the Carrier Airmanship Competition. It was an innovation this year and a special event not related to Derby scores. The squadrons were marked on take-off and landing intervals, rendezvous, formation flying and breakup, and carrier landing techniques. VAdm. Robert Goldthwaite, Chief of Naval Air Training and a former Commander, Hatwing One, flew with the crews in this event. VAH-11 won.

At 1500 before an array of dignitaries, final scores were announced and awards made. The Conover Trophy, given to the squadron amassing the greatest number of points in Events I through V, was presented by VAdm. William V. Davis, Deputy Commander in Chief, U. S. Atlantic Fleet, to Cdr. Floyd Harris, Commanding Officer of VAH-9. The Norden Trophy, for the best bombing equipment maintenance during the Derby, also went to Nine, and was presented by RAdm. J. C. Daniel, ComSix. The crew scoring the greatest number of points received individual trophies from RAdm. Kenneth Craig, ComCarDiv Two. Lt. Tom Kilcline, aircraft commander; Raymond Hite, AO1, bombardier-navigator; and Keith Schmig, AE2, radar gunner of VAH-9, took the honors.

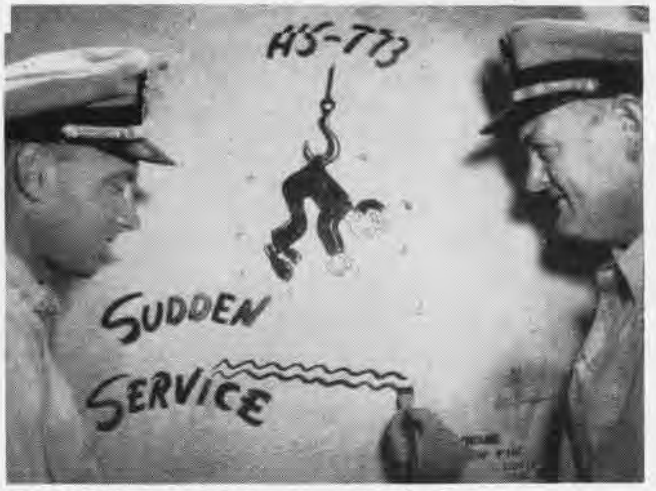
Douglas Aircraft Company gave the Carrier Airmanship Trophy won by Cdr. Ray Fernandez, VAH-11. RAdm. W. G. Switzer, ComFairJax, made the presentation. The Heavy Attack Wing One Commander's Trophy is given annually to the Atlantic Fleet Heavy Attack Squadron demonstrating the highest state of operational proficiency and overall excellence for the fiscal year. Presented by North American Aviation, Inc., it was awarded to Cdr. Joe Tully, former skipper of VAH-5, by VAdm. Goldthwaite. Cdr. Tully accepted on behalf of the squadron.

Civilian dignitaries were headed by Florida's Governor LeRoy Collins, who flew a "mission" in the A3D Operational Flight Trainer with VAdm. Davis.

In commenting on the week's competition, Capt. James D. Ramage, Commander Hatwing One, remarked: "Most of the observers agreed that Heavy Attack has really come of age."

RESERVISTS EARN 'WELL DONE'

LCDR. L. D. GALBRAITH *shows itinerary to Lt. D. R. Holson, Cdr. Bushnell, Lts. R. W. Cobb, J. C. LaFave, H. P. Cowan, L. D. McBeth of VR-703.*



PILOT RESCUE *by Lt. J. B. Gustafson and LCdr. W. C. Garrett was extra on Los Alamitos' HS-773 ASW cruise, and merited special insignia.*

IT'S TRADITIONAL in the Navy to say "Well Done" for achievement. Since the phrase is never lightly bestowed, the occasion is always momentous.

Dallas Delivers the Goods

The following excerpts of a message from Capt. Erroll S. Riewerts, USA, chief Vanguard Station, Santiago, Chile, speaks for itself: "Supplies delivered by Navy Reserve Log flight, Squadron No. VR-703, have been a terrific boost to station morale. . . . The conduct of all personnel of the squadron while in and around Santiago, Chile, has been more than exemplary."

RAdm. Allen Smith, Jr., the Chief of Naval Air Reserve Training, forwarded the message to Cdr. William D. Bushnell, the skipper of VR-703, with this commendation: "The spirit of cooperation displayed by members of your command reflect the high state of readiness, the high morale, and the strong leadership existing in your command. WELL DONE!"

Here's the story behind the news. Fleet Tactical Support Squadron 703 based at NAS DALLAS delivered 17,000 pounds of equipment to military and naval missions in Peru, Chile and Ecuador by two *Skymasters* making two round trips from Albrook AFB.

Minneapolis Aids Airlines

Quick thinking and fast action earned NAS MINNEAPOLIS a "Well Done" from Adm. Arleigh A. Burke, Chief of Naval Operations.

A commercial DC-6B, carrying 60 passengers, crashed and started to burn a short distance from the air station. LCdr. W. T. Peterson, CDO, and LCdr. John Lynch, OOD, immediately dispatched emergency equipment. Ten rescue and emergency organizations reported for duty at a temporary command post set up by the Naval personnel, thereby avoiding confusion. All the passengers and crew were saved.

GRAY GHOST *gives some of the statistics of VA-822 two-week active duty tour at home base, NAS New Orleans. Cdr. D. S. Harper's men flew 850.1 accident-free hours in 18 F9F-6 Cougars. The 21 pilots averaged 40.5 hours each. There were 1154 landings made by them.*

DON PEARLY, *NAS Los Alamitos Airman and composer, spins his Rock and Roll hit, "Drag Race," for teen-agers at Los Angeles County Fair.*

BGEN. F. C. CROFT, *Commander, Marine Air Reserve Training, presents FY 1958 Safety Award to LCol. T. W. Furlow, CO, VMA-321, Anacostia.*

Adm. Burke, upon receiving a commendation letter from the president of the airlines, passed his congratulations to Capt. E. M. Morgan, commanding officer: "It is a great pleasure for me to receive a tribute of this nature in evidence of outstanding performance by personnel of the naval service. I wish to congratulate you for the outstanding job in rescue work rendered to the passengers and crew members involved in the crash, and desire that you convey my 'Well Done.' "

Anacostia Recruiting Praised

Capt. J. A. Masterson, Commanding Officer of NARTU ANACOSTIA, also received a note of praise from Adm. Arleigh Burke. In part, it read: "It is truly gratifying to find Navymen as aware of the importance of the public's response as you are. . . . You can certainly be proud of the appreciation expressed by those members of the public who have been received in such a gentlemanly manner by members of your command."

What prompted the citation is best summed up in the letter Capt. Masterson received from the father of a new recruit: "My 18-year-old son, my wife and I came to the Naval Air Station to investigate your Naval Air Reserve program. Without a doubt I have never received such excellent treatment. Mr. Allen was very helpful, was attentive and interested, and made us feel as if maybe this 'serving your time' wasn't so bad after all. He seemed to be genuinely interested in what was best for my son to do."

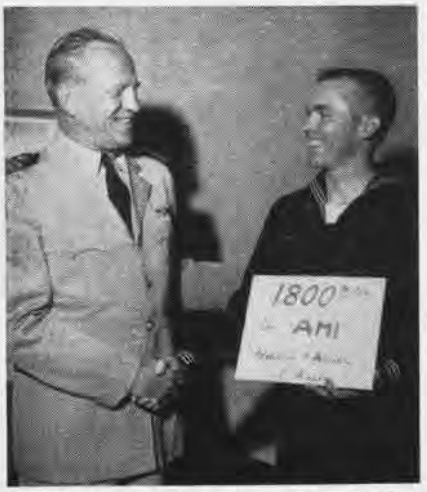
The "Mr. Allen" mentioned is Recruiter Charles E. Allen, Jr., AD1. He received appropriate recognition.

True Devotion to Duty

For over five years Edward N. Atchley, AN, has commuted from his home in Knoxville, Tennessee, to NAS ATLANTA, Georgia—a round trip distance of almost 400 miles—to attend monthly drills with his squadron, VP-673.

However, Atchley surpassed himself. At the time of the Twelfth Annual Military Inspection, he was visiting his father in Houston, Texas. Not wishing to miss the big event, he joined his shipmates by driving a total of 1800 miles.

Capt. R. E. Steiler, commanding officer of Atlanta praised the Weekend Warrior for his faithful service.



A HEARTY *handshake indicates Capt. Steiler's appreciation of Atchley's trek to be at AMI.*

CHARLES ALLEN *smiles with pleasure as Capt. Masterson shows him letter of appreciation.*

VS-753 *won NARTU Lakehurst Nov. Recruiting Award. CO Little accepts from Cdr. Riley.*

LCOL. SMUNK (R) FIRED THE 100,000TH ROUND FROM AN FJ-3M

THE COMPEX TOW TARGET JUDGING TEAM SCORES BANNER HITS

VMF-312 MARINES IN GOOD FORM

AMID THE DIN and roar of normal station operations, two FJ-3M's bearing the black and white checkerboard insignia of VMF-312 unobtrusively taxied to their squadron area at MCAAS BEAUFORT, S. C., and shut down. The pilots, somewhat weary from their two and a half hour flight, unstrapped and walked quietly to their squadron ready room.

This not only marked the end of a mass squadron flight nonstop to Beaufort from NAS LEEWARD POINT, Cuba, but also the close of a successful month's deployment. The maneuver had begun a month before when 24 VMF-312 FJ-3M's took off for NAS KEY WEST, enroute to Cuba. By 1600 of that same day, all the FJ's were safely tied down at NAS LEEWARD POINT ready for operations the following morning. All squadron gear had been delivered by R4Q's of MAG-35.

For the first three weeks, the "Checkerboarders" followed a rigid gunnery schedule in preparation for the Second Marine Air Wing Competitive Exercise to be held during the fourth week. The weather—not one foul weather day during the deployment—was matched in excellence by the outstanding maintenance which was directed by Maj. R. B. Newport. In consequence, aircraft availability averaged in excess of 22 aircraft per day. This figure is particularly significant since each aircraft to become available during deployment not only had to be safe for flight, but had to have operational ordnance and electronic fire control gear in good order —a traditional maintenance headache.

During the deployment, Checkerboard shooting was so good that "century" banners were a daily occurrence. By the end of the third week, all VMF-312 pilots, using a 220-knot banner, had become squadron-qualified in air-to-air gunnery at 20,000 feet. During the second MAW Compex, 24 of the squadron's 27 pilots qualified in gunnery with a high score of 64 hits (140 rounds loaded) by 1st Lt. G. R. Merritt. During the exercise, LCol. Louis R. Smunk, squadron skipper, fired the 100,000th 20mm. round of the Guantanamo deployment.

In the 30-day period, the squadron logged over 1300 hours of flight time, fired 110,743 rounds, representing an 80% fire-out of total rounds loaded during the deployment. The hits averaged 24 per pilot on the 20,000/200 Compex. Not one hop was aborted during the Compex, and the exercise was carried out with no incidents.

Marine Fighter Squadron 312 was first formed in 1943 at Parris Island, S. C. During WW II, the squadron flew *Corsairs* and was deployed aboard the USS *Hornet*. Flying strikes against Okinawa and Japan, the squadron was credited with 60 kills by the end of hostilities.

VMF-312 was among the first Marine squadrons to participate in the Korean conflict. After Korea, the squadron was stationed at Miami, Florida, where it received its first jet fighter, Grumman F9F *Panthers*.

VMF-312, commanded by LCol. Smunk, is now part of Marine Aircraft Group 32. The squadron, flying FJ-3M *Furies*, is part of the hard hitting Marine Air-Ground striking force.

IN KOREA PILOTS FLEW THE OLD CORSAIR

BUT TODAY VMF-312 FLIES THE FJ-3 FURY

● Each new jet fighter is put through more than 40 different rigorous test flights and checks before its delivery to the military.

TORPEDO SNARE DEVELOPED

HELICOPTER Anti-Submarine Squadron Three has devised a method of picking up torpedoes from the water by helicopter, according to Merlin P. Walters, BUAER engineer.

Originally devised to retrieve Mk. 43 torpedoes, the snare is expected to be able to recover any surfaced torpedo as well as many other inert objects.

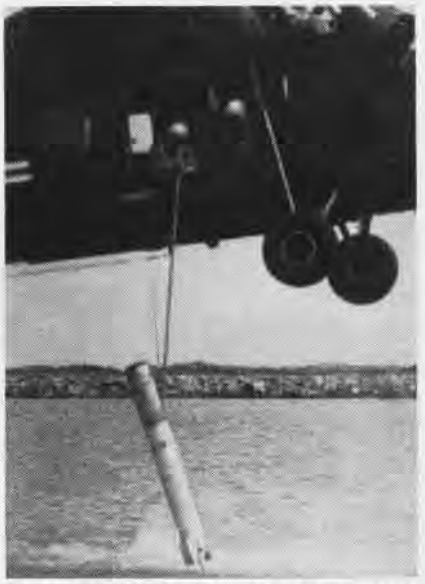
The retriever consists of a loop of armored steel cable attached to a lightweight telescoping pole. In a recovery operation, the loop formed in the cable is guided over the nose of the vertically-floating torpedo and the torpedo is hoisted out of the water.

The torpedo is lined up with the helicopter's starboard wheel as the helicopter flies about ten feet above the water at three knots ground speed. In case of heavy seas, the helicopter stays higher.

Two crewmen have the snare rigged by the time the pilot begins his approach to the torpedo. One crewman operates the pole while the other crewman operates the hoist. A nylon shot line is attached to the end of the pole to prevent its loss.

When in position, the crewman with the pole guides the loop over the nose of the torpedo and holds the loop in this position until the snare becomes taut. At this point a shear wire breaks as the snare tightens and the hoist wire is reeled in as soon as the other crewman is sure the torpedo is encircled. The pilot hovers until the torpedo is hoisted.

While the torpedo is being hoisted, the crewman lets the pole come up into the cabin and telescopes it as the junction comes within reach.



SNARED TORPEDO IS HOISTED FROM WATER

With the pole inside the cabin, it is used to help keep the torpedo steady.

After a torpedo has been retrieved, it should be examined carefully for any damage, then washed and refinished according to the applicable torpedo publications, says Mr. Walters. Any damage sustained by the torpedo should be reported by RUTORP, giving a complete description of the damage and the method by which it was sustained.

A metalsmith or ordnanceman can construct a retriever within two hours after the necessary components are assembled. For construction details see Armament Material Bulletin No. 258.

Cherry Point is Improved

$21-million Project Nearly Done

A $21-million construction and repair program nears completion at MCAS CHERRY POINT. On-base construction is centered mainly in the Marine Aircraft Group 24 area where a new group headquarters, supply warehouse, rapid jet refueler system, and four hangars are being built.

More than half the total amount, $12.8 million, is being spent on erection of 849 Capehart Housing Units.

New Wind Tunnel at Mugu

Has a Test Capability of Mach 5

A new wind tunnel in the Aerodynamic Test Laboratory at the U. S. Naval Missile Test Center, Point Mugu, California, has been developed to give contractors a testing capability of five times the speed of sound or Mach 5. Operated by the University of Southern California Engineering Center, the ATL wind tunnel was built to produce research speeds required by the Bureau of Aeronautics contractors.

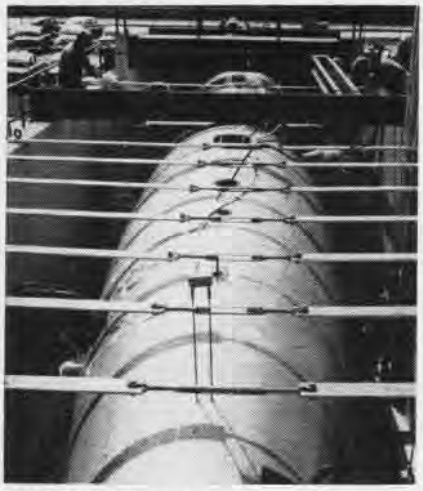
Modification of existing hardware, and ingenious use of available facilities made the new tunnel a reality with a minimum outlay of Navy funds, according to Fred Mickey and Don Wallace, USCEC staff engineers. It was feasible to use existing hardware and surplus WW II turbo-superchargers as the quick answer to raising the Laboratory's capabilitity from the previous Mach 3.5 to Mach 5.

The Engineering Center is currently working on the design and installation of a large, continuous flow circuit with a maximum range of Mach 6.

LCDR. KENT L. LEE, *first Replacement Pilot to complete Carrier Air Group Four's new training program for attack pilots, is congratulated by Cdr. Clifford A. McDougal (R), Commanding Officer of Attack Squadron 44.*

BELIEVED TO BE *the first reservist to complete 20 years of service at NARTU Norfolk, Chief Francis X. Herman, leading chief of VA-861 is given a plaque and congratulated by his Commanding Officer, Cdr. W. L. Alford.*

CAPT. G. H. DUFFY, *CO of NAAS Chase Field, discusses Cougar with SubLts. A. W. White and John M. Truran of the Royal Canadian Navy. The two Canadians are going through the Advanced Training program at Beeville.*



SPECIAL TANK *made by Grumman permits 20,000 hours of "flight" testing in less than three months. Tank allows differential pressures up to 6.5 psi. Fuselage under test in this photo is the commercial* Gulfstream *aircraft.*

DURING OPEN *House at NAS Anacostia, Asst. SecNav for Air, the Honorable Garrison Norton studies the finer points of T-58 helicopter engine as G.E. representative Peter Kushnerink explains its intricacies.*

WHEN SPRING *is far behind, it's a welcome sight to study this activity on the part of USS Lexington men who decided one sizzling day in the Far East to fry eggs on the catapult and serve with bacon for a snack.*

Flight Simulator at Agana

VW Squadrons Get Better Training

"All revved up and no place to go," is a common plight at NAS AGANA, Guam, these days. WV-2 Flight Simulator has been installed to train pilots of VW-1 and VW-3 in a more thorough manner than actually flying a plane.

The cockpit is an exact duplicate of the *Super Constellation.* In place of wings and fuselage, there are two trailers filled with resistors, transistors, and relay switches. With the simulator it is possible to induce problems that could not be practiced in a real training mission for fear of crashing the aircraft. Engine failure on take-off, electronic and hydraulic failures, excessive G's on the plane can be introduced at will.

The "flight" is very realistic. On take-off, the four engines can be heard and the vibration felt. The actual screech of the tires on the runway at touchdown is made by sound reproducing equipment.

The set of trailers is one of four. The other three are located at Argentia, Newfoundland; Patuxent River, Md., and Barber's Point, Hawaii.

RAdm. W. L. Erdmann, Commander, Naval Forces Marianas and Capt. R. H. Wood, CO of VW-1, tried the simulator shortly after it was installed. It was a challenging flight with an induced engine failure.

Who Saves the Life Guard?

Question Answered by HU-2 Pilot

Ltjg. Robert W. Kaus of HU-2 was conducting personnel transfers between the carrier *Saratoga* and the fleet oiler *Mississinewa* when his helicopter developed engine trouble and crashed into the sea.

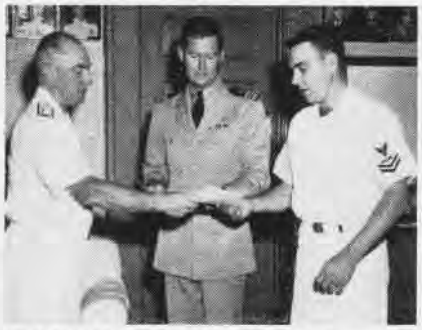
He escaped from the sinking aircraft, inflated his life vest, released his sea dye marker and waited.

Ens. Francis J. Erhardt, also flying a HUP-2 helicopter on a personnel transfer mission, was diverted by the *Saratoga* to perform the rescue. He had no crewman to run the hoist, so he rigged for rescue by himself.

Opening the rescue hatch, Ens. Erhardt attached the rescue sling to the hoist cable and lowered the rescue sling while flying the helicopter.

Ltjg. Kaus entered the sling and was hoisted aboard without difficulty. The 'save' was Ens. Erhardt's first.

OAKLAND BLIMP *greets a flotilla of six destroyers from the Japanese Maritime Defense Force on visit to 12ND, part of a good will tour. Airship hovers over destroyers as fireboat gives vessels a surface welcome.*



RADM. J. M. CARSON, *CNABATRA, presents LCdr. W. H. Brinkmeyer, USCG, and R. J. Rotzinger, AD2, with commendation letters. The two and Roy Parker, AE3, rescued two boys lost in swampy area of Perdido Bay, Fla.*

ABOARD USS LEXINGTON, *Representative George P. Miller from the 8th California Congressional District, while he was on tour in the Far East, conferred with Vice Admiral F. N. Kivette, Commander of the Seventh Fleet.*

In One Hour, 46 Landings
VA-106 Smashes Intrepid Record

From sun-up to moon-up, it was a most unusually busy day for the men of Attack Squadron 106 aboard USS *Intrepid* (CVA-11). At the close of operations the pilots had racked up 225 landings in A4D-2 *Skyhawks*. Forty-six of them were made in one hour, marking an *Intrepid* first.

LCdr. Newton P. Foss, the skipper of VA-106, stated that the remarkable speed with which the flight deck crew and the squadron enlisted personnel worked safely and efficiently played a highly important role in the success of the day. The achievement was made more noteworthy by the fact that none of the pilots had experience in carrier landing jets at night.

The 225 tally may have set a new Atlantic Fleet record for landings by one squadron in one day. There's no doubt that it was tops for the carrier.

Scale Model Aids Teaching
Mountainous Area Landings Shown

A South Field flight instructor at NAAS WHITING FIELD has constructed a scale model to depict a landing field between two large mountains.

Ens. Jim Tenefrancia, formerly a commercial artist who now instructs in Radio Instruments, concluded that it would be much simpler to construct a visual model than try to explain verbally a landing approach in mountainous terrain. Since the Gulf Coast has a notable lack of mountains, a model seemed to be the answer.

The model, three-dimensional, 3 x 4½ feet, is made of wood and a modeling compound. It took Ens. Tenefrancia two weeks to build the model.

'Leading Leyte' Landing
Record 69,000th by VS-30 Pilot

Ltjg. A. Tise Eyler, Air Anti-Submarine Squadron 30, made the 69,000th arrested landing aboard the USS *Leyte* (CVS-32). The event took place while VS-30 was deployed aboard the *Leyte* for a two-week anti-submarine warfare training cruise. It may well have been the last "thousandth" in the long and colorful history of the "Leading *Leyte*," now deactivated.

Eyler's record landing was "waved" by Lt. Ned C. Synder, LSO of VS-30.

FIRST CLASS *to complete new Crusader and Skyhawk weapons course at FAGUPac included (1st. row, l-r) 1st. Lts. A. A. Nelbach, Jr., E. R. Magg, LCdr. J. L. Snyder, Ltjg. E. A. Cernan; 2nd. row, Capt. R. A. Huckle, Ltjg. H. W. Alexander, Ens. J. S. Brickner, and Ltjg. R. R. Warthen.*

AIRCRAFT MECHANICS *at NAS Sanford draw spare parts under a simplified and speedy internal supply procedure that bears every resemblance to a super market's system. Stores are issued on verbal request with no red tape or paperwork on the customer's part. The system was instituted several months ago with the approval of the Bureau of Supplies and Accounts. The new innovation was named FRIS, Fleet Ready Issue Store, by FASRon-51's supply department.*

"ONE MILLION, *300,000 gallons, please" were the words of Capt. J. T. Blackburn, C.O. of attack aircraft carrier, USS Midway (CVA-41) when the "floating city" pulled up to the "floating service station," the USS Navasota (AO-106) while operating somewhere in the troubled waters of the western Pacific. At left, the destroyer USS Jarvis (DD-799) also quenches her thirst.*

LETTERS

SIRS:

When giving your November 1958 issue a second and closer look, I found the strike damage assessment photos on page 7 increasingly familiar. Checking further, I found the same pictures in my air group cruise book.

The strike was made by VF-781 of Air Group 102 from the decks of the *Oriskany*, and the pictures were taken by the photo *Banshees* of VC-61 Detachment George.

E. L. BETHEL, USNR
NAS Olathe, Kans.

SIRS:

Yours is one of the few magazines out of the pile that I take home with me, because it is so interesting I want to read it at my leisure. That's what I was doing the other evening with your December issue, when I got to the article by Commander Pine. In his enthusiasm, I fear, Commander Pine made a few remarks on the subject of airspace use that do not accurately reflect the facts, at least as I see them. For example, on page 15 (column 1) he says:

". . . Furthermore, the relatively large scale designation of part time restricted areas is strongly opposed by civilian interests who do not want to be penalized in any form . . ."

This statement would be accurate if Commander Pine would approve a statement saying that the Navy wants to take over the entire continental U. S. air space. In reality, both statements are an unfair exaggeration. . . . Civil aviation is neither blind, ignorant of the military mission, nor dog-in-the-manger. It's finally reaching the breaking point on this issue.

In column 3 of the same page, Commander Pine says:

". . . Probably all air traffic operations at 5,000 feet and above will be IFR as soon as feasible. Feasibility, of course, depends inevitably upon the capability of the controlling agency to handle the tremendously increased load. . . ."

I regret having to say this, but Commander Pine appears to be well-versed in Naval aviation, but knows nothing about civil aviation. In the first place, I don't believe any of us will ever live to see the day when "all air traffic operations at 5,000 feet and above" will be IFR. Nor can we even tolerate such a notion, if civil aviation is to grow and prosper.

MAX KARANT
Vice President
Aircraft Owners and Pilots Association

¶ That the large scale designation of part-time restricted areas is strongly opposed by civilian interests is a matter of fact, and is heavily supported by correspondence and records in ADC, FAA and military files. Cdr. Pine, a five-year veteran of CAA (FAA)/Navy liaison circles, expressed the Navy's concern for civil aviation in this regard in the remainder of the quoted paragraph:

"They [civilian interests] do, however, advocate the safety such a system would provide. But the trend is clear: greater joint utilization of airspace with other users. Navy commanders must keep requests for special use airspace to a minimum and cooperate with other airspace users."

The phrase, "Probably all air traffic operations, etc." should have read "all airline traffic operations" for which omission our five proofreaders lost a healthy number of Brownie points.

SIRS:

With reference to the article on the formation of the Marine Sky Divers Club in the NAVAL AVIATION NEWS of November 1958, page 30, I would like to get the books straight: the Navy founded the first of the Sky Divers Clubs on 31 December 1957 in Hawaii. Since then there has been 295 jumps made without an injury. CAA here in Hawaii can confirm this.

We now have 12 members. Two members have made over 100 jumps—Richard McKibben, PR2, and Al Caserie. Al Caserie has 125 jumps, half of which were smoke jumps; the rest of us have between 20 and 30 jumps.

Six members of the club jumped in the Ala Wai Golf Course for the Community Chest. They were Richard McKibben, PR2, Dick Blaisedell, PR2, Jim Nichols, PRAN, Marv Christensen, PR3, Dick Owensby, PR3, and L. K. Smith. We jump every weekend at Kipapa Airfield about five miles from Wheeler Air Force Base. We receive permission to jump from the airfield from the CAA.

DONALD V. BLACKMORE
President
Hawaiian Sky Divers
FASRon 117

AMONG 250 AVIATION *safety representatives attending the 37th Air Force Aircraft Industry conference at Palm Springs late in 1958 were (l-r) Cdr. Nels Piller, Maj. Ray Stutts, Cdr. William Harrison and LCdr. Robert Warner.*

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Use of funds for printing this publication has been approved by the Director of the Bureau of the Budget, 22 April 1958.

● COVER

Looking for all the world like an invading outer-space creature, Ltjg. L. W. Hansen of the Air Crew Experimental Laboratory in Philadelphia, is shown during the filming of "High Pressure Suit" at the Naval Photographic Center, Anacostia.

● SUBSCRIPTIONS

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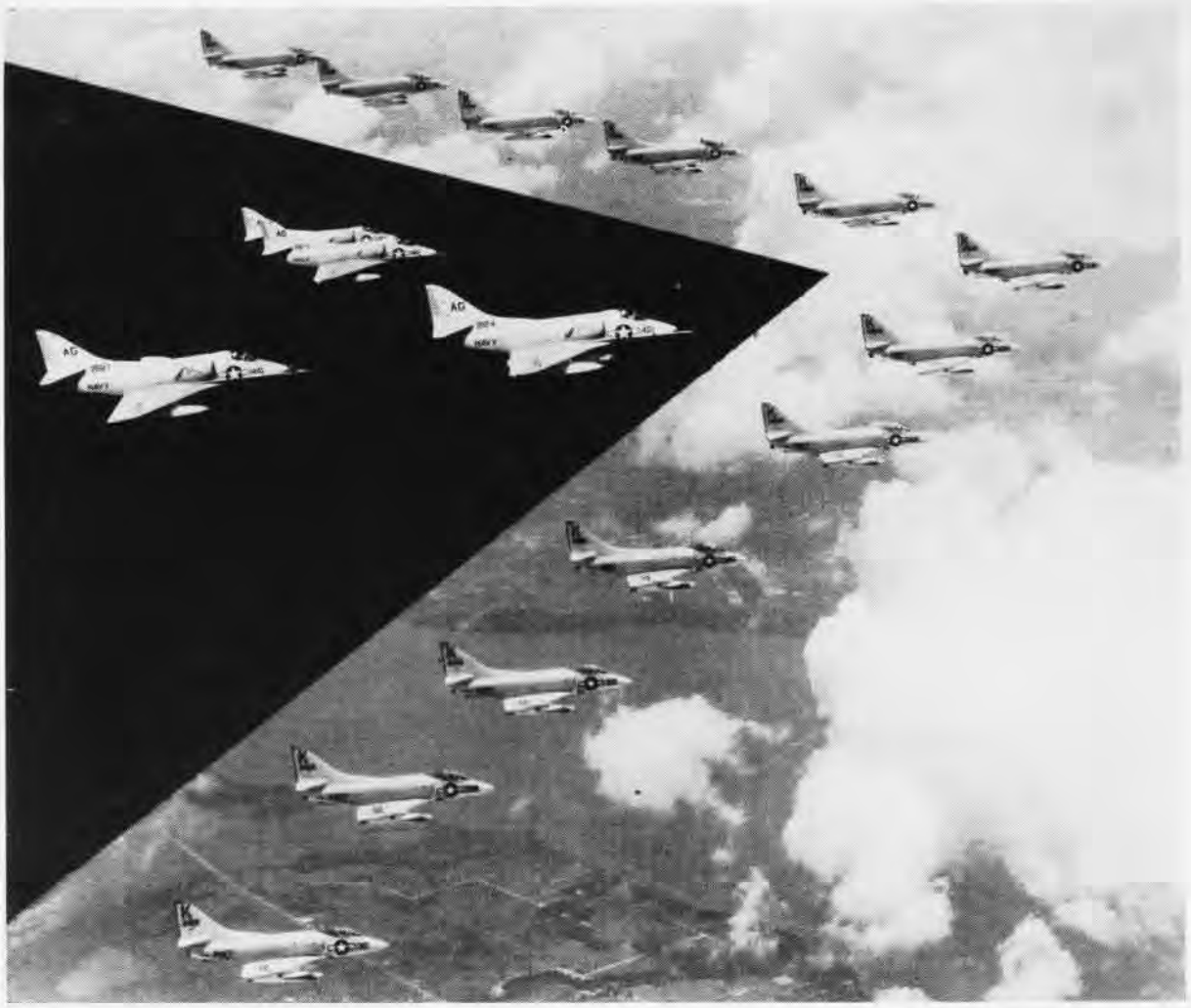

SQUADRON INSIGNIA

A powerful display of the 'Mighty Midgets' of Naval Air appears in the composite photo above. Twelve A4D-1's of Attack Squadron 34, in a rare formation, frame insert of VA-86 A4D-2's conducting in-flight refueling. Small, light, and easy to maintain, the Skyhawk is versatile. Capable of conventional and also special weapons delivery, it is effective in an all-out or a limited war. Tailored for carrier use, the Marines use it land-based for troop support and other missions. The insignia show that VA-34 brings the 'kiss of death'; that VA-86 is deadly as a sidewinder snake.

'LOST WEEKEND' FOR A SUB

This Navy long range patrol bomber, the P2V-5 Neptune, is being readied for a Saturday flight at a Naval Air Reserve stronghold somewhere on the U. S. Coast. Its mission: find submarines. Its crew: Weekend Warriors—exceptional Americans whose peacetime readiness is a vital part of Antisubmarine Warfare operations in both oceans. On weekends throughout the year, men and aircraft of Naval Air Reserve take their place in Naval Air's 24 hour vigil over the ocean highways leading to our shores. There's room for you on this skilled team. You give one weekend a month—receive the training you choose. Travel, regular advancement, extra income and the deep-down thrill of serving your country are yours in the Naval Air Reserve. Check with your Navy Recruiter or any Naval Air Station.

NAVAL AVIATION

NEWS