NAVAL AVIATION NEWS

43rd Year of Publication

DECEMBER 1961

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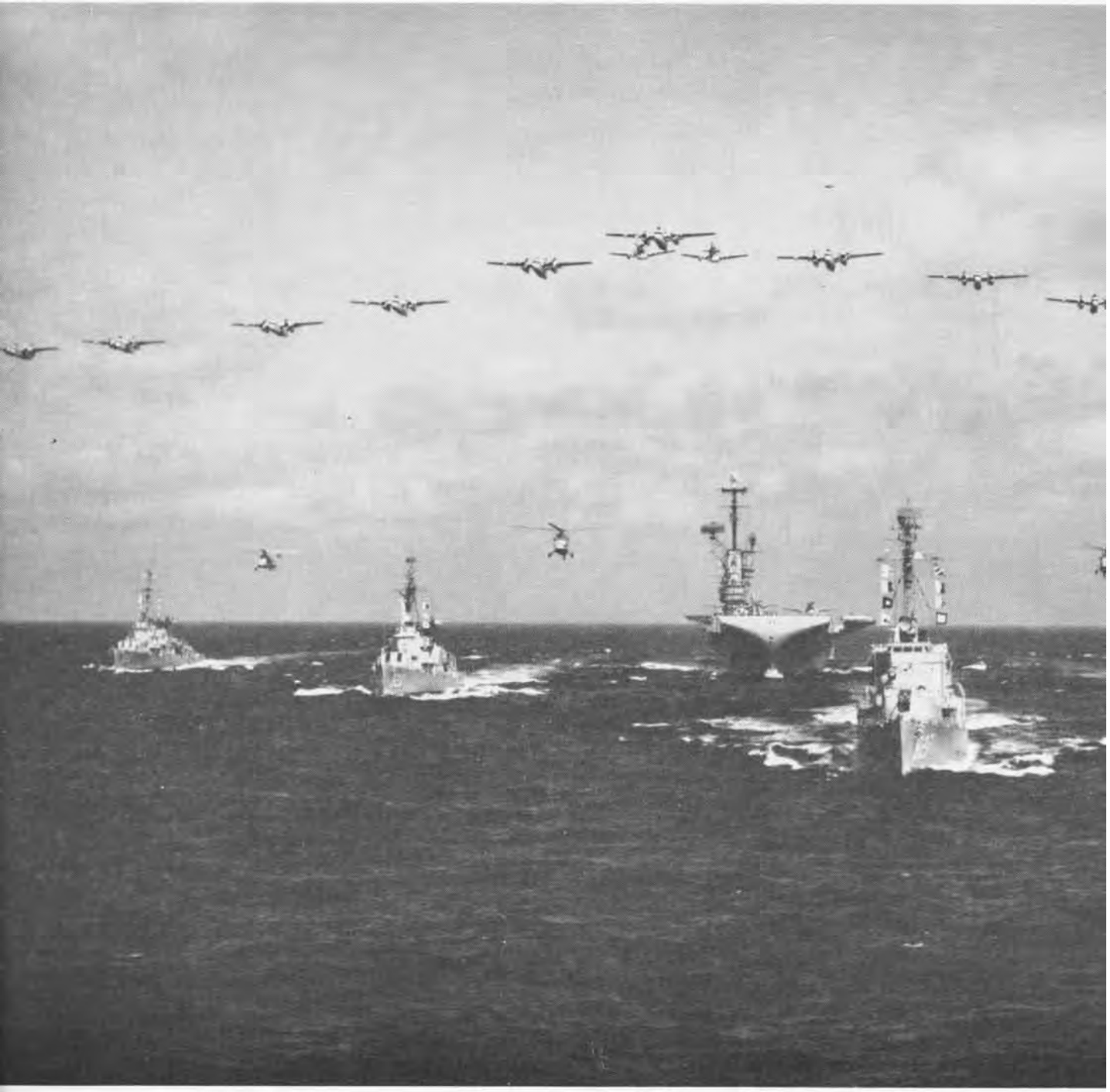

ABILITY TO SEARCH THE WORLD

Anti-submarine warfare has always been a tough job. We're told that there are some 400 submarines waiting for the opportunity to interdict our sea lines of communication. Naval Aviation is ready to prevent this interdiction. In the decade from 1950 to 1960, hundreds of non-exercise contacts were evaluated as positive or probable submarines—more than 70% of these contacts were made by aircraft.—Vice Admiral Robert B. Pirie, Deputy Chief of Naval Operations (Air).

TASK FORCE BRAVO

■ COVER

Aircraft numbers 1,2,3,4 are locked in tight right echelon formation by the Blue Angels in their familiar Tigers. Team's Family Album is presented on pp. 17-23 and Grampaw Pettibone flips them a bouquet on p. 33. See inside back cover for photos of current team. (Cover Courtesy of Grumman.)

NAVAL AVIATION NEWS

FORTY-THIRD YEAR OF PUBLICATION, DECEMBER 1961

■ IN THIS ISSUE

■ THE STAFF

Issuance of this publication was approved by the Secretary of the Navy on 3 April 1961

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NAVAL AVIATION NEWS

Second Fleet Has Exercise

Sara, FDR Participate in Atlantic

A major Naval exercise, including carrier aircraft strikes against simulated targets in the southeastern section of the U.S., was launched in the western Atlantic in October. The task force was comprised of the carriers USS *Saratoga* (CVA-60) and the USS *Franklin D. Roosevelt* (CVA-42), and 22 other Second Fleet ships. *Roosevelt* participated in only the first week of the exercise.

Embarked in the *Saratoga* was RAdm. F. J. Brush, ComCarDiv-6, who conducted the exercise.

The operations were aimed at enhancing Second Fleet's readiness. They included striking procedures for general as well as limited war.

Defensive exercises were also conducted, including anti-air warfare and anti-submarine warfare. Aircraft returning to the carriers from strike missions acted as raiding aircraft and were met far in advance of the Fleet by carrier-based jet fighter aircraft.

AT SMITHSONIAN *Institution in Washington, Adm. James S. Russell greets Mrs. T. G. Ellyson, widow of Navy's first aviator, during delivery ceremonies of the reproduction of the Curtiss A-1, built in San Diego, Calif.*

ASW Group Now Deployed

Has One Carrier, Six Destroyers

An anti-submarine hunter-killer group has been deployed to the eastern Atlantic. The ships involved are the support carrier USS *Essex* (CVS-9), based at NAS QUONSET POINT, the destroyers *Wadleigh* (DD-689), *Robinson* (DD-562), and *Miller* (DD-535) based at Newport, R.I., and the *Jonas Ingram* (DD-938), *Noa* (DD-841), and *Stribling* (DD-867) based at Mayport, Fla.

RAdm. George P. Koch, Commander Carrier Division 18, is embarked in the *Essex*. Capt. John B. Ferriter, Commander Destroyer Squadron 20, and Capt. Rexford V. Wheeler, Commander Destroyer Division 142, are embarked in the *Wadleigh* and *Noa*, respectively.

Carrier Air Group 56, consisting of Anti-submarine Warfare Squadrons 24 and 27 and Helicopter Squadron 9, is embarked in the carrier.

This group participated in ASW exercises in November and will remain in the eastern Atlantic indefinitely.

SECRETARY OF DEFENSE *McNamara questions pilot on aircraft performance during visit of administration officials to USS Saratoga (CVA-60) in the Atlantic. Listening in are Attorney General Robert F. Kennedy; Secretary of the Navy, John B. Connally; the Chief of Naval Operations, Adm. George W. Anderson; and Commander of the Second Fleet, RAdm. John McN. Taylor.*

S-62 Helo Tested at Pax

May be Used for Polar Operations

A single turbine amphibious helicopter, the Sikorsky S-62, is being tested and evaluated by the Naval Air Test Center, Patuxent River, for possible use by the U.S. Coast Guard as a search and rescue aircraft.

If the plane holds up to a full service suitability evaluation, it may be used by Coast Guard icebreakers in the north and south polar seas. Part of the evaluation program tests the draft for shipboard operations aboard an icebreaker, for instrument and night flight, and for water and marshy terrain operation.

The Navy testing is supported by both Coast Guard and Sikorsky.

The S-62 is powered by a GE T-58 engine. It has a flying boat type hull which permits it to operate from "practically any surface," even ice.

Efficiency Trophy is Won

Commandant Cites Corps Squadron

One of the Marine Corps' most coveted awards, the Commandant's Aviation Efficiency Trophy has been presented to Marine Composite Reconnaissance Squadron Two (VMCJ-2). LGen. Joseph C. Burger, Commanding General Fleet Marine Force Atlantic, made the presentation at MCAS CHERRY POINT. LCol. Thomas J. Cushman, Jr., commanding VMCJ-2, accepted the trophy on behalf of the squadron.

The squadron was selected for the award as a result of its outstanding performance in its photographic and electronics reconnaissance missions during fiscal year 1961. During the period, all types of reconnaissance missions were flown, from Maine to California, and Great Lakes to Puerto Rico, both day and night, under all types of weather conditions.

In addition to providing the normal operational support to requesting military activities, the squadron also gives photographic and technical assistance to civil government organizations. To accomplish this, VMCJ-2 pilots fly two high performance aircraft, the F8U-1P *Crusader* and the F3D-2Q *Skyknight*. Squadron pilots must be qualified in both aircraft.

Kearsarge Crew is Lauded

Six of CVS-33 Cited for Shoring

Five men and an officer of USS *Kearsarge* (CVS-33) were commended by their commanding officer for their part in containing damage aboard the destroyer escort USS *Evans* as a result of a collision at sea last September.

The six are Ens. Edwin E. Youmans, Fred W. Rider, SF1, Antonie Disipio, DC1, Howard W. Allen, DC2, Robert C. Winters, DC3, and Forney E. Wells, DCFN. They were cited for their "professional and technical skill which was employed in containing the collision damage."

Shortly after the collision, the *Kearsarge* six were helicoptered to the DE, which lacked damage controlmen at the time of the accident. They were instrumental in shoring three bulkheads which had ruptured.

The two ships were returning to the U.S. when the collision occurred. They had just finished a tour with the Seventh Fleet in the Far East. There were no serious injuries in either ship.

THREE GRUMMAN W2F-1 *Hawkeyes fly together in the course of the flight development program of the Navy's newest airborne AEW/CIC weapons system. Many aircraft are used to allow simultaneous testing and development of airframe, power plant, avionics and equipment.*

Ceremony is 'Speeded Up'

Unique Re-enlistment Gets AT for 6

William E. Standley, AT1, can boast that his latest re-enlistment was a pretty hurried affair. This is how it came about:

Standley neared the end of an enlistment and was offered a higher paying job by a Southern California electronics firm. Cdr. Hal Ewing, his department head at Point Mugu Naval Missile Center, was not anxious to lose a good man and wondered if there was a way to keep him Navy.

CHANCES ARE, *you might not have heard this re-enlistment ceremony, even if you were listening closely. William E. Standley, AT1, re-upped for six, flying in an F4H-1 at Mach 2. Commander H. T. Ewing (l) officiated.*

The technician mused, wondering what it would be like to ride in a supersonic F4H *Phantom II*. The lure was there, but the question is not resolved on just who took the bait. Cdr. Ewing offered to re-enlist Standley at Mach 2 if he would re-up for six.

Standley agreed, and at 38,000 feet over the Pacific, Cdr. Ewing administered the oath at 1500 mph as Standley held an American flag in the rear cockpit.

After the flight, Standley went on re-enlistment leave and, upon his return, picked up new orders to VF-142, NAS Miramar. Thus Cdr. Ewing, while retaining a technician for Navy, still lost his services.

HT-8 is Two-Time Winner

Garners Special CNO Safety Award

Helicopter Training Squadron Eight has, for the second consecutive year, received the CNO Aviation Safety Award (Special Award). During the nine-and-a-half-month period covered, the squadron flew 23,993 accident-free hours. Of these, 22,329 were helicopter hours and 1664 were fixed wing aircraft hours.

The helo hours were accumulated during student training flights of 1.0 hours average duration in the HTL-6, HO4S-3, and HUP-2 aircraft. Fixed wing hours were accumulated in T-28B and SNB-5 aircraft.

HT-8 is the only helicopter training squadron operating in the Navy.

GRAMPAW PETTIBONE

Breathless

After a thorough pre-flight and normal take-off, a pilot climbed his T2V-1 out of the field on a local area navigation training flight. He was alone in the aircraft and had filed for a two-hour hop. Cruise climb to 35,000 ft. was uneventful. He had the oxygen regulator on normal setting, had about 1600 lbs. of oxygen pressure showing, the blinker was working normally, and the only aircraft discrepancy was a poorly functioning cabin pressurization system. So far it would only maintain a 5000-foot cabin pressure altitude differential.

Leveling off at 35,000 feet and switching to 100 per cent oxygen, he started his planned local area navigation problem. The first couple of legs were pretty routine, and he was busy tuning in his ADF when suddenly he found he couldn't breathe! Glancing down he saw he had zero oxygen pressure!

Moving fast, he popped the speed brakes, eased the power off and started down in a hurry. He held his breath until he felt ready to bust, meanwhile insuring the bailout bottle handle was clear in case he needed it.

There was about eight-tenths cloud cover under him at around 22,000 feet. He was descending through 30,000 when he suddenly greyed out, lost his vision almost completely, couldn't see his instruments at all, and pulled the bailout bottle.

A blast of oxygen filled his mask, and his vision started to return although little green and blue spots seemed to dance in front of his eyes and he couldn't focus on the instruments. Leveling off at 23,000 feet, he found he had real channel vision; in fact, no peripheral vision at all. He felt as if he had to point his eyes directly at a particular instrument to read it properly. Cabin pressure altitude now read 18,000 ft. He had to get down through this stuff before the bailout bottle gave out!

He now switched to guard channel and went on the air, gave his identification, stated he had lost oxygen at altitude, was on top of the overcast, needed help and wanted anyone to answer who read him. A nearby Air Force Base came on immediately, told him to squawk his parrot and the mode desired. The area traffic control center also came up on the air clearing him for immediate descent to 10,000 ft. He gave them a negative on this, for he still couldn't read his instruments clearly and coupled with numerous thunderheads in the area with the considerable associated turbulence to be expected, it looked like more than he could handle.

Air Force radar now gave him a steer to their base, but right at this time, a big hole appeared in the overcast under him. He pushed over, descended below 10,000 feet and broke out in the clear underneath the heavy cloud cover just as his bailout bottle gave out.

Calling the Air Force, he told them of the new situation, that he was now O. K., got a steer and distance to his home field and headed for home.

After a safe arrival and landing, he fully reported his difficulties, downed the plane and asked for a report on the discrepancies found in the oxygen system. Maintenance trouble shooters found that a check valve in the oxygen filler spout was jammed in a partly open position. A little dirt or grit had fouled the check valve and allowed his entire oxygen system to bleed off.

Grampaw Pettibone says:

Sufferin catfish! Breath-holdin' is a mighty unsatisfying way to make a let-down. This breathless gent could have saved himself a lot of

ILLUSTRATED BY Osborn

spots before his eyes if he'd pulled the bailout bottle instead of tryin' for one last breath, hollered May Day like crazy and started down immediately. He'd have had his clearance from the center before he reached the top of the overcast. May Day is not a dirty word, although you'd think so by the obvious reluctance of many pilots to use it. Lack of breathin' air is as positive an emergency as a flame-out or fire and can kill you quicker. You gotta run a howgozit on your oxygen supply as well as your fuel. If you don't, you too may be breathless.

Blasted

A pair of AD-6 *Skyraiders* were launched from a CVA for an ordnance training hop. They each had four instantaneous-fuzed 100-lb. GP bombs on their racks and were briefed for masthead bombing attacks on a sled towed by the carrier. Briefed altitude for release was 200 feet at 240 knots, all runs to be 90° to the ships heading, all orbits counter-clockwise.

The hop was flown exactly as briefed. The section leader made his run, pickled off one bomb and pulled up immediately. The wingman took a good interval and made his run-in, 200 feet at 240 knots, nice and level, pickled a bomb and held it level momentarily. There seemed to be a lot of noise and vibration after the bomb exploded, but not until he was in a climbing left turn did he notice a couple of holes in the horizontal stabilizer.

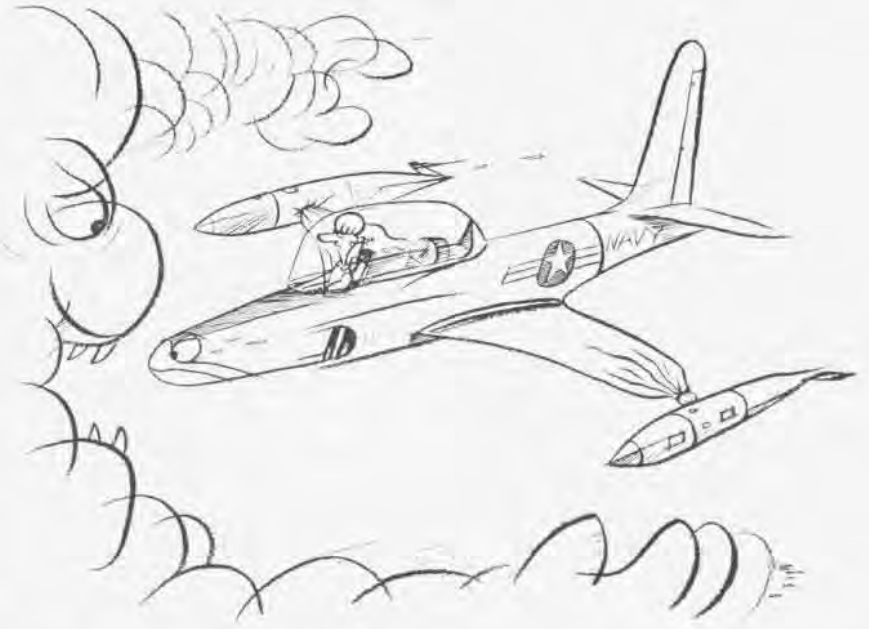
The flight leader, notified of the damage, joined up and looked his wingman's plane over. There were a number of holes in the fuselage and wings, but no apparent fuel, oil, or hydraulic leaks.

All remaining bombs were jettisoned, a satisfactory slow flight check performed and both aircraft were safely recovered aboard the CVA. It had been an exciting morning.

Grampaw Pettibone says:

Blast me if I can understand people dropping live ordnance without checking NWIP 20-1 to find the MANDATORY minimum release altitudes for that particular bomb and fuze combination! We've had an A3D and A4D destroyed at sea this year by 500-lb. GP iron bombs dropped below published minimum altitudes and now an AD is lucky to get back.

We get so wrapped up in proper delivery of megaton yield weapons that the blast effect of a little old 100 or 500-pounder GP bomb seems hardly worth mentioning. Like heck! This is Russian roulette of the worst type!



Night Rider

A Navy TV-2 departed an East Coast Air Force base at approximately 2300 local time and headed for NAS GLENVIEW, an en route stop in his cross-country itinerary. He planned to cruise at 36,000 feet with an estimate of two hours and 17 minutes en route and three plus 10 fuel aboard.

His destination forecast was 1500 feet broken, 5000 overcast, with temporary deterioration to 700 feet overcast and one mile visibility in thunderstorms with hail, heavy rain and winds 20 knots, gusting to 45 knots. Heavy thunderstorm activity was reported over the entire Illinois area.

He reported over Detroit right on his planned estimate and requested Glenview weather. Detroit Radio reported that Glenview had 400 broken, four miles in light rain, wind NE 20, gusts to 25 knots and that the duty officer at Glenview recommended he divert to his alternate which had 4000 broken, 7000 overcast and seven miles in thundershowers and light rain. Detroit Radio also reported that only an ASR approach to runway 35 at Glenview would be available.

The pilot acknowledged the message and shortly thereafter informed Detroit he was switching to Chicago Center, gave his position report and declared a fuel emergency, 20 to 25 minutes of fuel remaining and estimated a VORTAC located 7.6 miles northwest of Glenview in 12 minutes.

O'Hare approach control radar picked up a Mayday blip 30 miles east of their field and established marginal radio contact with the pilot. He reported he was at 3000 feet with 30 gallons of fuel remaining.

O'Hare provided radar control to the pilot until the TV-2 flamed out at 400 feet, almost two miles east of Glenview, the pilot was in visual contact with the field. The TV-2 touched down 2000 feet up the 5100-foot, soaking-wet runway at 120 knots. With braking action poor, the T-bird ran off the end and sheared its landing gear in the rain-softened ground. The pilot opened the canopy and left the aircraft, unhurt.

Grampaw Pettibone says:

Great balls of fire! Ol' Gramps has no idea why the late departure time or why a pilot with almost 3200 flight hours would file into such stinkin' foul weather. This smells like get-home-itis of the worst type.

When he had fuel transfer trouble over Detroit, the place to land was Selfridge AFB, RIGHT THERE, and not go barreling on—burning up what fuel he had available for what could have been a normal approach. 'Head up and locked' would be a better title for this yarn, come to think of it.

ENTER

CVA(N) 65 IN

TRIAL SWEEP RATED BIG BROOM ON BIG 'E'

Newport News, Va., 3 Nov. 1961. This week as the nuclear-powered aircraft carrier *Enterprise* cruised for the first time into the Atlantic Ocean testing grounds, she was greeted by her designated escort, USS *Laffey* (DD-724). *Laffey*, a sleek, speedy, first-line destroyer of the Navy's crack Second Fleet, speaking for Davy Jones as his seasoned and salty representative, sent the following message to the fledgling *Enterprise*:

Subj: Maiden Voyage.

1. Welcome to the briny deep.

2. My agent the *Laffey* ready to render any assistance.

/s/ Davy Jones

Laffey's tongue-in-cheek offer was accepted, and she took her place alongside. During the next 24 hours, the years of experimentation and planning that had gone into *Enterprise* were put to the most severe tests. The results were such that *Enterprise* surpassed her highest expectations, and a harried *Laffey*, appropriately in both the language of the sea and the track, radioed:

Subj: Speed Trials

1. You win the race.

2. Our wet hats are off to a real thoroughbred.

Later, when the crew of the USS *Laffey* had had time to draw their breaths and take stock of the situation she followed with another message:

1. Fuel gone, topside salted, crew wet, and engines tired.

2. Nevertheless, honored with opportunity to be first small boy with world's newest and greatest.

Enterprise's answer was spoken like a true champion:

1. The race was an uneven one and we much appreciate your valiant effort.

2. Glad to have you run with us any time. Many thanks for fine job.

/s/ Davy Jones Tenderfoot

Thus ended the new "Big E's" first competition.

MIGHTY AS SHE GOES, ENTERPRISE GETS UNDERWAY ON 29

Enterprise put to sea from the Newport News Shipbuilding and Dry Dock Company at 0914, 29 October 1961. During these trials she developed her design full power, and demonstrated her ability to go from full speed ahead to emergency astern. She returned to her berth at the Newport News Shipbuilding and Dry Dock Co., flying a huge broom from her unique island signifying a "clean sweep" of her six-day sea trials.

The huge aircraft carrier has a length of 1101 feet, a flight deck beam of 257 feet and a displacement of 85,000 tons. Her eight pressurized water nuclear power plants enable her to operate for extended periods without refueling thus increasing her striking capability and operational flexibility. In continuous operation, she could circle the earth several times at high speed.

PRISE

RST SEA TRIALS

BER. THOUSAND MAN FORMATION IS DWARFED BY VAST FLIGHT DECK

TF-1 IS #1 TO LOG LAUNCH FROM CVA(N)

Enterprise is the second of four nuclear-powered surface ships authorized by Congress. The first is the guided missile cruiser USS *Long Beach,* which was commissioned in September and is now at sea, and the third is the guided missile frigate *Bainbridge,* which is expected to go to sea in 1962. One additional nuclear-powered frigate was authorized by Congress this year. Operation of the *Enterprise,* together with the nuclear powered *Long Beach* and the *Bainbridge,* will make possible the first nuclear-powered surface task force with the practically unlimited endurance and seakeeping qualities afforded by nuclear power. These ships could profoundly affect present concepts of naval warfare.

Capt. Vincent P. de Poix, USS *Enterprise's* prospective commanding officer, stated that he was highly impressed with the performance of the new ship and her crew. "Both performed as veterans and exceeded the expectations of all concerned," he said. Capt. de Poix explained that details of the ship's performance were considered classified information by the Navy and the Atomic Energy Commission.

Several prominent naval officers and civilians, including VAdm. H. D. Riley, Deputy Chief of Naval Operations (Fleet Operations and Readiness); VAdm. H. G. Rickover, Assistant Chief of BuShips for Nuclear Propulsion; VAdm. Frank O'Beirne, Commander, Naval Air Force, Atlantic Fleet; Mr. W. E. Blewett, President of the Newport News Shipyard; and Mr. L. K. Olson, Commissioner of the U.S. Atomic Energy Commission, were on board for the first two days of the trials.

They made history on Monday when they were flown ashore, thus making them the first persons ever to take off from the deck of a nuclear carrier.

In a brief message to the crew before his departure, Adm. Rickover said the performance of the ship and the crew was as fine as any he had ever seen: "If a war were to occur today, I would be very proud and happy to be on board this ship with so competent a crew."

After his return to Washington, Adm. Riley sent the following message to Capt. de Poix: ". . . It was inspiring to witness the seaman-like way you and your officers and men put *Enterprise* through the grueling paces which were prescribed, and to observe her ready response to all challenges.

"CVA(N)-65 is a worthy successor to the 'Big E.' I am proud to have been the first flag officer to have flown his flag on the 'Biggest E.' More importantly, a resounding Well Done to *Enterprise* from the Chief of Naval Operations."

Noteworthy is the fact that the ship was taken on her initial trip to sea by a Navy crew. Normally, a "builder's trial" precedes the preliminary acceptance trial.

RAdm. F. B. Schultz, Ass't Chief of BuShips, praised both civilian and naval participants after the impressive trials: "This is the first major combatant ship in which the builder's trial has been eliminated and the ship has been

ENTERPRISE PCO, CAPT. V.P. de POIX

TF WITH VIPS ABOARD MAKES HISTORIC FIRST TAKE-OFF. HUGE DECK IS 1101' x 257'

presented for acceptance trials on her first trip to sea. The company put forth a maximum effort to have everything operational for the trials and, as a result, many things which the Navy Department did not expect to test on this trial were successfully demonstrated. This is particularly significant because many of the installations are new complicated equipments which are first on new construction ships. As a result of the outstanding effort of the company in making the ship ready for trials, it will be possible to complete the outfitting earlier than originally scheduled, and the ship will be delivered approximately two months in advance of the contract completion date.

"Considerable credit is also due the officers and the crew of USS *Enterprise*. Many of them have been working along with the company in the building of the ship for over a year. Their pride in their ship and the high state of their training was evident in the way they operated the ship at sea. This is particularly noteworthy because the ship was put through tests and maneuvers whose severity may never again be equalled in fleet operations.

"The ship will be fully outfitted and ready to report to the Commander-in-Chief of the U.S. Atlantic Fleet on 20 December."

The reactor plant for the *Enterprise* was designed and developed by the Bettis Atomic Power Laboratory, Pittsburgh, Pa., in cooperation with and under the technical direction of the Naval Reactors Branch of the U.S. Atomic Energy Commission. The Bettis Laboratory is operated for the Atomic Energy Commission by the Westinghouse Electric Corporation.

Enterprise was designed by and built under the cognizance of the Bureau of Ships. The Newport News Shipbuilding and Dry Dock Company was responsible to BuShips for the construction of the ship, including installation of the nuclear propulsion plant components.

Keel of *Enterprise* was laid at Newport News on 4 February 1958. She was christened on 24 September 1960 by Mrs. W. B. Franke, wife of the then Secretary of the Navy.

EIGHTH TO BEAR FAMED NAME, BIG 'E' DISPLACES 85,000 TONS; WILL BE FULLY OUTFITTED AND READY FOR FLEET DUTY THIS YEAR

12 Landing Devices Ordered

Bad Weather System is Developed

Pilots will be able to land jet-powered aircraft aboard the nuclear carrier USS *Enterprise* automatically on a pitching flight deck under severe weather conditions.

The Navy announced the Bell Aerosystem Co. will provide 12 AN/SPN-10 systems under contract. Nine automatic landing systems will be installed in non-nuclear carriers, while two units will be available at a land base for pilot familiarization. Initial delivery is scheduled in the spring of 1962.

Employing a combination of radar, stable platform, computer, and displays, this system has the capability to fly an airplane to touchdown on a carrier deck without requiring the pilot to touch pitch and bank controls.

Initially, the Navy will use it for carrier control approach (CCA) preliminary to incorporating it into an "All-Weather Return to Carrier System." It will permit fleet air operations under all weather conditions, including heavy fog or rain.

Under this latter concept, long-range and intermediate traffic control and guidance systems will guide aircraft within a few miles of the carrier. The Bell system will then acquire the aircraft and assume automatic control (except for air speed or throttle) for the final approach landing.

Once a pilot cuts in the new landing device, a radar unit on the ship determines the plane's position and its altitude. A computer compares this position with where the plane should be along a standard glide path to the flight deck. Necessary corrections are relayed to the automatic pilot aboard the plane.

This system, then, has an ability to anticipate the roll and pitch of a carrier's deck in rough seas. Its computer digests moment-by-moment data on the roll and pitch of the landing deck. It aims the plane at the point in space where the waves will bring the landing area at the instant the plane reaches the carrier.

The system consists of two independent operating channels. Each channel contains a radar unit to track incoming aircraft, stabilization unit, position and flight path computing units, and visual display unit which provides precise information about the location of the plane with respect to proper glide slope and carrier deck. Common equipment to both channels are the landing signal officer display, test and recording equipment.

Atlantic Fleet Now Has F4H

First Squadron Active, 2nd Soon

Atlantic Fleet's first operational F4H-equipped fighter squadron has been launched at NAS OCEANA. Officers and men of Fighter Squadron 101, Detachment Alfa, and Fighter Squadron 74 were commended by Cdr. Frank McLinn, senior member, Air Group Four, at Oceana. The occasion was the completion of Replacement Air Group training by Fighter Squadron 74.

This event marked the culmination of an intensive four-month period while VF-74 transitioned from transonic F4D *Skyray* aircraft to the Navy's newest all-weather interceptor, the F4H *Phantom II*, holder of four world speed records.

During training, VF-74 pilots were paired with radar intercept officers who were recent graduates of Detachment Alfa's basic Naval Aviation Observer (Intercept) course. Maintenance personnel were integrated, and both squadrons' *Phantoms* were placed in a pool to provide on-the-job training and improved availability.

Now functioning as a unit of CVG-8, VF-74 replaces VF-102, recently returned from a Sixth Fleet operational deployment in the Med aboard the *Forrestal*. VF-102 *Diamondbacks* are undergoing the same transition phase as that completed by VF-74 and will become the second U.S. Atlantic Fleet operational squadron flying the F4H.

Twice Around the World

Distance Set in Ten-Day Period

Better than two-and-a-half trips around the world can be a lot or a little flying, depending on circumstances. Racked up by VR-884 in a ten-day period during a two-week annual cruise of active duty for training, it shows that this squadron was a busy one.

Based at NAS DALLAS, the Olathe, Kansas, squadron's heavy airlift schedule included 677,508 passenger miles, 10,793 cargo tons carried, and 42,000 air miles flown. Terminals for the hops flown were Hawaii, San Juan, Puerto Rico, and many cities in continental United States.

In addition to these assigned flights, pilot training during the two-week period included 600.6 pilot hours flown, 64.4 hours of celestial overwater navigation, 283.2 instrument hours, 71 instrument approaches, and 224.9 hours of night flying. The squadron cruised with 70 officers and men.

NIGHT RESCUE CAPABILITY *is demonstrated by Kaman Aircraft Corporation's HU2K helicopter recently ordered for Navy air-sea rescue operations. HU2K is also being studied as ASW craft.*

XOOOth LANDINGS

Latest carriers to log 100,000 arrested landings or more are USS *Antietam* (CVS-36) and USS *Coral Sea* (CVS-43). They join the illustrious club founded in 1960 by USS *Essex*, CVS-9. (See NANEWS January 1961, pp. 48-49.)

Antietam's landing was made in an F9F *Cougar* by NavCad William L. Randolph last October while the ship was operating off the Texas coast near Corpus Christi.

Coral Sea's was made by Lt. Fred M. Backman, who also made Nos. 99,999 and 100,001, off the coast of California. These landings were made in an A3D *Skywarrior* from VAH-123.

Earlier, *Coral Sea* reported her 99,000th arrested landing by Cdr. Martin M. Casey, commanding VF-121, who won the cake in an F3H-2 *Demon*. In his 15 years of Navy flying, Cdr. Casey has made four "even-thousandth" landings aboard aircraft carriers.

In previous releases, *Coral Sea* reported her 98,000th landing by Lt. Thomas E. Friedrich of VX-4, in an F8U *Crusader*. The 97,000th landing was logged by Ltjg. William H. Weber of VAW-11, in a WF-2 *Tracer*.

Essex reports two landings. Her 105,000th arrested was scored in an S2F by Cdr. J. E. Dyer, Jr., commanding VS-39, and Ltjg. J. D. Laferty. Two pilots in HS-9, Ltjg. Bob Henriksen and Ltjg. Gary McConnell, completed the squadron's 10,000th helicopter carrier landing.

Second of the "big four" club, USS *Franklin D. Roosevelt* (CVA-42), pacing the *Essex*, also has logged its 105,000th landing, making the entry before her "competitor," laying claim to the world's record for the most arrested landings of any aircraft carrier. The landing was made by Lt. Jerry C. Patterson and his A3D *Skywarrior* crew.

USS *Bennington* (CVA-20) has reached her 66,000th arrested landing, made by Ltjg. Brendon C. Mallom of VS-33.

The *Bonnie Dick*, USS *Bon Homme Richard* (CVA-31), reported her 68,000th landing, made by Lt. H. Duane Barnhart of VA-195. A month later, LCdr. William McLuckie, executive officer of VF-193, upped the ship's total to 69,000 when he landed an F3H *Demon*.

The 58,000th arrested landing aboard USS *Forrestal* (CVA-59) was made by LCdr. W. H. "Toney" Kmetz of VAW-12's Detachment 42. He was flying a WF-2 *Tracer*, co-piloted by Ens. John Sorenson. The 59,000th landing was made by Cdr. J. Ferris, commanding CVG-8, in an A4D-2N.

USS *Hornet* (CVS-12) reached her 63,000th after Ltjg. Michael W. Riley of Early Warning Squadron 11 brought his ADSW *Skyraider* into the groove.

The 55,000th landing made aboard USS *Intrepid* (CVA-11) since her recommissioning was made by LCdr. Lee Koett, executive officer of VF-162, in an F4D-1 *Skyray*.

Lt. William L. Galli recorded USS *Midway's* (CVA-41) 95,000th landing, in an F8U *Crusader*, pushing that carrier's total closer to the 100,000th mark.

A second copter carrier landing record is reported since NANEWS' last XOOOth landing round-up. Maj. William H. Lovingston, USMC, made the 25,000th helo landing on the flight deck of USS *Princeton* (LPH-5), in an HUS-1. He is serving in HMR-462.

USS *Saratoga* (CVA-60) reached her 49,000th arrested landing when Lt. Raymond M. Currie of VAH-9 returned from a Caribbean flight in an A3D *Skywarrior*.

USS *Wasp's* (CVS-18) 45,000th landing was made by Ens. Bobby I. Ruble in an ADSW. Ens. Ruble serves in VAW-33.

The Fighting Lady, USS *Yorktown* (CVS-10), reported reaching her 77,000th arrested landing when Lt. Ralph S. Larson landed an S2F *Tracker*. He is attached to VS-25. A little over a month later, the 78,000th landing was made by Ltjg. R. G. Hutton, also in an S2F.

Safety Circle Checks Out

VP–47 Conducts Automobile Check

Patrol Squadron 47's recent automobile Safety Check Program, organized and directed by Ltjg. R.E. Davis, ground safety officer, provided each man in the squadron an opportunity to participate in the program.

Basic objective was to help raise the operating standards for cars and trucks belonging to squadron personnel. Working on the project and observing the reactions of the average driver generated tremendous interest among participating personnel.

A safety check area was set up at NAS WHIDBEY ISLAND. Items checked included brakes, lights, tires, windshield wipers and steering mechanisms.

Program slogan was "Join the Circle of Safety—check your car, check your driving, check accidents."

VR-7 Crew Honored by AF

Saved 76 Passengers in Storm

Four Navy men, crew of a VR-7 *Constellation*, were awarded the Air Force Commendation Medal for "professional competence" in preventing a disastrous ending to a flight carrying 76 passengers across the Pacific last summer. VR-7 operates under Air Force control as a part of Military Air Transport Service.

The four, LCdr. Russell L. Stokke, pilot; Lt. Paul R. Francis, co-pilot; Lt. Haruo Kato, navigator; and engineer Robert J. Amaral, ADC, were returning from Japan when a freak storm prevented them from completing a fuel stop at Midway Island.

LCdr. Stokke made pass after pass in the torrential downpour only to have each end with the GCA final controller's words, "Your aircraft lost in the rain on the radar scope, wave-off," or "Your aircraft now at minimum safe altitude; take over visually," to which the co-pilot would be forced to reply "Waving off; field not in sight."

When Midway meteorologists predicted the storm might last two or three more hours, LCdr. Stokke decided to try for a landing at an old WW II strip on a tiny coral atoll some 50 miles west of Midway. Although his flight information publication contained no information on the strip, LCdr. Stokke landed there—just moments before the storm engulfed this last refuge.

The crew has received many letters of commendation and congratulation, but they cherish most one signed by each of the 76 men, women and children who were passengers on the flight. It reads, "Thanks for saving our lives."

A YOUNG NAVAL AVIATOR TURNS ON COURSE FOR A LONG DAY OF LOW LEVEL FLYING DURING MED DEPLOYMENT STRIKE EXERCISE

FROM EIGHT TO FIVE AND THEN SOME . . .

By Ltjg. Zip Rausa, VA-85

Somewhere off the southern coast of Sardinia a United States Navy super-carrier and her two destroyer escorts steam in the Mediterranean night. The sea is quiet now, but in a short while the Sixth Fleet and all its ships, located throughout the central and eastern portions of the Mediterranean, will change that. They are about to commence a Strike Exercise.

0200: The stateroom telephone rings. You fumble for it in the darkness knowing already who'll be talking at the other end.

"It's me," a tired voice says. "Your friendly Air Intelligence Officer."

"When's the launch?" you ask.

"0430. You've got an Italian target."

You plod your way to the shower which fails to waken you completely, shave quickly and pull on your flight suit.

Winding your way through red-lighted passageways to the air intelligence spaces your mind begins to swing into gear. You've got an hour and 30 minutes to plan your route, have breakfast and perform the one-hundred-and-one other functions necessary for a carrier launch. You've done it before, of course, but for some reason it never becomes routine.

The AIO has maps and low level planning cards waiting, and you set to work on a table cluttered with pencils, plotters, map trimmings and other remnants of target planning. Several other pilots, with similar missions, crowd the area, shuffling between tables, asking questions and taking frequent looks at the huge overlay map of the Mediterranean which covers one bulkhead.

0245: You take a final, thorough look at your maps. The route will take you over many miles of ocean and a good portion of Italy. Landfall will be at Sorrento and from there you'll swing southeast to the heel of the boot before turning north and traversing central Italy. Your simulated target is a small, abandoned airstrip east of Florence and after "feetwet" at Livorno, you'll cut south to the island of Elba and then head southwest for the final overwater leg to the ship. The terrain promises mountains, valleys and flatlands. You'll find a challenge to your ability as a low-level navigator.

There's one hitch, however; it's a tail buster. Time en route: 10 hours and 15 minutes, not including "dog" time, which could involve a half hour or more of holding over the ship. You think of the jet jockeys, especially the fighter pilots, and for a moment you despise them. Most of them will have launched and recovered twice in the time it takes you to complete a single mission. You reconcile yourself with the thought that there must be some distinction in being able to solo an airplane for as long as it takes an average businessman to complete a suitable eight-to-five day at the office.

0310: In the wardroom the scrambled eggs, bacon and fresh

PRE-BREAKFAST BRIEFING FULLY OUTLINES HIS 'PLAN-OF-THE-DAY'

TIE-DOWN CREW MEMBER WAITS FOR AD AT END OF THE DAY

coffee taste good. There's no time to savor that extra cup, though. Even as you eat, you're mentally going over check lists.

0315: The readyroom teletype pecks out the latest ship's position and area weather as you flip through flight logs again. Three other squadron pilots plus the duty officer mill about. Everyone is preoccupied. No one talks much.

Soon a messenger enters with a stack of box lunches and at 0400, on the button, the squawk box comes alive.

"Pilots for the 0430 launch, man your planes."

You zip up your "G" suit, check your pistol and pull on the cumbersome but essential Mae West. A squeeze of your leg pocket insures that that extra pack of cigarettes is there. Then, systematically, you scoop up your hard hat and navigation bag. You remember the plotting board, tuck it under your arm and are through the hatch when the duty officer tugs at your shoulder and shoves a box lunch under your other arm.

On the escalator, the perennial jibes from the jet pilots await you.

"Going on a picnic?" booms one.

"Be back in time for supper now," emits another.

Fresh night air as you emerge onto the catwalk feels good. There's no moon, and the AD's parked on the stern are shadowy silhouettes against the barely visible horizon. You feel that familiar trace of envy as your gaze passes the sleek, slim-lined jets, but erase it quickly. That AD is still the most versatile airplane on this ship.

0415: The pre-flight takes longer than usual because of the darkness, and by the time the plane captain has you strapped in, the voice of the Air Boss cracks the silence.

"Start the AD's" booms the bullhorn, "Standby to start the jets!"

0430: The jets are ready and strapped onto the cats. A tiny green light outside the greenhouse of the pri-fly tower flashes on and the catapult officers commence the launch.

The entire carrier feels the thrusting force of the steam-powered sling shots as jet after jet is kicked off into the darkness.

0440: You're on the cat now and the launching officer twirls his green wand as, in response, you move the throttle to the sea level stop. The instruments check out so you flip on the master light switch, notifying him that you're set, and lean your head back for the jolt.

It comes quickly and before you can think about it you're at 500 feet climbing over the water. The gear locks in the "up" position and after throttling back you call the center. "Buckeye 501, departing on course."

0530: In the distance the pastel pink horizon promises a clear day. Landfall is still an hour away and there's little to see now, except for an occasional freighter. Fuel pressure from your external tanks is good, and you have made a four degree correction in heading after reading the wind velocity and direction off the water. The autopilot is holding you rock solid on a northeast heading so you settle back and enjoy the solitude.

0620: The sun has lifted so you descend to the 100-foot altitude limit over water. Already discomfort has set in, but on the horizon you sight land. Time will pass quicker once you have more to see and do.

0634: Sorrento passes under your left wing. You've lost two minutes, but that's not bad considering the ship's posit may have been off a few miles at launch time. The dark green coast line and crystal clear water are provocative in their combined beauty. But seconds later you're winging over land heading southeast over the mountains. You're climbing too, for the mountains seem to have sprouted unexpectedly before you. Shaking away complacency, you increase your concentration.

0700: You're in a wide valley now between a jagged chain of mountains paralleling your course. On your right a small city appears, to the south of which lies a finger-shaped lake. You smile to yourself for you know you're on course. There's one city and lake they put on the map.

0750: You hit the southern coastline of Italy a minute late. No sweat, though, you can make

it up later if you have to. There's no chase pilot to check your talent. But let's face it, that matter of professional pride is important. And, more significantly, if this were the real thing . . .

0930: Before you stretches a plateau, flat, sandy-brown and desolate. Not even a farm house in sight. The sun is getting hotter and you're convinced the cockpit is smaller. That can of pineapple juice is warm now but it still refreshes you. You try not to think of the hours ahead but its unavoidable.

0945: You're two minutes overdue at a checkpoint. That railroad bridge should have been easy to see, even from your 200 foot altitude above the terrain. There's a city dead ahead on the flight path but according to the map there should be two of them, close together and united by a highway.

O.K. You're lost.

You remember the thumb rule hammered down your throat ever since you started low level navigation back in the training command. "Hold your course and if the checkpoint doesn't come up turn on time anyway." So you swing left the prescribed 20 degrees and start looking hard, checking back and forth between land and map, map and land.

You're over a mountain range again and off to the left see two sharp twin peaks that extend well above the mountains. On your map you check either side of your trackline. No joy. Then, almost suddenly, directly below, appears a strip of brown which contrasts sharply against the green of the hillsides. You see cables and evenly spaced tower structures. Its a powerline running diagonally across your flight path. Another check on the map and you discover yourself 10 miles east of course. You make a cut to intercept the route.

1050: Everything is smooth now. You've picked up the lost minutes by eliminating a short leg and are a few seconds away from the start of the run-in to the simulated target.

You pass the U-shaped bend in the river and add power. The road you had selected to follow in the approach to the target leads directly to the Initial Point. The terrain passes by much quicker than before. You double check—harness tight, mixture rich, boost pump on—and glance at the timer setting.

The IP, a 75-foot water tower due south of the town, whizzes by and you depress the pickle on the control stick. The seconds tick by until the labs tone rings in your earphones and the red timer light illuminates on the panel. You haul the AD upward and go on the gages. Your airspeed dissipates rapidly and the stress of four-and-a-half "G's" forces compressed air through the pressure suit against your stomach and thighs. On top of the maneuver, the altimeter pegs at 1900 feet and as you continue to pull the stick back, the horizon slides into view. You roll her out and complete the loft maneuver by diving down to the deck.

You've done hundreds of these medium-angle lofts but you continue to marvel at how each one still pays off with a kick. You're gratified at the on-top altitude. Just what they taught us. And even though there was no bomb to release you like to think you'd have hit the target.

1230: You take a long look at the island of Elba, knowing it's the last island you'll see for the day. Without the terrain to concern you, your attention is again directed at discomfort. You attempt to offset it by finishing the box lunch. Cigarettes don't help either and there are still two hours of flight time to go.

1430: You're still at 100 feet when the very beautiful sight of an aircraft carrier's profile accents the horizon. Tacan points the way and you commence the climb to holding pattern altitude.

You fortify yourself by sucking on 100 per cent oxygen for a moment or two and it does some good. Fatigue has drained your body of most of its energy and you join on the three other Able Dogs from the 0430 launch and concentrate on formation flying. Forcibly alert, you know the hop isn't over yet. The landing phase hasn't even begun.

1445: The jets are aboard now and you double check gear down as you turn off the 180. The meatball stays high on the mirror and though you correct you know this isn't a good pass. The LSO knows, too, that you've been up for a long time so he's not surprised.

Finally the tailhook grabs the number four wire and the healthy tug of the harness straps against your shoulders tells you, you're home.

Flight deck directors taxi you to the bow where the plane captain waits, tie-down chains draped around his neck, to secure the *Skyraider*. Minutes later the last aircraft comes aboard and the high pitched horn from pri-fly bellows completion of the recovery. You climb out of the plane, dead tired and lame. Visions of a lengthy sleep fill your mind, but you take a moment to face into the wind and enjoy a deep sense of satisfaction. You did pretty well today. It was only practice, of course. But your confidence is up and, although it's an unhappy forethought, you're certain that if the real bell rings, you'll be able to get there and do the job. ★ ★ ★

CABLE HOOKED, THE AD AND PILOT ARE HOME AGAIN, MISSION SUCCESSFULLY COMPLETED

WHERE WILL *the taxpayer's dollar buy the most defense? Cost and effectiveness of competing programs, such as the combat Marines and the A2F shown above, are compared through the program packages so that the defense budget can be spent where it will do the most good.*

NAVAL AVIATION AND 'PROGRAM PACKAGES'

WHAT HAS THE PILOT in the cockpit and the mechanic in the shop to do with Naval Aviation's share of the defense budget? Under the new Department of Defense budget system known as the *Program Packages*, the answer is "Quite a lot." The results of the efforts of squadron level people are key inputs into the new formula for dividing the defense budget among competing weapons systems and programs.

Now it is one of the facts of life, as true for the defense budget as of most family budgets, that there always are more good ways of spending money than there is money to spend. There is *never* enough money to pay for *all* the things we would like to do. Hard choices *always* have to be made, even in a family budget.

With the help of the program package system, the Secretary of Defense, Mr. Robert S. McNamara, will make those hard choices after consulting with the Joint Chiefs of Staff, the Secretaries of the Army, Navy and Air Force and other high level advisors.

The J.G.'s and petty officers of Naval Aviation will probably never be consulted on these program decisions, yet they are destined to have a major influence in their outcome. That is true because the decisions will be based on comparative *effectiveness* and *cost* of competing weapons systems. Every man in Naval Aviation affects its cost, and most of us will influence its ultimate effectiveness.

The program package approach is a highly systematic way of selecting for funding, from among all the available alternatives, those weapons systems and programs which give the most defense for the available money.

Here is a hypothetical example of the decision-making process as it might involve the choice of aircraft for support of Army ground troops:

Assume the choice had already been narrowed down to two aircraft, the F-105 and the A4D. Assume also that one F-105 costs the same as two A4D's. There is enough money available to buy either 500 F-105's or 1000 A4D's.

However, since each of these aircraft can do important jobs the other can't, it is important to have *some* of each type. Therefore the choice is a problem of getting the right *mix* of the two types, the combination that will give the most military capability for the money.

In the process, the decision makers would analyze what could be done in assumed war situations with equal cost mixes of the two types. What could we do with 500 F-105's and no A4D's, with 400 F-105's and 200 A4D's, with 350 F-105's and 300 A4D's, etc?

They would keep "trading" one F-105 for two A4D's until they arrived at the *mix* which, all things considered, seemed to give the greatest effectiveness. In this way, the Secretary would make his decision, setting the level of these two programs. The whole decision-making process involves a systematic comparison of alternatives and "trade-offs" between them.

Competition and trade-offs between programs have always been a part of the process of making up a defense budget. However, there are some important differences under the program packages. The new system is designed to make the competition more intense and to have success or failure in the competition reflected sooner in cuts or increases in programs.

The most crucial difference is that while trade-offs under the old system were between programs of the same service, now they take place within the framework of multi-Service program packages.

The program packages are groupings of programs from all Services which contribute to particular missions or functions. Some of these missions are: (1) long-range delivery of nuclear weapons, (2) air defense of the United States, (3) ability to fight so-called "conventional" wars and, (4) sealift and airlift, the ability to move troops and material any place in the world they are needed.

The above missions correspond to the first four packages. Others are: (5) Reserve and National Guard forces, (6) research and development, (7) service-wide support, (8) classified projects and, (9) Department of Defense.

After the whole defense budget is divided into these program packages, each program package "pot" must be

divided among its "program elements." A program element is officially defined as "an integrated activity, a combination of men, equipment, and installations, whose effectiveness can be related to our national security policy objectives."

An ASW air group provides a good example of a program element. The element includes all of its men, equipment and planes, plus a "slice" of the cost of its home NAS, the Aviation Supply Office (ASO), BuWeps and many other activities which contribute to making the air group an effective fighting force.

The "cost" used in comparing elements is not just the cost of the fighting unit, but also all the costs of all the back-up required to make it an effective fighting force. When the "overhead" is taken into consideration, it makes fuel costs look like the proverbial "drop in the bucket."

While all parts of a program element contribute to its cost, it is only the "effectiveness" of the tactical unit at its apex which is taken into consideration in comparing it with other elements.

Ideally effectiveness should be measured in *quantitative* terms. The sports field has many examples of quantitative measures of effectiveness. The 70 golfer, the .300 hitter and the 200 bowler are each quantitative descriptions of sports effectiveness.

It will take some work to develop such convenient effectiveness "handles" for the program elements in Naval Aviation. However, it should be possible to develop many useful ones using such measures as "bombs on target," "submarines detected per search hour," etc.

When this kind of a measure of effectiveness is combined with the cost of the system, it will give a rough measure of the dollar cost of doing a military job. To the extent that costs and effectiveness can be measured, it will be possible to make quantitative comparisons of the cost of putting a bomb on a target under stated conditions.

Such quantitative comparisons are still far in the future since the program package system is just getting started. This year many of the comparisons were based on estimates and other "best available" information which were not too accurate. However, the tools of comparison should be better in the future since an all-out effort is being made to develop more useful information.

Regardless of the difficulty of measuring cost and effectiveness, the influence of the efforts of squadron level pilots and enlisted men of Naval Aviation on these items is clear.

We know that a squadron whose pilots occasionally break up a million-dollar plane, and whose crews occasionally maltreat $20,000 air starters, is more costly than the squadron which treats its planes and equipment with professional respect.

On the effectiveness side, the squadron which can maintain ten of its planes mission-ready is twice as effective as the one which can keep only five fully "up." We also know that a squadron's effectiveness is proportional to the ability of its pilots to find their targets and use their weapons against them.

Thus mission effectiveness of squadron pilots and performance of squadron maintenance men will be key influences on the inputs into the formulas shaping Naval Aviation's future.

"The program package concept," said VAdm. Robert B. Pirie, DCNO (Air) in a recent statement, "is a concerted attempt to ascertain the over-all cost of each weapons system and to determine its military effectiveness. This is decidedly a step in the right direction. In fact, this is largely what the Navy has done in the past.

"Unquestionably, the nation stands to gain by this new across-the-board analysis of relative weapons effectiveness. It behooves each of us to understand how he contributes to this new concept in military management, and to insure that the contribution he makes to economy and weapons systems effectiveness represents his very best effort." ★ ★ ★

JUST A FEW *of the items charged against the F8U program element are shown in this picture. Though the squadron will be charged with the cost of all back-up, manpower and materials, only its combat effectiveness will be weighed in the competition for budget dollars.*

Chuting Stars Back in '62

CNATRA to Control Jumping Team

The *Chuting Stars* Parachute Exhibition Team will continue giving sky diving and parachute jump demonstrations in 1962.

A decision to continue the *Stars* as a feature of aerial shows for the coming year was made recently by the Chief of Naval Operations. The team will be under the control of the Chief of Naval Air Training. CNATRA is expected to select a new home base for the team, which has been operating out of El Centro, Calif.

Marine parachutists have been offered a chance to join the team, which was organized in April 1961 as a feature of the 50th Anniversary of Naval Aviation celebration. LCdr. L. "Zeke" Heller is O-in-C of the team.

Ultra-Modern Mess Opened

Handles 2000 Men per Meal Hour

At MCAAS YUMA, an ultra modern mess capable of handling 2000 men during the meal hour, has opened.

The new unit, constructed of concrete block and masonry, has 31,000 square feet of floor space.

Furnishings include four-place formica-topped tables, custom draperies, terazzo tile flooring, flourescent lighting and air conditioning.

Other features include rotating electric ovens and dishwashing equipment which cleans and sterilizes metal trays. There are ice-making machines, and in the bakery, there are automatic dough rolling and cutting machines and automatically controlled water measurers and dispensers.

BULL'S EYE'S *bull's eye was scored by VMA-211's 1st Lt. Darrell Shelor as he lofted MK. 76 practice bomb with his A4D-2N on China Lake target. Bomb hit target's brass center.*

Saufley Marks a Milestone

10,000th Pilot Trained in T-34B

Training Squadron One of NAAS SAUFLEY FIELD, Pensacola, added another milestone to its history 10 August 1961. Second Lt. Lawrence E. Chambless, USMC, became the 10,000th student to complete the T-34B *Mentor* syllabus since the integration of the aircraft into the Naval Air Basic Training Command.

The T-34B began its naval service as a primary trainer in November 1956. Since that time, over 490,000 flight hours have been logged in the training of student Naval Aviators. Manufactured by Beech, it was used to phase out the old North American SNJ, the basic trainer in post WW II and the Korean war years.

Navy CWO's Phasing Out

BTC's are Trained in Engineering

In line with the phasing out of Navy Warrant Officers, two senior chief boilermen in the carrier *Coral Sea* have qualified with the department's junior officers as engineering officer of the watch. The two are Richard Cone and Charles Wager.

Coral Sea reports the two chiefs have successfully completed their training syllabuses and can now, if the need arises, take complete charge of the engineering plant when the carrier is underway or in port.

In her first year back with the Fleet, *Coral Sea* won the engineering E for attack carriers in the Pacific.

New Jax Squadron Hustles

Is First Operational CVG-13 Unit

With only ten per cent of the unit aboard at NAS JACKSONVILLE, Attack Squadron 135 decided not to wait around until it was fully manned before getting into action. Within a week of its formation, AD-6 *Skyraiders* were launched, establishing VA-135 as the first operational squadron of the newly formed Carrier Air Group 13.

When it is fully manned, CVG-13 will consist of about 1000 officers and men and will be assigned about 85 aircraft.

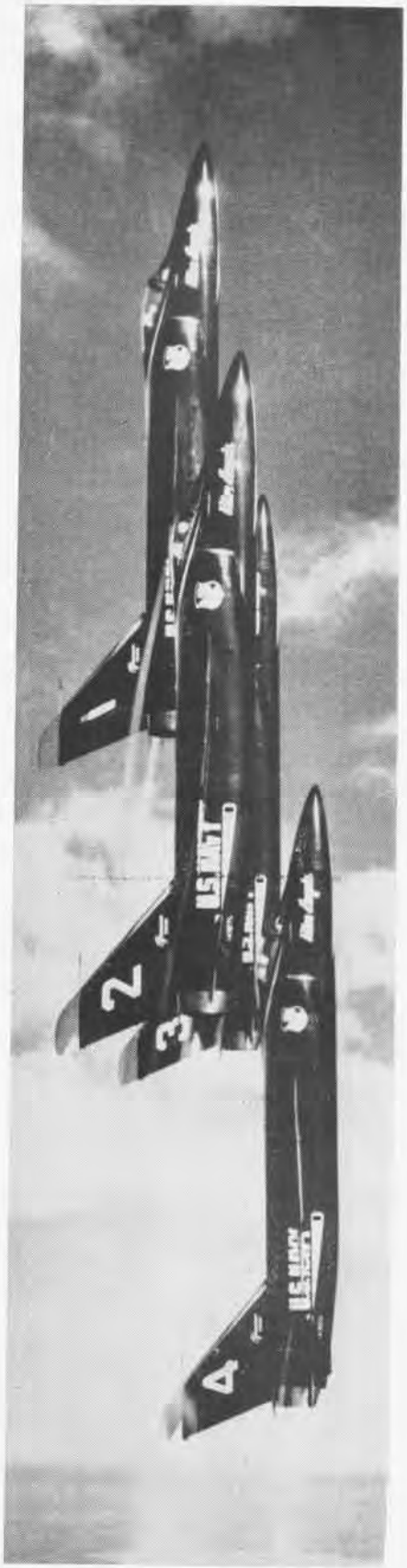
VA-135, commanded by Cdr. Barclay W. Smith, is based at Cecil Field.

FIRST OFFICIAL ARRESTED LANDING *at the U.S. Naval Air Facility, Naples, Italy, was made by LCdr. A.B. Bliesener flying an AD-5. He initially engaged the wire while travelling at a speed of 87 knots, and the aircraft came to a smooth stop after 1200 feet. The completion of this arresting gear makes the facility available in an emergency to 6th Fleet carrier aircraft having mechanical failure. The arresting gear consists of two cables stretched across the runway about four inches off the ground, attached to 850-foot lengths of anchor chain.*

NAVAL 50th ANNIVERSARY 1911 AVIATION 1961

ANGEL ALBUM

1946–1961



BY ANY YARDSTICK, the *Blue Angels'* 1961 season has to be rated as the best in the 16-year history of the Navy's Flight Demonstration Team.

By the time the team completed its flight year (November 20), a total of 80 demonstrations had been seen by more than 5,000,000 Americans and Canadians as a feature of the celebration of the 50th Anniversary of Naval Aviation.

Interest in the 50th Anniversary celebration contributed greatly to the public response to the *Blues'* season but the team also flew many "cow pasture" shows in out-of-the-way areas to promote Naval Aviation programs.

Although Pensacola is the *Blues'* home, they spent close to 300 days away from the Florida station during the anniversary year.

Each of the 80 shows required from two to four days of travel. The team appeared at an average of four civic or public relations functions at each event. This was in addition to the hours of autograph signing which are a part of their job. For the team, the "salad circuit" was a season-long necessity, with luncheons and/or dinner banquets in most cities on the tour. Sponsors and spectators are anxious to get a close-up look at the members of the team, and the *Blue Angels* make every effort to mingle and be seen.

Two of the 1961 team will be detached this month, having served out their tours. Cdr. Zeb Knott, the flight leader for the past three seasons, has passed command of the team to LCdr. Ken Wallace, who this year returned as a "second tour" slot pilot. Lt. Bill Rennie, left wing in the diamond formation, will report for fleet duty after two years with the team. Cdr. Knott has been ordered to VA-153.

Returning for next season are Capt. Doug McCaughey, Marine member of the team who has been extended for a third year, and the two solo pilots, Lts. Chatham and Macintyre.

While the team re-forms and takes leave in December, the *Angels'* F11F *Tiger* aircraft will be in Progressive Aircraft Rework getting ready for

EIGHT NAVAL AVIATORS *who have been leaders of the Blue Angels Flight Demonstration Team since 1946. From top, left column, LCdr. Roy Voris, LCdr. Bob Clarke, LCdr. Dusty Rhodes and LCdr. John Magda. From top, right, LCdr. Ray Hawkins, Cdr. Zeke Cormier, Cdr. Ed Holley and Cdr. Zeb Knott. (Ranks are those held when assigned to team.)*

1948 ANGEL LEADER, *Dusty Rhodes, uses familiar hand gestures to show maneuver to team mates Knight, Heagerty, MacKnight and Thelen.*

BUTCH VORIS, *second from right, flew second tour as flight leader accompanied by 1952 team members, Rich, Murphy, Hawkins and Graham.*

the new season. Training will commence in January, with the first public performance scheduled for February.

The Flight Demonstration Team has operated annually since 1946, missing the 1951 season because of the Korean War. LCdr. Roy M. "Butch" Voris (now Captain) was the first C.O. of the team as it performed for the first time on 15 June 1946 at the Jacksonville, Fla., Southeastern Air Show.

Unable to find the origin of the *Blue Angels'* name in any research material, NANEWS asked Capt. Voris for information about the naming of the team.

"Immediately (after the first show) we realized the importance of the early selection of a name for the team," Capt. Voris said. "The name *Lancers* evolved from a team-naming contest conducted at NAS JAX. . . . Although more than just slight pressure was used to have us accept this name, we fully believed that we could do much better and come up with a name that could stand beside the *Seahawks* and *The Three Musketeers* teams of early aviation fame.

"One evening while reflecting on a coming trip to New York, we glanced through an issue of the New Yorker magazine. As we glanced through the list of night spots we came upon the well known bistro, 'The Blue Angel.' Of course it hit us all at the same time. It was an absolute natural."

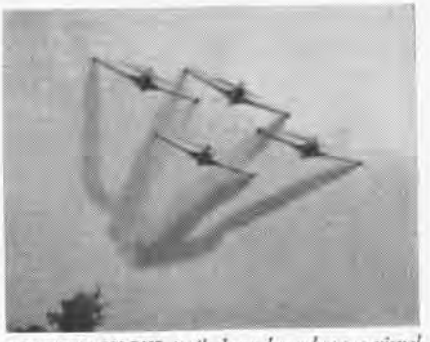
ONE THIRD OF ALL *Blue Angels, past and present, assembled in June 1961 for Pensacola's reunion of Naval Aviators for the Golden Year of the Golden Wings. Latest team, wearing blazer jackets with insignia on breast pocket, is kneeling in front of earlier Angels.*

STRAIGHT LEADING *edge of wing identifies the sleek jets flown by Angels as F9F-5 Panthers.*

SWEPT-WING F9F-8 *Cougars were adopted by the Angels during the 1954-55 period.*

NAVAL 50th ANNIVERSARY 1911 1961 AVIATION

No family a tains photo visited durir years the Bl visited the C above; and the Statue o the team returns from Ea home at Pensacola an family, the 50-man crew who make certain the tea first was home-based a Christi, and since 1955,



COLORED SMOKE *trails long have been a visual feature of Blue Angel flight demonstrations.*

is complete unless it con-
ns of familiar landmarks
oss-country trips. Over the
ngels have visited and re-
n Gate, left; Niagara Falls,
erty, right. Between shows
est and North to its Southern
reunion with the official
naintenance experts, below,
commitments are met. Team
ksonville, moved to Corpus
acola has been their home.

BACK-TO-BACK *formation flying is highlight of performance by two Blue Angel solo pilots.*

Voris reported that the name was used for the first time the following month at an air show in Omaha and became formally recognized when the press picked it up.

The team's first aircraft was the F6F *Hellcat* which had been the Navy's stable carrier fighter during WW II. A few months after starting out, the team switched to the more powerful F8F *Bearcat* which is still recalled as a 'favorite' among *Blue Angel* fans.

Transition to jets was accomplished in 1949 when LCdr. "Dusty" Rhodes led the team in F9F-2 *Panthers*. The team broke up in mid-summer of 1950. Flight leader LCdr. John Magda and team members joined Fighter Squadron 191 in the Pacific Fleet for duty. Magda lost his life in combat off the Korean coast in 1951, the only *Blue Angel* member listed as a casualty of war.

Voris had a second tour as C.O. of the *Blues*, receiving a call to re-organize the team in late 1951. By spring of 1952 the unit was flying air shows anew, this time in the F9F *Panthers*.

Moving ahead with the times and with the advancements in aircraft design, the *Blues* trasitioned into the swept-wing F9F-8 *Cougar* jets in the winter of 1954-55, with Cdr. Zeke Cormier in the number one spot.

The team transitioned into the current aircraft, the F11F *Tiger*, in the middle of the 1957-58 season, flying shows in the *Cougar* while team members were getting acquainted with the supersonic speeds of the *Tiger* during their "between-shows" time. Cdr. Ed Holley led the team during the difficult transition period and through the early shows in the *Tiger*.

FIRST AIRCRAFT *and first flight leader were the F6F Hellcat and LCdr. Roy "Butch" Voris.*

The *Angels*' aircraft have been altered several times. Principal changes are in the electronic gear carried and the installation of smoke oil tanks.

"Sometimes we get 'static' from fleet *Tiger* pilots about the amount of radio and navigational equipment we carry," one of the *Angels* said. "But when you have to fly out of civilian fields or military fields which have only a few special aids, we feel the extra equipment is necessary." The extra gear makes it possible for the *Blues* to use many landing approach systems.

Another change is in the armament. There is none. In fact, the *Blues* all use the F11F's ammunition can for a special purpose: they each own a slim bag (suitcase) which fits precisely into the ammo can for easy airlifting of liberty clothes. "This comes in handy when we get separated from the support R5D," they say.

The business of supporting the *Blue Angels* has grown as the *Blues* have changed from the props to jets and into the more complicated *Tigers*. Instead of a handful of support enlisted men, the team now has a complement of about 50 men and usually take up to 30 men on the road for shows. "I can't stress enough how much the success of the team depends on the men," Cdr. Knott said. "Sometimes they work around the clock to ensure that one of our downed aircraft is back in shape in time for a show. They take great pride in keeping the aircraft ready at all times, have even changed engines on the road. One time the crew used a civilian garage wrecker truck to make an engine change, to meet a commitment when no other engine-lifting device was handy."

Lt. Ray Atherton, maintenance officer and R5D pilot, and his men are always seeking 100 per cent maintenance for each flight. They also must maintain the R5D and the accompanying F9F-8T, which is flown by Lt. Hank Giedzinski, public information officer who flies media representatives on orientation hops when not narrating the demonstrations.

Assisting the maintenance crews at

MORE THAN *40 million Americans, one in every five, have seen the Blue Angels perform. Huge crowds like this one at Moffett Field during the 1961 50th Anniversary of Naval Aviation air show add to the Blue Angel legend. Blues' six Tigers are in line and ready at right*

CDR. ZEB KNOTT *signs autograph after flight near end of his third season with the Blues.*

Pensacola and on the road are two Grumman aircraft representatives, Dave Scheuer and Wes Moseman. They act as "trouble shooters" and help to speed needed parts to wherever the *Blues* may be flying. Grumman has been the manufacturer of all the *Blues'* aircraft since 1946.

Cdr. Knott believes the largest single audience to watch the team was on 4 July 1959, his first year as flight leader. The team gave a performance along Lake Michigan on the North side of Chicago as part of Operation *Inland Seas*. The main part of the crowd was centered in the area where a Marine assault landing was staged as a dramatic part of the *Inland Seas* program.

TWICE A SLOT *pilot and 1962 O-in-C-designate, LCdr. Wallace gives autograph and smiles.*

"The crowd that day stretched for miles on either side of the assault beach . . . there were well over a million people on the beaches, in Lake Shore apartments and in pleasure boats on the lake," Cdr. Knott recalled.

Estimating crowd size is a tough proposition. Guesses on the annual shows at Coney Island, N.Y., for example, range from 200,000 to 700,000.

On the morning of a show, Cdr. Knott has made it a practice to "check the air." He takes a short test hop in one of the aircraft to find out whether the air is smooth or bumpy. Results of the ride are passed along to the team in the pre-flight briefing, along with any special instructions from the Federal Aviation Agency representative on the scene. Cdr. Knott makes a run-through of the show's line of flight during his briefing.

All the team are in accord about the overriding need for teamwork in putting together the shows each year.

A member of the *Blues* has to realize, above all, that the team is first in all considerations.

A position on the team is not the "easy billet" which people may imagine it to be.

The public and military personnel are often unaware of the arduous tasks performed by the team. The *Blues* are on the road nine months out of the year, including weekends and holidays, averaging 21 days a month away from home. Hours and hours of practice are absolutely necessary to maintain the high degree of precision demanded by this type of flying.

The feeling about the team can best be expressed by the inevitable statement given by members leaving, "It was a great experience, being a *Blue*."

ROSTER OF BLUE ANGELS—1946-1961

CDR Zeb KNOTT
CAPT Doug McCAUGHEY, USMC
LT Bill RENNIE
LCDR Ken WALLACE
LT Lew CHATHAM
LT Dan MACINTYRE
LT John RADEMACHER
LT Duke VENTIMIGLIA
LCDR Jack REAVIS
LT Chuck ELLIOTT
LCDR Jack DEWENTER
LT Skip CAMPANELLA
LT Bill SHERWOOD
LT Don McKEE
CDR Ed HOLLEY
CAPT Stoney MAYOCK, USMC
LT Herb HUNTER
LT Bob RASMUSSEN
LT John DAMIAN
LT Mark PERRAULT
CDR Nick GLASGOW
1st LT Tom JEFFERSON, USMC
LT Lefty SCHWARTZ
LT Bill GURECK
CAPT Chuck HALLOWAY, USMC
LT Ralph HANKS
LTJG George HOSKINS
LTJG Fritz ROTH
LCDR Dusty RHODES
LT Ed OLIPHANT
LT Hal HEAGERTY
LT Bob THELEN
LCDR Johnny MAGDA
LCDR Bob CLARKE
LCDR Bill OLSEN
LT Nello PIEROZZI
CDR Zeke CORMIER
LT Ed McKELLAR
LT Bruce BAGWELL
CAPT Ed RUTTY, USMC
CAPT Pete OLSON, USMC
CAPT Chuck HIETT, USMC
LT Red RIEDL
LT Dayl CROW
LT Auz ASLUND
LT Buddy RICH
LT Frank JONES
LCDR Dick NEWHAFER
LT Bud WOOD
LCDR Ray HAWKINS
LCDR Frank GRAHAM
LT Tom JONES
LCDR Whitey FEIGHTNER
LCDR Harry SONNER
LT Bob LONGWORTH
LT Pat MURPHY
CDR Butch VORIS
LT Mac MacKNIGHT
LT Jake ROBCKE
LTJG Billy MAY
LTJG Robby ROBINSON
LT Bob BELT
LT Mel CASSIDY
LT Chuck KNIGHT
LT Al TADDEO
LT Ed MAHOOD
LTJG George STOUSE
LT Wick WICKENDOLL

FLEETS WELCOME RESERVES ABOARD

JACKSONVILLE RESERVES *arrive for extended active duty tour with friendly wishes of the Naval Air Station published on a banner.*

LAKEHURST ANNOUNCEMENT *board welcomes Weekend Warriors back on active duty with the Fleet as part of the "Berlin add-on."*

Noel Davis Trophies

Two Naval Air Reserve Squadrons recalled to active duty on 1 October were announced as winners of Noel Davis Trophies for 1961.

Patrol Squadron 741, NARTU JACKSONVILLE, and Air Anti-submarine Squadron 873, NARTU ALAMEDA, were judged "most efficient" in their class competitions conducted annually by the Chief of Naval Air Reserve Training.

Winner of the coveted Conway Trophy, given to the station or unit judged "most proficient," was Naval Air Reserve Training Unit, Norfolk.

Naval Air Station Grosse Ile, Mich., was named "most improved" and was presented the Chief of Naval Air Training Trophy for the year.

Noel Davis winners in all classifications in the competitions:

Air Wing Staff	AWS-72, Glenview
NARMU	NARMU-871, Alameda
Attack Squadron	VA-891, Seattle
Fighter Squadron	VF-791, Memphis
Patrol Squadron	VP-741, Jacksonville
Transport Squadron	VR-872, Alameda
Helicopter (utility)	HU-812, Minneapolis
Helicopter (ASW)	HS-912, South Weymouth
ASW Squadron	VS-873, Alameda
WEPTU	WEPTU-911, South Weymouth
AIRTU	AIRTU-662, Anacostia

Awards are based on efficiency in training, operations, administration and recruiting/procurement efforts at each of the 18 stations. Standings of individual squadrons in the Noel Davis competition are taken into account in measuring the standings of the stations.

Each man in a winning squadron or station is entitled to wear the "E" badge on his shoulder until the end of the current fiscal year.

Fleets Welcome Reserves

Atlantic and Pacific Fleet Air Commanders welcomed squadrons and augmenting personnel for active duty in varying ways.

At Alameda, where VS-873 and reservists from VS-872 were joined on active duty by VP-872, RAdm. Frank Akers, COMFAir Alameda, welcomed the 400 new active duty men to the fleet on 1 October, then cut into a cake commemorating the event. Another 350 men were called back starting on 1 November.

Recalled men at Lakehurst and Jacksonville were greeted by billboard and streamer signs offering "Welcome" messages. Norfolk's VS-861, joined with Lakehurst's VS-751 and Willow Grove's VS-935, was getting used to "being on our own" after close support association with NARTU NORFOLK as Weekend Warriors. VP-741, Noel Davis winner, was augmented in October by members of another Jax squadron, VP-743, and by reservists from VP-674, NAS ATLANTA, before joining Fleet Air Wing 11 on the first of November.

New CNAResTra Reports

RAdm. William I. Martin reported 31 October as Chief of Naval Air Reserve Training, Glenview, Ill., relieving RAdm. A.W. McKechnie, who retired. Adm. Martin reported from duty as Deputy Chief, MAAG, Bonn, Germany. His country-wide command embraces 13 Naval Air Stations and five Naval Air Reserve Training Units with a complement of more than 35,000 men and officers.

Weapons Capability Added

Give a Marine a feather and he'll make a weapon out of it.

Marine Air Reserves at MARTD NORFOLK had a T2V *Sea Star* to fly, but it had no armament. The *Sea Star*, of course, is a training aircraft meant only for flight training and not for ordnance training.

Using ordnance already on hand, the detachment attached two pylon assemblies capable of carrying rocket launchers or Aero 4B bomb containers under the wing. The trainer is used as an attack trainer and a proposed change has been submitted to BUWEPS.

Squadron Picks Busy Man

VS-663, NARTU ANACOSTIA, picked a busy man as "Man of the Year." He is James F. McGrath, Jr., AT3, Alexandria, Va., who, in addition to civilian work as a senior IBM tabulator managed 100 per cent reserve participation, Navy correspondence courses and evening college attendance.

Reserve Photo/Journalism

NAS GLENVIEW was host to some 75 public information officers and personnel at a unique photography jour-

MARINE RESERVES *at Norfolk, LCols. Keller, l., and Campbell, inspect SeaStar ordnance*

nalism seminar. Courses in all phases of public information were conducted by members of Chicago's "working press." The three-day course presented the civilian press' thoughts on such subjects as "Caption Writing for Picture Stories and Sequences," "Photo Composition" and "The Editor's Viewpoint toward the Handout." Army, Air Force and Marine representatives attended, in addition to Navy.

Six Months Trainee Gets Wings

NARTU MEMPHIS claims a "first" in connection with the six months training program conducted by CNAResTra. Nelson W. Gill, Jr., AE3, has received his Aircrewman's Wings after completing the final qualifications in August. Gill, a graduate of Georgia Tech, is attached to VP-791. He is the first six-month graduate at Memphis to receive wings and, subject to evidence to the contrary, is claimed by NARTU as the first in the command.

NARTU Anacostia Closes Doors

All flight operations have ceased at NARTU ANACOSTIA following the unit's move to NAF ANDREWS, Andrews AFB. NAS ANACOSTIA is still operating but is expected to make its move to Andrews around the end of the year. The last NARTU aircraft moved to Andrews in mid-October.

What's His Line?

The Naval Reserve is made up of men of practically every occupation.

The President and several Cabinet Officers, for example, are reservists. Perhaps this is what prompted Lt. Jerry Pierce, command liaison officer at NARTU LAKEHURST, to make a search for occupations among the men assigned to HU-752 recently.

Across the bottom of this page are photographs of three men. One is a commercial jet pilot. Another is a police detective. The third is a merchandising manager for the Wall Street Journal. Can you tell which one does what?

(William J. Rooney, Cdr., USNR, is a pilot with Pan American, flying 707 jet airliners and commanding officer of HU-752. Abe R. Schwartz is an Aviation Electronics Technician First Class, USNR, and a detective in the Philadelphia police department. James P. Burke, Aviation Machinist's Mate First Class, is with the Wall Street Journal and a student at New York University.)

Airman Recruit to Ensign

NAS ATLANTA capped an ensign who started his Navy career 13 years ago as an airman recruit. He is Ens. Harold Tate, Birmingham, Ala., who was commissioned after working his way up to Aviation Electronics Technician First Class. Ens. Tate has served two active duty tours as a sailor, is working on an electrical engineering degree, is working as service manager in a communications firm, married and the father of three children.

MAN OF THE YEAR *in VS-663, ATR3 McGrath, accepts certificate from C.O., LCdr. Luppino.*

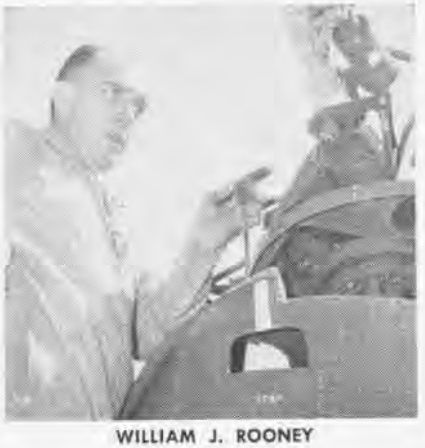
Willow Grove Hosts Chileans

Two lieutenants in the Chilean Air Force, Cecil Loyer and Manuel Santander, have completed advanced electronics maintenance courses at NAS WILLOW GROVE.

The officers returned to their homeland prepared to teach others how to maintain the gear used in the UF-1 *Albatross*.

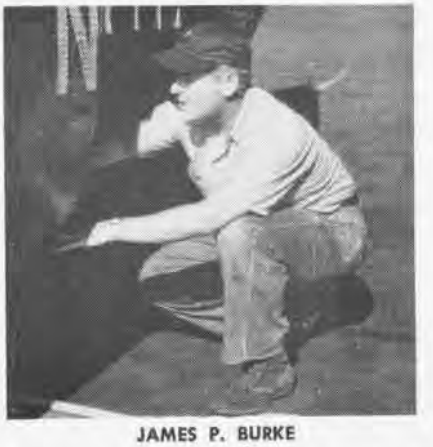
See the USA with GCA

Los Alamitos GCA Unit No. 5 had one of those non-routine "routine" landings on 30 September. An Air Force pilot, short on fuel and behind schedule due to high headwinds, called for assistance during a period of low visibility in the Los Angeles area. With 28 years of experience behind them, the two controllers on duty, Chiefs Jack Walter and Ollie Spires, brought the pilot and aircraft in for the only approach possible under the fuel conditions then prevailing. The aircraft hit the deck with five gallons remaining, not enough for the pilot to complete his taxi to the line.



WILLIAM J. ROONEY

ABE R. SCHWARTZ



JAMES P. BURKE

TICKER TAPE TREATMENT FOR CVA-64

USS CONSTELLATION (CVA-64) was commissioned on Navy Day 1961 with a ticker tape parade on Broadway and ceremonies in the Brooklyn Navy Yard.

With some 10,000 persons present at the commissioning ceremony, RAdm. Ernest Holtzworth, C.O. of the shipyard, presented the 75,000 ton carrier to the Navy. Commissioning had been delayed seven months to repair damages inflicted by fire in December 1960, during the construction period.

Capt. Thomas J. Walker, III, responded for the *Constellation's* crew and became the first commanding officer.

VAdm. Robert B. Pirie, DCNO (Air), called the *Constellation* "one of the nation's most invulnerable military installations."

The carrier is equipped with *Terrier* missiles for surface-to-air anti-aircraft defense in addition to carrying approximately 100 aircraft when she is deployed.

Sixth in the line of *Forrestal* class carriers, the *Constellation's* claim to being "the largest and most powerful warship" was to be short-lived. Com-

C.O. RE-NAMES TIMES SQUARE FOR A DAY

missioning of the nuclear-powered USS *Enterprise* was scheduled for 25 November in Newport News, Va.

Some 1500 officers and men were aboard the *Constellation* on her big day. When ready for sea on a full time basis, the carrier will have more than 4000 men aboard, and in wartime will accommodate 4600 men.

The Navy has installed the latest in "habitability" improvements. Air-conditioned throughout, the crew's quarters will include foam rubber mattresses and reading lamps in each berth. Each berthing area has a recreation space with writing tables and lounge chairs.

Around the 4.1-acre flight deck are four elevators capable of lifting 89,000 pounds each. Four steam catapults are installed in the flight deck.

Fireproof and fire resistant materials have been used liberally. All living areas, for example, are fitted with thermal insulation material. Sound insulation materials were installed around noisy spaces, such as the fan rooms, generator and control rooms.

The *Terrier* installation is part of an automatic weapons system that detects and evaluates targets, selects the weapon to be used, loads the launchers and fires in a matter of seconds. Guidance radar installations give the capability to engage several targets at the same time.

Within her, the ship will have six galleys, a special diet kitchen, two butcher shops, an ice cream plant and two bake shops to help produce 13,000 meals daily. The medical facility includes two hospital wards, two quiet rooms, two isolation wards, four dental offices, a pharmacy, operating room and specialized treatment rooms.


PROUD NUMBER 64 EMERGES ON THE ISLAND OF THE USS CONSTELLATION PRIOR TO JOINING THE ATLANTIC FLEET FOR DUTY

50 Years of Naval Aircraft

ROTARY WING AIRCRAFT

WHETHER CALLED choppers, whirlybirds or eggbeaters, helicopters have assumed a major role in Naval and Marine Corps Aviation. From a hesitant start late in WW II, helicopters have become one of today's principal ASW weapons and a major contributor to the mobility of Marine Corps amphibious forces. They also

PENNSYLVANIA *Aircraft developed XOZ-1 gyro in mid-Thirties, using N2Y-1 airframe; incorporated rotor features later used in helo's.*

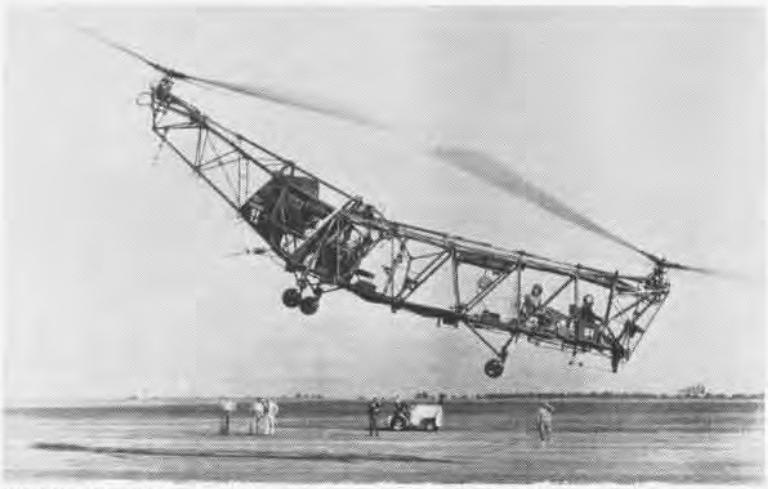
ORIGINAL NAVY *Autogiros, Pitcairn XOP-1's, had wings. One was subsequently revised to a new wingless configuration as the XOP-2.*

continue in special support roles, such as air-sea rescue.

Shown in the first picture are three representative types on which the Navy and Marines have depended. The HUL-1 (foreground) is typical of the Bell model 47 series which has seen utility and trainer service since the early days of the helicopter in Naval Aviation. The HUP-2 is one version of the first model designed for the Navy to see extensive service; HUP's are still the mainstay of carrier plane guard operations. From the beginning Sikorsky has been a major source of

FIRST HELICOPTER *design to reach operational status was Sikorsky's Army R-4; Navy/Coast Guard HNS-1, with 200 hp, weight 2550 lbs.*

VOUGHT-SIKORSKY'S *R-6A/HOS-1 was advanced version of R-4. Built by Nash-Kelvinator, had 235 hp, all metal airframe, weighed 2600 lbs.*



WEIGHT PLAGUED *early helo operations. Piasecki HRP-1's flew with fabric covering removed for usable performance with added equipment. HRP-1 carries VX-1 markings.*

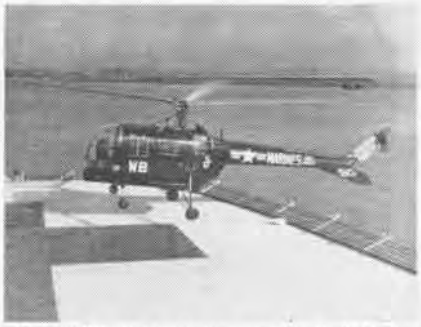
McDONNELL'S *first helicopter was twin-engine XHJD-1, like the XHRP it was a Navy sponsored WW II design.*

FIRST WIDELY *used Navy model was Sikorsky HO3S-1, equivalent to the commercial S-51. With 450 hp P&W engine it weighed 5000 lbs.*

ENTERED IN *competition with Piasecki XHJP-1, HUP prototype, was XHJS-1, one of few Sikorsky designs which did not reach production.*

FOLLOWING *testing of Hiller commercial UH-12, this model became Navy HTE series.*

FIRST NAVY *-evaluated Kaman helo's were K-225's. This one had Boeing gas turbine.*



SIKORSKY'S *S-54 design saw limited Marine Corps and Coast Guard service as HO5S-1.*

TYPICAL *Kaman syncopter design was feature of HTK-1, procured in limited numbers.*

SERVICE *trials of HOK-1 preceded operational use by Marines; HUK-1 and H-43A are similar.*

SIKORSKY'S *S-56 has undergone many changes since prototypes of HR2S-1 and H-37A flew.*

Navy and Marine helicopters. The HRS-1, a typical Sikorsky configuration, represents an intermediate model between the first Navy service types and the turbine-engined HSS-2 now going into service.

Rotary wings in Naval Aviation pre-date WW II. In 1930 the *Autogiro* was attracting attention. The shorter take-off and landing performance with lower stall speeds appeared potentially attractive for carrier and Marine expeditionary force operations. On these early *Autogiros*, a rotor, turned by propeller slipstream and by airflow in forward flight, supplemented wings smaller than those used in a conventional airplane. When rotating, the rotor provided lift at speeds below normal stall speed. Pitcairn XOP-1 *Autogiros* were purchased, tested and

SIMPLE, ONE-MAN *helicopter, requiring minimum pilot training for Marine field use, was goal of mid-Fifties program. Hiller XROE-1 was developed for service evaluation of concept.*

RAMJETS *on both rotor tips powered this small two-place Hiller HOE-1 (Army YH-32).*

BUILT BY *Gyrodyne, XRON-1's feature coaxial rotors, are designed for same use as XROE-1.*

FROM EARLY *post-World War II years, Bell's model 47 series have served as Navy HTL's. HTL-6 shown is typical of later models.*

FIRST LARGE *Bell helo design was HSL. Development problems delayed program. It did not become operational, served special R&D needs.*

WHILE HELO'S *have been capable of flotation using inflated bags since HNS's, Edo-modified HUP-2 Seacopter pioneered water-based design.*

LITTLE KNOWN *research and development project was Kellett KH17A, modified Autogiro, designed to test partially loaded rotor systems.*

CURRENT MAINSTAY *of helicopter ASW operations is HSS-1. Basic airframe serves as commercial S-58; -1N has all-weather capability.*

WITH SAME *airframe as HSS-1, HUS-1 serves as utility-transport helicopter. HUS-1A shown has bags inflated to provide flotation.*

evaluated. While results did not show a great advantage over conventional aircraft as service types, interest in the *Autogiro* continued.

In the mid-Thirties, an XOP-1 was converted to the newer Pitcairn wingless *Autogiro* as the XOP-2. The Pennsylvania Aircraft Syndicate converted an N2Y-1 airframe into the XOZ-1 utilizing their "gyroplane" rotor design.

A practical helicopter configuration eluded American designers and inventors until Igor Sikorsky came up with one on the eve of WW II. With sponsorship of the Army Air Force, Vought-Sikorsky and other companies continued to develop helicopter designs during the war. In 1943, Navy arranged to get a number of the three Vought-Sikorsky types. The first of these, the XR-4, was already being flight-tested. HNS-1's, as the R-4's were designated, were delivered to Floyd Bennett Field, New York, where the Coast Guard, operating as part of the Navy, began pilot training and development for operational use. Early Navy/Coast Guard interest centered on copter use for air-sea rescue.

The HNS's were followed by a num-

SOON TO ENTER *Navy service is the Kaman HU2K-1 Sea Sprite. This new utility helicopter is powered by a single GE T-58 turbo-shaft engine, will replace piston engine utility models.*

ber of XHOS-1/HOS-1 (R6A) and two larger HO2S-1's (YR-5A). These featured all-metal fuselage construction and other modern features in place of the fabric-covered tubing construction of the HNS's. All used a single lifting rotor with anti-torque tail rotor.

In 1944 the Navy initiated development of two of its own designs. The first was a single-engined tandem-rotor transport, the Piasecki XHRP-X. The other, the McDonnell XHJD-1 utility helicopter with side-by-side rotors on outriggers, had two engines.

After WW II, evaluation of helicopter operations continued, as did construction and testing of the XHRP-1 and XHJD-1. In 1946, two new types were ordered to meet Navy needs. Developed as commercial models, both were also purchased by the Army Air Force. The Bell 47 series became HTL-1, first of the long series of Bell's to serve as Navy trainers and utility aircraft and as Marine Corps liaison types. Sikorsky's S-51, based on the R-5/HO2S design with many improvements, provided a useful commercial type. It became the Navy HO3S-1. More than other models, the HO3S-1 displaced the fixed-wing seaplanes which had operated from cruisers and battleships. Two other experimental models were ordered in 1946 and built competitively to provide the Navy with a designed-for-the-purpose utility helicopter. The XHJS-1 followed typical Sikorsky design; the winning XHJP-1 (HUP) used Piasecki's tandem-rotor configuration.

Meanwhile, the HRP was built in small numbers as the fabric-covered HRP-1 and all-metal air frame HRP-2. Various Sikorsky models, the HTL's and the HRP's, were used in the late Forties to develop operational uses for both the Navy and Marine Corps.

By 1950, the first Navy-Kaman syncopter, the K-225, had been ordered and delivered for evaluation. Hiller HTE trainers were obtained after evaluation of Hiller's commercial UH-12. Sikorsky's commercial S-55 design, larger than the S-51, was procured as the HO4S-1. A design competition held for an anti-submarine helicopter was won by a Bell design, the XHSL-1.

With Korean operations underway, helicopter procurement accelerated, along with other aircraft. The Sikorsky HO4S-1 was also purchased as the HRS series and the commercial S-54 as the HO5S-1. Kaman designs were ordered; the HOK-1 and the smaller HTK-1.

In the Korean opeations, large numbers of various helicopter types entered service. Designs took advantage of new developments in helicopter technology. New types included the larger twin-engine Sikorsky XHR2S-1 (S-56), the McDonnell XHRH-1 compound helicopter design, the XHCH-1 crane helicopter with turbine compressors feeding tip jets and the miniature Hiller HOE-1 with tip-mounted ramjets. McCulloch MC-4C's, small tandem rotor types, were purchased and evaluated.

Of these, only the HR2S reached service. The McDonnell projects were dropped before prototypes were completed. When the HSL program suffered delays, the Sikorsky XHSS-1 was ordered. The HSS's, and the similar HUS-1's are principal service types today.

Following test installation of gas turbine engines in helicopters, the Kaman HU2K-1 is currently approaching service while the twin-engine HSS-2 is now entering operational use with ASW air groups.

Based on evaluations using regular helicopters, the *Dash* program was initiated for destroyer-based remotely controlled anti-submarine helicopters capable of delivering torpedos or other ASW weapons at some distance from the ship. Gyrodyne is building the initial DSN's, based on the RON.

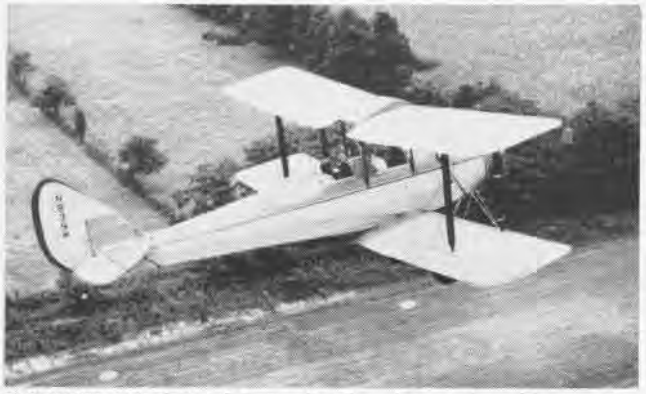
Meanwhile, new types, including the Boeing-Vertol HRB-1 and others, are being readied to provide even greater airlift capabilities for Marine assault.

SIKORSKY TWIN *T-58 powered HSS-2 is currently going into ASW service. Incorporating all-weather and latest ASW equipment, amphibious HSS-2 set helicopter speed record of 192.9 mph.*

BUSMAN'S HOLIDAY: PILOT'S PASTIME

BERT B. BROOKS *props his English-made engine installed in American-built de Havilland Gipsy Moth. Note unusual direction of prop-turn.*

ORIGINAL PANEL *shows simplicity of design. Brooks has willed plane to Smithsonian Institution which expressed interest in obtaining it.*



PASSENGER SITS *forward as Brooks takes plane up from Shannon Airport, Fredericksburg, Va. Original paint was yellow and black.*

BROOKS VIEWS *a 50th Anniversary of Naval Aviation decal he's affixed to the engine cowling of his Moth. Wings can fold back for storage.*

FIVE DAYS a week, Bert B. Brooks, a mechanical engineer in Ordnance in the BuWeps Fleet Readiness Division, sits behind a battered darktop desk, pondering problems of vital importance to the nation's defense. On the sixth and seventh days, he is free to rest. His idea of resting is refurbishing and flying a vintage aircraft, a de Havilland *Gipsy Moth* originally built in 1929.

"The Navy had one of these at one time," he said. "They used it for training." A search through available historical records proves this statement true. It was received sometime in June 1927, used for training and aerial photography and was transferred to London for use by RAdm. W.A. Moffett, then in his second tour as BuAer Chief. It was stricken from the Navy list in May 1933.

Bert Brooks bought his plane in 1957. He found it in Des-Plaines, Ill. Two brothers had restored it after it had lain in storage for 15 years. Of the 6000 *Moths* made, this is the last of the American-built still flying.

The first time he flew in any craft was in 1930 when he completed building a homemade glider. He got aloft with the aid of a car, and has since logged over 200 glider flights. In 1933, he decided to try motor-driven aircraft and "got checked out" in an Aeronca C-3, soloing that year at Congressional Airport near Rockville, Md., no longer in existence. He now holds FAA Commercial Glider Pilot's and Private Pilot's licenses. He also carries a rarely issued world-wide FAI license for soaring (No. 93).

"I got interested in this particular biplane when a youth," he said. "Lady Mary Heath, the famous English aviatrix, arrived at Bolling Field flying one of them during a good will tour. This plane was the latest thing in aircraft. I vowed if I ever bought a plane, it would be a *Moth*."

It took him nine hours, ten minutes flying time in a two-day period to transport it from Des Plaines, Ill., to Falls Church, Va. He flew only in the daylight hours, for the plane has neither lights nor radio. "It's got the simplest check-off list I've ever seen. 'Power on, power off'."

The fuel tank holds 23 gallons of gas. Weight of the plane, empty, is 1089 lbs; it has a useful load of 561 lbs., and a baggage limitation of 36 lbs. The plane stalls at 40 mph, cruises at 75, and has a top of 90. It has a service ceiling of 14,000 feet, but he flies it between 1000 and 6000. Geoffrey de Havilland who designed it, pushed it to a record altitude of 21,000.

When his house was built in Falls Church, Brooks had it so constructed that he could put a dismantled plane in the cellar. This winter, he intends to take the *Moth* home to install a new set of wing slots and an instrument panel.

Swiped From Another Page

THE BLUE ANGELS fly a bit differently than Gramps would allow. The following "bits of inside dope" were gleaned by NANEWS during a recent short tour with the *Angels*, 1961 version:

They fly without pressure (G) suits. (Gramps murders others for less.) High speeds, and a range of from plus-six-and-a-half G's to minus three G's during the show, would indicate a need for pressure suits. The *Blues*' explanation: "We use our legs for a fulcrum for the arm, because we can make very small corrections that way on the stick, which is a couple of inches shorter than the standard stick; a pressure suit would interfere because of the constantly changing pressure. So we don't use the G suit." (The *Blues* use only their dazzling flight overalls in traditional blue and gold.)

They fly in low-cut oxford shoes. Gramps sez "Yipes" when he hears this. The *Blues* explain: "The flight boot is too uncomfortable for the length of the show. We fly with the rudders set all the way back, and we're hunched down with knees almost in our faces, to get the best cockpit attitude for the quick responses we need." (Note: The *Blues* use the flight boots on cross-country trips when the travelling is more relaxed.)

They fly the F11F with full nose-down trim. Listen, Gramps, to this explanation by one of the team: "When I first reported and heard about the nose-down trim, I was convinced one just shouldn't fly that way. My arm about fell off for the first few hops. Now (after two years) I have a new muscle bulge on my forearm, but I'm convinced the full nose-down trim gives us a better feel of the aircraft during maneuvers."

When asked about combatting G forces without a suit, the *Blues* state flatly that they are "so tense" that their natural recuperative powers take care of them. "We're not 'clutched' —just very tense all the way through." (Flight surgeons have always advocated tensing of the body and letting out a yell as a means of fighting blackout.)

The *Blues* are as relaxed out of the air as they are tense during the shows. With a Fiftieth Anniversary Year total of around 80 demonstrations during almost 300 days away from their home base, NAS PENSACOLA, they have averaged four personal appearances and public relations functions per show, a total of over 300 appearances in front of TV-radio, civic groups, hospitals, and school groups to publicize Naval Aviation.

Those bulging forearms come in handy when it comes to signing hundreds of autographs after a show.

As might be suspected, Gramps got wind of the "inside dope" published here. He comments:

I catch any fighter jocks tryin' this all-tensed-up, no G-suit, low cut shoes, all-outa-trim routine, Ol' Gramps is gonna recommend we shut off their JP-5 at the pump. I been followin' the *Blues* to air shows since they put on their demo in F8F's and used to chop up each other's ailerons with those big Aero props. Like about 99,-900 other sea-goin' types with wings, I've wished I could be a member of the *Angels* team but never could hack it. For them . . . O. K. with reservations on these shenanigans . . . but for anybody else . . . No Siree! Most of our present day fighters would tear your arm out at the neck line just tryin' to keep her in level flight with full nose down trim. As for trying to pull out of a dive—Whew! You'd buy the farm!

The *Blues* are puttin' out a little inside dope, but I notice they aren't passing out the "tricks of the trade." It's better not to try these gimmicks without the hot poop on the whole routine.

If EVERYBODY put as much thought into their flying as the *Blue Angels* do, I could retire and be the only jet-qualified fishern an in the area.

NATOPS Experiment Made

VT-26 Contributes to the Program

If a recent squadron-inaugurated program is successful, Cdr. C.B. Tanner, commanding VT-26, Chase Field, believes it will contribute considerably to the Naval Air Training and Operating Procedures Standardization program (NATOPS).

The squadron has begun a check-out program in the F11F to familiarize VT-24 and VT-25 standardization officers with the formation and tactical flying concepts taught in VT-26.

The check-out consists of a three-day NATOPS course during which the various aircraft systems are explained. This is followed by four flights in the Operational Flight Trainer where normal and emergency flight procedures are learned. The student aviator goes through the same program after he checks into VT-26.

Capt. C.D. Warfield of VT-25 is the first instructor to complete the program. He has over 2400 hours in various jet aircraft now operating.

ON A SEAT *of all meridians, Pfc. John C. Boyd of Station Operation Engineering Squadron, Cherry Point, points out he is on top of the world, leaving no latitude for doubt. He graduated 1st in Aerial Navigation School.*

VADM. PIRIE AND ADM. BURKE PRESENT MRS. ELLYSON A TROPHY

CAPT. COLGAN VIEWS A MODEL SBD DAUNTLESS GIVEN HIS STAFF

ANNIVERSARY PROJECT STAFF SUMS UP YEAR

"WE WERE NOT JUST trying to look back," said Capt. Edward G. Colgan, heading a five-man project staff celebrating the Fiftieth Anniversary of Naval Aviation. "We didn't dwell on that. We tried to emphasize the fact that Naval Aviation is a potent force in being and that it will continue to be. The first 50 years do not close the book. They are only the first chapter. There are many more to be written."

Navywide recognition of the anniversary started in 1958 when DCNO (Air) expressed interest in an appropriate celebration. In June 1959, a Secretary of the Navy Instruction designated the entire calendar year of 1961 as a commemorative period for celebrating the Golden Anniversary. A year later, an amplifying instruction signed by the Chief of Naval Operations established a project organization to plan for and direct the observances.

Late in 1960, Capt. Colgan was assigned as project director and selected four other officers to comprise the staff. "The officers I chose were either recommended to me or were already known by me." Others on the project staff are Cdr. Walter Aymond, Cdr. Edward P. Stafford, LCdr. John D. Rule, and LCdr. John F. Dawson.

The celebration started off auspiciously with the display of a large banner proclaiming the Fiftieth Anniversary. It was mounted above the Bond Clothing store at Times Square on New Year's Eve. TV cameras were trained on it and it was telecast over the nation's networks.

"That was one of our real quick ideas," Capt. Colgan said. "Cdr. Ed Stafford thought of it, called me on it, and I thought it a good idea. This was just a few days before the end of the year. Many people contributed to the effort. Cdr. Stafford acted as liaison and coordinator.

"We also were fortunate on New Year's Day, which happened to fall on a Sunday. The comic strip Steve Canyon had an appropriate salute to Naval Aviation. It was quite well

ROCKETTES AT RADIO CITY MUSIC HALL CELEBRATE 50TH YEAR

STATIC DISPLAY HAS DIORAMAS OF NAVAL AVIATION EVENTS

done, naturally; Milt Caniff's pen is always graphic."

Throughout the year, the primary responsibility of the project staff was the over-all coordination of national, regional and local project programs. "I feel what was most important, was providing technical advice and serving as a central agency for the exchange and dissemination of ideas and materials among field projects," Capt. Colgan said.

He pointed out that if the individual commands had not shared the enthusiasm of the project staff, celebration of the Golden Year of the Golden Wings would have been limited to the city of Washington.

He cited the Azalea Festival at Norfolk as an example; it wound up being dedicated to the Fiftieth Anniversary. "The success we had at the Naval Aviators reunion at Pensacola was a Pensacola project, not ours," he said. "The San Diego observation in August was a joint San Diego-Navy-Institute of Aerospace Sciences endeavor."

Pensacola came up with the idea of a cross-country race between a World War II *Corsair* and a World War I *Nieuport*. The race originated in Los Angeles and terminated at Pensacola. But its course was a ragged, rugged one, weaving through the Plains States, and the Western States, swinging on down to the mid-south, stopping at areas where there were few Naval activities nearby. "This was an excellent means of providing individual cities a chance to participate in the celebration," Capt. Colgan said. "Their reception was reflected heavily in the local press. Full front pages were devoted to the race and the observance of the anniversary. It was the only way we could have hit these cities."

CHUTING STAR JUMPS AT NAVY AIR SHOW

But many projects were originated by the staff. The Naval Aviators' Ball in Washington "was tremendously successful." The Navy League Convention and Symposium here in May was also a prime project.

The staff also coordinated the acquisition and showing of an impressive static display. Fourteen civilian concerns donated money to absorb the cost of the 12-panel display. "It has appeared before an estimated 2½ million people in an eight-month period," said Capt. Colgan. It has been shown from coast to coast, from border to border. At the end of the anniversary year, it will be given to the Navy's Exhibit Center and will be available, with minor changes, for years to come.

On 20 August, a commemorative stamp was issued by the U.S. Post Office. On the first day of sale, some 600,000 stamps were sold, of the initial authorization of one hundred million. "This was rather unusual," said Capt. Colgan, "for it was Sunday and there were very few post offices open for the sale of the stamp." San Diego was selected to be the cancellation city, coinciding with the dedication of Halsey Field at North Island.

Private industry was eager to participate. Working through the project staff to insure appropriateness of commemorative items, dealers produced lighters, book matches, decals, ash trays, and a number of other products publicizing the anniversary.

Included among these was a commemorative medallion. A limited number, 5000, were struck in silver, selling for $30 each, and an unlimited number were made of bronze, selling for $4 each. Dealers anticipated sale of 75,000 of the bronze coins without effort. A single commemorative medallion was struck in gold and presented to President Kennedy. (Back cover of NANEWS, June 1961, carried the President's congratulatory letter.)

Capt. Colgan lauded the activities of the *Blue Angels* and the *Chuting Stars* at air shows throughout the year. He especially singled out the widow of Navy's first Naval Aviator, Mrs. T. G. Ellyson, for being "most generous of her time and attention" at functions during the year. "I am sure she'll be as sorry to see this Fiftieth Anniversary go by the board as am I," he said. ★ ★ ★

THOUSANDS OF SPECTATORS THRILL TO AIR SHOWS STAGED THROUGHOUT U.S. TO CELEBRATE GOLDEN YEAR OF THE GOLDEN WINGS

AIRPAC'S BASE LOADING MIGRATION

C.O. OF LEMOORE, *Capt H.M. Avery, greets Cdr. O.L. Dauphin, C.O. of VA-125, in "City of Lemoore" after first jet landing at new NAS.*

VA-165 SET *a possible record on its migration from Cecil Field to Moffett. Squadron logged 142.6 hrs. on one-day, 12-plane flight.*

OPENING OF THE hundred-million dollar master jet base at Lemoore, Calif., triggered off a migration which brought a change of home base to over 35 fleet squadrons. Since many squadrons had to move anyway, with the opening of the new station, ComNavAirPac, VAdm. Clarence E. Ekstrom, took advantage of the occasion to implement the "weapons systems base loading concept" in his command.

Under this plan, all squadrons operating a fleet type aircraft will be concentrated on an air station specializing in its support. All jet light attack squadrons will be at Lemoore, S2F's at North Island, fighters at Miramar and AD's at Moffett. Before the big move, all ASW helicopters were already concentrated at Ream Field, and all A3D's at Whidbey Island.

The migration started a few days before the official commissioning of NAS LEMOORE on 8 July. VF-124, the FRU replacement squadron (RAG) started pulling up stakes at Moffett for the trip to Miramar on 5 July. Later that month, 24 July to be exact, VA-125, the VA jet RAG at Moffett, and VA-126 Det Alpha, the jet instrument unit at Moffett, led off the move to Lemoore. Cdr. O.L. Dauphin, C.O. of VA-125, made the first landing at Lemoore in his A4D, coincidentally named "City of Lemoore."

The squadrons arriving at Lemoore found the new base, which is located 35 miles south southwest of Fresno in the San Joaquin Valley, the ultimate in air station "modern design." The station is laid out for maximum flight hours per taxi mile and minimum noise disturbance of people on the ground.

The operations area of the base is an "island" nestled between the ends of the two staggered parallel 13,500-foot runways. With this arrangement departing planes are on the end of the take-off runway as soon as they leave the line area.

On completion of land roll-out, they

VA-126 DET A *advance party at Lemoore. Det A will provide instrument training for all squadrons at the jet attack base.*

SQUADRONS *moving into Lemoore found facilities of most modern design. Note lack of internal support posts in 800+ ft. long hangar.*

'QUIET ONES' *are welcomed aboard Moffett with red carpet and symbolic keys.*

'TAKE ROUTE 66' *says CAG-16, Cdr. W.H. Shawcross (r), as he points out to Cdr. L.W. Moffit (l), VA-164 C.O., and Cdr. D.W. Marshall, Jr., VA-163 C.O., route followed on migration flight.*

will be at the turn-off to the high-speed fuel pits and the line area.

Great care has been taken to make sure that the jet noise will not disturb close neighbors. The 30,000+ acre reservation is surrounded by an area zoned as a "green belt" giving a total protected area of approximately 50 square miles.

Base people who do not have to be in the operating area are also protected from the noise. The administrative barracks area is located five miles from the operating island down a 55-mph highway. Two miles farther down the road is the housing area with its 800 units now occupied and 500 more under construction.

Squadrons report Lemoore has "great potential," though of course they had the usual problems of those whose lot it is to make the "shake-down" of a new base.

In addition to the RAG squadron and jet instrument unit, Lemoore is now home port to 15 jet attack squadrons and the commanders of Carrier Air Groups 9, 15, 19 and 21.

The base-loading shuffle has ushered have left Miramar, Alameda and Moffett; however, many will not report to Lemoore until they complete current deployments to WestPac.

The base loading shuffle has ushered in a new phase in the many-chaptered life of Moffett Field. The station started in the Thirties as a dirigible base. It served in turn blimps, prop air groups and lived through 13 years of the jet age. Now it is enjoying relief from the after-burner thunder as the home of the relatively sedate "Able Dogs." It is now the homeport of VA-122, the AD RAG which moved from North Island, and all West Coast AD squadrons.

Among the new arrivals at Moffett was VA-165 of Air Group 16, which was transferred from Cecil Field to AirPac. The squadron made the move on 8 September with a transcontinental flight broken only by one refueling stop in Texas. Unless it bears proof of a better performance by a carrier squadron, VA-165 is claiming the 142.6 hours it flew that day as a record.

The relative serenity of Moffett contrasts sharply with the roar of Miramar's brood of *Crusaders*, *Demons* and *Phantom II*'s. The San Diego field has now become the night fighter base of the West Coast. The decibel level is said to rise with the setting of the sun.

Some of the other moves found VS Squadrons 23, 25, 35 and 37 going from NAS Los Alamitos to North Island and VAW-13 moving from NAS Agana, Guam, to Alameda.

The boom the movers and realtors enjoyed during the summer of '61 promises to be short-lived. One of the advantages of the base-loading scheme is that it will eliminate many moves, particularly those from the RAG to the squadron's home port.

In fact, moving around will be cut so much that the first year savings on per diem and moving costs are expected to almost equal the cost of implementing the base loading system—after allowance is made for moves which had to be made anyway with the opening of Lemoore. Future savings are estimated at about a million and a half dollars a year.

Percentage-wise, the most spectacular savings will be in the cost of technical representatives assigned by aircraft companies. With all planes of a type on the same station, tech rep requirements will be cut 70%.

Families are particularly happy with the cut in moves since it makes it easier to stay together and eases the strain on family budgets too.

Probably the biggest benefit from the base-loading system will be better use of special tools, test equipment and ground support equipment. Under the base-loading system, this expensive gear—and the technical know-how to operate and maintain it—will be concentrated where it can do the most good.

Base loading will not only give better support because of the advantages of having each base specialize in supporting a few types of planes, it will also result in better use of facilities through maintaining a more nearly level load of squadrons being supported by an air station. Under the old system, the load on a base might vary from "very light," when all the groups were out, to "overwhelming" when all groups were on the beach.

NANEWS INDEX JANUARY THROUGH DECEMBER 1961

IT'S WHAM AND SPLASH *as Mrs. Peggy Rayner, wife of M.R. Rayner, AC1, christens —ship style—new GCA unit at Naval Station Midway. Cdr. D.D. Mott, station skipper, and GCA team's dependents, witness the ceremony.*

VT-1 Wins Safety Pennant

Flies Over 50,000 Safe Hours

Training Squadron One, commanded by Cdr. M. H. Richey, won the CNABATRA Safety Pennant for the first quarter of fiscal year 1962. In that period, the squadron flew in excess of 24,000 hours during which 88,346 landings were recorded. VT-1 is the second squadron of the Pensacola Basic Training Command to fly over 50,000 accident-free hours.

UNSUSPECTING, *LCol. C.E. Woody of the Virginia Army National Guard nosed his single-engine Beaver into the approach path at NAS Oceana, touched down effortlessly, and taxied to a ten-day stop for official business at Norfolk. When he returned to the field for his aircraft and a flight to his home base (Sandston, Va.), his Army Beaver had undergone a transformation. For a view of his arriving aircraft (right) and NAS Oceana's operations officer's gleeful paint job, (left), see photos above. LCol. Woody viewed the cumshaw (Chinese pidgin English for gift) paint job "cum bona venia" (Latin: with good favor) and a considerably large "cum grano salis" (Latin, for a grain of salt).*

LETTERS

SIRS:

In the October issue of NAN EWS it was noticed that HS-4 has claimed a new record for helicopter flight hours. We in HS-9 would like to extend our congratulations to HS-4 for their excellent try. I am afraid that they are a day late and a dollar short. During the 24-hour period of HS-9's ORI on the USS *Essex*, our squadron's helos flew 46 sorties for a total of 107.1 day and night hours. We make no claims to record flight hours in this case for we soon expect to exceed this.

S. P. HILLS
C.O. of HS-9

SIRS:

HS-4 has flown what it believes to be a record for HS squadrons. During around record for HS squadrons. During around-the-clock flight operations in September, HS-4 flew 192.3 hours in a 20-hour period.

A.A. MONAHAN
HS-4

¶ Editor's note: The above two letters arrived almost at the same time. Records are made to be broken, of course, but the editor (and Gramps) shudder to think this may start an unending Atlantic vs. Pacific struggle for top flight hour record.

SIRS:

As the aviation safety officer of a squadron and station that is justifiably proud of having won the CNO Aviation Safety Award (Special Award) for two consecutive years, I was deeply disappointed that we at HT-8, Ellyson Field, had been omitted from the list of award winners on page 6 of your October issue.

W.G. CARTER, MAJ., USMC

¶ Naval Aviation News regrets that the release which was used as source omitted HT-8. We extend our belated congratulations to HT-8 on the special award.

SIRS:

Being an avid reader of your fine publication, I really had to smile when I saw the picture on page 30 of your October 1961 Naval Aviation News. This was the final group photo of the Willow Grove Aircraft Modification Unit prior to decommissioning.

We in the Air Force have a saying that 10 per cent never get the word. Possibly the percentage is higher in the Navy, as witness the big letters on the building in the photo saying "Beware the Propellers." Those two big fans churning behind the group in the photo leads me to believe that the meaning of PAR should be changed from Progressive Aircraft Rework to Posterior Anatomy Rework.

MEMO TO GRIEVING GRAMPS: SORRY!

All it would take would be one slip of the chocks and/or brakes.

WESLEY D. KIMBALL, MAJ., USAF
USAF Academy, Colo.

SIRS:

I call your attention to the picture on page 30 in your October 1961 issue. Apparently, the recently deactivated A/C MOD Unit at Willow Grove did not believe in signs, namely, "Beware of Propellers." It made a very impressive picture with the S2F (both fans turning) used as background.

No doubt everything turned out O.K., but it seems to me it was an accident waiting to happen. It could have made hamburger out of approximately ⅓ of the MOD Unit crew had the S2F brakes failed or the chocks slipped.

The only individual who made certain nothing was going to happen to him . . . was the sixth man from the left in the back row. I'm surprised Gramps didn't pick this one up. It would have made "ripe plucking" for him.

J.J. JACHIMOWICS, CDR.
NAS OLATHE, KANSAS

SIRS:

With reference to your article, "A-1 Replica in Flight," pp. 20-23, Sep. 1961, it is regretted that no mention has been made of the early creditable work by Mr. Fitzhugh Ellison, formerly of the Bureau of Aeronautics. During the period April to June 1959, Mr. Ellison accompanied me to Buffalo, N.Y., and assisted me by making a large number of detail sketches and photos of the Engle-Curtiss seaplane. Upon return to the Bureau, under my direction, he made a fine three-view general arrangement drawing of the A-1 with appropriate dimensions and data.

I wish to give proper credit and my appreciation to Mr. Ellison for his fine work and devotion to the A-1 projects at that time.

A. V. Verville
BuWeps A-1 Tech. Advisor

SIRS:

On 7 September 1961, Attack Squadron 165 flew AD-6's from NAS JACKSONVILLE, Fla., to NAS MOFFETT FIELD, Calif., compiling a total of 142.6 hours in one day. The whole trip, including a fuel stop in Dallas, Texas, took only 14 hours.

The squadron believes this a flight time record for a single-engine, non-combat squadron. We would like to know the last time, if any, a squadron flew combat ready from one coast to another in one day. All planes were in an up status on landing.

JOHN E. FORD, CDR.
Commanding Officer, VA-165

■ PICTURE CREDITS

Naval Aviation News is indebted to Frank Kazukaitis, PHC, for his photographic coverage of the de Havilland *Gipsy Moth* story which appears on page 32 of this issue.

NEARBY RESIDENTS *applaud the results of the reconstruction of Aircraft Power Check Facilities at MCAS Kaneohe. An A4D Skyhawk's blast and noise are diverted upward and out to sea by the changes made in the test facility.*

New Computers Installed

Data Delivery Five Times Faster

Fifty thousand transistors in a unit two-thirds the size of its predecessor now process 1.5 million bits of information per second at Pacific Missile Range headquarters at Point Mugu and at the Naval Missile Facility at Point Arguello. This is five times faster than was possible previously.

Identified as IBM 7090's, the Point Mugu computer reduces data on missile tests, such as the Navy's *Sparrow* and *Bullpup*, on flight safety programming for ground-launched missiles, on direct performance readout of in-flight vehicles, and on the establishment of a basic program for the Navy's navigational *Transit* satellites.

The Point Arguello unit is programmed for flight safety and impact prediction of missile and space vehicles launched from the Naval Missile Facility and from nearby Vandenberg Air Force Base.

In 2.18 millionths of a second, the 7090 can locate and make ready for use any of 32,768 words of data of ten decimal digits each. In one second, the unit can do 229,000 additions or subtractions, 39,500 multiplications, or 32,700 divisions.

In a typical flight safety role, the 7090 gets tracking data input from several sources and determines missile heading and flight trajectory. This information is automatically compared with pre-launch information to determine whether the missile is performing as expected. The unit can order the missile destroyed if its flight will endanger lives or property.

The 7090 can also be used in the navigational satellite system and in weather forecasting over 5000-miles.

NAVAL AVIATION'S TOP SALESMEN

Prime salesmen of Naval Aviation are the Blue Angels of any year. The 1961 team members flew in 80 demonstrations, presented their 'product' to more than 5,000,000 persons around the country. Clockwise from the top are Cdr. Zebulon Knott, flight leader; Capt. Doug McCaughey, USMC; Lt. Dan Macintyre, Lt. Lew Chatham, Lt. Bill Rennie. In center is LCdr. Ken Wallace, newly-designated flight leader for next season. (See pp. 17-23 and 'Swiped from Another Page,' p. 33.)

NAVAL AVIATION

NEWS