NAVAL AVIATION NEWS

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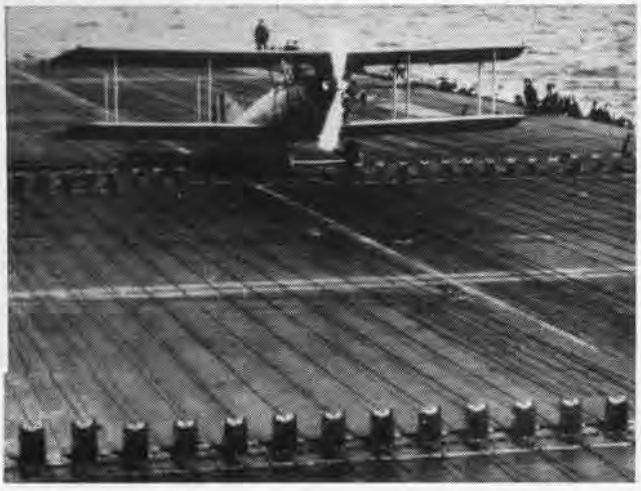
'SARA' WITH LANGLEY AND LEXINGTON WERE OUR FIRST CARRIERS

SARATOGA HAS BEEN PROUD NAVY NAME SINCE THE WAR OF 1812

1928 SARATOGA 1958

Three decades ago, the first airplane to land on the flight deck of the then-new USS Saratoga (CV-3) was piloted by LCdr. Marc A. Mitscher. The landing was made on January 11, 1928. The pilot became a famous admiral in command of fast carrier task forces in the Pacific in World War II, and the Saratoga was one of his ships. To take the place of the old Saratoga, there is now the mighty CVA-60. But the symbol is the same—the traditional 'Fighting Cock.'

FIRST AIRPLANE TO LAND ON CV-3 WAS A CHANCE VOUGHT O2U



JET-POWERED A3D SKYWARRIOR LANDS ABOARD THE SARATOGA

THEY FLY THE POLAR ICE CAP

DEEP FREEZE aviators have passed the three-quarter mark in Antarctic flight operations. In doing so, they have recorded the longest period of sustained flight ever made there by airmen of any nation.

Official records have been studied and individual crewmen have been interviewed to learn answers to the question: "What's it like to fly in Antarctica?"

The flight engineer on an R4D *Skytrain* which took off from the South Pole at 58 degrees below zero said, "It was hairy."

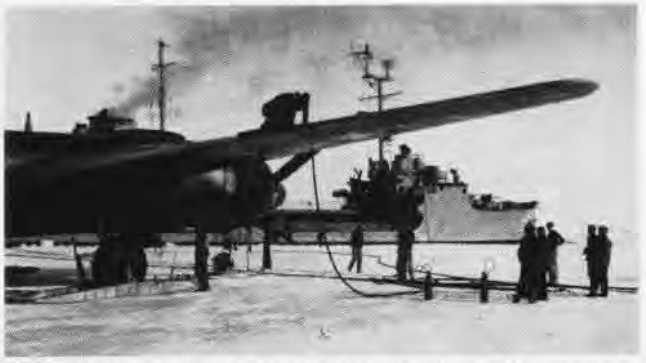
The pilot of a P2V *Neptune* which flew nearly 3500 miles nonstop across the continent and back on the longest flight made, said "It was monotonous; the flight lasted nearly 20 hours." For the photographers who captured on film some million and a half miles of previously unmapped territory, "It was productive."

Scientists, who were flown to remote interior stations, called the service "A magic carpet."

RAdm. George Dufek, Commander of Task Force 43, summarized the Naval Air operation thusly:

"It has been consistently new, experimental and exploratory.

"They (VX-6) have done a consistently fine job," he said.



SKI-RIGGED NEPTUNE FUELS DIRECTLY FROM TANKER NESPELEN

R4D SKYTRAIN IS FIRST PLANE TO LAND AT THE SOUTH POLE

USS STATEN ISLAND'S HELICOPTER OVER BERG IN WEDDELL SEA

HELICOPTER LEAVES ICEBREAKER TO MAKE ICE RECONNAISSANCE

AIR DEVELOPMENT Squadron Six was commissioned at NAS PATUXENT RIVER in January 1955 to "accomplish exploration, reconnaissance and logistic air support of Task Force 43 in support of American participation in the International Geophysical Year in the Antarctic."

Payloads flown in VX-6 planes during the first three years of operation have ranged from human beings to sled dogs, and from explosives to sunburn lotion.

Each plane assigned at the outset and those which have joined the fold since the squadron's commissioning have been configured for cold weather operations more carefully than a Minnesota mother dresses Junior on a winter day.

All but a few of the squadron's planes had served previous tours, some as long as a dozen years, but each job that has been given VX-6 to date has been completed—often without a hitch, but on occasion at great sacrifice.

Operation Deep Freeze One (1955-56)

To begin the operation, VX-6 was assigned 15 aircraft; two R5D *Skymasters*, two P2V-2N *Neptunes*, two R4D *Skytrains*, two UF-1 *Albatrosses*, four UC-1 *Otters* and three HO4S-3 helicopters. All but the R5D's were ski-rigged. It had been established that ski-planes could land and take off successfully on the snow and ice but whether the wheeled R5D's could operate there remained to be proved.

The *Otters* and helicopters were loaded aboard ships in East Coast ports for transportation to the Antarctic. While the ships traveled to New Zealand via the Panama Canal, the eight large aircraft were flown to New Zealand via Hawaii, the Canton Islands and Nandi, Fiji.

An icebreaker force penetrated the Ross Sea ice pack in December. Cdr. Gordon Ebbe, squadron commander, inspected the sea ice at McMurdo Sound and reported the ice was satisfactory for wheeled aircraft landings.

That message was the signal for departure of the surface ships in New Zealand. Some would take stations in the South Pacific Ocean while others were deployed in the ice pack to provide radio homing signals for the first flight of aircraft into Antarctica from an outside land mass. Aircraft were given a final check while the ships raced to their stations.

Eight planes blasted off with JATO December 20 for the flight south. With favorable winds, all could make the flight with safety, but if headwinds were encountered, the R4D's and UF's, heavily loaded, would have to turn back to New Zealand or ditch en route.

The R5D's and P2V's averaged 155 knots ground speed as the flight progressed, an indication that the predicted tail winds did not exist. The R4D's and UF's were making less than 115 knots. This meant headwinds, so the R4D's and UF's were ordered to turn back.

On arrival at McMurdo Sound, the *Neptunes* and *Skymasters* were vectored in by the icebreaker *Edisto*.

Plane crews had been led to expect austere living conditions on their arrival at McMurdo Sound. They were not disappointed. Some crews unloaded survival tents from their aircraft and pitched them on the ice, stacking blocks of ice around the bottom to keep out the wind. Others lived in their planes until the surface ships arrived.

An *Otter* plane had been unloaded from the *Glacier* for local flights when the icebreakers first arrived. Cdr. William M. Hawkes was taking off in the little plane with six passengers December 22 when he crashed on the ice.

LCdr. John H. Torbert, a *Neptune* pilot, received word of the crash at 1500 and made immediate preparations to evacuate the crash survivors.

All movable gear was removed from the nose well and after section of the P2V to make room for the injured. Torbert took off with what fuel remained in his tanks after the flight from New Zealand. He made radio contact with a weasel at the accident scene and received instructions, then landed and taxied toward the *Otter*.

Some survivors were so badly injured that the only possible loading procedure was to lift the stretchers into the after station through the tunnel hatch and over the auxiliary power unit into the extreme tail of the P2V.

No ships were present. *Edisto*, the nearest, had headed out to help escort the supply ships through the pack and was 300 miles to the north. Several attempts were made to call the *Edisto* or Radio Auckland for medical aid. Auckland answered, but could not read the voice transmission.

The takeoff from the ice, with metal skis bouncing over the rough surface, caused a 12-G accelerometer reading.

Transfer of fuel from the *Neptune* to a *Skymaster* took so much time that the squadron commander decided to land all planes alongside the tanker for subsequent refueling. The tanker was shifted to the opposite side of the channel to take advantage of smoother sea ice there.

Several familiarization flights were made so pilots could adapt themselves to the runway conditions. R5D pilots learned that the takeoff run from sea ice was approximately 1100 feet. Before each takeoff, the pilot would pace off 1500 feet on the ice and inspect the area for holes, cracks, snow drifts, seals, penguins or other taxi hazards. Any deficiencies in the ice were marked with a red flag and another flag placed 1100 feet further down the runway.

With gross takeoff weights in excess of 72,000 pounds, the R5D pilots fired a pair of JATO bottles at 50 knots

R5D SKYMASTER USES JATO TO BLAST OFF FROM SEA-ICE AIRSTRIP AT MCMURDO SOUND TO MAKE LONG RANGE EXPLORATORY FLIGHT

A *Skymaster* with less than 90 minutes fuel aboard was ordered to take off and transmit the message by CW. The *Skymaster* climbed to 10,000 feet and got a Roger from Radio Auckland. Auckland relayed the message to Radio Honolulu where it was broadcast to the *Edisto* in the ice pack. Two hours after the message was sent from the R5D, the *Edisto* had reversed course and was racing back to McMurdo Sound. The injured men, who had been flown to Hut Point, were then transferred to the *Edisto*.

When the surface ships reached McMurdo Sound December 30th. they moored to the edge of the sea ice some 50 miles from Hut Point while icebreakers began to open a channel to the unloading site. The tanker *Nespelen*, source of aviation gasoline required for the long-range flights, could not discharge fuel until the channel was opened.

Cdr. Ebbe ordered LCdr. Torbert to fly out to the *Nespelen* and take on enough fuel to bring the R5D's up to 1600 gallons each. Torbert encountered rough ice on landing and ripped the polyethylene coating from the *Neptune's* skis. He taxied to a point about 100 yards from the tanker's stern and took on 2000 gallons of fuel.

which increased their speed to 60 knots and allowed the nose wheel to lift. By then proper nose attitude was attained and the plane's speed reached 70 knots. The second and third pairs of JATO bottles were fired at three-second intervals, allowing the plane to fly off at 95 knots.

Beginning January 3, nine exploratory flights were made to seek out future base sites and to chart interior land masses never before seen by man. On several occasions, pilots encountered white-outs—a condition which resembles a heavy fog. A white-out is caused by sunlight penetrating a white cloud mass, reaching the snow, then bouncing back and forth between clouds and snow. It reduces visibility to zero and is conducive to vertigo.

A flight made by LCdr. J. W. Entrikin nearly resulted in tragedy. A thousand miles from base in unexplored territory, Entrikin made a routine position report. Minutes later, distress signals were picked up in the CIC room of the cargo ship *Wyandot*. The squadron commander ordered immediate plans made for search and rescue.

Entrikin's port engine was running rough. The engine analyzer indicated an arcing distributor and about 20

minutes later, power on the starboard engine dropped from 140 BMEP to 90 BMEP. The drop was accompanied by severe back-firing and erratic prop operation.

Entriken's crew jettisoned all equipment and gear not vital to survival as total engine failure appeared imminent. The ice cap altitude was 11,000 feet and single engine altitude maximum for a ski-rigged P2V is less than 6000 feet. Entriken continued operating the starboard engine until the prop created more drag than thrust, then feathered it. By then he had limped back to McMurdo.

Before the flights were completed, a dilemma arose. Icebreakers blasting toward Hut Point to open a channel for the cargo ships were fracturing the sea ice landing strip, yet three more long-range flights were necessary.

Admiral Dufek decided to launch three flights simultaneously, then evacuate the planes to New Zealand. All three flights were completed without incident. Within a week of the large aircraft's departure, the sea ice broke up and floated away from McMurdo Sound.

One of the *Otters*, which was left behind when the large planes took off for New Zealand, had been flying close support to a trail party bound from Little America into Marie Byrd Land. It was reported overdue at Little America February 3 with seven men aboard.

Several attempts were made to fly the two *Otters* from McMurdo Sound to Little America to search for the missing plane but each flight was aborted by weather. LCdr. Torbert, by then back at Patuxent River, received permission to return to the Antarctic via South America in his P2V to take part in the search. En route, he crashed into a jungle clearing in Venezuela when both engines failed within minutes of each other. His crew survived.

Finally an *Otter* was ferried from McMurdo Sound aboard an icebreaker to take part in the search. The missing plane was found February 9 and its crew rescued.

Between Deep Freeze One and Two, Air Development Squadron Six was transferred from NAS PATUXENT RIVER to NAS QUONSET POINT. Capt. Douglas L. Cordiner, former Task Force operations officer, assumed command.

Operation Deep Freeze Two, 1956-57

LARGER CABIN tanks were installed in the R4D's to increase their range. Two new P2V-7's were ordered but did not arrive in time to fly in with the squadron.

An R5D landed at McMurdo Sound October 16 with RAdm. Dufek aboard. Five other Navy planes arrived a day later, but blizzard weather moved in before any of the planes landed. Lt. David Carey, first to arrive in his P2V, made the first GCA in Antarctic history. He spotted the obscured runway just abeam, made a pull-up and a low visibility approach. Because of impaired depth perception and poor visibility encountered while flying between clouds and snow-covered surface as he circled the ice strip, his wingtip raked the ice and the *Neptune* cartwheeled. Four died as the plane disintegrated on impact with the ice.

Eight Air Force *Globemasters* began flights from New Zealand to McMurdo Sound October 20. The first three *Globemasters* to arrive delivered as part of their cargo three *Otters* with wings and tail assembly removed for ultimate use on trail and tractor train resupply. Aircraft were checked and the second assault was underway.

In preparation for air operations to the South Pole, an R4D landed a party of men under Michael Baronick, AOC, at the foot of Liv Glacier to establish a camp. The purpose of this camp was to provide radio homing signals, weather reports and fuel for polar flights by ski planes.

The initial occupation of the South Pole by Americans lasted 49 minutes on the evening of October 31, when LCdr. Conrad S. Shinn landed his R4D on the 9200-foot plateau. The party of seven stayed just long enough to plant radar reflectors for future landings and an American flag before the takeoff was attempted. The temperature was 58° below zero when Shinn turned his engines up to taxi, but when he applied full power he was unable to break the "stickdown," a condition where the skis freeze to the snow surface. He again applied full power, fired four bottles of JATO and followed this with four more before the aircraft broke free. As the plane jogged sluggishly forward he fired a third bank at JATO. He hit the final three bottles and was airborne at 60 knots.

The task force commander decided to wait until the temperature improved at the Pole before landing construction men there. Consequently, emphasis was shifted to Little America where a trail party was about to head into Marie Byrd Land to blaze a trail for tractor operations.

R4D's flew many missions, plotting the least crevassed route to the site of Byrd Station. Some 211,000 square miles of ice were scanned from the air.

With warmer temperatures prevailing, three R4D's resumed the Pole assault November 19. They flew builders,

GRASSHOPPER AUTOMATIC WEATHER STATION IS LOADED IN R5D

THEY WERE FIRST AMERICANS TO SET FOOT ON THE SOUTH POLE

LCDR R. E. GRAHAM WITH YEAR-OLD BEARD

DR. PAUL SIPLE EMBARKS FOR THE POLE

RADM. GEORGE DUFEK AT LITTLE AMERICA

AIRCRAFT MAINTENANCE IN WINTER NIGHT

CRATED OTTER IS DUG OUT OF THE SNOW

ENGINE SHOWS EFFECTS OF BLOWING SNOW

HELICOPTER CREW JOINS TRAIL PARTY IN BATTLING CREVASSES

OTTER WING IS INSTALLED THE HARD WAY AT MCMURDO SOUND

sled dogs, survival equipment and camping material. As soon as a temporary camp was established, the *Globemasters* began air-dropping heavy loads of cargo to build the base while R4D's of VX-6 landed men and fragile cargo.

The P2V-7's arrived in December and January but were plagued with ski troubles. They made several cargo flights to the Pole before they were evacuated in January.

Airdrops at the Pole continued until the middle of December when weather as warm as plus 40 degrees at McMurdo caused the ice runway to deteriorate. When holes appeared in the ice, endangering wheeled aircraft, the *Globemasters* and R5D's were evacuated to New Zealand. The C-124's had dropped 400 tons of cargo at the Pole and 39 tons of fuel on the Byrd Station trail but their job was not finished.

Meanwhile, VX-6 planes began to shuttle non-droppable cargo and 13 tons of food to the Pole in case further C-124 operations could not be conducted. The ski planes exchanged scientists for construction crews and then began flying food and men to Byrd Station.

The airstrip at McMurdo Sound was declared safe to receive *Globemasters* February 9. The big planes had flown 35 missions to the Pole and Byrd Stations by February 24, enough to complete both camps. The last flight to the Pole by R4D was made February 12, then Liv Glacier Camp, the mid-way refueling outpost, was evacuated.

A second tractor train left Little America for Byrd Station January 28. Like its predecessor, the train required support by the ski planes until late February. Air support included landing beside the train whenever the tractors were stopped, and the laying of fuel caches.

The final mission flown during *Deep Freeze Two* was the

establishment of fuel caches along the Byrd Station trail for use by tractor trains the next season. All the R4D's, two *Otters* and a helicopter were pressed into service.

LCdr. Harvey Speed and Lt. Robert G. Anderson, R4D pilots in the wintering party at Little America, learned how raw the Antarctic can get. Lt. Anderson described a moonlight "high noon" familiarization flight from Kiel Field, Little America Five, like this:

"We arrived at the strip and found the wings frosted. While the wings were being scraped, Herman Nelson heaters were used to pre-heat the engines. We knew after several hours that the engines were warm enough to start, but, often as not after starting, the gauge in the cockpit showed no pressure because oil froze in the line between the engine and the gauge.

"Snow blew through the tiniest openings into the cabin, fuselage and wings, so we had to check carefully to be sure it was removed before we attempted a takeoff.

"In spite of all precautions, we had a heavily frosted windshield during the first few minutes of flight but by the time we climbed 1000 feet the temperature rose 20 degrees and the frost disappeared. The runway was marked by flarepots which were very effective."

When the sun returned in August the R4D pilots were ordered to fly men and supplies from McMurdo Sound to build a camp near the Beardmore Glacier before October 1.

AIRCREWMEN ARE SERENADED IN BUNKROOM AT MCMURDO SOUND

During a JATO takeoff in an R4D-5 loaded to 34,500 pounds in September 1957, LCdr. Speed experienced the loss of the port engine while only 20 feet in the air. The aircraft rolled violently to the left and the port wing dug into the snow. As he applied full available aileron and began to retard the throttles to level the aircraft, the port engine caught again, throwing the aircraft to the right and causing the starboard wing-tip and aileron to be damaged by contact with the ice.

Observers on the airstrip watched horrified as Speed fought desperately to keep the aircraft under control.

Since the ice surface directly ahead precluded a landing without demolishing the aircraft, the pilot elected to attempt a return to the field. With the outer six feet of the port wing-tip broken and the starboard wing considerally damaged, LCdr. Speed managed to level the aircraft and return to the ski runway for a safe landing.

Operation Deep Freeze Three, 1957-58

CDR. VERNON J. Coley, Jr., assumed command of the squadron between deployments. Lockheed solved the ski problems in the P2V-7's and delivered two new ones, giving a total of four P2V-7's. Two new ski-equipped R4D-8's were assigned along with three new HUS-1A helicopters. The squadron left Quonset September 4. The first fly-in to McMurdo, consisting of one P2V-7, one R4D, and one R5D, landed at McMurdo Sound October 1, and others arrived by the middle of the month. Immediately on arrival, these aircraft were readied for flight and commenced logistics airlift to other Antarctic bases. *Globemasters* landed in mid-October to begin cargo drops at Byrd Station and the Pole.

Operations became more complex during the third season. Scientists who had wintered were ready for evacuation and their reliefs were anxious to reach their destinations. A tractor train had left Little America for Byrd Station at first dawn and traverse parties were fanning out in all directions. All were clamoring for air support.

On the first flight to the Pole, Cdr. Coley's *Neptune* was stranded temporarily when, after a normal 20-30 minute run-up prior to departure, he suddenly encountered abnormally high cylinder head and oil temperatures. An investigation showed foreign matter in the oil, which necessitated an engine change. Another P2V-7 struck a radar reflector at Little America and was temporarily down for propeller repairs. In the same period, an R4D flown by LCdr. Speed out of Little America lost an engine in flight and was forced down on the Ross Ice Shelf.

An R4D-8, being flown to the pole by Cdr. Edward J. Frankiewicz, lost an engine while two-thirds of the way up the Beardmore Glacier and was forced to jettison part of its cargo and tools required for the engine change on the P2V. The aircraft limped into Liv station.

Problems continued to mount as the helicopter at Little America was found to require an engine change, and the P2V piloted by Lt. Robert L. Bolling that had previously had the damaged prop experienced a blown cylinder which developed into an engine fire four minutes after departure from McMurdo for the Pole. Thus five aircraft required engine changes simultaneously, three at outlying locations

BARBER MOVES HIS SHOP TO CUSTOMERS ON A WARM SUMMER DAY

CLOSE SUPPORT RENDERED TRAIL PARTIES AND TRACTOR TRAINS IS DEMONSTRATED BY THIS HELICOPTER HOVERING OVER TRAIN

where no facilities were available for aircraft repair and, at best, living conditions were extremely austere.

But maintenance crews rolled with each punch and the planes were returned to service in record time. Sometimes it meant using a 37-ton tractor to hoist a new engine into an R4D, other times it meant flying a new *Neptune* engine to the South Pole for installation after first flying in with a disassembled "cherry picker" to handle the engine.

All was not trouble and strife. By mid-November three of the aircraft had been returned to service and one week later the fourth, the P2V at the Pole, was ready for flight. This left only the P2V, which had encountered the engine fire, out of commission for lack of parts.

One afternoon, Little America was informed by radio that a scientist had fallen 60 feet into a crevasse at Roosevelt Island. His condition was described as critical. The traverse party leader warned that the patient was in the middle of a crevasse field and advised against an aircraft landing because the visibility was poor and a landing in the area would be extremely hazardous.

Despite this warning LCdr. James E. Waldron and Lt. Harvey E. Gardner took off from Little America in an *Otter*. When they reached the scene, visibility was such that Waldron could not see anything smaller than the outlines of men, vehicles and the dark streaks which meant crevasses. He told the traverse leader to have his men form a straight line beside the tracks made by the party's equipment, which was considered the safest landing area. Then using the men as markers, he landed the Otter, picked up the injured scientist and rushed him to Little America.

A different but equally dramatic rescue mission was flown by LCdr. Ray Hall in an R4D-5 in January. LCdr. Shinn, in an R4D-8 enroute from Byrd to the Pole, had made a precautionary landing on the Hollick-Kenyon Plateau, 300 miles from Byrd Station and 540 miles from Little America during which he experienced mechanical failure and collapse of the port landing gear.

On hearing of this accident at Little America, Hall loaded four air bags, two Herman Nelson heaters, two pneumatic jacks, an air compressor, new landing gear, hydraulic fluid, oil, timers, 400 pounds of other gear and five mechanics into an R4D-5. He landed beside Shinn's plane 13.5 hours after the distress report was filed. Air bags were filled to raise the plane high enough to install the new landing gear and the crippled plane was again airborne in twenty hours! The crew's "home" during the repair consisted of an igloo of snow blocks and the survival gear carried on the aircraft.

A long-range helicopter flight had been planned and executed in the training stage during the previous summer and the opportunity now had arrived to duplicate it under Antarctic conditions. LCdr. Kenneth Snyder, pilot, and Ltjg. Murray Wright, co-pilot, with plane captain R. E. Wallace, AD2, flew the 410 nautical mile trip from Little America to McMurdo Sound to set a new helicopter distance record in the Antarctic.

Another 'first' was established when Cdr. Coley piloted an *Otter* to the first wheeled aircraft landing on a land strip in Antarctica (Marble Point near McMurdo Sound). Adm. Dufek and Sir Edmund Hillary were passengers.

Throughout the course of the summer season, all missions were completed despite handicaps and hazards of Antarctic flying. During this period the squadron piled up 3,379.6 hours of flight; carried 2,778 passengers; flew 13,555,280 cargo-ton miles and photographed 638,274 square miles of the continent. Having fulfilled all missions and tasks assigned, the summer support group was released February 1 to return to its home base. Detachments were left at McMurdo Sound, Little America Five and Ellsworth Station on the Weddell Sea.

VX-6 has advanced polar flight knowledge to a fine art in its operations to date, especially in the areas of aircraft endurance, maintenance, polar navigation, and the technique of supporting surface parties on the icecap.

But an observation voiced by Cdr. Coley provides a somber note of caution to future Antarctic fliers:

"We know more about the Antarctic and the operational hazards there, so we fear it less; but respect it more."

GRAMPAW PETTIBONE

All Ahead Blind

The pilot of an AD-5, having previously test-hopped and accepted his *Skyraider* following its overhaul at a West Coast air station, filed an instrument flight plan for the first leg of his flight to deliver the aircraft to his home base back east. Weather conditions at the time of filing were ceiling zero, visibility one-eighth mile in fog, wind calm, but pilot and passenger were unimpressed.

At 0838 PST the pilot received taxi instructions to runway 31 and proceeded from the ferry line. En route to the duty runway the pilot made a wrong turn and the tower operator issued supplementary taxi instructions before the AD-5 faded into the fog.

Because of reduced visibility, the actual takeoff could not be observed from the tower, but the sound of the plane was heard and a normal takeoff was assumed accomplished at 0847.

Some 43 minutes later the coxwain of a crash boat, which had been sent out to search for another boat that was overdue and presumably lost in the fog, reported to the tower that he had come upon two pilots clinging to the tail of an aircraft submerged about 100 yards off shore.

The pilot had become disoriented owing to the low visibility and attempted to take off from an access taxiway at right angles to the duty runway. According to the aircraft accident report, approximately 800 feet of takeoff run was made and a speed of 65 knots attained before the

plane ran out of Naval Air Station. The pilot stated that takeoff was normal until the aircraft struck the dirt and rock dike at the edge of the field, shed its engine, and hit the water.

The fact that the pilot attempted to take off from a taxiway on a heading 90 degrees from that of the runway indicated that he either failed to recognize the discrepancy in the heading or neglected to check his gyro with the magnetic compass prior to takeoff. In either event, the accident board considered that he took inadequate precautions to insure a safe takeoff in view of the conditions of visibility existing at the time. A contributing factor in the accident was the pilot's failure to comply with the general rules and procedures for the conduct of a ferry movement with regard to weather restrictions as contained in OpNav Instruction 3710.6A.

The pilot stated that he did not consider the aircraft to be in a ferry status since he had accepted it for the new reporting custodian. However, the OpNav Instruction makes no such distinction in its definition of a ferry movement. The accident board determined that the aircraft was in a ferry status and should have been operating under the rules for ferry flights with regard to weather restrictions.

Grampaw Pettibone Says:

Jumpin' Jehosaphat! This gent couldn't tell where has was goin' but he was bendin' the throttle all ahead blind. And this performance was turned in by an experienced green-card pilot with over 6000 flight hours!

His commanding officer felt that "the requisite judgment for a pilot with a Special Instrument Rating was not demonstrated" and his green ticket was terminated.

Amen! Taking off under near zero-zero conditions hardly shows optimum use of the ol' headbone. In my book, when the birds are walkin' it's time for a coffee break, and it *should* take some mighty urgent business to make a pilot miss the muster.

Right here's a good place to recommend a periodic review of "Green Cards and 'Green' Pilots" in the 13-19 January 1958 Weekly Summary of Major Aircraft Accidents. It's chock-ful of mighty pertinent poop for all pilots who have card and will travel.

Head Down and Locked

While taxiing toward the warm-up area prior to a local VFR flight in an AD-6, a young pilot of 320 hours flight experience and only 4.2 hours in model heard a noise which sounded like an electric motor starting. A previous yellow sheet had listed a discrepancy concerning the elevator trim control, so the pilot thought perhaps the control was operating because of a faulty switch. He became so engrossed in

determining the source of the cockpit noise that he was oblivious to the aircraft's movement and heading change.

The pilot's interest remained in the cockpit while the Skyraider traveled 450 feet at a normal taxi rate. Suddenly he realized the aircraft had crossed a concrete ramp and was about to collide with a small building some 225 feet from the edge of the taxiway. He hit the brakes and pulled the throttle to idle, but the aircraft's right wing struck the building and the prop chopped the concrete as the application of brakes caused the tail of the *Skyraider* to leave the ground. The airplane settled back into a three-point position, and the pilot secured flying for the day.

The accident board attributed the accident to the pilot's failure to give proper attention to the directional control of his aircraft while taxiing and recommended that pilots not allow their interest to be diverted. Performance of functional checks on equipment within the cockpit and use of checkoff lists should be accomplished prior to leaving the chocks or while holding in the warm-up area. If a pilot's attention is required in the adjustment or check of a cockpit control, he should stop the aircraft, radio his intentions to the tower, and keep aware of other taxiing aircraft.

Grampaw Pettibone Says:

Unless he concentrated a little harder on the business at hand, I'll bet when this pilot was just a little tad he had a hard time keeping his kiddie car on the sidewalk. Staying alert during any phase of aircraft operations is such a basic requirement that it's hard to believe such accidents could happen. But so help me, they do. This is no isolated case.

It's purty certain that if a pilot buries his head in the cockpit, sooner or later someone else will have to dispose of the rest of him.

Straight In

Returning to the home field, the pilot of an F9F-6 got tower clearance for a straight-in approach to the runway because of a low fuel state of approximately 750 pounds.

At 2000 feet with an airspeed of 275 knots, the pilot lowered the landing gear, speed brakes and flaps; and contacted the 8000-foot runway at the 2000-foot point at a speed of 175 knots. The *Cougar* started porpoising and was not brought back under control until well down the runway. In response to a radioed instruction from a squadron mate, the pilot tried to lower the tail hook in an attempt to engage the arresting gear. However, he yanked the control handle only once, raising the barrier guard, and assumed the hook was down. It wasn't.

Unable to catch the arresting cable, the pilot made an unsuccessful attempt to ground loop the airplane. The *Cougar* skidded sideways for the remainder of the runway, blew a tire, and proceeded off the end of the runway and into the water. The pilot climbed out onto the wing and stepped into a rescue boat.

In the pilot's own words, "I feel that if I had first reduced my speed before losing altitude I could have made a normal break over the field and proceeded to a normal landing.

"On the basis of my first touchdown which was far too fast, I should have, at this time, added throttle and gone around. After the aircraft started to porpoise, I should have added throttle for a normal go-around. Instead, I cut the engine to reduce all possible thrust. In endeavoring to lower the tail hook, I pulled the handle only once. I should have pulled it repeatedly."

Grampaw Pettibone Says:

This lad had to learn his "shoudda dids" the hard way. For a long time I've been trying to drive home the idea that there's not much point in hurrying yourself into a heap.

I don't think we can outlaw straight-in approaches altogether, but let's not forget there's a lot to be said for well-planned, unhurried approaches in any line of endeavor. They generally produce the most satisfying results with the minimum of bashed noggins.

Given my druthers, I'd make a circling approach—or at least crank in a base leg, circumstances permitting. Seems to me there'd be less chance of an overshoot or undershoot, wheels-up or goof-off. A normal 180-degree approach allows time for the usual cockpit procedures in the pattern, provides a view of the airfield, simplifies lineup with the *duty runway*, and facilitates touchdown at the proper point *on the runway*.

The demands on a pilot are already great enough during an emergency situation without adding the complications of a straight-in approach requiring near-perfect judgment on airspeed, altitude, distance and closure rate. It's purty hard for a shook pilot to "stay loose" in a situation that's been robbed of its safety-producing flexibility. Why go straight-in to the salvage bin?

CARRIER GROUPS REORGANIZE

A NEW PLAN for carrier air group organization has been approved by CNO. It is expected to go into effect in FY 1959.

Basically, the reorganization plan contains the following provisions:

1. Creates two Replacement Carrier Air Groups (RCVG) similar in mission to the Advanced Carrier Training Groups of WW II days. One will be established on each coast.

2. Permanently assigns a specific carrier air group to a specific carrier.

3. Dissolves the present heavy attack wing structure. VAH squadrons in the future will be assigned to air groups. On carriers with reduced deck load capability, VAH detachments from an RCVG will be assigned.

4. Halves the squadron's present responsibility in the indoctrination of replacement pilots.

5. Standardizes tactics and maintenance procedures by centralizing pilot and support personnel training in the RCVG.

Brought about by increasingly stringent budgetary limitations, the overall purpose of the plan is to maintain a constant, high level of squadron combat readiness despite aircraft and personnel reductions.

New pilots ordered to carrier squadrons will be phased through the RCVG's. During the planned four-month indoctrination period, each pilot will receive approximately 100 hours of flight time in type, or about 50% of the squadron training syllabus. Each pilot will be carrier qualified in type.

In addition the RCVG flight syllabus will include instruments, model checkout, type instruments, tactics, primary weapons and FCLP. Ground training is slated in survival, weapon and missile delivery, and air support.

To provide maximum effectiveness during the condensed indoctrination phase, supervisory personnel of the Replacement Carrier Training Groups will be experienced fleet pilots. Critical "new model" transition will be handled by instructors who have been through the model's Fleet Introduction Program. Where squadron transition to a new model is required, the squadron will come under the supervision of the RCVG until the transition syllabus is completed.

Another major responsibility assigned the RCVG is the indoctrination of support personnel. Maintenance personnel will be given thorough indoctrination in type maintenance.

Most of the training units now employed in various phases of advanced indoctrination such as Fleet All Weather and Fleet Air Gunnery will continue to function but will be absorbed by Replacement Carrier Air Groups.

Air Group structure aboard carriers will vary with the class. Each *Forrestal*-class carrier will have a permanently assigned combat air group consisting of two VF, two or three VA and one VAH squadrons. On carriers of the *Midway* class, group structure will be the same except for a smaller VAH squadron. VAH components on *Hancock*-class carriers will be a detachment assigned from RCVG.

"DOWN TO THE SEA *in suits" was the slogan of members of Attack Squadron 36 when they engaged in a poopy suit test. To kill two birds with one stone, the Florida-based pilots took the refreshing swim in the Atlantic at Virginia Beach, Va., when the water temperature was 38°. Unofficially they became members of the Polar Bear Club. Leaks found in the suits were promptly repaired by FASRon Five at NAS Oceana. The pilots were then ready to return to Florida.*

Study at Night Successful
10 at Barber's Point Make Chief

Ten AM1's at NAS BARBER'S POINT ganged up last September to master the Navy's promotion system. All will be advanced to AMC in July.

Eight were from Air Barrier Squadron Two and the other two were from Guided Missile Group One. They figured that by getting together and forming a study class each could benefit from the other's knowledge. Daily classes lasted from one to two hours.

The BarPac candidates were E. W. Dean, R. J. Gardner, M. E. Newcomb, D. H. Park, C. G. Preston, J. L. West, D. K. Wilson and W. W. Wilshire. The GMGru-1 men are T. M. Boyce and R. B. Caldwell.

Night Transfer is Made
HSS Shuttles Patients

A night transfer of personnel between ships underway was accomplished off the West Coast of Luzon, P. I., by a Sikorsky HSS-1 of Helicopter Anti-submarine Squadron Six.

A Navy doctor from the *Philippine Sea* was flown to the destroyer *Renshaw* and later the same night two injured pilots were transferred from the *Renshaw* to the *Philippine Sea*.

Generally, night helicopter operations are not undertaken, because of the difficulty encountered in hovering the helicopter without some fixed visual reference point on the horizon.

Pilot of the helicopter was Cdr. Ernest C. Harris, Jr. LCdr. Kenneth McGrath was copilot and William L. Carter, SO3, was hoist operator.

The stage for the transfer was set, when, earlier in the night, a twin-engined Grumman S2F aircraft skidded over the side of the carrier while attempting a night takeoff. The *Tracker's* pilots were rescued immediately by the *Renshaw*, which was steaming in its plane guard position.

NAVY AIRMEN AID AFFLICTED

RAY AND SMILING PATIENTS UNLOAD REAR END FOR THEIR BUS

PATIENT DISCUSSES TOUR ROUTE WITH RAY AND DR. MAESHIRO

A BELL on the island of Yagachi-Shima peals a psalm of hope each day for 940 Ryukyuans afflicted with a disease, which—though its origin is lost in antiquity—is slowly yielding to modern medical science. The island is the site of the Airaku-en Leper Colony.

The 400 officers and men of the U. S. Naval Air Facility, Naha, and U. S. Fleet Activities, Ryukyus, cannot hear the bell, but its echo is carried to them through the voice and efforts of Clarence L. Ray, AD1, attached to NAF NAHA.

Ray and his wife made the 47-mile trip to the colony and became acquainted with Dr. K. Oyadomari, its director for the past 12 years, and the assistant director, Dr. M. Maeshiro. Dr. Oyadomari conducted the American couple on a brief tour.

"That first trip did it," explains Ray. "All the way back, we talked about what we could do to help these people."

On the second trip, Ray and his wife delivered food and clothing, but these gifts seemed minor. Then Ray asked the doctor what was needed.

"A bus," Dr. Oyadomari said. "We would very much like a bus. This colony has been here 20 years; some of our patients have never had an opportunity to leave. Now that the Americans have built a bridge to the mainland, we would like very much to start a recreation tour program."

The request momentarily floored Ray, but he offered to try. Capt. Richard L. Friede, Commander of U. S. Fleet Activities, Ryukyus, and C.O. of NAF NAHA, gave Ray full backing and everyone pitched in.

"Through the efforts of my shipmates," he said, "a wrecked bus was located, overhauled, painted and delivered to the colony. The men did all work during off-duty time, and when the job was finished, the bus looked as if it had just been delivered from the factory."

Tours started immediately. The many changes on the island interested the patients and they liked the rides.

"What they had seen was a new country, far different from the one they remember," the doctor said.

The Rays continued weekly trips to the colony and raised money among Navy personnel to man the bus. Later Ray delivered another much needed item, a spare rear end for the bus.

With the help of the U. S. Civil Administration, Ryukyus, and the Ryukyus Government, new buildings are being constructed. Many have already been completed, including a building housing some 40 children.

GIFT SCOOTER PLEASES CHILD PATIENT

BELL FOR COLONY CAME FROM WEST BERLIN

STAR PILOTS AT EL CENTRO

CDR. AL VRACIU, *last year's air-to-air champion, congratulates 1958 individual award air-to-air winner, Capt. C. O. Hiett, VMF-232.*

VF-213 STARRED *in all-weather fighter competition. Here individual star, LCdr. D. M. Longton, is hoisted to teammates' shoulders.*

THE TOP GUNS of the west proved they were just that at the 1958 Annual Air Weapons Meet held at NAAS EL CENTRO. All of the best "have guns, bombs, rockets, will travel" boys of the Navy and Marine Corps were on hand to prove their point in the week-long shoot.

True to their heritage, the squadrons from the west (NavAirPac) took three of the four first-place spots, allowing only VAH-5 the privilege of upholding eastern (NavAirLant) honor. The Marines proved they weren't all lovers with Capt. C. O. Hiett, VMF-232, and Capt. J. W. Detroy, VMA-311, posting high individual scores in the air-to-air day fighter and air-to-ground light attack events. However, they had to give way to Navy team effort for the number one team position in all events.

The air-to-air day fighter competition was a battle to the wire, with VF-13 on the final day posting the top single day's event score of 188, to come within 24 points of Cdr. F. E. Miller's VF-111 winning score of 668, and to tie for second place with VMF-232, at 644 points. The Marines proved to be 21 points better in the clutch and won the second place shoot-off 79-58.

Cdr. D. J. Birdsong's VA-126 had to post top day scores twice in a row to gain a dark horse victory in the light attack class with a total count of 6318 points. This beat out the steady VA-106 performers of Cdr. O. L. Dauphin, who posted a respectable 6246 tally.

Cdr. J. M. Tully's VAH-5 team proved to be better bombers than the best AirPac had to offer from VAH-8. Final score: 8072.8 to 7893.2.

LCdr. E. B. Salsig's VF(AW)-213 apparently proved that his boys were twice as good as the best AirLant had to offer from VF(AW)-102. His team needed only one good day and/or one good man to top the efforts of 102 during the entire event. Two-thirteen finished off the match with a final score more than double that of their opponents, 1329 to 547. The sharp shooting of top scorer, LCdr. D. M. Longston, who piled up 1255 points by himself, had considerable effect on the final results.

LCdr. I. A. Robinson, skipper of the losing team can at least unequivocally state that he is just as good an individual marksman as his worthy opponent, LCdr. Salsig. For reasons of security and modesty, scores won't be mentioned.

All in all, it was a whale of a Meet. Except for the venerable AD, which seems to go on forever, the sweptwing jets have taken over. Two new Douglas entries were on the field this year in the form of VAH *Skywarriors* and VF(AW) *Skyrays*. Grumman had nothing older than Cougar 8's at the Meet, and one squadron of F9F-4's joined the North American stable in competition.

Rockets replaced guns in one class. The firepower demonstration pointed the way toward tomorrow with F8U's, F11F's, A4D's, and F3H's participating. Also offering a

CAPT. J. W. DETROY *of VMA-311, individual winner in air-to-ground phase, is congratulated by his plane captain, PFC A. Morales.*

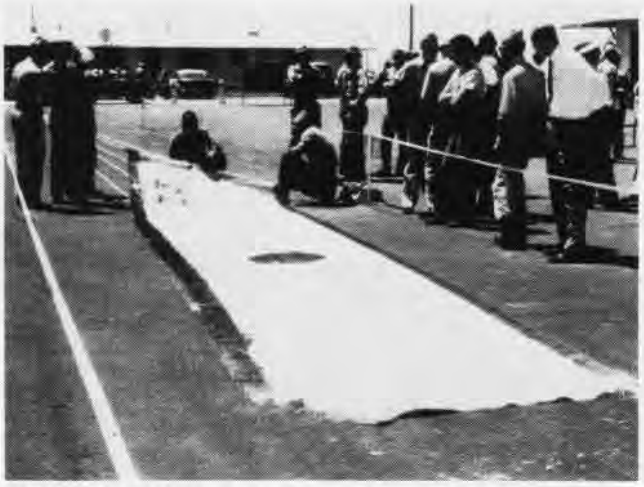
AN AIR WEAPONS *meet demands the best in tow pilots and bunners. This pilot in the meet is shown with the all-weather tow target.*

VA-126 TEAM *stars in Meet's light attack segment: kneeling, Lt. Ross, Ltjg. Dale; standing, LCdr. Wilkes, Cdr. Birdsong, Lt. Berglund.*

preview of what may be expected in competition next year was the appearance of the *Sidewinder* in the demonstration.

The firepower demonstration included as well Zunis, HVAR's, Mighty Mouse rockets, cannon strafing, napalm, and a series of loft bombings. The ordnance portion was spectacular, but for real thrills and chills, the loft bombing exhibition was the most. Watching a bomb leave an airplane at slightly above ground level some three to five miles from a target, and then following the bomb on its long, looping journey into a bullseye is a very enlightening experience. This is particularly true of the old-bold pilots brought up in the seaman's-eye, low-level bombing school, where a hit from 200′ slant range with a 200′ string of bombs was considered quite nicely done. The over-the-shoulder loft was another unbelievably accurate demonstration of an unbelievable maneuver.

The beautiful precision flying of Cdr. Ed Holley's *Blue Angels* Flight Demonstration Team exhibited "the same maneuvers taught all Naval Aviators," the announcer said. They also gave many stalwart aviators a cold chill with their opening demonstration which winds up with four F11F-1 *Tigers* apparently heading for the same wee bit of air space over the center of the field from the four cardinal points of the compass.



SO THAT EVERYONE *might have a chance to inspect it, air-to-air target banner was displayed prior to judging at the Air Weapons Meet.*

Which brings up another point: Again there were no aircraft accidents at the Air Weapons Meet, a major tribute to pilots and air controllers working the show.

Despite the flash in the air, the splash on the banner, and the roar of afterburners, the essential of the successful Air Weapons Meet is still the man on the ground. The competitors richly deserve all the recognition they receive. The other participants—the maintenance gangs, all the personnel required to keep an air station filled to bursting with planes and people going—are equally deserving. The whole crew did a tremendous job and did it well.

Capt. Ben Moore, Commanding Officer of NAAS El Centro, could not have done more to make the Air Weapons Meet the outstanding success it was. But possibly most deserving of all was Cdr. Ross Knight, Commanding Officer of the Fleet Air Gunnery Unit, who had the responsibility of coordinating the Meet and seeing to it that facilities were provided for the visitors attending to do their appointed job in whatever capacity. Knight not only upheld the tradition of FAGU for providing the best in assistance, facilities, transportation and anything else needed, but he raised the mark in this year's Meet.

NAVY LEAGUE AWARDS

Awarded by Mr. Burton Anderson

Air-to-Ground First Place Team—VA-126—Cdr. "D" J. Birdsong
Air-to-Air (Day) First Place Team—VF-111—Cdr. F. E. Miller
Air-to-Air (All-Weather) First Place—VF-213—LCdr. F. B. Salsig

NAVY AWARDS

Awarded by Vice Admiral Davis

Air-to-Ground Third Place Individual—LCdr. H. R. Cheuvront—VA-106
Air-to-Ground Second Place Individual—Ltjg. P. F. Crosby—VA-176
Air-to-Ground Champion—Capt. J. W. Detroy—VMA-311
Air-to-Ground Third Place Team—VA-176—Cdr. D. C. Stanley
Air-to-Ground Second Place Team—VA-106—Cdr. O. L. Dauphin

CDR. ROSS KNIGHT *CO of Fleet Air Gunnery Unit, is shown with three permanent trophies: (l. to r.) Adm. Soucek, Forrestal and Skywarrior.*

VF-111 AIR-TO-AIR *gunnery first place team is thrilled: Cdr. F. E. Miller, Lt. P. H. Speer, Ltjgs. H. L. Landry, R. Mudgett, D. Macintyre.*

Air-to-Ground First Place Team—VA-126—Cdr. "D" J. Birdsong
Air-to-Ground First Place Team Members—VA-126—D. E. Bacco, AMC.
Heavy Attack Third Place Individual—VAH-5—Pilot, Lt. H. K. Richards, Bomb-Nav—Ens. R. V. Canfield, Gun-Nav—A. H. Moore, AT2
Heavy Attack Second Place Individual—VAH-8—Pilot, Cdr. L. B. Fraser, Bomb-Nav—Ens. K. L. Hester, Gun-Nav—Steffens, AQ1
Heavy Attack First Place Individual—VAH-5—Pilot, LCdr. C. O. Donnaud, III, Bomb-Nav—T. R. Walton, ATC, Gun-Nav—R. J. Blesener, AM3
Heavy Attack First Place Team—VAH-5—Cdr. J. M. Tully, Jr.
Heavy Attack First Place Team Members (76)—VAH-5—Cdr. J. C. Hook
Air-to-Air (Day) Third Place Individual—Ltjg. R. L. Mudgett—VF-111
Air-to-Air (Day) Second Place Individual—Ltjg. E. C. Johnson—VF-13
Air-to-Air (Day) First Place Individual—Capt. C. O. Hiett—VMF-232
Air-to-Air (Day) Third Place Team—VF-13—LCdr. H. S. Barbour
Air-to-Air (Day) Second Place Team—VMF-232—LtCol. J. W. Hubbard
Air-to-Air (Day) First Place Team—VF-111—Cdr. F. E. Miller
Air-to-Air (Day) First Place Team Members (29)—VF-111—W. G. Kelley, AEC
Air-to-Air (AW) Third Place Individual—Lt. J. W. Brown—VF-102
Air-to-Air (All Weather) Second Place Individual—Ltjg. A. A. Coward—VF-102
Air-to-Air (All-Weather) First Place Individual—LCdr. D. M. Longton—VF-213
Air-to-Air (All Weather) Second Place Team—VF-102—LCdr. I. A. Robinson
Air-to-Air (AW) First Place Team—VF-213—LCdr. E. B. Salsig
Air-to-Air (AW) First Place Team Members (50)—J. H. Lane, ADC

PERPETUAL TROPHIES

Awarded by Vice Admiral Davis

Kane Trophy—Air-to-Ground Championship Team—VA-126—Cdr. "D" J. Birdsong
Herman Trophy—Air-to-Ground Individual Champion—Capt. J. W. Detroy—VMA-311
Earle Trophy—Air-to-Air (Day) Championship Team—VF-111—Cdr. F. E. Miller
Skywarrior Trophy—Heavy Attack Championship Crew—LCdr. C. O. Donnaud III—VAH-5
Admiral Soucek Memorial Trophy—Heavy Attack Championship Team—VAH-5—Cdr. J. M. Tully, Jr.
James V. Forrestal Memorial Trophy—All-Weather Fighter Championship Team—VF-213—LCdr. E. B. Salsig

A VF-13 *Cougar is loaded with gun ammunition prior to its run in the '58 weapons meet.*

AN AD-6 *of VA-145 is made ready for participation in air-to-ground bombing event.*

ROCKETS ARE *being loaded aboard an F4D-1 Skyray which VF-213 flew in the competition.*

SEA POWER FILMS ANNOUNCED

THE NAVY has brought out a special series of "Sea Power" films to inform naval personnel of the Navy's increasingly vital role in maintaining national security.

Prints will be distributed through normal channels. They may be obtained through the Fleet Entertainment Motion Picture Exchange, the Naval District Training Aids Section or Center, Aviation Film Library, or Marine Corps Training Aids Library.

Films in the series include:

MN-8526: *The Navy and the Missile Age*—16 mm. kodachrome motion picture—duration approximately 30 minutes. The necessity of protecting the world's shipping lanes is brought out with brief allusions to the historical significance of maritime commerce. Soviet objectives are then presented giving facts, figures, and ideological considerations. Counteraction to Communist aggressions by the Navy and other forces are discussed, stressing the readiness and mobility of the fleet. Details of the Navy's latest capabilities such as *Forrestal*-class carriers, *Regulus* missiles, guided missile cruisers, and frigates, nuclear and missile launching submarines, ASW advances, P6M's, vertical envelopment, etc., are accented. Restricted to U. S. military.

MN-8527: *Attack in Asia*—16 mm. kodachrome motion picture—duration approximately 18 minutes. Hypothetical war situation, in the Bay of Bengal. Mobility of the Seventh Fleet to reach the trouble spot and its ability to fight with a broad spectrum of weapons systems are dramatically highlighted.

MN-8529: *The Sixth Fleet—Force for Peace*—16 mm. kodachrome motion picture—duration 56 minutes. A story of the Sixth Fleet in action patrolling the Mediterranean frontiers of freedom.

MN-8530: *Launch All Aircraft*—16 mm. kodachrome motion picture—duration 16 minutes. A hypothetical war situation in the Mediterranean area. The extreme effectiveness of the carrier striking force in containing aggressive moves in this area is illustrated.

MN-8531: *Rig for Ultra Quiet*—16 mm. kodachrome motion picture—duration 15 minutes. A realistic treatment showing the versatility of the modern submarine in a hypothetical war situation. Its missile launching, reconnaissance, and ASW capabilities make it a strong arm of a powerful Navy.

MN-8532: *Challenge from Below*—16 mm. kodachrome motion picture—duration 17 minutes. In a non-nuclear hypothetical war, the tremendous importance of the Red submarine menace is emphasized. The means to counter this threat are held by the Navy's antisubmarine forces.

MN-8533: *Amphibious Assault*—16 mm. kodachrome motion picture—duration 14½ minutes. A stirring presentation showing the latest concepts in amphibious warfare. Both Marine assault troops and naval amphibious units are featured in a neat display of coordinated land, sea, and air forces.

MN-8534: *Mine Forces in Action*—16 mm. kodachrome—duration 14½ minutes.

MN-8535: *Seabees in Action*—16 mm. kodachrome motion picture—duration 13½ minutes. This shows the importance of the construction battalions and their role of building bases to consolidate amphibious gains.

MN-8536: *Mobile Support*—16 mm. kodachrome motion picture—duration 16 minutes. The importance of replenishing naval forces at sea through advanced bases and the underway replenishment pipeline are emphasized

MN-8679: *The Growler Story*—The story of one of the most famed acts of individual heroism of World War II. Beginning with *Growler's* departure from Pearl, this vivid account is climaxed by Cdr. Gilmore's last command from his ship's bridge, "Take her down!"

Scientific Conference Held

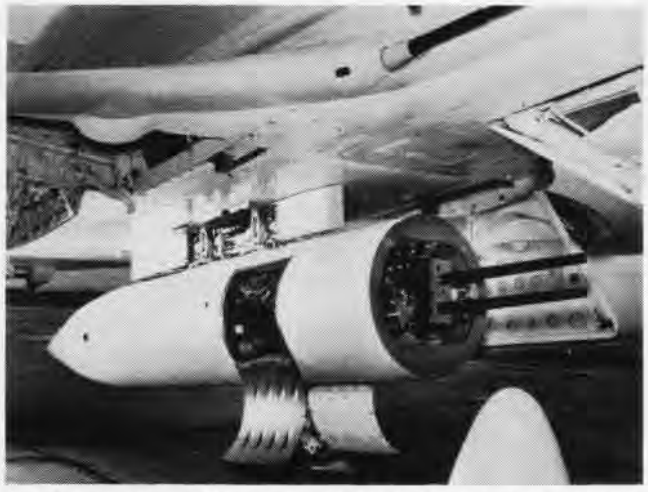
Training Device Seminar Convenes

Guided missile training and other naval training programs were discussed at the Eighth Annual Training Device Seminar held at the U. S. Naval Training Device Center, Port Washington, Long Island, New York.

Thirty leading civilian scientists, engineers, executives and science instructors, members of Naval Research Reserve Groups came from all parts of the country. Among the visiting lecturers were RAdm. Chester C. Wood, Commandant, 3ND.; RAdm. Luis de Florez, USNR (ret.); Mr. Willy Ley, space rocket consultant; and VAdm. Charles E. Rosendahl, USN (ret.).

Some of the areas covered by the lecturers were: advanced weapons training equipment, naval research and development, missiles, rockets, and astronautics, the Polaris program, the Navy in the nuclear age, and theoretical problems in the space age.

Capt. W. C. Callahan, Director of the Center, welcomed the members of the seminar to the Navy Center.



NEW POD-MOUNTED WEAPON, *a 20-mm aircraft gun capable of firing 4000 rounds per minute, is displayed on an A4D-2 Skyhawk at the Naval Air Weapons Meet, NAS El Centro. Called the Mark II, the weapon is undergoing evaluation at the Naval Aviation Ordnance Test Station, Chincoteague, Va., and is expected to become operational next year. Exposed view at right shows ease of rearming, replacement and maintenance. Gun was conceived by BuOrd and developed by Howard Hughes. RAdm. Paul D. Stroop, Chief of BuOrd, indicated Mark II gun and pod would mean a gain in aircraft structural simplicity since there would be no need for internal fixed guns.*

GOONEYBIRD IS THE HALLMARK OF MIDWAY

MIDWAY ISLAND HAS LONG RUNWAYS AND OTHER CONSTRUCTION VALUED AT MILLIONS

MIDWAY, BASTION OF DEFENSE

by Douglas B. Mauldin, AMC, USN

ALMOST ANY geography book will point out that near the center of the North Pacific Ocean there is a coral atoll or circular reef identified as Midway Island.

Along with geography tomes, history books are certain to reference the tiny island as the hub of an epic naval battle in 1942 which has been described as the "turning point in the Pacific war." Its garrison's dogged resistance to sustained enemy air attack made the name "Midway" synonomous with bravery in the face of tremendous odds.

Today, Uncle Sam is engaged in a multi-million dollar expansion program there, and he's not doing it just to furnish the local gooney birds with fur-lined hatching nests.

This 1100-acre dot of island real estate has been chosen as the site for the North Pacific's "bastion-to-be," a choice brought about by its strategic location.

Falling heir to a big purpose quite naturally brought about immediate and severe growing pains to such a little fellow. He would need muscles, and quickly.

His first need would be a giant airfield to accommodate huge "birds" patrolling the vast reaches of the North Pacific. Because of its location, it would also be a major service facility for big transport aircraft operating between Hawaii and Japan. And because of its new mission, increased requirements for aerial resupply of priority and emergency equipment and aircraft spares made necessary extensive enlargement of midway's airfield.

SKIN-DIVERS CATCH A 190-LB. BAT RAY

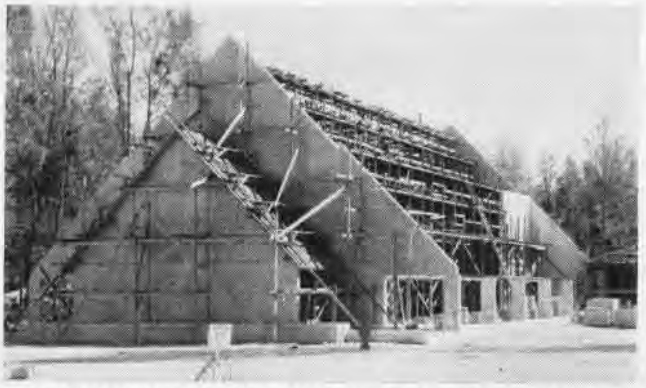
13,000,000-GALLON RESERVOIR TRAPS RAIN

Soon after VJ-Day, the little island was virtually abandoned. By 1950 all the wartime garrison of some 10,000 men was gone, leaving behind but a small caretaker force to man a refueling station.

With the advent of globe-spanning bombers and the necessity of long-distance, over-water patrols, Navy officials in Washington again eyed the atoll. They decided it was time to snap the little guy out of his snooze for there was a need for him once more in current events.

A few months later construction crews got the green light to begin a crash program aimed at transforming Midway into a bastion of defense. The transformation will be finished in July. Building crews have packed the equivalent of four years' growth into half that time and only the old-timers who knew the place 'back when' can appreciate the new look.

To date, an army of some 1200 construction men has completed a 7900-foot runway to take the giant *Con-*



BASE CHAPEL IS ONE OF LATEST BUILDINGS TO BE COMPLETED

NAMED FOR A HERO, GEORGE CANNON SCHOOL SERVES 750

ENLISTED MEN'S CONCRETE MESS HALL SHOWS MODERN STYLING

BOQ, LIKE MESS HALL, HAS A LIFE EXPECTANCY OF 35 YEARS

stellations and jet fighters, plus an aircraft hangar that would swallow the Rose Bowl gridiron. Two mammoth dredges have gnawed a sea draft channel out of the ocean's coral floor with enough width to permit entrance of our largest fleet tankers.

Tours of duty for married Navy men are 18 months and some are taking along their wives and children. This necessitated housing units, classrooms and a commissary. The commissary is well stocked and in operation. A 750-pupil school has been completed and is brimming with nearly that many sun-tanned youngsters.

Other new construction completed to date includes a 1000-man mess hall for unmarried personnel, three new enlisted men's barracks and two new bachelor officers' quarters.

Like any outpost, Midway has its problems. Paramount among these is fresh water. There is water everywhere but scarcely any to drink. Each house has three water systems. One pipe carries fresh water to a faucet for drinking and cooking, another carries brackish water for laundry and bathing, and another pipes salt water for sanitation. Currently the fresh water consumption is 34,000 gallons a day, 28,000 gallons of which comes from rain water storage tanks.

IN THE NEAR future a 13-million gallon concrete storage tank will be completed. A little ingenuity will prove to go a long way, for the new runway system is so constructed that it will funnel all rain water from its surface into the reservoir.

The true King of the Island is the Laysan albatross, commonly referred to as the Gooney Bird. Lovable, exasperating, they swarm over the small island by the hundreds of thousands. The whole atoll has the appearance of an over-populated poultry farm and although the birds are natural clowns and their antics are tonic for the residents, they are the island's major air hazard.

Friendly and completely fearless, they have few qualms about crashing head-on into an approaching aircraft, which they often do. This often results in structural damage to the plane and major damage to the bird.

The U. S. Fish and Wildlife Service is working with the Navy in experiments which they hope will eventually alleviate this hazard without having to destroy the birds.

The station's commanding officer, Capt. John A. Gamon, hasn't overlooked anything that will provide a healthful and happy environment for his men and their dependents because an island can become a lonely place.

Initially the emphasis was on operational construction. The 1960 budget includes money requests to bring recreational facilities up to par with the operating facilities. A new bowling alley, a modern gymnasium, a new theater and hobby shop will be added. These, coupled with good fishing, boating, baseball diamonds, handball and tennis courts and a roller skating rink, will make Midway a most habitable duty station.

Until July, the big word around Midway is: *Build*. Even the 'gooney' fledglings have taken the cue and have erected themselves a platform of sticks and rocks for protection against the coming rain. They believe in being prepared. A look at Midway atoll will convince you that the Navy does, too.

NAVY'S A3J MAKES DEBUT

THE NAVY A3J *all-weather, supersonic, carrier-based attack plane shown as she will look when she becomes operational and joins her high flying, fast-stepping sisters in the fleet.*

A NEW SUPERSONIC weapon system designed for carrier operations has made its first public appearance at Columbus, Ohio. The North American A3J was unveiled during Armed Forces Day ceremonies at the Naval Air Station. It is expected to make its first flight this summer.

Featuring a high, thin, swept wing and all-movable slab type tail surfaces, the two-place twin-jet aircraft is powered by two General Electric J79-2 engines, each of which develops more than 12,000 pounds thrust.

Designed to strike effectively and withdraw successfully from various weapon-launching attitudes, the wide operational capability of the A3J enables it to perform its mission at both extremely low and high altitudes. Coordinated in this mission design are high aircraft performance and an automatic bombing-navigation system.

The A3J is the first aircraft procured by the Navy in which all systems and system components have been supplied by the manufacturer. It is also the first Navy model employing an integrated boundary layer control system.

Boundary layer control, or supercirculation, is a method of blowing high pressure air over lifting surfaces. This particularly improves low-speed characteristics and thereby is of great advantage during carrier or land-based short field operations.

A pilot and bombardier-navigator, in tandem, make up the crew of the all weather attack weapon system.

Windsocks for Copter Work

Will Increase Operation Safety

An anemometer windsock recently developed will help helicopter pilots get their craft on the deck with increased safety. Designed and tested by Lt. R. F. Bennie, OinC of Detachment 2, HU-2, while aboard the USS *Forrestal*, the windsock will assist in determining unsafe conditions caused by turbulent winds.

The device will give the helicopter pilot and the ship's Air Officer an indication of the winds at the landing spot. Winds well above the flight deck have been found to vary markedly from the turbulent winds existing on the flight deck itself.

The device consists of a dual windsock; each windsock is calibrated to stream out horizontally only when a predetermined wind velocity is reached. The green sock will stream when the wind reaches the maximum recommended wind for rotor engagement or disengagement. The red sock will stream when the maximum allowable wind for operating is exceeded. The socks also show direction of the relative wind and, to some degree, indicate extent of existing turbulence.

Operating Record is Set

HSS-1 Flies 1000 Hours in Tour

A Sikorsky HSS-1 helicopter assigned to Antisubmarine Squadron Five at Key West has completed its 1000th hour in a single operating tour. It is the first such helicopter to attain 1000 flight hours on a first service tour without an overhaul.

Labeled "the Deuce," BuNo. 140131 amassed its hours while operating in the HS-5 flying area at Key West and aboard various fleet aircraft carriers.

BUNO 140131 FLIES OVER NAS KEY WEST

Pilot on the record-hour flight was Cdr. Claude A. Wharton, Jr., Squadron commander. His copilot, credited as being responsible for the aircraft's performance, was Paul R. Weagley, AM1. In the plane were Albert L. Millican, AD2, and W. E. Easley, AN, aircraft maintenance team members.

TT–1 Undergoes BIS Test

Four Trainers Evaluated at NATC

Four bantam-sized Temco TT–1 primary jet trainers are nearing completion of a 60-day Board of Inspection and Survey evaluation before the new trainers are released to the Basic Training Command at NAS PENSACOLA.

A TT–1 was put through Electronics Test by Capt. J. L. Nielsen. At Service Test, two trainers received evaluation under LCdr. G. R. Monthan, project officer. The fourth jet was checked out by LCdr. L. C. Baldwin.

When ready for Training Command use, the sleek, 30-foot-long, 3100-pound aircraft will allow NavCads to fly jets from the start of the course. Heretofore, jet trainees received basic training in conventional aircraft.

POLICE TAUGHT BY VA-44

REALIZING that law enforcement officers are usually the first to arrive at the scene of an airplane accident, Attack Squadron 44 recently staged a two-hour session on jet aircraft rescue procedures. State, county and city law enforcement officers operating in the greater Jacksonville area were invited.

Ltjg. James Willis illustrated how to free a pilot from his parachute and ejection seat. He told the off-duty lawmen: "It means a lot to us to know there will be somebody present who knows how to get us out."

Cdr. Thomas R. Sedell, squadron commander, and Richard E. McLain, AD2, explained the various safety equipment Navy crash crewmen use in freeing a pilot from a crippled plane. Object of the session, said Cdr. Sedell, was to teach the law officers proper methods of getting the pilot out of a plane. He showed them the danger points of an aircraft to prevent injury to themselves and others.

"The approach to a downed jet is one of the most important factors, from the standpoint of safety," Ltjg. Alan Bean explained to a group of lawmen. "Stay away from the tail, the air intakes and guns. Go over the front part of the wing and work your way along it to the canopy," he said.

Next came instruction on how to open the canopy. Ltjg. Gene Bordone explained to patrolmen that there is always a marking on the side of jet aircraft which points to the emergency handle for releasing the canopy. If this fails to work, he said, a blast from a CO_2 fire extinguisher will normally freeze the canopy so it can be kicked in with the heel of a shoe.

Navy crewmen also showed the law enforcement officers how to straddle the cockpit from the front when removing an injured pilot. They pointed out the straps that must be cut or released before the pilot can be removed from the plane.

Ens. Steve Carter played "victim" in a mock rescue demonstration. Under the direction of NAS JACKSONVILLE's crash crew chief Quentin Cantrell, the crews quickly and expertly removed Carter from a "burning" plane.

Following a question and answer period, the enforcement officers expressed the belief they had acquired knowledge which would be a tremendous aid in rescuing an injured pilot or one caught and unable to free himself.

CDR. SEDELL AND MCLAIN, AD2, SHOW EQUIPMENT USED TO FREE PILOT FROM PLANE

Special Air Award Made

Commandery Honors Safety Center

The Naval Aviation Safety Center, Norfolk, Va., has been given the Naval Air Reserve Award by the Aviation Commandery of the Naval Order of the United States. The commander of the Center, RAdm. Allen Smith, Jr., accepted the award.

Established to honor those units or individuals making outstanding contributions to Naval Air Reserve Activities and Naval Aviation, the award was presented to the Center in recognition of its contribution to Naval Aviation safety in the past year. The reduction of fatalities by 15% and the total number of accidents by 10.3% marked a new low record.

The Safety Center initiates and conducts flight safety investigations, coordinates the Navy's world-wide aviation safety program, and publishes *Approach* which is distributed monthly to appropriate aviation units of the Navy and other defense organizations.

THE BIG SIKORSKY, *belonging to MCAF Santa Ana, easily lifts a small helicopter out of the soft earth of a bean field near Tustin, California. The helicoptor lift worked after other transport had failed.*

USS Ranger Heads West

CVA-61 Will be Based at Alameda

USS *Ranger* leaves Norfolk June 20 for its new home port, Alameda, Calif., arriving there July 23.

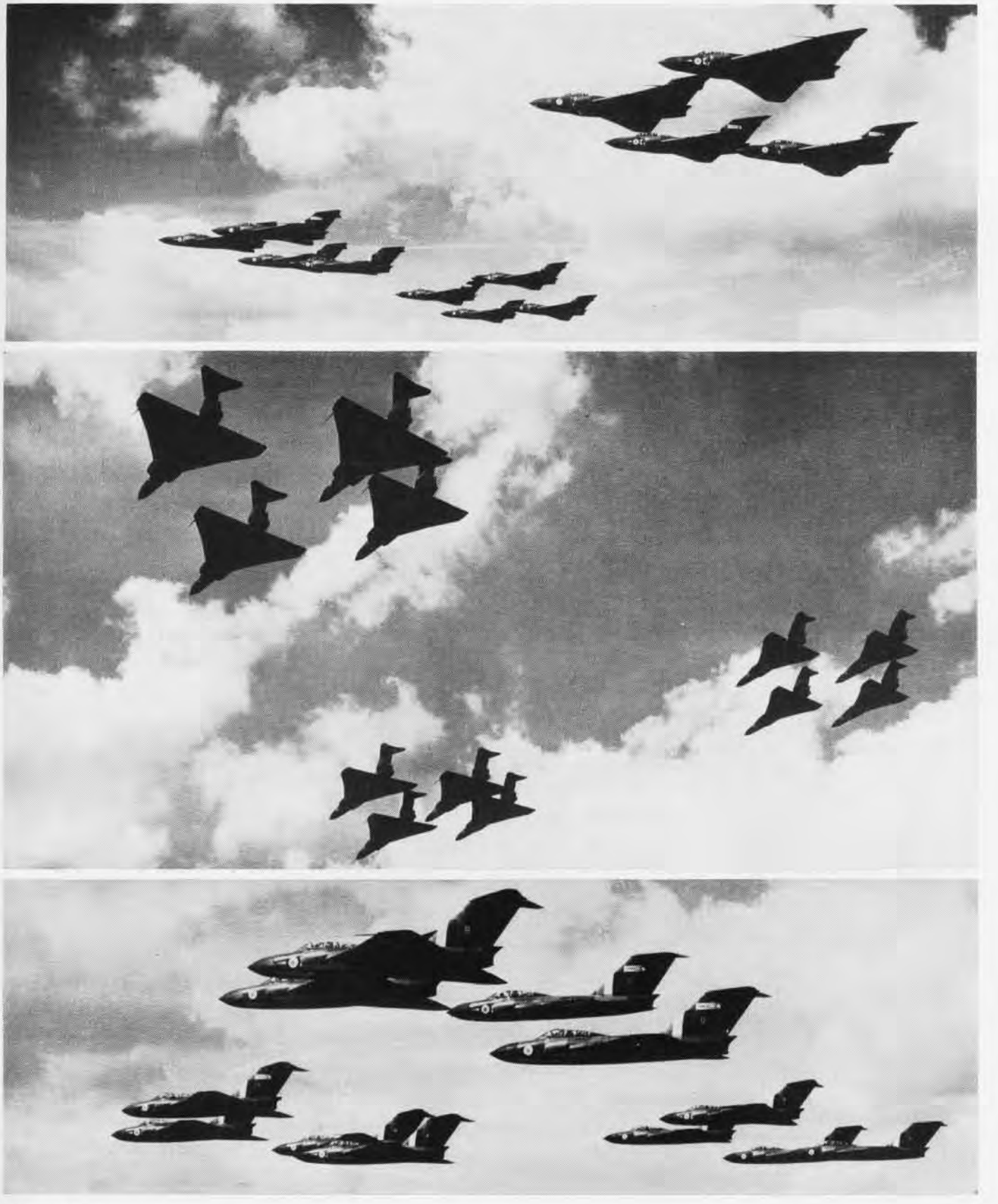
The 60,000-ton ship will carry 200 Naval Reserve Officer Candidates, scheduled for a two-month cruise, around the Horn.

It will be the first *Forrestal*-class carrier assigned to the Pacific Fleet.

DELTAS BY THE DOZEN

Exercise 'Vigilant,' three days of mock atomic attacks, tested RAF fighter defenses. Daylight defense relied on Hawker 'Hunters.' For night and bad weather 'Javelin' squadrons were used.

The raiders, who made some 3000 bombing sorties, included aircraft from the RAF, the Fleet Air Arm, the USAF, the U. S. Navy, and the French Air Force. This armada did not overwhelm the defenses.



CRUSADER COLLEGE CARRIES ON

A VF(AW)-3 F8U-1 APPROACHES NAS MOFFETT FIELD, THE CRUSADER COLLEGE CAMPUS

ALL WEATHER Fighter Squadron Three at NAS MOFFETT FIELD claims to be Naval Aviation's original and most exclusive *School of Supersonic Knowledge*.

VF(AW)-3, formerly VC-3, has operated as a transitional training unit in the latest high performance aircraft since August 1954 (NANEWS, Apr. 1955). It has been the only squadron in the Navy to operate such a program.

When a new type jet is ready for delivery to the fleet, six VF(AW)-3 officers and approximately 30 men participate in the Fleet Introduction Program. They work directly under the supervision of Service Test at NATC PATUXENT RIVER. Upon completion of the 600 flight-hour indoctrination, the team returns to Moffett Field and establishes a small scale FIP of its own for personnel of squadrons about to receive the new aircraft.

Because today's planes are too fast and too complex to allow for any uncertainty caused by unfamiliarity, the transitional training program is geared to assure strong flight leadership by senior squadron officers. This is accomplished by thorough instruction in the new type. Four pilots, usually the skipper or exec, the operations and maintenance officers, and a second tour man, are ordered to VF(AW)-3. They take a six-week concentrated course of flight and ground training.

Full hours of work are crammed into each day for the trainees. Ground school for pilots includes instruction in such subjects as high mach and maneuvering characteristics, high altitude and high speed tactics and gunnery. The systems, capabilities and limitations of each specific type are thoroughly studied and discussed. General topics such as the sonic boom phenomenon, high performance aerodynamics and jet engine operation are also treated.

The flight syllabus is not just an aircraft check-out; it is a well-rounded 40 hours of almost all phases of aircraft operations. Under the watchful eye of the instructors riding chase on them, the pilots progress through familiarization, type instruments, basic tactics, inflight refuelling and field carrier landing practice.

While the main emphasis is on training senior pilots, there are many other phases of operation that must be completely mastered by a squadron receiv-

LCDR. G. W. BLEASE FERRIED FIRST F8U

MAJ. H. MENDENHALL OF VMF-334 RECEIVES COCKPIT CHECKOUT FROM LT. HAYWARD

LCDR. MCJUNKIN AND BENNETT INSPECT ENGINE MAINTENANCE

KUZEK, ADJ3, SHOWS CHECK ROUTINE TO VMF-334 MARINES

ing a new type of aircraft. VF-(AW)-3 also provides complete maintenance and logistical information to ground crews. The 25 or 30 enlisted men who go through the course are chosen for their efficiency in their particular ratings. They will form the nucleus of trained men.

Originally dubbed *Cougar College*, titles have also included *Cutlass Classroom* and *Fury Finishing School*. The first swept-wing jet to arrive was the carrier-proven F9F-6. The *Cougar* had a head-start in the program since a number of pilots were already familiar with its flight characteristics and line crews knew its maintenance. Transitional training was launched when the first F7U class was convened in November 1954 for four VF-122 pilots.

Since that time, 37 squadrons have been graduated in six different aircraft by VF(AW)-3. Five squadrons took the course in the F7U, twelve in the FJ-3 *Fury*, six in the F3H *Demon*, four in the F4D *Skyray*, three in the A4D *Skybawk* and seven others in the F8U *Crusader*.

The F8U-1 program started in June 1957. VF(AW)-3 has been known as *Crusader College* ever since. Two Moffett Field squadrons, VF-154 and VF-211, supplied the initial graduates of the *Crusader* course. After completion of the training, VF-154 was the first West Coast squadron to deploy in the F8U.

VF-142, the first Miramar squadron to fly the supersonic fighter, went through the program last fall, followed by VF-143 and a VFP-61 detachment from the same air station.

In January 1958, a group of elated Marines of VMF-122 arrived from MCAAS BEAUFORT, South Carolina, to become not only the first Marine F8U-ers but the first East Coast squadron to attend the "college." MCAS EL TORO sent a contingent from VMF-334 shortly thereafter. These pilots were as excited about the *Crusader* as their eastern counterparts.

VF(AW)-3 is commanded by Capt. C. V. Johnson, assisted by Cdr. R. W. Stone, the executive officer. *Crusader* training is headed by LCdr. D. C. Bennett. The instructors are LCdr. A. R. McCandless, Lt. T. B. Hayward and Ltjg. L. N. Mitchell, Jr. LCdr. W. F. McJunkin is the power plants officer.

LCDR. A. R. MCCANDLESS TEACHES AIR CONDITIONING SYSTEM

INSTRUCTORS STAND BEHIND MARINE 'STUDENTS' FROM BEAUFORT

Airplanes Aid Rescue

Lyautey Fliers Spot Survivors

Two Navy aircraft based at Port Lyautey, Morocco, participated in the dramatic rescue of seven stranded survivors of the Norwegian oiler *Seirstad*. The oiler broke in half in a storm southeast of the Spanish Mediterranean island of Menorca.

The survivors, huddled in the bow section of the ship, were located by a P2V *Neptune* of VP-26. The stern section of the ship had been spotted five hours earlier by an R5D *Skymaster* of Air Tactical Support Squadron 24.

Once the *Neptune*, piloted by Ltjg. A. N. Kline, spotted the survivors, he found a nearby Italian cargo ship by radar and led her back to the scene of the disaster by flare signals.

The Italian ship put a lifeboat over the side picked up the survivors, and took them to Casablanca where they returned to Norway by air.

Top NavCad for 57 Chosen

Ens. Greer of HS-6 Wins Watch

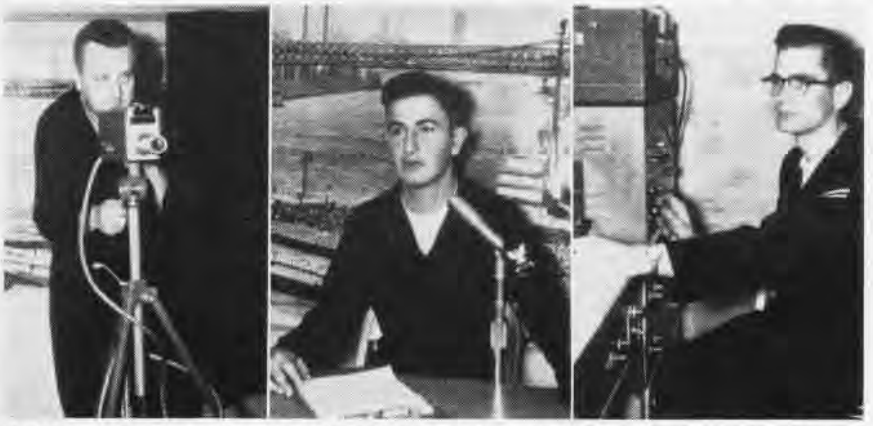
Ens. Joe C. Greer, assigned to HS-6 aboard the *Philippine Sea*, has been chosen as the outstanding Naval Aviation Cadet for 1957 and has been presented a wrist watch by the Daughters of the American Colonists during a special ceremony.

All NavCads who received their wings and commissions in 1957 were eligible for the annual award. Selection is based on all grades earned in the flight training program; military, academic and flying evaluations are considered with equal weight in determining the winner.

Now legal officer of HS-6, Ens. Greer distinguished himself by being copilot of the helicopter which discovered the wreckage of a missing Air Force C-97 near Hawaii in January.

ENS. GREER, DAC OFFICERS ADMIRE WATCH

SARATOGA HAS TV CIRCUIT



WARD AT CAMERA, MCKEE WITH THE NEWS, CALLIGAN AT CONTROLS, MAKE FINE TV TEAM

CVA-60 has its own closed TV circuit over which it presents live programs such as talent shows, special ceremonies, church services and flight operations. The 4000 officers and men aboard USS *Saratoga* (CVA–60) approve the diversity of the programs.

For non-live programs, the station operates in conjunction with the Armed Forces Radio-TV and Press service and presents a regularly scheduled series of films featuring kinescope recordings of the best in motion picture and television shows.

The following programs, among others, have been viewed by the *Saratoga* crew: "Climax," "Bob Cummings Show," "Hit Parade," "I've Got a Secret," "The Ed Sullivan Show," "Playhouse of Stars," and several Hollywood feature films prepared for TV use.

The men who operate the *Sara*'s equipment believe that this shipboard station is the biggest of its type in operation in the world.

From a technical standpoint, the new TV station aboard the *Saratoga* resembles the structure of a large commercial station. It is now in process of expanding into a network for telecasting to other ships operating within a 15-mile radius during operation at sea.

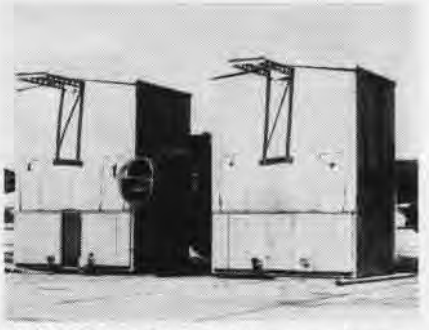
At present, a low level radio frequency transmitter puts out the station's TV signal to the receiver sets throughout the ship. There are 25 sets in the mess halls, lounges, wardrooms and workshops.

Electronic technicians aboard the ship are now building a larger and more powerful transmitter to beam the signal to the other ships operating within the area of the *Saratoga*.

Plans have been made to purchase a new commercial camera with Zoomar and wide angle lenses which will increase the pleasure of viewing live shows and improve the transmission of launches and landings.

When the circuit was officially opened, Capt. A. R. Matter, skipper of CVA-60, dedicated it to three *Saratoga* airmen who were killed in the crash of their plane during a routine flight.

Behind WCVA-60 TV are officers and men who have put in many off-duty hours in the installation and maintenance of the station. These include Cdr. Warren L. Wolf, CHC, the station's organizer and manager; Richard Krupa, AN, program director; Ens. R. H. Norman and Ed Ward, ET1, technical directors who superintended the installation of the equipment and are responsible for its maintenance, and Roy McKee, ET 3, station's newscaster.



ENCLOSED *by FASRon-108's new nose hangars. P2V engines receive maintenance by VP-21 ground crew personnel at NAS Brunswick, Me. Lockheed-built hangars protect against cold.*

LET'S LOOK AT THE RECORD

VMO-6 Pilots Qualify

Token Company Lifted from Perch

Pilots of Marine Observation Squadron Six were asked to conduct troop lifts from the submarine USS *Perch* during operations of the First Marine Division Reconnaissance Battalion.

They qualified aboard the *Perch* in HOK-1's, with 14 pilots making 151 safe landings in one day. A token company was troop-lifted two days later.

Stewart Earns Citation

Commended for Antarctic Rescue

George H. Stewart, AD1, has been cited at NAAS WHITING FIELD, his present duty station, for work he did last November in the Antarctic while assigned to VX-6.

He was one of six assigned to investigate the condition of an aircraft which had been forced down on the icecap after an engine failure. They changed the engine under severe Antarctic conditions, with temperatures ranging below zero. The maintenance men worked 60 continuous hours to change the engine so the plane could fly back to its base.

The citation, signed by RAdm. George Dufek, Commander Naval Support Force, Antarctica, stated: "It is felt that this accomplishment was largely due to your special endeavor, adaptability, personal sacrifice and devotion to duty. Well done."

Stewart was also part of a rescue crew which flew from Little America in an *Otter* plane to rescue Dr. Peter Schoeck, an IGY scientist, who had been injured when he fell into a crevasse. The scientist lodged on a shelf about 60 feet down in the ice chasm.

CDR. GODWIN PRESENTS STEWART'S AWARD

66,000th Landing Made

VS-39 Pilots Honored by Leyte

Ltjg. D. M. Birdsell of Air Antisubmarine Squadron 39 recorded the 66,000th arrested landing aboard USS *Leyte* during recent hunter-killer operations in the Atlantic.

Capt. C. T. Fritter, Commanding Officer of the *Leyte*, congratulated

RECORD SETTERS CONGRATULATED BY LSO

Birdsell and his copilot, Ltjg. L. A. Williams, at a cake-cutting on the ship's hangar deck.

VS-39, commanded by Cdr. R. O. Boe, made 277 carrier landings and flew 1037 flight hours during a three-week "Round the Clock" operation.

Stress on Safety Shown

ATU-206 Logs 5000 Safe Hours

Advanced Training Unit 206, based at Forrest Sherman Field, Pensacola, logged in its 5,000th accident free hour when Ens. E. C. Quandt, a student aviator returned from a routine air-to-air gunnery flight in a Grumman F9F-2 *Panther* jet.

The unit has flown 60 days, including non-flying days and holidays, with an average of 140 sorties daily. It employed over 80 jet aircraft in about 200 flights per working day.

The record is concrete proof that an all-out safety program for all hands pays dividends. ATU-206 is shooting for the 10,000th safe hour.

GOLD STAR *in lieu of a fifth Air Medal is presented Cdr. Gordon K. Ebbe by VAdm. W. V. Davis, DCNO(Air) in Pentagon. Cdr. Ebbe commanded Air Development Squadron Six in first year of Operation Deep Freeze.*

50,000th Landing is Made

CATG-4 Lands Fury Aboard Hornet

Cdr. R. L. Johns, Commander of Air Task Group Four, landed aboard USS *Hornet* in an FJ-4B *Fury* to record that ship's 50,000th landing.

"I knew someone in my formation would make it," he said. "I had no idea that I had done so until I received word from pri-fly. I was so shocked I couldn't find the lock for my wings and taxied on down the flight deck without folding them. It was the first 'thousandth' landing I have ever made."

BTG-3 Earns New Award

Pilots Fly 19,442 Hours Safely

Basic Training Group Three-North at NAAS WHITING FIELD has earned another plaque for aviation safety. The group flew 19,442 accident-free instructional hours—almost double the 10,000 hours required—to win the latest award.

The plaque is on display at North Field with other safety trophies.

During the summer of 1955, North Field completed more than 32,000 accident-free instruction hours from July to September in the SNJ. No other basic training group instructing primary flight students has equalled that record. A second record of 27,857 accident-free hours in the T-28 was established 3 May to 30 July 1957.

Cdr. W. W. Olson, Group Commander, pointed out that such outstanding performances are only possible when everyone does his job perfectly.

JOINT AIR STATION DEDICATED

REPRESENTATIVES *of the Marine Corps, Navy, Louisiana Air National Guard and Air Force, await morning colors at NAS New Orleans.*

NAS NEW ORLEANS *seen from a helicopter. Bottom to top, the tower; Navy-Marine Corps, Air Force and Air National Guard hangars.*

On April 26, 1958, the nation's first Joint Air Reserve Training Center was dedicated to the memory of a local WW I hero, Alvin Callender. Air units of the Naval, Air Force and Marine Corps Reserve, and the Louisiana National Guard, NSCG, are based at the center which is officially designated NAS New Orleans.

Capt. William A. Hood, Jr., is commanding officer, and makes available to his tenants the operational and logistical facilities of his station.

Civilian and military dignitaries from the local and national scene were on hand for the dedication ceremony. Secretary of the Navy Thomas S. Gates, Adm. Arthur W. Radford, former Chairman of the Joint Chiefs of Staff, and Louisiana Congressman F. Edward Hebert were among the speakers.

In honor of the occasion, there were fly-overs and static displays of Naval Air Force, Air National Guard, and Coast Guard aircraft; and a demonstration by the *Blue Angels*. Cole Brothers Flying Circus also performed.

The Joint Air Reserve Training Center is located on a 3,251-acre tract with plenty of room for expansion. Two runways measure 8,000 and 6,000 feet with provisions for extending each an additional 4,000 feet.

Three hangars, the largest shared by the Navy and Marine Corps and the other two, occupied separately by the Air Force and Air National Guard, are the latest approach to ground service facilities. The huge doors on the hangars are electrically operated cantilever fashion, swinging up and out.

About 700 officers and men of the four services are on active duty at the station. The greater share, some 400, are naval personnel. There are also over 200 Federal Civil Service workers employed.

The excellent spirit of harmony and cooperation among the four services is apparent to the most casual visitor. It reflects the spirit of Capt. Hood, who commented: "Satisfying the needs of the other services, as well as the Navy's, is what I'm here for, and with everybody playing the tune from the same sheet, we're going to make some sweet music."

CDR. BARCLAY, *left, and Cdr. Gates explain functions of Q-5 to Capt. W. H. Weston, CO.*

Oakland's Missile Program

A good example of relating civilian occupations of Weekend Warriors to the needs of the Navy can be found at NAS Oakland.

Cdrs. Clark H. Gates and Frank D. Barclay, members of BARTU 873, are employed by the Lockheed Missile Systems Division at Sunnyvale, California. They have designed a presentation to keep the 28 Oakland reserve squadrons abreast of the latest developments in the country's missile program. At the present time, a model of the Q-5 ramjet target drone is used in the demonstration.

Lockheed is also conducting a missile training program for naval operating personnel. Cdrs. Gates and Barclay act as intermediaries. Both men have appropriate backgrounds. Cdr. Gates, a military sales representative, was released from active duty just last year. He holds the Distinguished Flying Cross and five Air Medals. Cdr. Barclay is a Lockheed staff scientist with extensive experience as an advanced aeronautics engineer and research consultant. He served in the Bureau of Aeronautics during WW II.

AN HONORARY *certificate of special merit is presented to Scout Stiles by Capt. C. Keller.*

Scouts Tour Grosse Ile

The officers of NAS GROSSE ILE paid tribute to 11 Eagle and Explorer Scouts in connection with the 1958 Scout Recognition Program.

The Detroit area scouts received a top award and were invited to spend a day with a sponsor of their choice. Eleven of the enterprising young men chose to visit the air station and find out first hand about future careers in the Navy.

The visit consisted of a guided tour, an orientation flight in an R4D, a helicopter rescue demonstration, attendance at the latest Naval Aviation movies and luncheon at the officers' club.

Capt. C. A. Keller, commanding officer and host, welcomed all the scouts and gave them a quick rundown on what goes on at an air station.

STOCKCAR RACERS *from NARTU Jax display trophies they won in the Daytona Beach Speed and Safety Trials. Harry Ferran, AE3, driving a modified Olds 88 reached 134.8 mph. Bob Norton AE2, won three events in a 57 Hillman.*

'Enemy Interrogation' Staged

With a crash the door flies open and two burly enemy guards kick and shove a beaten and ragged naval aviator. A soft, oily voice speaks: "Our guards have treated you roughly but all that is past now. All you have to do is tell us the truth."

Supplementing a series of lectures on the Code of Conduct for members of the Armed Forces, a 15-minute drama on Communist interrogation techniques has been written by Lt. Richard H. Hill of NAS Los ALAMITOS, AGU-773. The thriller is making the rounds of the civic clubs throughout all southern California.

SEAMAN BECKER *acts as interrogator, AG3 Miller as pilot, AD3 Crane, AN Hickey as guards.*

Newsboys, Firemen at Denver

Forty Rocky Mountain News carriers enacted a "Day in the Navy" at NAS DENVER. The boys were finalists of 900 entries in a contest sponsored by the newspaper to determine the four outstanding carriers in the area.

Breakfast in the station cafeteria started the full day. By 0800 the enthusiastic group was ready to climb in and out of aircraft, inspect shops, learn to forecast weather, help the tower operator bring in planes, watch parachutes being packed, and witness a crash-fire demonstration.

The Denver event was the start of a "grand tour" for the four winners. Two headed West for a 10-day excursion to California and Hawaii. They saw a special showing of the submarine movie "Run Silent, Run Deep," visited Disneyland, placed a wreath on the battleship Arizona, and had a cruise aboard a submarine. The other two winners went to Europe. All four trips were paid for by the

GARY THAEMART, *winner of a trip to Hawaii, sells subscription to Capt. W. Hallock, CO.*

NAS DENVER also hosted volunteer firemen from communities surrounding the activity. Because of increased air traffic in the central Colorado region, a day's program was prepared to give crash-firefighting knowledge to the units.

The presentation was thorough and included a tour of the station facilities. There were demonstrations and discussions of the use of extinguishing agents, canopy release methods, ejection seat hazards, fuel tank and battery locations, disconnect methods, forcible entry into crashed aircraft and rescue of personnel. Films of all the above subjects were shown to supplement actual procedures. The station fire chief, William Trembath, set up both the tour and the program.

The visitors were given a flight in a station R5D transport so it wasn't simply one long 'Fireman's Holiday.'

FREDDIE AGABASHIAN, *left, who participated in his twelfth consecutive Indianapolis 500 contest this year, tries on a Navy helmet at Oakland where he made a safety presenta-*

SELECTED RESERVE PLAN READY

INSTANTLY READY *to proceed on its assigned mission. . . . The Naval Air Reserve will attain a state of combat readiness never before required in implementing the Selected Reserve concept.*

WE INTERRUPT this program for a special bulletin! The United States is threatened with imminent attack. . . . THIS IS NOT A DRILL. . . . I repeat, THIS IS NOT A DRILL! . . ."

To meet just such a contingency, a new plan for the immediate and most advantageous employment of Naval Reservists is being put in effect as rapidly as possible.

In event of general mobilization certain vital air missions, such as ASW and transport, will have to be executed immediately. Ships will have to get underway within hours or even minutes. There will be insufficient time for cutting of orders or even a telephone muster of personnel.

In the words of one Pentagon official, "Farewell parties and the legendary 'Honey, pack my bags,' will have to be foregone when the button is pushed. Action must be instant."

Leisurely mobilization and lead time are things of the past. The only effective forces will be those immediately available for the performance of required wartime missions. This is the task facing the Selected Reserves.

The Navy's concept of a "Ready" Reserve is being modified to provide a force which will be operationally ready at all times and prepared to deploy within hours after an alert or the outbreak of hostilities.

For example, destroyers will be stationed at strategic locations along the coast of the United States. Each ship will be manned by a small nucleus of active duty personnel. The balance of the crew will be built around this core from drilling Reservists residing in the immediate vicinity of the destroyers. These Selected Reserve destroyers will get underway for training with Selected Reserve crews in order to prepare the ship and the crew for instant readiness to join the active fleet in event of a national emergency. Exercises will be conducted on weekends, and Reserves will cruise their own ships during the annual training duty period.

Naval Air Reserve squadrons will be similarly organized and capable of deployment on pre-planned duties immediately. All squadrons will be given specific and well-defined missions spelled out in operations orders.

Each member of the organized air reserve will carry pre-cut orders to eliminate the time delay of mobilization processing. In part, the billfold-size directive reads: "You are ordered to extended active duty and will report *immediately* as indicated on the reverse side of these orders, *automatically*, without further directive, in the event of an enemy attack upon the continental United States or upon the execution of a general mobilization."

WEEKEND training will be geared towards readying the squadron for the execution of its operation order. Annual active duty for training will be performed under the supervision of the specified fleet commanders, and fleet school quotas for selected reserve personnel will be increased.

There will also be organizational changes within the Naval Air Reserve. Enemy submarine potential requires emphasis on anti-submarine squadrons. At the same time, fighter and attack types, while apt to decrease in number, must still be adequate to meet current requirements for building up fleet squadrons to wartime complements, and to furnish replacements. A realignment of ready reserve squadrons must be made to satisfy the selected reserve concept.

The members of the reserve organization have always been highly essential. However, at no time in its past has their emergency deployment been so clearly spelled out. Henceforth, each person will have a specific job to do at a specific place when the string is pulled. The precut, individual mobilization orders will serve as a constant reminder of this responsibility.

MARTIN, *AM1, and McElvana, AN, check oxygen flow regulator. Kowalski fills bottle.*

LT. PHILLIPS, *Ens. Tambini, Lt. Storey and Ens. Sullivan discuss maneuvers in ready room.*

SKIPPER *and Exec of the Boomerang Squadron give a Cougar a routine pre-flight check.*

SHORT PAST, BRIGHT FUTURE

POWER-PACKED and efficient, Attack Squadron 56 is based at NAS MIRAMAR. Although only two years old this month, the squadron has already developed into a first-line fighting force.

VA-56 was commissioned in June 1956 and is assigned the primary mission of special weapons delivery. A great deal of its effectiveness is due to the high morale from skipper to plane pushers.

During exercises the pilots earned 30 Battle "E's" in the fields of strafing, rocketry, over-the-shoulder and low angle loft bombing. In addition, VA-56 received a safety award.

However, proof of efficiency is success during deployment. On VA-56's first Far East cruise aboard USS *Bon Homme Richard,* the men outdid themselves. The squadron F9F-8 *Cougars* executed 80 sorties from NAS Cubi Point, P. I., to the carrier via Formosa, Okinawa, Iwakuni and Atsugi. Round-the-clock maintenance guaranteed high aircraft availability.

Cdr. Clyde G. Mitchell was ordered as commanding officer of the 27-pilot squadron on December 31, 1957. He had been executive officer for a year and a half before taking over the top post. LCdr. Frederick S. Gore, who came from duty at NAS CORPUS CHRISTI, is serving as exec.

A bright gold boomerang, denoting a swift and deadly attack capability, adorns the insigne. Through training and teamwork VA-56 will deliver!

GOT A FLAT? *These VA-56 men will be glad to take care of you. M. J. Vansack, AM3; R. J. Busker, AM2 and J. F. Navarro, AMHAN, do maintenance work on a squadron F9F-8.*

DAIBUTSU SHRINE *in Kamakura, Japan, is visited by Airmen Goole, Reed and Harrison, AE2.*

IN FOREIGN SKIES

BARBOUR, MARTIN, WILDE AND CASSADY

Ejection Seat Designer Honored

Mr. James Martin, chief designer and managing director of Martin-Baker Aircraft Company of England and Canada, has been given the Laura Taber Barbour Award in recognition of his design of the low level ejection seat which has saved the lives of 80 pilots in Britain alone.

The award was given by Frazar B. Wilde, President of Connecticut General Life Insurance Co., Hartford, and chairman of the Barbour Award Board. At the ceremony were Dr. Clifford E. Barbour, Sr., award donor and Admiral John H. Cassady, USN (ret.), president of the Flight Safety Foundation, Inc.

The citation of Mr. Martin's award reads: "For his contribution to the safety of crews of high performance aircraft through the design and development of ejection seats of exceptional capacity and capable of functioning at very low altitudes." The U. S. Navy is using the Martin-Baker ejection seat in the F9F-8T's now in production.

Winners of the two previous awards were I. Irving Pinkel and associates at the NACA's Lewis Flight Propulsion Laboratory, Cleveland, and Harry F. Guggenheim of New York City.

UK Visitors at Lakehurst

As part of the Mutual Weapons Development Program of the United Kingdom and the United States, the Naval Air Test Facility (Ships Installation), at NAS LAKEHURST, played host to the Royal Navy.

The visiting group, consisting of Cdrs. Kelly, Dyer-Smith and Webber of the Royal Navy, included the Lakehurst unit as part of the Naval Bureau of Aeronautics itinerary. Capt. D. K. Weitzenfield, USN, was the Bureau's guide with Capt. R. M. Tunnell, CO of the test facility.

The tour of the facilities included catapults and runway arrested landing sites, the recovery system test site, and also the Special Projects building.

COMFORTABLE SURVIVAL *is the aim of equipment tested at Portsmouth, England. Here survivor in modern polythene suit floats higher than others wearing old type rubber suits. Riding high in the water expedites a rescue.*

Additional 'Draken' Data

Now that the first production Saab J-35A *Draken* (*Dragon*), supersonic all weather jet fighter has flown, some new data have been released.

The J-35A Draken will be able to operate at Mach 1.8. The *Draken* prototypes, which have a less powerful engine and afterburner than the J-35A production version, have attained a Mach number of about 1.4 in level flight.

The production *Draken* is powered by a Series 200 Rolls-Royce Avon (RM-6) built under license by Svenska Flygmotor. This engine has a static thrust of about 11,000 lbs., which is increased to about 15,000 lbs. in the J-35A by means of an afterburner jointly developed by the Royal Swedish Air Board and Flygmotor.

The J-35A will be fitted with gunsight and radar equipment of Swedish design. Its standard armament will consist of two 30 mm automatic cannon, one in each wing, and air-to-air missiles, etc. carried under the wings. Later versions with more advanced equipment are on the way. The *Draken* has not only an impressive top speed; its sea-level rate of climb is of the order of 650 ft/sec. The shape, rigidity and strength of the wing permit high rates of roll, although Saab's test pilots do not normally exceed 200-225 degrees per second.

Flight testing has also shown that the *Draken* possesses excellent low-speed characteristics and that its runway-length requirements are very moderate; only about half those of the Saab-32 *Lansen*. The normal landing speed is about 135 mph, with a ground run of less than 1,300 yards even when only moderate braking is used in order to save tire and brake wear. With hard braking and use of the brake chute, a skilled pilot can easily land the *Draken* on runways with a length of only 650 yards or even less if necessary.

HU-1 CREWMAN, *A. J. Granquist, AD3, and J. E. Mitchell, AD3, assist Iranian Naval officers to don safety gear. The officers were members of a VIP group from Iran who were visiting Ream Field in an official capacity.*

Canadians Use 'Firebee'

Utility Squadron Three, the Navy's *Firebee* Target Drone Unit at NAS BROWN FIELD, demonstrated the loading and launching of the *Firebee*.

The drones, the first delivered to the Canadian Air Force by the Ryan Aeronautical Company, are the same type used by the Navy.

The Canadians plan to use the first of the drones at the RCAF base at Cold Lake, Province of Alberta.

THESE ARE THEIR FACES

CAPTION SAYS 30-YEAR-OLD PILOT FLIES AT SUPERSONIC SPEEDS

NEFEDOV HOLDS USSR'S HIGHEST TITLE: HERO OF SOVIET UNION

SPECIAL GEAR AND EQUIPMENT ARE DISPLAYED AS USSR TEST PILOTS ARE SHOWN EITHER IN AIRCRAFT OR PREPARING FOR FLIGHT

IN an issue of 'Soviet Union,' the USSR editors have run an article entitled '100 Hours in Space.' It features 17 Russian test pilots and their flights at high altitudes. 'Soviet Union' is the USSR counterpart of the USIA's 'Amerika,' a magazine published regularly for Russian consumption.

SOVIET AIRLINERS WITH TURBOJET AND TURBOPROP ENGINES ARE ALSO OFTEN FEATURED

SCHOOL GOES TO STUDENTS

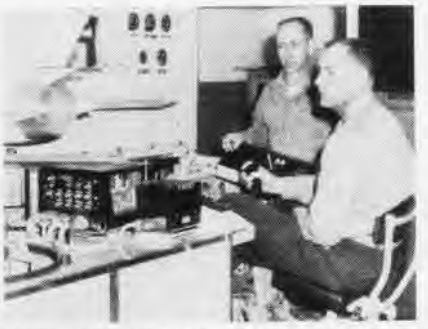
EIGHT enlisted instructors plus four vans of supersonic jet training equipment equals one mobile training unit.

Naval Air Mobile Training Detachment 1021, headed by MSgt. C. L. Knott, has moved its million-dollar portable school from the home base at

INSTRUCTORS PREPARE FILMS AND GUIDES

NAS CECIL FIELD to MCAS CHERRY POINT. Its mission is to instruct the personnel of Marine All-Weather Fighter Squadron 531 in the operation and maintenance of the F4D-1 *Skyray*. The delta-wing, 20,000-pound fighter is replacing the F3D *Skyknight* which the squadron has flown some 6 years.

Transition to a high-performance



MSGT. PRICHARD OBSERVES F4D 'FLIGHT'

aircraft requires a great amount of training of operating personnel. They must be thoroughly familiar with every aspect and capability of a newly-acquired plane. Detachment 1021 is tailored to provide specific technical information on the F4D.

The vans carry a J-57-P8 engine and representations of the principal *Skyray* systems in 15 portable panels, mock-ups and cutaways. There are charts, films, manuals and study guides, which reflect the most recent changes. The instructors are schooled at the Naval Air Technical Training Center, Memphis, and have had first-hand experience with the plane-type. If the aircraft is new, they are sent to the factory for about two weeks.

The F4D curriculum consists of plane captain and pilot familiarization, and maintenance of engine, structure, armament and electric systems. The length of a course varies in accordance with the needs of the trainees and the complexity of the aircraft.

Detachment 1021 is only one of a fleet of mobile trainers in the field. There is one on the job, manned by Navy and Marine Corps personnel, for each type of naval aircraft in operation. The first mobile trainer was established early in WW II and they have been used ever since. The Navy learned that by bringing the school to the student, a substantial saving in the cost of the training is realized.

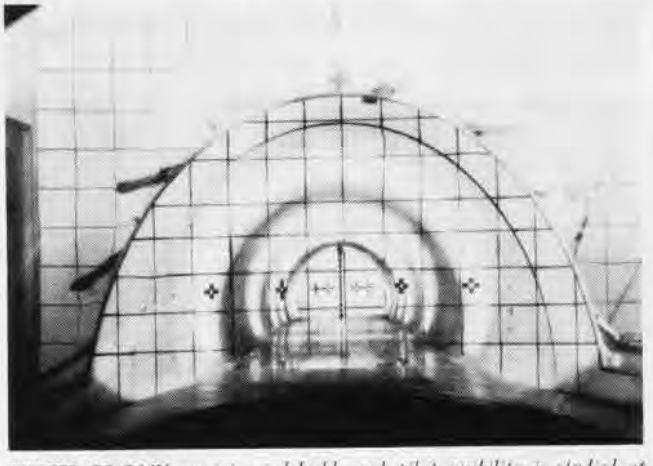
VP-2 Sailors Answer Call

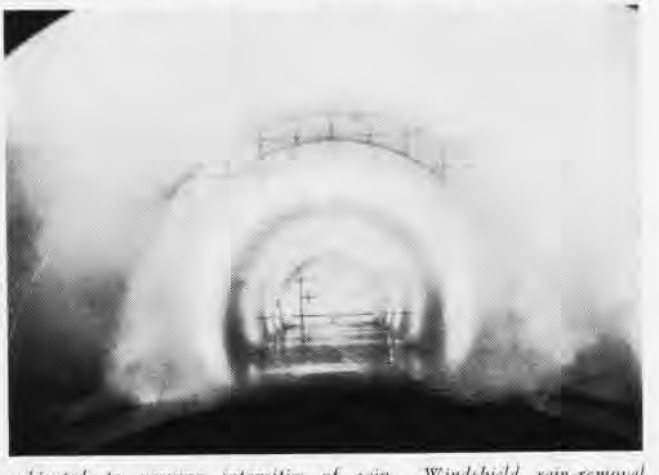
21 Volunteers Weed Strawberries

Twenty-one volunteers from VP-2 showed a Washington widow how thoughtful Navy men can be. Mrs. Paul Shepherd of Scenic Heights, widowed last summer and left with six children and a small farm to maintain, found eight acres of unweeded strawberries almost beyond redeeming until the volunteers from VP-2 arrived with hoes to clean grass from the patch.

The sailors ate Navy-prepared hot dogs at noon and cleared nearly half of the eight-acre patch the first day. Some of them had never seen a hoe or a strawberry patch.

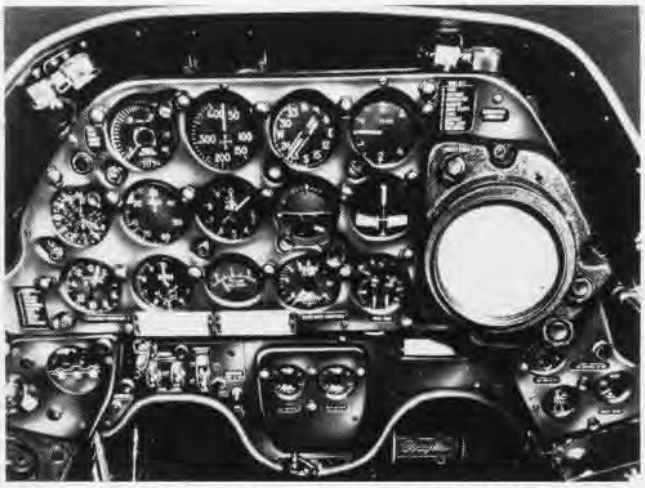
Alerted by the Oak Harbor Lions club of the widow's plight, Chief Clarence Beers called for volunteers.



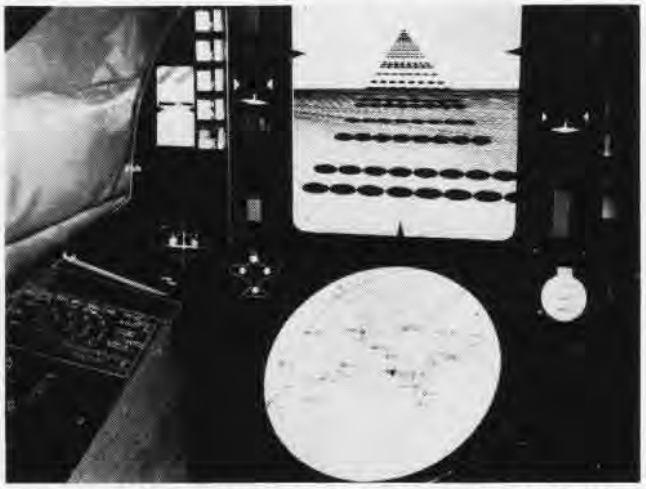


EFFECTS OF RAIN *on jet windshields and pilot visibility is studied at the Columbus Division of North American Aviation, Inc. The "Stormmaker" device, housed in a 65-foot, open-circuit wind tunnel, employs huge fan and six needles, each with tiny opening through which water passes under pressure. By altering the diameter of the needle aperture and the amount of needle agitation, storm intensity can be increased or decreased. Test windshields mounted at opposite end of tunnel are subjected to varying intensities of rain. Windshield rain-removal equipment can be checked for visibility effects from 2000 feet to ten feet aft of deck at speeds below 200 knots under either simulated day or night conditions. Left, tunnel simulation of mirror landing light arrangement is seen prior to artificial rain blast. Right view shows the reduced visibility effects of carrier approach in North American "storm" as torrent hits the windshield and at once creates an opaque curtain.*

ANIP'S 'PATHWAY IN THE SKY'



STANDARD INSTRUMENT PANEL IS COMPLICATED MAZE OF DIALS



MOCK-UP OF ANIP INTEGRATED COCKPIT SHOWS SIMPLIFICATION

A REVOLUTIONARY new device has been added to the Army-Navy Instrumentation Program integrated panel (NANEWS, January, 1958).

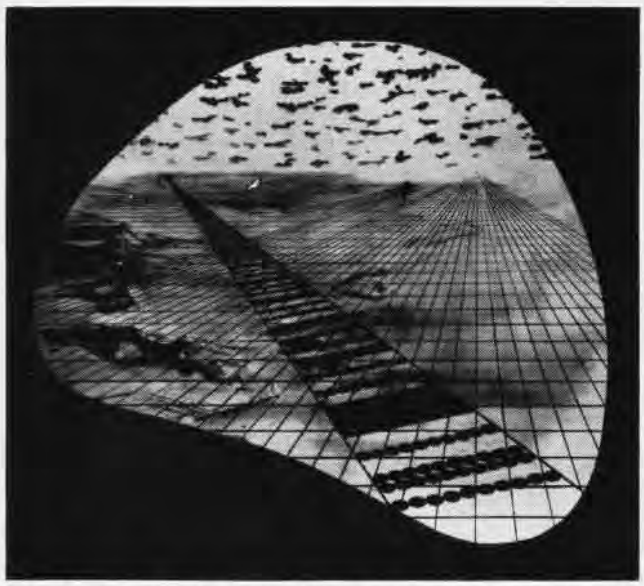
Called "pathway in the sky," it will enable a pilot to literally fly along a "road" shown on a transparent television screen set in the windshield.

The flight-tested contact analog, which displays a simulated picture of the outside world on the flat TV tube, shows the pilot how he's doing and what he's doing. Pathway tells him what he should be doing.

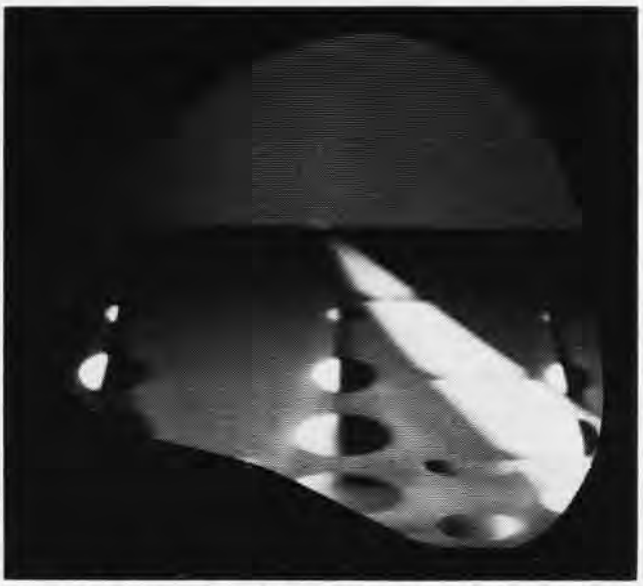
If the plane is exactly on course, the pathway stretches ribbon-like in front of the pilot, just as a highway does before a car operator. Off course, it appears to one side, or above or below him. Thus, he can tell at a glance whether he is going in the right direction, flying at the correct altitude and maintaining the proper speed to arrive safely at his destination. A horizontal smaller screen below displays a map of the area giving navigational position, with a circle indicating how far the fuel load will take him.

The picture displayed on the TV screen, including the pathway, is artificially generated on board the aircraft from the same pieces of information which appear on today's instrument panel. A small computer does all the work which results in the visual display. The pilot is thereby relieved of digesting numerous dial readings and making computations.

Application of the radical new system is not limited to aircraft. It could simplify navigation for surface ships, submarines and remote controlled vehicles, and may well be an important factor in space flight.



CLOUDS AND TERRAIN WILL APPEAR IN ULTIMATE PRESENTATION



PATHWAY IN THE SKY SHOWN IN PRESENT DEVELOPMENT STAGE

WM. J. O'SULLIVAN, SEATED, WITH SATELLITES RANGING FROM 30 INCHES TO 12 FEET

FOIL SATELLITE DESIGNED

AN INFLATABLE sphere made of aluminum foil mounted on a thin sheet of plastic film has been designed by NACA scientist William J. O'Sullivan for launching as a satellite. Such a satellite could appear as bright as the North Star if it orbits close to earth.

First, a 30-inch diameter aluminum sphere is scheduled for launching with one of the Navy Vanguard satellites. Later launching of a 12-foot diameter sphere is anticipated. Under ideal conditions, the 12-foot sphere would be visible to the naked eye at a height of 1600 miles.

The sphere will be folded into a small package along with a heavier regular satellite which contains instruments. After the regular satellite is hurled into orbit, the foil sphere will be detached and inflated by a bottle of nitrogen. When the sphere has rounded itself out, the nitrogen will be allowed to escape, according to plans.

The gleaming space-ball would then orbit at approximately 18,000 mph. Because the aluminum sub-satellite is so big and yet so light, the slightest air resistance would affect it much more than it would affect the heavier but smaller instrumented satellites.

Cosmic dust particles and tiny meteors might pepper the aluminum spheres as they orbit, but scientists think the particles would pass completely through the sphere walls, leaving tiny pinholes. Since there would be no pressure inside or outside the sphere, it is believed that it would retain its shape.

From visual observations scientists can determine air drag and density; obtain more accurate measurements of the size and shape of earth; determine ion densities by means of certain precise radio techniques; and calculate more accurately the moon's mass as the satellite's orbit passes the moon.

Scientists calculate that a 12-foot aluminum foil sphere, if placed in orbit around the moon, could be seen through astronomical telescopes.

Dr. Hugh L. Dryden, Director of NACA, told a Congressional committee in February that serious thought is being given the idea of putting aluminum foil spheres which measure 100 feet in diameter into space. With four or five such spheres orbiting, radio signals could be bounced all around the earth. Such passive repeater stations in space would have the advantage of being able to take an unlimited number of radio channels, according to the NACA director.

Cost of aluminum for the 30-inch sphere is 56 cents. The 12-foot "big brother" model will use $12.56 worth.

Navy Reenlistment Urged

NAVCAT Helps Navy Men Decide

A Navyman in the Far East may brace himself for a "shipping-over talk" as his discharge date approaches. He is usually surprised at the straight forward lecture and discussion he receives from the U.S. Navy's Career Appraisal Team.

Chief Aviation Boatswain's Mate Archibald B. Pence and AB1's W. L. Kerr and Roy F. Frum of the Staff, Commander Fleet Air Japan, handle NAVCAT for Naval air units in Japan and Okinawa. They give the listeners a good look at the facts on the civilian job situation as compared with the opportunities the Navy offers. This is to help the men make their decision for or against reenlistment based on facts.

Using colored cards on a flock

KERR GIVES NAVCAT PITCH AT ATSUGI

board, the team begins its presentation with a run-down of Navy benefits and their dollars-and-cents value. Such things as free medical and dental care, Navy exchange and commissary privileges, reduced taxes, survivor benefits, clothing allowances, recreation facilities and educational opportunities are discussed in terms of their comparable cost to civilians. The Navy retirement plan is compared with that offered by a large aircraft manufacturer.

Both men have ten years service on the job and must live on their salaries. "The civilian has $10 more but," adds Kerr with a grin, "the serviceman gets so many benefits free. This more than beats the ten bucks extra made by his friend on the outside. Each man is urged to consider everything involved.

"A lot of men leaving the Navy tell me they're going out to set the world on fire. Well, the matches they discover, are very hard to find."

Atom Plane Studies Made

AML Seeks Lightweight Shielding

Studies are being made at the Aeronautical Materials Laboratory in Philadelphia which may provide answers to many problems involved in building the Navy's first atom-powered seaplane. Aim of the research is to develop materials which can withstand heat and radiation effects which would exist in A-powered aircraft.

Weight limitations prohibit use of such heavily shielded nuclear reactors in an airplane as those in atomic subs.

Development of a nuclear-powered aircraft, based on the need for a long range, long endurance turbo-prop seaplane for use in anti-submarine warfare, early warning, and cargo transport, is being pursued by the Navy.

The studies at Philadelphia are being conducted with a newly-designed testing apparatus which contains cobalt 60, a radioactive isotope of cobalt which has been previously used in the treatment of certain types of cancer.

The Materials Laboratory is directed by Capt. James W. Klopp. It is part of the Naval Air Material Center and is responsible to the Bureau of Aeronautics for development and test of the materials used in Naval aircraft.

THE ELONGATED NOSE *is a distinctive feature of the F-106B Delta Dart. Except for the tandem second seat and the longer cockpit canopy, A and B versions of the F-106 look alike externally. Forward sections of the Delta Dart, a plane described as the fastest, highest flying all-weather jet interceptor in the U.S. Air Force, are fabricated at the Forth Worth plant of Convair Division, General Dynamics, and shipped to San Diego for assembly with rest of aircraft.*

Other studies being conducted are intended to firm up the design of the first Navy nuclear powered aircraft. For practical reasons, including budgetary limitations, the Navy favors development of the new atomic propulsion system in an existing airframe.

SUCCESSFULLY FLIGHT-TESTED *cockpit panel of the future, installed in cockpit of this Navy T2V-1 trainer, has been under development since 1953 as a joint Army-Navy instrumentation program. It has been made available to U. S. Airlines. Panel not only tells pilot what he is doing, but what to do next. Note simplicity of television-type front panel as compared to standard instrument panel in rear cockpit. New concept (story, p. 33) was developed under Douglas contract.*

Electra Chosen for ASW

Will Replace P2V Sub Hunters

Lockheed's turboprop *Electra* has been chosen for use in antisubmarine warfare after an extensive evaluation study comparing several airplanes.

All aircraft considered had been previously developed for commercial or military use. RAdm. R. E. Dixon, Chief of the Bureau of Aeronautics, said that such "off the shelf" procurement will save time and money in ultimate delivery to naval operating forces. A commercial version of the *Electra* will enter service with the airlines this fall.

The *Electra* was described as the one which most nearly filled the Navy's requirements for a land based ASW aircraft. A research and development contract with Lockheed for a mock-up model and further outfitting study will follow shortly.

Electra will be powered by four Allison T-56 turboprop engines. It will carry a crew of ten and will be equipped with the latest instruments for detection and destruction of enemy submarines.

It will eventually replace the P2V *Neptune* series of Navy ASW aircraft which has had the longest lifespan of any military aircraft built by Lockheed. P2V production dates to 1944.

'AS A PRISONER OF WAR YOU SHALL NOT . . .' AND LIST STARTS

INSTRUCTORS ARE ALWAYS AROUND TO HELP SOLVE PROBLEMS

NO SNAP COURSE IN SURVIVAL

TWENTY-SEVEN men, representing three aircraft squadrons from NAS BARBER'S POINT and one from Guam, looked at their surroundings. The lonely sound of surf reached their ears from the beach which lay out of sight beyond the brush.

"This is no Garden of Eden," a hard-bitten instructor said. And thus another group of Navy fliers "learned by doing." The course was tough.

A week-long survival course, described by most of its graduates as "grueling," begins almost every Monday morning at NAS BARBER'S POINT. It opens with a lecture by the executive officer of Fleet Airborne Electronics Training Unit, Pacific, Detachment Three, the group that conducts this special training.

Two days of lecture and movies include such topics as equipment, edible food, land navigation, parachuting, water procurement, first aid, arctic problems, the Code of Conduct, evasion and escape, enemy indoctrination techniques and prisoner-of-war camp organization.

Heard knowledge becomes *head* knowledge Wednesday morning with a wet drill—survival and life aboard a liferaft.

Immediately after the drill, the men are transported by truck to the desolate area which comprises the Campbell Estate, 1500 acres of rugged land.

"You are survivors of a plane crash just off the beach," the instructor says. "You didn't crash in paradise. Water, shelter, signalling, sanitation—these and other problems must be solved."

The men fall to, in groups of three, constructing lean-to's and casting about for water and food. By nightfall, they have found both.

Thursday is devoted to "land navigation," during which the men are required to utilize map, compass—and shoe leather—to pilot themselves to given locations.

The escape and evasion portion of the survival school is on Friday and is the part most talked about. The infamous "aggressor" forces are composed of two Navy men and 13 soldiers from the Army's Schofield barracks. Sometimes the men are former POW's and they know how to make the training realistic.

Approximately 1200 men per year go through this training at Barber's Point. There is no knowing how many men will ultimately owe their lives to knowledge gained from the course.

PROPER SIGNALLING OF PLANES AND SHIPS BRINGS NEEDED SUPPLIES TO SURVIVORS

● Pilots of Marine Attack Squadron 225 flew more than 900 sorties, including 239 "attack" missions over Culebra and Vieques Islands during a Puerto Rican maneuver. They expended more than 400,000 pounds of bombs, 2900 rockets and 40,000 rounds of 20-mm ammunition in addition to other ordnance dropped for modern special weapons training.

REWORK IS READY IN 30 DAYS

CHERRY POINT INTERIM REWORK LINE KEEPS PLANES READY FOR SERVICE IN FLEET

THE BUREAU of Aeronautics has initiated a plan in line with its policy of keeping the maximum number of aircraft operating on the line in the Fleet. It is called "Interim Rework" (NANEWS, Sept. 1957, page 6).

Aircraft are taken directly from operational squadrons of the Atlantic Fleet, the Naval Air Reserve Training Command and the Second Marine Aircraft Wing to the Overhaul and Repair Department at MCAS CHERRY POINT. They are thoroughly checked and reworked, then returned to their squadrons in less than 30 days.

Aircraft are ferried to the O&R by squadron pilots who bring with them complete rundowns on the planes' discrepancies. Under the direction of Capt. Scott Lark, Program Officer, an airplane is started on its scheduled rework run.

Only certain types of planes fit into the interim rework program. They are operated for about 38 calendar months on their first service tour. Planes of this type are scheduled for interim rework twice during this period. Each type has its own O&R "process" when it arrives for rework.

On receipt of the aircraft, the O&R department starts the process. First the plane is delivered to the acceptance and transfer department where it is checked for excess gear that will not be included in the interim rework.

From the acceptance crew, it is delivered to the preservative section where it is de-fueled and the engine is preserved.

A wash-down follows. Excess oils and dirt are removed to give the mechanics a clean working area.

Once the aircraft is delivered to the O&R hangar, it is placed in a stall and turned over to a crew of specialists in each field of repair.

As the interim crews start on the aircraft, it begins to resemble a shingle roof after a wind storm. Plates and access doors come off and the tail section is removed to pull the jet engine.

Delicately, the experts begin their work of making modifications and checking over the discrepancies that the squadron pilots reported. While current modifications are being made, parts are pulled off the aircraft and sent to various shops and stores to be replaced or repaired.

Once the aircraft is reassembled by the stall crew, it is turned over to the paint shop for a touch-up. From there the ship is taken out to the flight line for ground run-up and flight check. If no trouble is found, it is turned over to the Fleet liaison crew. They accept the aircraft for the fleet, pre-flight it and notify the custodian of the aircraft that it is ready for ferry.

Although the interim rework program has been in process at Cherry Point for only 18 months, the results of the new concept of aircraft repair have shown that the service life of fleet aircraft between overhauls has been increased, with the availability of more, modern aircraft over a longer period without a decrease in safety.

ELECTRICIAN CHECKS WIRING OF A FURY

AFTER REWORK IS COMPLETED, THE POWERPLANT OF AN F3H DEMON IS RE-INSTALLED

CLOTHING *for Hong Kong's needy is sorted by Ltjgs. Partridge and Jensen, Airmen Melby and Megard of Det. G, VFP-61, aboard the USS Lexington. The detachment distributed U. S. church gifts while deployed in Far East.*

New Missile is in Offing

Temco Named Corvus Contractor

The new air-to-surface missile *Corvus*, being developed for the Navy by Temco Aircraft Corporation, is designed for penetration of heavily defended areas—a stand-off missile. To be used on carrier-based aircraft, it will also have a capability against surface ships.

Temco has been given responsibility for managing all aspects of the program as prime contractor. This includes any necessary modifications of aircraft for carrying the missile, plus development of ground-handling, test and checkout equipment, and packaging.

Temco has awarded subcontracts to several firms working on *Corvus* components including: Reaction Motors, Maxson Corporation and Texas Instruments.

Mr. I. Nevin Palley, Temco vice president for engineering, has described the *Corvus* missile a "sophisticated weapon system based upon advanced technological developments."

Rotor Tracker Introduced

Device is Standard on HOK, HUK

A device which permits a helicopter pilot to bring wooden rotor blades into track (at an equal height and in the proper pitch) is standard equipment in Kaman HUK-1 and HOK-1 helicopters now being delivered to the Navy and Marine Corps.

Before the pilot-operated device was developed, an experienced ground crewman stood outside the helicopter and held a rubber "paddle" while the pilot turned up the helicopter's engine. Chalk previously applied to rotor tips would brush off on the rubber and leave an impression at each point of contact. The chalk marks served as a basis for correction.

According to Kaman, the new device allows the pilot to adjust his rotor blades in flight and bring them into track under flight conditions ranging from hover to high speed flight.

JACKING DEVICE *designed to lift a P2V from its axle instead of using a wing jack is displayed by its inventor, Louis Martin, MR1 of FASRon 105. Device has been used successfully and approved by BuAer for emergencies.*

Tubeless Tires Used

Save Millions in Regulus Tests

Tubeless tires capable of 300 mph speeds are saving millions of dollars by enabling *Regulus II* guided missiles to be recovered after every test flight, according to the B. F. Goodrich Co.

The test and training versions of the 57-foot-long missiles are equipped with landing gear and tubeless tires that have withstood as many as six landings.

Tires on the main gear are capable of supporting 9000 pounds each. The nose wheel tire can support 2000 pounds.

The tires, large enough to withstand impact, yet small enough to fold into the slim fuselage, make possible missile recovery and reuse. These tires also can withstand low temperature and low pressure encountered by *Regulus II* at 60,000 feet at twice the speed of sound.

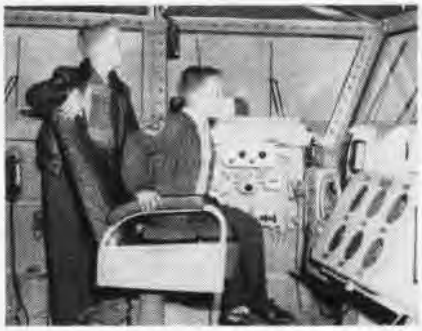
Tartar Missiles Ordered

Navy Contract Awarded Convair

The Navy has awarded an $8 million contract to Convair, a division of General Dynamics Corporation, Pomona, California, for BUORD for pilot line production of *Tartar* guided missiles. These will be used for testing and evaluation at the Naval Ordnance Test Station, China Lake, Calif., and on the USS *Norton Sound*.

Tartar is the newest and smallest of the Navy's guided missiles in the surface-to-air category. It is designed for use from ships as small as destroyers and for secondary battery use from cruisers. Destroyers in the 1957 shipbuilding program will be the first to be equipped with *Tartars*. In spite of its small size, *Tartar* will have superior performance to that of the first operational *Terrier* missile.

Convair is the prime contractor for both *Tartar* and *Terrier* missiles.



YOUNG VISITORS *Bryan and Brent Hay share the Captain's chair on USS Hancock during an open house. The boys were part of 2000 San Diego County residents who toured the big carrier tied up at NAS North Island.*

New Incentive Provided

Ground School Adds Honor Roll

Academic proficiency is a necessary pre-requisite to becoming a good naval aviator. In fact, aside from actual flight training, there is no more important aspect of the Primary phase of instruction.

The instructors at the Ground Training School at NAAS SAUFLEY FIELD suggested that some type of formal recognition should be given to students who excel. Based on their recommendation, Cdr. Ralph Botten, Ground Training Officer, established the "Captain's List," which is similar to the Dean's List found in many civilian colleges and universities. For the first time, Saufley's aspiring students have what could be termed an incentive for reaching the higher echelons in Primary phase academic instruction.

To be eligible for the honor, a student must obtain a 3.7 grade in his work and must maintain this average throughout the entire course.

Self Study is Stressed

Men of MTG–20 Study After Hours

"Educating ourselves when we're not training others" is a motto of Marine Training and Replacement Group 20 at MCAS CHERRY POINT.

Primary mission of the group is training Marine personnel in all phases of operational aviation but self-training runs a close second.

In less than eight months the group has nearly tripled the number of its personnel actively engaged in off-duty study by means of a sound educational program under the direction of 1st Lt. Edward C. Tipshus.

The group had 101 men enrolled in off-duty education last July. Today, There are 283 men signed up and actively engaged in all types of off-duty schooling through the Marine Corps Institute, Armed Forces Institute, Marine Corps Extension Schools and the North Carolina Extension College.

VADM. W. L. REES, *ComNavAirLant, took a hop in one of Navy's A3D-2 Skywarriors with VAH-5 pilot, Ltjg. D. R. Ortman. VAdm. Rees was observing VAH-5's night and all-weather carquals aboard USS FDR.*

Mercy Mission is Flown

Tiny Infant Rushed to Hospital

The smallest and youngest person ever to ride in a radar *Super Constellation* WV-2 was the object of a mercy flight from Argentia, Newfoundland to Boston.

Tiny Carol Lee Adkins, three-day-old daughter of HM2 and Mrs. David D. Adkins, was born prematurely. She weighed two pounds, 14 ounces.

The *Super Connie,* assigned to VW-15 at Argentia, touched down at Logan International Airport in Boston five hours after takeoff from Newfoundland. Navy medical personnel were waiting with an ambulance and a police escort to rush the child to the U. S. Naval Hospital in Chelsea, Mass.

Carol Lee was born at the station hospital in Argentia. Doctors felt that facilities were not adequate to handle her premature condition, even though an incubator was available.

New Squadrons Authorized

Will Enhance Reserve Training

Formation of 21 new Marine Air Reserve squadrons—12 helicopter, six fighter and three attack—has been authorized.

The helicopter squadrons will permit large ground and air reserve units to train in the new vertical assault combat doctrine of the regular Marine Corps.

Helicopter squadrons will be established in Columbus, Dallas, Glenview, Los Alamitos, Miami, Minneapolis, New Orleans, New York, Oakland, Seattle, Willow Grove and South Weymouth.

Additional MAR attack squadrons will be organized in Atlanta, Glenview and Miami. Fighter squadrons will be located in Dallas, New York, Oakland, Willow Grove; two in Los Alamitos.

JIMMY, *a crippled hawk which found haven at sea aboard the attack carrier Essex in the Mediterranean, is held by Capt. Thomas A. Christopher, skipper of the Essex. When nursed back to health, the bird was released.*

Iwakuni Runway Extended

8000-Foot Strip Improves Safety

A 1000-foot runway extension with a 200-foot overrun has been completed at MCAF IWAKUNI, Japan. Building was done by the Tokyo Denki Construction Company.

Now 8000-feet long, the runway is capable of handling all of the latest model aircraft.

Col. Ralph R. Yeaman, Commanding Officer, said, "Completion of this runway extension is another step forward in aviation safety at Iwakuni."

Sperry Awarded Contract

Talos Computer System Ordered

The Bureau of Ordnance has awarded a $12,821,000 contract to Sperry Gyroscope Company for production of computers and other components of the *Talos* guided missile system.

The computers will help to pick out and lock on to a target, track the target, operate the launcher and even provide a display for tracking the missile as it streaks toward contact with the target.

Talos will form the major armament of light cruisers *Galveston, Little Rock* and *Oklahoma City* which are being converted into guided missile cruisers. Conversion of the *Galveston* will be completed this year, at which time the *Talos* missile will become operational.

12 Reenlist, 1 Extends

Ceremony Held on USS Kearsarge

Thirteen men aboard the attack aircraft carrier *Kearsarge* reenlisted for a total of 68 years in a flight deck ceremony. Capt. Paul E. Emrick, commanding officer, conducted the ceremony while the ship was berthed at Yokosuka, Japan.

Reenlisting for six years were Albert B. Cook, GMSN, Robert H. Marsh, CS3, Robert E. Sutton, SN, Richard O. Bowe, SM3, Charles J. Friese, BTFN, Mac N. Stallings, SN, Joseph E. Pfeifer, PH3, Benigno N. Macisieb, SD2 and Robert N. Toliver, SD3. Four-year reenlistees were Donald R. Briggs, AOC, Joseph N. Maliski, GM1, and Harlan W. Jenson, AOC. Hubert E. Meirowsky, EMFN, extended his "cruise" two years.

HUL HELICOPTER *of HU–1 detachment aboard USS Burton Island in Antarctic takes off to scout ice pack. In six months, three officers and 10 crewmen made 275 flights, surveying the ice, shuttling passengers and making photos.*

LETTERS

SIRS:

Your "Memorandum to Desk Pilots" in the January 1958 issue of *Naval Aviation News* should be mandatory reading for all pilots and commanding officers. Already this attitude has to a great extent filtered down to the ranks of lieutenant and lieutenant commander. The attitude of desk pilots flying at their convenience and the lack of the "will to fly" should be an item in the fitness report of all naval aviators.

It is the responsibility of the senior naval aviators today to motivate the junior naval aviators. If this lessening of motivation continues, even the ensigns will be desk pilots.

JAMES F. RUMFORD, CDR. USN

Normandy Facts Are Sought

Cooperation with Publisher Urged

A major book on D-day at Normandy is currently being prepared by Cornelius Ryan for Simon and Schuster, book publishers, and *The Reader's Digest*. All personnel who participated in the Invasion of Normandy up to and including 6 June 1944, are urged to notify Miss Frances Ward, *The Reader's Digest*, 230 Park Avenue, New York.

Personal interviews with selected participants will follow. Cooperation is encouraged by the Chief of Information as a means of helping to tell the Navy's part in the operation.

RADM. C. D. GRIFFIN, *ComCarDiv-4, visited the Fleet All Weather Training Unit, Atlantic at Oceana. While there he flew in the Navy's latest jet instrument trainer, F9F-8T, a two-seated version of the Grumman Cougar.*

Rescuers Feted on Essex

Thanked for Helping Navy Pilot

Two Frenchmen who rescued a Navy pilot just after he hit the water off Toulon, France were guests on the USS *Essex*, to which the *Red Ripper* squadron is attached. Capt. Thomas A. Christopher is the carrier's CO.

One evening Lt. Mike Zibilich was forced to parachute from his disabled jet aircraft after heading out to sea.

Aroused by the explosion of the flamed-out *Banshee*, Paul and Rene Michel of LaTour Fondue, Giens, France, dashed out on the peninsula near their fishing village and saw the pilot just before he hit the water.

Lt. Zibilich managed to reach a rocky projection in the heavy surf, and the two Frenchmen waded chin high to assist him ashore. The pilot

THE MICHELS STUDY RED RIPPER EMBLEM

was taken to the French Naval Base of Palyvestre at Hyeres, where he was given food and drink, and a change of clothing.

The Navy fighter-pilot praised the Michel brothers and his treatment by officials at Palyvestre. They, in turn, lauded him for risking death in ocean waters rather than endanger French life and property on the coast.

★ ★ ★ ★

Chief Journalist Joseph E. Oglesby, USN, who prepared the story, "They fly the Polar Ice Cap," pp. 1-7, was an on-the-spot observer of much of what is related, having participated in Operation *Deepfreeze I and II*.

★ ★ ★ ★

CONTENTS

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

● COVER

New world altitude record setter, LCdr. George C. Watkins reached height of 76,938 feet in Grumman F11F-1F. The NATC pilot was awarded DFC for feat.

● CREDITS

Pictures used in the story of the Third Annual Air Weapons Meet, pp. 12-14, were furnished Naval Aviation News by the Grumman Aircraft and Engineering Corporation . . . . Pictures used on pp. 20-21 for "Deltas by the Dozen" are used by courtesy of Hawker—Siddeley Review.

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CARRIER AIR GROUP 9

A study in naval air power, CVG-9 aircraft rendezvous over Subic Bay, Philippine Islands. Skywarriors of Heavy Attack Squadron Two lead the way, flanked by Fighter Squadron 91 Furies above and Attack Squadron 93 Skyhawks below. The Demons of Fighter Squadron 122 bring up the rear. The air group was based aboard USS Ticonderoga (CVA-14) during deployment in the Far East. The insignia portray the spirit of determination and devotion to duty of each one of the squadrons.

VAH-2 **VA-93** **VF-91** **VF-122**

STORY OF THE MAN IN JET 205

NAVAL AVIATION
NEWS

TWO YEARS AGO the young man in Navy Jet 205 was a college student who had never flown an airplane. Today, as he sits in his F3H Demon on the starboard catapult of the USS Midwy, he is a pilot extraordinary—a Naval Aviator. A specialist in supersonic flight techniques, his Navy Wings of Gold further identify him as an expert in aerology, navigation and communications. Take steps today to qualify at the nearest Naval Air Station or Navy Recruiting Office. Like the man in Jet 205, you too can make the transition from college campus to carrier deck.