

NAVAL AVIATION

NEWS



48th Year of Publication

SEPTEMBER 1967

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CATCHING ON

With split-second timing, an A-4 Skyhawk, just returning from a mission over North Vietnam, catches the #1 arresting wire aboard USS Hancock. Above, at right, another A-4 begins its final approach as the plane guard destroyer steams in carrier's wake.

NAVAL AVIATION NEWS

FORTY-EIGHTH YEAR OF PUBLICATION SEPTEMBER 1967

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- Joe (Navy) College** *There are no co-eds, football teams or "hippies" at this institution of higher learning, the Naval War College.*
- The Spunky Spad 10** *Call it Able Dog, A-1, Skyraider or Spad; it's earned quite a name for itself in 20 years of hard flying.*
- An AP Story 12** *NANews presents the historical background on a unique breed of Navy man, the enlisted pilot. Subsequent stories on the same subject are also planned for future issues.*
- A New NAS 17** *NAS Albany, Ga., has been commissioned.*
- Corsair Caper 20** *With transition training completed, VA-86 becomes the Navy's first operational squadron flying the new A-7 Corsair II.*
- More Early Days 24** *NANews' continuing coverage of Naval Aviation in WW I spotlights July, August and September of 1917.*
- Pst! It's WST! 37** *The P-3A Weapon Systems Trainer is a boon to personnel assigned to VP-30.*

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■ COVERS

Cover photo of two VA-86 A-7's on a practice bomb run is from VFP-62. JOC R. D. Moeser shot the A-4 above. Back cover, by PH1 D. C. Grant is of LCdr. V. L. Knaus at Naval War College. (See the article on pp. 6-8.)

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NAVAL AVIATION NEWS

New VX Squadron Named Executes Oceanographic Missions

On July 1, the Oceanographic Air Survey Unit (OASU), Patuxent River, Md., was redesignated Air Development Squadron Eight (VX-8). This change was made in the light of the fact that the collection of scientific data for the U.S. Oceanographic Office is closely associated with the type of missions performed by Navy's air development squadrons.

VX-8 is the first Naval Aviation unit specifically organized to conduct oceanographic and magnetic survey flights which provide a uniform method of coordinating the collection of scientific data vital to U.S. operational forces throughout the world.

The increasing significance of oceanography and the variety of instruments available make the scientific mission of VX-8 an exciting one.

The squadron has three basic missions: (1) To conduct oceanographic and magnetic research survey flights, a mission which encompasses projects *Birdseye*, *Magnet* and *ASWEPS*, under the technical control of the Commander, U.S. Naval Oceanographic Office, Washington, D.C.; (2) to provide airborne radio and television to the Republic of Vietnam; and (3) to train students in the C-121 type aircraft.

VX-8 is under the administrative control of Commander, Fleet Air Patuxent, and under the operational control of Commander, Naval Air Force, Atlantic Fleet.

Flatley Awards Announced Intrepid Designated CVA Winner

The Chief of Naval Operations has announced the winners of the Fiscal Year 1967 Admiral Flatley Memorial Awards for superior performance in aviation safety: CVA class, *Intrepid*; CVS class, *Randolph*; and LPH class, *Princeton*. Other nominees were *Enterprise*, *Hornet* and *Guam*.

CNO pointed out that it was "gratifying to note that in spite of continuous heavy commitments and operating in a combat environment, there were fewer carrier landing accidents in FY 1967 than in the previous year." He congratulated the winners and commended all hands for "their substantial contribution to the accident prevention program."

LPH Scores High in Awards Honored by Naval Weather Service

The USS *Guam* (LPH-9) has been honored by the Office of Naval Weather Service Command in its awards program for calendar 1966.

Guam, named over-all winner in both surface and air observations among ships, was also granted awards for "outstanding contribution" and "outstanding performance." An announcement said it was the first time a ship or station has won all available awards in a single year.

Other "outstanding contribution" awards were granted to the Pacific Missile Range, Lt. Robert G. Holts, and jointly to Commander Frederick G. Olson and LCDR. Neil F. O'Connor, a NANews writer and illustrator.

"Outstanding performance" awards were also presented to the USS *Currituck* (AV-7), USS *Enterprise* (CVAN-65), USS *Iwo Jima* (LPH-2), USS *Kearsarge* (CVS-33), USS *Oriskany* (CVA-34), USS *Saratoga* (CVA-60).



THE OATH of office of the Chief of Naval Operations is administered to Admiral Thomas H. Moorer, by Rear Admiral W. A. Hearn, Judge Advocate General, in a ceremony held August 1 at the U. S. Naval Academy at Annapolis, Md. Adm. Moorer relieved Adm. David L. McDonald.



BATTLING FIRES ON FORRESTAL'S FLIGHT DECK, CREWMEN SPRAY WATER ON AIRCRAFT

FIRE, BLASTS STRIKE FORRESTAL

A JET FUEL fire that started as aircraft were being readied for launch turned into a holocaust of flames and explosions on the flight deck of the USS *Forrestal* while the attack carrier was operating in the Gulf of Tonkin July 29. Before it was brought under control, the inferno left in its wake a reported 134 crewmen dead, 62 injured and two missing and presumed dead.

The fire broke out as *Forrestal* was entering her fifth day of combat operations off the coast of North Vietnam. Strike aircraft—fueled, armed and manned—were spotted for launch when flames erupted on the flight deck.

Quickly enveloping the aircraft, fire spread to the fantail of the ship and below decks. Heroic crew members disarmed and jettisoned bombs and rockets and pushed burning aircraft over the side. Assistance to the stricken carrier was provided by the carriers *Oriskany* and *Bon Homme Richard* and the destroyers *Rupertus* and *Tucker* in the form of fire-fighting and medical aid.

The heroism of *Forrestal* officers and enlisted men as they battled the fires for fully 12 hours earned the unqualified praise of both Rear Admiral Harvey P. Lanham, ComCarDiv Two, who said he saw "more heroic incidents than I can count," and *Forrestal's* C.O., Captain John K. Beling.

Despite the crew's efforts, however, exploding 750-pound bombs ripped four holes in the ship's flight deck and blasts and fire caused extensive damage to several critical spaces—including arresting gear engine rooms—forcing the carrier to steam for Subic Bay in the Philippines for damage assessment and partial repairs.

Early estimates of damage climbed as high as \$135 million, but the greater part of this figure represented the reported 26 aircraft either destroyed or jettisoned and an additional 31 planes damaged to some extent.

Rear Admiral Forsyth Massey, Captain Albert K. Earnest and Captain Martin Stack were appointed to investigate the fire aboard the carrier.



SMOKE POURS FROM FORRESTAL AS DESTROYER AND HELO MOVE TO PROVIDE ASSISTANCE

Range Control Center Open

Roosevelt Roads Unit is Dedicated

On July 21, in special ceremonies, the Central Command and Control System (CCCS) for the Atlantic Fleet Weapons Range was dedicated. The program was opened by Captain C. E. Healy, Range commander.

According to Captain Healy, "The new system brings the Atlantic Fleet Weapons Range out of the generation of the early 1950's and into today's world of real-time data processing and information retrieval."

Integrated into the over-all system with the Naval Tactical Data System (NTDS) are three large screen displays which present real-time selected range activities in six colors with appropriate annotation. These displays provide a common frame of reference for the operators of the NTDS consoles and for the evaluation personnel responsible for exercise command and control.

A comprehensive microwave system ties all range sensors and communications facilities to the Range Operational Control Center and to each other.

The new CCCS will provide a replay of virtually any exercise. This capability will yield an analysis potential never before realized and minimize the requirements for lengthy efforts on the part of many people to reconstruct participant/event/time relationships.

The Atlantic Fleet Weapons Range Command encompasses training and exercise areas covering 180,000 square miles of ocean surface. Under its operational control is VC-8, which offers a complete range of aerial targets and service to the Range.



GRAMPAW PETTIBONE

The Hard Way

Preparing for a strafing hop, the *Skyhawk* pilot noted on a previous yellow sheet a complaint about an excessive amount of oxygen being used. This gripe had been remedied and a subsequent pilot had reported no further problems encountered with the system. Without further ado, the A-4 driver manned his aircraft and was catapulted off at 1748. At this time, there were multiple cloud layers and thunderstorms in all quadrants.

After takeoff, the *Hawk* driver proceeded to the rendezvous overhead at 13,500 feet and set up a port orbit. Upon being joined by his flight leader, he passed the lead and they switched to tower frequency in order to obtain clearance to strafe the sled. There was a delay of 40 minutes as the ship maneuvered and received additional aircraft.

At 1820, they were cleared to strafe. After completing four runs apiece, they rendezvoused overhead at 5,000 feet. The flight then climbed to 20,000 feet and searched for some fighters to practice tactics with, but found none. For nothing better to do, the section of A-4's just flew around dodging thunderstorms waiting for marshal time.

At 1900, they checked in and were told to marshal on the 130° radial, 39 miles, 29,000 feet. They were given an expected approach clearance (EAC) of 1930. A short time later revised instructions to hold overhead at 24,000 were issued, but the flight was unable to comply because of thunderstorms and informed the ship they would have to follow their previous instructions.

The flight held section integrity until 1928 when the flight leader broke away to commence his approach. At 1930, he started down, his wingman was to follow one minute later. The leader was informed at this time that his EAC had been changed to 1935 and that he should immediately switch to another frequency.



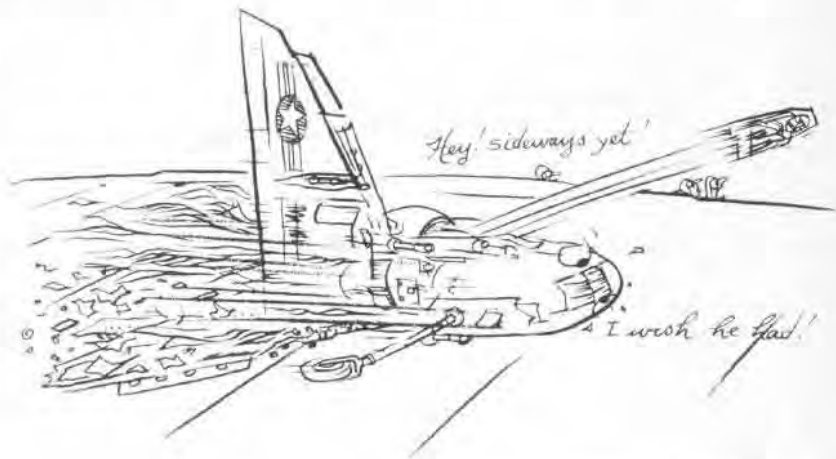
Since they were no longer a flight, the wingman remained on the originally assigned frequency, assuming that the frequency change was meant only for the flight leader. At 1936, the wingman called commencing and was told "in a very harsh manner" to switch to another frequency.

The approach, "other than being 180 degrees out of phase with the other aircraft," was normal to 15½ miles. Then the wingman began to arc around to the final inbound bearing. After commencing the arc, the *Hawk* pilot noted that the LOX was down to one-half liter, so he shut it off and loosened his mask.

He leveled off at 1,000 feet and, upon reaching 10 miles, slowed to approach speed and conformed to instructions issued by the ship. There were a few heading changes prior to

starting the descent to 600 feet at four miles. He called the meatball at 1½ miles with 2,600 pounds and came back on the power in order to start down. The ship appeared to be in a port list. Working for line-up, he dipped the starboard wing, added power to correct and subsequently went high, requiring another power reduction. Paddles heard a rapid deceleration of the engine and called for power. The driver recognized the abnormal sink rate also and added full power as well as retracting the speed brakes. Just as the engine started to respond to the added power, the aircraft struck the ramp on centerline.

Upon impact, the tailhook, landing gear and drop tanks sheared off and the plane burst into flames. The pilot pulled the secondary ejection handle as the aircraft started to cartwheel, but the seat did not fire. The canopy jettisoned, however. The aircraft, decelerated somewhat by protrusions on its bottom surface, and partially arrested by the wires, came to rest on its left side (the port wing sheared off during the cartwheel), 20 feet from the edge of the angled deck and five feet from the port catwalk. The driver pulled the harness release, literally fell out of the cockpit and got clear of the flaming wreck with minor injuries. The wreckage was subsequently jettisoned—a complete loss.



ILLUSTRATED BY Quinn



Grampaw Pettibone says:

Oh, my achin' back! What a way to culminate an accumulation of "sorry about that's." There is no doubt in ole Gramp's mind that this youngster would'a been better off in bed this particular day. This mishap could've been avoided if the people involved (pilot and LSO's) hadn't accepted a sloppy performance on the glide slope. As things turned out, this young man was lucky to survive the ramp strike and doubly lucky he didn't yank that secondary handle all the way. Chances are he would'a ricocheted off the deck like a rubber ball.

No Sweat

During the takeoff roll, at 120 knots, the neophyte pilot, on his initial *Phantom* phamiliarization flight, smartly pulled the stick aft. The F-4 over-rotated and stalled at an airspeed of 135 knots, with at least 20 degrees nose up and commenced several wing rock cycles.

There was no response to the Instructor Pilot's frantic calls for "attitude." Being *in extremis* at about ten feet above the ground, the instructor elected to abandon the rear cockpit. The seat and chute performed flawlessly and deposited the disgruntled instructor on the runway intersection.

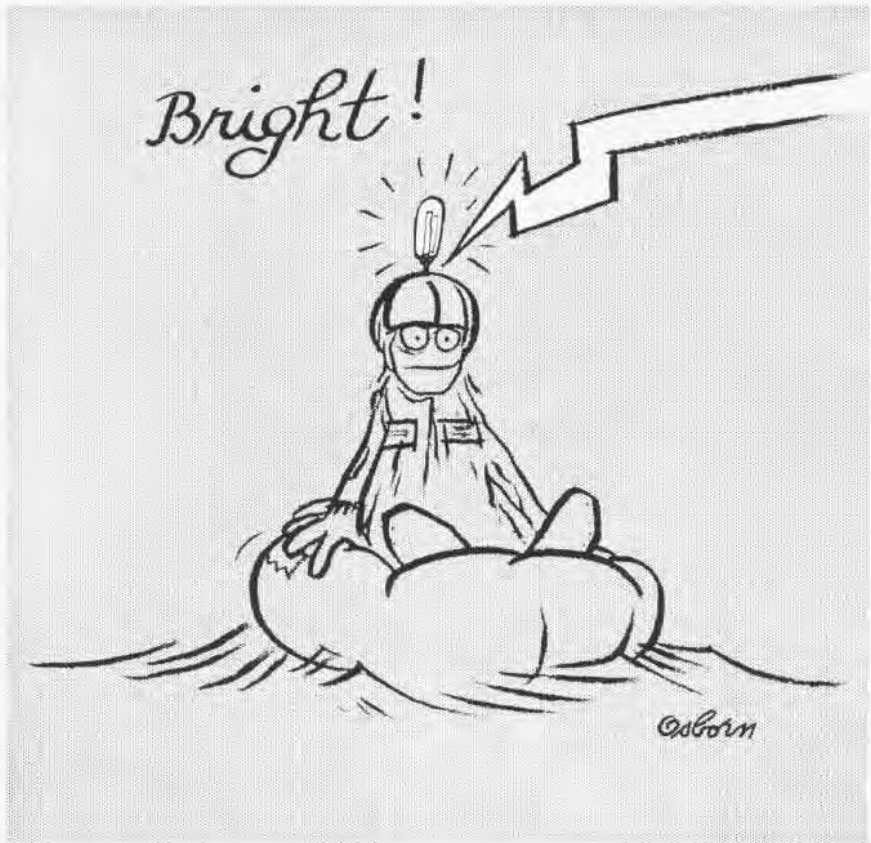
The fledging pilot, not too disturbed over the turn of events, found himself in the enviable position of stable flight again, continued on and landed uneventfully—and nonchalantly—just one hour later.

Editor's Note: Grampaw Pettibone simply refused to make a comment.

Dire Straits

At 2130 on a dark night, the *Crusader* jockey took off from his Marine air station on a scheduled night radar homing mission. After an instrument climbout to visual flight conditions on top, he had some difficulty with radio communications but solved this problem by resetting the affected channels.

After completing the mission, he turned for homeplate, contacted approach control and requested a radar-controlled letdown to GCA. Positive radar control was established ten miles out and the driver was vectored to an



inbound heading and cleared to descend to and maintain 4,500 feet.

As the *Crusader* pilot selected speed brakes for descent, the generator failed. Using his flashlight, he leveled off and reset the main generator. Still no electrical power. He then turned the main generator off, extended the external power package and waited five seconds for it to come up to speed. This too failed to restore electrical power and he switched to the land position which furnished power to equipment operating off the emergency bus. All attempts to regain the primary generator failed.

The unfortunate lad saw two aircraft on climbout and attempted to join them but was outdistanced. He reversed course and attempted to remain in the vicinity of his home field, but the cloud cover made it impossible to determine his position without Nav-Aids. The plagued driver then took off his helmet and attempted to use his survival radio. He made contact with one station, but communications were difficult and impossible to understand. The pilot joined a transiting C-123 but all attempts to contact it

with emergency radio and flashlight met with failure.

At about 2355, the *Crusader* flamed out. The ill-fated driver replaced his helmet and mask, positioned himself in the seat, trimmed the bird in a slightly nose-down attitude and pulled the curtain.

The seat and chute functioned perfectly and the pilot, not knowing whether he was over land or water, did not release his left rocket jet fitting. As things happened, he landed in water, disconnected himself from the chute, inflated the raft and climbed aboard without difficulty. Once in the raft, he activated his survival radio and strobe light, which were instrumental in his retrieval one hour later.



Grampaw Pettibone says:

Well done, son. You did just about everything you could, but I'll be gosh darned if you weren't a victim of circumstances. Of course, ole Gramps ain't overjoyed to see an F-8 lost, but it does my old ticker good to see a feller use good common sense right up to the bitter end.

A FIGHTER PILOT GOES TO COLLEGE

Photographs by PH1 D. C. Grant

WHAT HAPPENS when a Naval Aviator accustomed to years of squadron living is thrust into the academic whirl at the Naval War College?

He gets "broadened." That, in a capsule, is the post-term comment of a recent aviator-student at the Newport, R.I., naval institution.

Our Naval Aviator is LCdr. Vincent Leo Knaus, USN, a 34-year-old pilot who completed the ten-month Naval Command and Staff course last summer and then was assigned to VF-121 for further operational flying.

According to Knaus, his mid-career schooling at Newport was broadening in many ways.

"The course prepared me for staff functions of the future and I gained insight into economic and political factors affecting America and the world, as well as insight into operational and military matters affecting the Navy," Knaus told *Naval Aviation News*.

As a member of a class of 200 students, including 40-plus Air Force, Army, Marine Corps and Coast Guard members, Knaus was exposed to classes in (a) international affairs, (b) military management and economics, (c) fundamentals of strategy, (d) the military planning process, (e) current and future weapons, including doctrine and tactics, (f) basic logistics, (g) military and civilian staff organization and procedures, and (h) fundamentals of combined operations.

All these subjects were woven into three major studies conducted by students. The studies were in "Fundamentals of Strategy," "Naval Operational Planning," and a "Planning Exercise Study" which provided a



LCDR. KNAUS PAUSES IN FRONT OF HISTORIC NAVAL WAR COLLEGE AT NEWPORT, R.I.

ready means of applying Knaus' previously acquired skills and knowledge.

For Knaus the term added up to an enjoyable but rewarding pause between squadron assignments. He had spent ten consecutive years with fighter squadrons (starting in 1956 with VF-61, two tours with VF-101, and one with VF-31) prior to receiving his assignment to Newport.

For a man who had spent all of his career in the pursuit of operational flying excellence inside the Navy, Knaus was especially appreciative of his Naval War College associations with members of other military departments. The multi-service student enrollment gave him an appreciation of the unique problems in each of the other services. "The school gets away from the parochial aspect of military schooling," he said.

Vice Admiral John T. Hayward,



President of the U.S. Naval War College, emphasizes the point that there are no "preconceived answers or school solutions" to problems presented to students.

"But there is valid need for each of us to gain a greater understanding and awareness of our country's problems and consider possible courses of action," Admiral Hayward said.

The college has three major schools for resident students and presents other academic pursuits for naval officers, both active and reserve.

In addition to the Naval Command and Staff School which Knaus attended, the college has a School of Naval Warfare, also a ten-month course designed for officers in the grades of captain and commander. The 1966-67 naval warfare course was attended by 106 Navy officers and 56 Army, Air Force, Marine Corps, Coast Guard and civilian students.

A third school at Newport is the Naval Command Course attended each year by 30 captains and commanders selected from Free World navies. This course, too, covers an academic year ten months long.

In addition to the resident courses, Naval War College provides correspondence courses to approximately 1,000 students during the year. Naval Reserve officers attend two-week courses at Newport and Naval War



IN MAHAN Library, LCdr. Knaus does research for appropriate information in preparation for a lecture he is scheduled to give his class.



LECTURE holds the attention of Naval Aviator Knaus. Prominent speakers frequently appear before Naval War College classes to give talks.

College materials are presented throughout the year at selected Naval Reserve Officers' Schools.

Each year the college hosts more than 100 civilian leaders in Global Strategy Discussions (GSD). Others at the week-long meeting are all students at the college and Naval Reserve officers attending the Senior Naval Reserve Officers' Course. With a program spiced with governmental leaders as keynote speakers, the GSD brings together a cross section of military and prominent civilians to attempt to arrive at an understanding of problems confronting the U.S. in attaining our national objectives.

Although the courses at the college are restrictive in the sense that they are programmed entirely to the art of warfare and diplomacy, students find the opportunities for study are varied. Libraries provide ample historical research facilities for all courses. Students hear and quiz leaders from governmental, academic and military agencies. Seminars, consultations, research group projects and oral presentations by and for students are a part of the curriculum.

The college was founded in 1884 with Commodore Stephen B. Luce as its first president. In petitioning the Secretary of the Navy for an advanced school, Commodore Luce said he wanted to teach the subject of war "as thoroughly as it can be taught outside the stern school of the battlefield."

The principal aim of the school, originally conceived as a senior officers' advanced course, was described by Commodore Luce: "It is simply to



AFTER extensive preparation, student is well prepared to defend his theories before class as LCdr. Knaus (at rostrum) does here.



CUP OF coffee provides a chance for informal discussion between Knaus and classmates, LCdr. R. P. Hanson and Cdr. Wm. E. Wilder.



NAVAL WAR College President, Vice Admiral Hayward, left, escorts former Secretary of Navy Paul Nitze and new Chief of Naval Operations, Adm. Thomas Moorer, to Global Strategy talks.



KNAUS and others discuss pro's and con's of the C-5A airlift logistic support theory.

invite officers to meet together . . . and enable each one according to his own inclination to prepare himself for the highest and most responsible duties that can evolve upon a Naval officer."

One of Luce's staff members in the original college faculty was Captain Alfred Thayer Mahan, the naval historian whose theories are often quoted today. Mahan followed Luce as the second president of the college and wrote many of his works during his two tours at Newport.

An early innovation of the college was the "case method" of teaching. One of the major contributions of the college has been the development of War Games, the use of sample problems of warfare to test the wisdom of military decisions and operational plans.

The first War Game was conducted in 1894. Today students utilize the Navy Electronic Warfare Simulator (NEWS) to provide opportunities for the exercise of command decisions in the execution of plans. The NEWS' electronic equipment can lay out simulations of any section of the world varying in area from 40x40

miles up to 4,000 miles square. NEWS provides a means for simulating battle conditions that are realistic with a scope and complexity never before possible.

Faculty members have always been both military and civilian. The military faculty is selected to insure a balance of experience in all appropriate military areas. Civilians occupying "chairs" in Maritime Strategy, International Relations and Naval Science are permanent members of the staff, providing continuity to the curricula. For further balance, other civilian teachers are installed for a year at a time as professors in Social and Political Philosophy, Maritime History, Economics, International Law and Military Management.

A senior foreign service officer of the State Department is on the staff of the college president, advising in foreign policy and international relations. Army and Air Force colonels with distinguished records also are advisors to the President.

TWELVE prominent leaders in science, education, commerce, industry and the military were established last year as a Committee of Advisors to the President, to assure that school curricula and policies are examined periodically by persons outside the Navy.

Admiral Hayward summed up the Naval War College in this way:

"Naval power . . . functions beyond frontiers, moving at will, unimpeded by any sovereignty save its own. In consequence, students at the Naval War College examine the application of naval power on the world stage, where its dramas are enacted. Princi-



MRS. JEANNE Knaus cheers her husband during mixed bowling match with NWC students.

ples as ancient as the sea must be brought into application by practices as modern as the blueprints of tomorrow. The tasks of the college are therefore exacting ones, as well for those who teach as for those who are taught."

As LCdr. Knaus, our Naval Aviator, left Newport this summer for his new assignment, he surely took with him much newly acquired knowledge. One of the bits of knowledge was contributed by a member of the Naval War College class of 1922-23, Chester W. Nimitz, who became a Fleet Admiral in WW II. In 1965 Admiral Nimitz wrote to the president of the college to offer praise for the strategy and tactics course.

"The courses were so thorough," Nimitz wrote, "that after the start of World War II nothing that happened in the Pacific was strange or unexpected."

LCdr. Knaus would not presume to offer an endorsement similar to that given by Admiral Nimitz. But he is certainly better prepared for the "unexpected" that may come in the remainder of his naval career.



FIGHTER pilot checks Notices to Airmen at NAS Quonset Point prior to proficiency flight.



DURING HIS ten months at Newport, LCdr. Knaus flew a T-1A trainer aircraft to stay sharp. At NAS Quonset Point, he and his fellow Naval Aviators regularly maintained flying efficiency.

Midshipmen See Activities At Air Stations and with the Fleets

During the past two months, more than 700 U.S. Naval Academy midshipmen saw firsthand the operational air facilities at Jacksonville.

Operating in three groups of about 270 each, the midshipmen first went through preflight lectures and indoctrination at Pensacola and then, in three to five-day training periods, were hosted at Jacksonville, beginning June 27, July 25 and August 16.

Each group underwent indoctrination in fighter and light attack phases at NAS CECIL FIELD, and in reconnaissance, attack, aerial photography and ASW patrol out of Jacksonville.

Those who voiced a definite plan to take postgraduate flight training at

Pensacola, a majority of the middies, were given an indoctrination flight.

The training at Jax was part of the summer practical training program for about 7,800 midshipmen from the academy and from 53 NROTC colleges and universities.

Ships of the U.S. First, Second, Sixth and Seventh Fleets provided at-sea training for 2,440 first-class and 2,700 third-class midshipmen. Of these, 57 midshipmen trained in *Polaris* submarines on two-month patrols. Participating in a foreign exchange program with 18 different nations were 55 first-class midshipmen. An additional 250 NROTC Marine-oriented midshipmen received six weeks field training at Quantico, Va.

Summer training for 1,410 NROTC second-class midshipmen consisted of

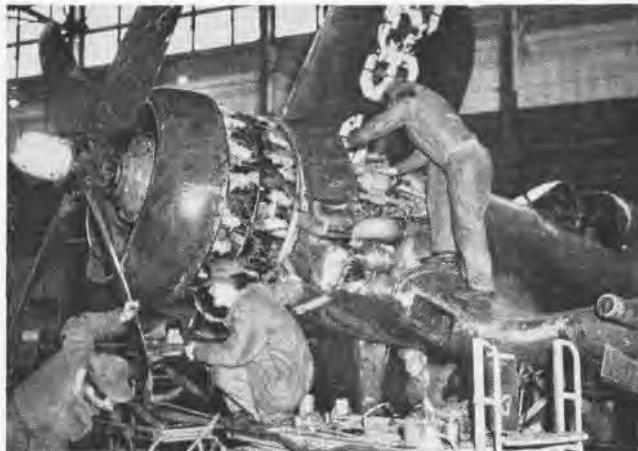
three weeks of aviation orientation at NAS CORPUS CHRISTI, Tex., and three weeks of amphibious training at either the Naval Amphibious Base, Little Creek, Va., or Coronado, Calif. While at Little Creek or Coronado, all NROTC second-class midshipmen received a two-day submarine orientation.

Skyhawk Models Presented On Display at Aviation Museum

The U.S. Naval Aviation Museum at NAS PENSACOLA, Fla., recently received scale models of two *Skyhawks*—an A-4E and a TA-4F. Mr. Angus Jacks, manager of Navy Programs and Military Marketing for Douglas Aircraft, presented the models to Commander William R. Davenport, USN (Ret.), assistant curator.



THIS CORSAIR was one of several V4U-7's which were supplied to the French Navy in 1953. It was returned to the United States when the French Corsairs were withdrawn from service prior to introduction of the F-8 Crusaders. The Marines from Headquarters Squadron, FMFLant, uncrate the returned fighter, assembled it and made it ready for flight,



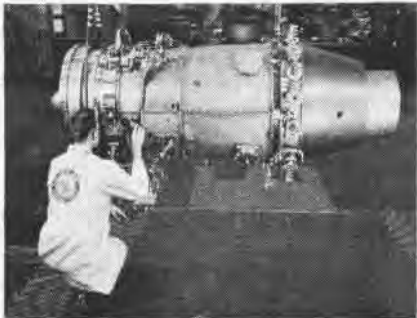
then donated it to the Canadian Air Museum. The first production model of the F4U was delivered to the Navy in 1942. Corsairs remained in the Fleet through 1955. The Chance Vought aircraft, reputedly the first American fighter plane to exceed 400 miles per hour, in its WW II version could carry a one-ton bomb load.



AT NAS Patuxent River, Md., LCdr. Gerald L. Atkinson receives the Outstanding Student Plaque from Robert D. Lancaster, President of the Patuxent River Council of the Navy League, as Mrs. Atkinson looks on. Presentation was part of graduation ceremonies for members of the Test Pilot School's Class 46.



A PADLOCK chains the main gate of NAF Litchfield Park, Ariz. The base was closed in June after serving some 25 years as a storage depot for Navy aircraft. Left to right are LCdr. P.S. Olmstead, Captain C. M. Robertson, C.O., ABCM C. F. Schwartz and J. Bonds. Mr. Bonds heads the caretaker force.



PRATT & WHITNEY's JTF16 experimental lift/cruise turbofan engine is one of competing vectored thrust/cruise engine designs for the proposed U.S.-West German V/STOL fighter aircraft. Approximately half the size of P&W's 10,000-pound thrust TF30P-6 used in the A-7A, it produces comparable thrust.



LT. LARRY WOODBURY BOMBS MAJOR VC TROOP CONCENTRATION NORTHWEST OF SAIGON



A-1 FLIES THROUGH VIETNAM BOMB BURST

TWENTY YEARS OF FLYING THE SKYRAIDER

THE 23-YEAR-OLD pilot, single gold bars on his collar, was deep in thought. "You know," he said as he surveyed the A-1's on display in the hangar, "I was two years old when the first *Spad* came off the assembly line . . . and they're still around."

The A-1's are indeed still around and, to punctuate the fact, Attack Squadron 25, home-based at NAS LEMOORE, marked its 20th consecutive year of flying the *Skyraider*. Now deployed on Yankee Station in Vietnam with Air Wing 15 aboard the *Coral Sea*, VA-25 celebrated, before its departure, the anniversary at the California air station. On hand for the ceremonies were a host of guests and dignitaries, including more than one ensign recently assigned to VA-25.

The Douglas Aircraft Company, represented by Mr. Nathan A. Carhart, Vice President, Advanced Systems and Technology, Aircraft Division, and other officials, presented

By LCdr. Rosario Rausa
Attack Squadron 25

VA-25 skipper, Commander J. D. Burden, with a plaque commemorating the event. The plaque cited highlights in VA-25's long tour with the attack bomber: receipt of the first *Skyraider* in September 1947; first deployment with the aircraft aboard *Coral Sea* in 1948; three combat tours in Korea from 1950 to 1952; downing of a North Vietnamese MIG-17 by squadron pilots on June 20, 1965; and two combat tours in Vietnam from April 1965 to February 1967.

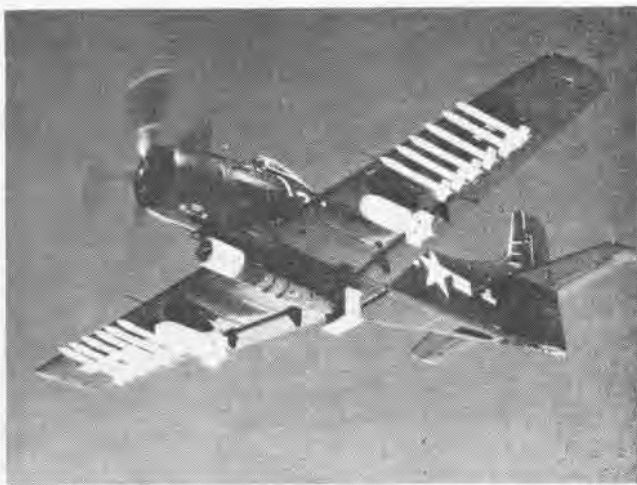
In an address to the squadron and guests, Rear Admiral Fred E. Bakutis, Commander Fleet Air Alameda, praised A-1's participation in the Vietnam hostilities. "There's been nothing quite like a flight of *Skyraiders* overhead to boost the morale of ground troops and no more welcome sight to downed aviators trying to escape."

"A goodly number of today's men in the Navy," he went on, "weren't even born when the *Skyraider* was operating." Admiral Bakutis recalled the A-1's first combat operation. "A flight of 16 *Skyraiders* from VA-55 attacked an airfield at Pyongyang in North Korea as the first U.S. air action in Korea as well as the first carrier strike of the conflict." The Admiral noted that one of the guests present was Commander Bill West, A-1/A-7 training officer on the ComFAir Alameda staff, the third division leader on that Pyongyang air field strike.

Also present were Mr. Ed Heine-mann and Mr. Leo Devlin, key figures in the birth and development of the *Skyraider*. Mr. Carhart briefly traced the history of the aircraft from the latter days of WW II to the present. He pointed out that, through the years, the plane has been known as the *Dauntless II*, the BT2D-1, the AD, the *Able Dog*, the *Spad* and the A-1.



VA-25'S A-1'S IN SECTION BREAK DURING TRAINING AT FALLON



A SKYRAIDER OF EARLY 1950'S WITH THE LOAD IT THEN CARRIED

"In 1944," he said, "the U.S. Navy sought a new attack aircraft to succeed SBD—the *Dauntless*. Heinemann, chief engineer of the old Douglas El Segundo Division—the Navy Division—did not relish the prospect of Douglas relegated to subcontract work, especially after the glorious SBD days. When he asked permission to prepare a new Douglas design, he was told that he was too late, unless he was able to submit preliminary designs immediately . . . Heinemann, his chief designer, Leo Devlin, and his aerodynamicist, Gene Root (he now heads Lockheed's Missiles and Space Company), holed up in a Washington hotel room and went to work.

"Heinemann, Devlin and Root worked through the night and the

next morning presented the Navy a complete set of preliminary sketches. The Navy people were very taken with what they saw and agreed that Douglas could join the competition, but with the understanding that the Santa Monica company must catch up with the time schedule already laid down for the other two competitors."

Mr. Carhart continued, "There were other considerations but, basically, the competition was to find a *Dauntless* successor which would provide more lift with less weight. To offset the advantages the other two companies had gained by an earlier start, Douglas poured it on and on March 19, 1945, what was then called the *Dauntless II* was first flown. The flights were so impressive that two months later

Douglas received an order for 548 airplanes. The end of hostilities reduced the size of the initial order but not the potential of the aircraft, which about a year later would be renamed the *Skyraider*, AD-1."

In concluding Mr. Carhart said, "Before the last *Skyraider* was delivered in 1957—ten years ago—Douglas produced 3,180 in seven versions and 28 sub-versions."

An epitaph for the *Skyraider* is a long time coming. While the Navy continues to fly them, so does the U.S. Air Force which in recent years has employed them extensively in Vietnam. In any case, when the last *Skyraider* makes its final flight, it will have left behind a rich heritage in the history of war and aviation.



CARHART OF DOUGLAS RECALLS FIRST AD'S



RADM. BAKUTIS SPEAKS: AT RIGHT, COMMANDERS OF NAS LEMOORE AND CVW-15

Early in WW II, hundreds of enlisted Navy men were designated Naval Aviation Pilots (NAP's). Today, some 25 years later, only 34 of their kind remain. Soon, there may be none left. This is their story.

AN ENLISTED MAN AT THE CONTROLS

This Hardy Breed Gives Ground Reluctantly

By JOC John D. Burlage

IN 1949 a 17-year-old law, requiring that a certain percentage of the Navy's pilots be enlisted men, was repealed. When the law was changed, the knell was sounded for a group of "whitehats" that had been flying Navy aircraft for some 30 years.

That was 18 years ago. Today, there are 34 senior enlisted men still qualified—and authorized—to take the controls of a variety of aircraft.

But their days are numbered.

They are the last of a hardy breed of enlisted men that reached a peak early in WW II, when 1,035 of them were qualified as pilots in the Navy, Marine Corps and Coast Guard. They are on the tail end of a rich, if somewhat rocky, heritage that began even before the first World War.

When the last of them retires, probably in the early 1970's, the designation they bear will go the way of the biplanes many of them flew. Only a policy reversal could save their kind; it's not likely to be made.

Reasons for the Navy's decision to terminate its enlisted pilot program are many and varied, but one thing is certain: The decision was not an abrupt one. Rather, it developed out of experience and the recommendations of a series of special boards convened over the years to study the program.

There is another certainty where discontinuance of the program was concerned: There was never any doubt that enlisted's could fly airplanes.

Actually, a great many whitehats became excellent pilots who could handle a variety of aircraft types efficiently.

However, education—or, rather, a lack of it—was always a thorn in the side of the enlisted pilot program. It affected both the success of men in training and their abilities to assume greater responsibilities when they joined the Fleet. An effective training program quite possibly could have eased



NAP FLOYD BENNETT MADE HISTORY WHEN HE FLEW WITH ADM. BYRD OVER NORTH POLE

this problem, but the point that the fault could have been in training seems not to have received the consideration it deserved.

The basic difficulty encountered in the utilization of enlisted's as pilots might be chalked up to the nature of the officer-enlisted relationship vital to an effective military organization.

Unlike career officers, who are expected to move into command positions as aviators and who eventually quit flying to become senior commanders exclusively, enlisted's who became Navy pilots could never advance into top-rank assignments. So, in terms of growth and potential, the pay-off realized from the enlisted pilot program suffered by comparison.

Time was also a contributor to the difficulties of having enlisted's as aviators. The ability of a pilot to handle increasingly complex aircraft deteriorates as the years pile up. Sooner or later, less rigorous jobs must be found for him. If he is an enlisted man, these kinds of assignments can be

terrifically hard for him to come by.

Whatever the reasons, officials concluded that the chances of maintaining a high caliber of whitehats at the throttles of Navy aircraft were slim indeed. They moved to have the program dropped, and they succeeded in their efforts.

Cancellation of the enlisted pilot program had no effect on the men in the field at the time. They remained in the service—in flying billets as long as their health and qualifications permitted—until they either retired or left the Navy for other reasons.

THE NAVAL AVIATION Pilot (NAP) rating was not given legal definition until 1926, in the same law that also defined the term Naval Aviator, but by then some enlisted men were already experienced, practicing pilots.

The idea of having sailors in airplane cockpits came early in the scheme of things—as early as January 1, 1916, for that matter, when the first group of them began receiving formal in-

struction at the fledgling Naval Aviation training center at Pensacola, Fla.

But although these enlisted's were sent through aviation training, there was no thought at the time of giving them any kind of enlisted pilot designation. Even so, they and the members of a second class who entered pilot training in June 1917 are considered the predecessors of the NAP's who were to follow.

Included in the first class were P. J. Dunlevy, F. Grompe, A. A. Bressman, L. A. Walty, A. Haynes, A. P. Bauer, A. F. Dietrich, J. Makolin and W. E. McCaughtry. The last two men were Marines.

A guiding force in getting the training for these men approved was Captain (later Rear Admiral) Mark L. Bristol, then director of Naval Aviation, who had this to say of them in a memorandum to the Secretary of the Navy:

"On the first of January, 1916, a class of ten enlisted men was formed and placed under instruction in flying. These men were selected from the Bluejackets and Marines already on duty at [Pensacola] or on board the [armored cruiser] *North Carolina*. They are making excellent progress."

One of the men in this class, Dietrich, was mentioned in later papers now held by the Aviation History Unit, DCNO(Air)—unfortunately, in the form of an obituary published in a weekly aviation newsletter (NANEWS' predecessor) a few days after he was killed in the crash of his Douglas torpedo plane.

Calling Boatswain Dietrich "one of the most experienced pilots in Naval Aviation," the newsletter said his plane cracked up as he was landing on the Anacostia River near the naval air station in the District of Columbia March 3, 1924.

Born in Rochester, N.Y., Dietrich was 19 when he enlisted in the Navy at Grand Rapids, Mich. He was assigned to Pensacola when the station was organized before WW I, and was a boatswain's mate first class when he graduated from the first enlisted aviator course at the station.

Dietrich was commissioned an ensign June 1, 1918, and was promoted to lieutenant junior grade before he received his permanent warrant appointment as boatswain. Before he was assigned to Anacostia, he served aboard the naval air stations at Hali-

fax, Nova Scotia, and Rockaway, L. I., and with squadrons operating in the Atlantic Fleet. He was 34 years old when he was killed.

The second group of enlisted's to start training at the center included Augustus A. Bressman, Walter D. Bonner, Thomas H. Murphy, James Salsman, Giochino Varini, Clarence A. Hawkins, Guy A. Walker, Oliver P. Kilmer, Peter Talbot and Guy McLaughlin.

Before this group began receiving instruction, Captain Bristol recommended to SecNav that groups of ten whitehats be trained every three months. But Bristol's reassignment and the requirements imposed on the center by WW I caused a hiatus in activity aimed at turning enlisted's into pilots without making them officers in the process.

As it was, all the members of the second class were commissioned and designated Naval Aviators October 2, 1917, and some of those in the first class also became officers.

It was also in 1917 that another facet of pre-NAP efforts to train enlisted's as pilots was recorded. The First Aeronautic Detachment, composed of seven officers and 122 whitehats, was sent to France for an education in aviation.

There was no intention of designating these men as enlisted pilots. The fact that some of those who graduated from the training flew combat missions in WW I as enlisted's can be attributed more to poor paperwork processing than anything else. By the time the war ended, most of those in this group who had received pilot training

(some were sent for instruction in mechanical work) had become officer Naval Aviators.

THE REAL groundwork for a continuing program to train enlisted pilots was not laid until 1919. In October, the Bureau of Navigation issued a letter that read, in part:

"In the future, it will be the policy of the Bureau to select a certain number of warrant officers and enlisted men for flight training and duty as pilots of large heavier-than-air craft and directional pilots of dirigibles."

Qualifications for the training were established: A man must be a chief warrant officer, warrant officer, chief petty officer or first class petty officer with a record clear of offenses and possess a high moral character. He must be under 30 and pass a physical. There were to be no waivers granted.

A second BU NAV letter, dated November 25, 1919, further clarified the status of those to graduate from the NAP program. In it, BU NAV decreed that, after they completed their training, "enlisted men [are] to be detailed to duty involving flying."

BU NAV also pointed out that a lack of legal provisions would result in the designation of warrants who completed training as NAP's—even though they were labeled "student Naval Aviators," the same designation given commissioned officers at Pensacola. Enlisted men were called "student airmen" to keep outsiders from confusing them with officers.

On December 10, 1919, the *Daily Aviation News Bulletin* included this statement: "A class of 25 enlisted



THESE ENLISTED'S WERE AMONG THE SECOND GROUP OF POTENTIAL NAP'S AT PENSACOLA



QUALIFIED AS AN NAP IN 1920, ORMSBEE RECEIVED SEAPLANE DESIGNATION IN 1923

men has been ordered to Pensacola, Fla., to take the course preliminary to appointment as Naval Aviation Pilots."

And on January 22, 1920, the graduates of that course became the first men to be designated NAP's.

Altogether, almost 35 NAP's became a part of Naval Aviation in 1920, including:

Harold H. Karr, Robert E. Lee, E. Nirmaier, Francis E. Lovejoy, W. L. Seiler, Clarence Woods, C. G. Alexander, F. C. Barb, Floyd Bennett, P. J. Byrne, W. L. Carleton, O. M. Darling, C. I. Elliott, L. C. Fisher, K. D. Franklin, P. E. Graham, H. A. Griesy, H. L. Hoobler, C. H. Insley, C. I. Keisler.

Also A. E. LaPorte, R. B. Lawrence, O. J. O'Connor, F. E. Ormsbee, A. K. Peterson, E. S. Rhoads, H. A. Rossier, J. H. Stinson, L. C. Sullivan, G. A. Tibbetts, J. W. Utley, T. P. Wilkinson and L. J. Williamson.

Many of them went on to carve lasting niches for themselves in their field. Among the better known were:

- Bennett, who was with Admiral Richard E. Byrd when the two of them made history as the first men to fly an aircraft over the North Pole—a feat for which both were awarded the Medal of Honor. Bennett's dream of flying over the South Pole was never realized; he died of pneumonia after he ignored a fever and took off to attempt a rescue of a group of German-Irish fliers that was forced down at Greenlay Island, Quebec, on

a non-stop flight from Europe.

- Ormsbee, who won the Medal of Honor for heroism even before he took NAP training. Again and again, he entered the tangled wreckage of a crashed seaplane to save the life of one crewman and recover the body of another.

- Byrne, who retired March 31, 1958, as a chief boatswain to complete a 40-year career in which he flew more than 140 types of planes and logged more than 22,600 hours in the air. Rightfully called a pioneer in Naval Aviation, especially in seaplanes, "Pappy" received the Legion of Merit three years before he retired.

WITH THE TRAINING of NAP's a reality, BU NAV attempted to define more clearly their status in 1921. It established three basic NAP designations: *Seaplane* (aircraft that took off from and landed on water), *Ship-Plane* (planes that were launched from large ships and taken back aboard after they landed in the water nearby, or which operated from shore facilities) and *Airship* (dirigibles).

That same year, the newly-created Bureau of Aeronautics stepped into the NAP picture when its first chief, Rear Admiral William A. Moffett, recommended to BU NAV that the commander of Pacific Fleet air squadrons be allowed to select and nominate qualified men for ship-plane NAP training.

The recommendation was designed

to ease the shortage of the allowed number of enlisted ship-plane pilots in the Pacific Fleet; it was quickly followed by the establishment of a ship-plane school at the naval air station on North Island, across the bay from San Diego, Calif.

The school was to remain open only long enough to replenish the ranks of West Coast ship-plane NAP's, and was to close by early December 1922.

Aviation History Unit records indicate that, with ship-plane pilots receiving ground school instruction and flight training at North Island and other NAP's completing courses at Pensacola, some 100 enlisted's were added to the Navy's air arm by 1922.

For the next couple of years, the number of enlisted pilots ranged from 100 to about 130, even though there was a technical requirement for almost 200.

The difference between the number of NAP's the Navy supposedly required and the number actually on board was evidently caused by a lack of consistent training efforts between 1921 and 1923. Subsequent BU NAV actions support this supposition.

THE Bureau soon discovered that normal attrition, the shortage of on-board strength and the evident dearth of training were going to force the Navy to come up with more than 130 new enlisted aviators before the middle of 1925. It urged the resumption of classes at Pensacola (there is no record of when they had stopped), and approved a recommendation that 60 men should start training on May 1, 1923. Applicants were to be CPO's, or PO1's qualified for advancement to chief, who were under 30 years old and who had records clear of offenses for the preceding two years.

Most of the NAP's in the service in the early 1920's, about two-thirds of them, were assigned to Fleet squadrons; the rest served ashore. By July 1924, the majority were serving as second pilots in torpedo, bombing, scouting and observation squadrons or as utility fliers assigned such jobs as ferrying aircraft. Fourteen were qualified in lighter-than-air craft.

But even with training resumed, they were far from being firmly established in the Navy. Continuing high attrition at Pensacola, including the fact that a good many trainees were apparently unable to fly airplanes

without cracking them up, caused official displeasure with the program.

The Navy's biggest problem with the enlisted pilots it was creating apparently was that it didn't quite know what to do with them; actual or speculative requirements for whitehat aviators fluctuated widely during this period.

The attempt to straighten out the status of the NAP's led to a pair of events that were to have a considerable effect on the program—for a time.

ACTING on the recommendations of the chief of BUNAV, BUAER moved in 1926 to establish a fighting squadron composed primarily of enlisted pilots. The idea was to have the squadron directed by officers placed in key billets and to find out if enlisted's could adequately handle the duties imposed on an operating unit.

On January 1, 1927, VF Squadron 2B, composed of four Naval Aviators and ten NAP's, was commissioned. The orders forming the squadron stipulated that BUNAV was to receive a report on the squadron's activities and efficiency a year later. No trace of that report, if in fact it was ever made, has been found—but, with or without it, "Fightin' Two" went on to make a name for itself that is still known today.

The enlisted's who were handpicked to man this unit were the cream of the crop, and they logged enough accomplishments—and stirred up enough controversy with their wide-open approach to piloting planes—to rate a story for themselves. That story will be the second in this series.

It was also in 1926, June 24 to be exact, that Congress ended all doubt regarding the status of NAP's for a time when it passed a law requiring that 30 percent of all aviators in the Navy be enlisted men as of its effective date, July 1, 1928. The basis for this decision may have been the opinion, then held by some congressmen, that flying aircraft was a purely mechanical function not requiring the talents of an officer.

When it became effective, the law also accomplished something else: It gave legal blessing to BUNAV's establishment, in 1924, of the enlisted rating of Naval Aviation Pilot—which had temporarily ended the need for enlisted's to specialize in some other field in addition to flying.



'PAPPY' BYRNE ENDED 40-YEAR CAREER WHEN HE RETIRED FROM ACTIVE DUTY IN '58

Until BUNAV's action, NAP's were almost all senior petty officers whose ratings were either aviation rigger or aviation machinist mate. But for a while, flying was allowed to be an NAP's sole skill.

This happy state of affairs was terminated in March 1933 when the Navy abolished the NAP rating and reverted to the system of requiring its enlisted pilots to be proficient in a separate rating even though they were designated NAP's. The action was taken less than a year after Congress amended the 1926 act to read that only 20 percent of Navy pilots must be enlisted.

The events that led to these changes in the status of NAP's began almost as soon as Congress passed the 1926 act. In 1927, for example, only a few NAP's were qualified out of the hundreds who applied for the duty—just enough to bring the total number of enlisted aviators to 100.

In his thorough research for a special monograph on aviation training from 1911 to 1939, prepared by the Aviation History Unit during WW II, then-Ltjg. George N. Fennemore detailed the Navy's struggle from 1926 to the early Depression years to make something out of its NAP program. He also noted that there was considerable disagreement between BUNAV and BUAER on the best methods of improving the program—and of the apparent failure, until late in 1929, to realize that the type of training pro-

vided might be, at the minimum, a partial cause of the problem.

His work outlines in great detail the efforts made to keep enough men coming into the NAP ranks to maintain the required officer-enlisted ratio. Of the training they received, he says:

"During 1926 and 1927 the problem of selecting enlisted candidates of the highest possible qualifications appears to have been the subject of major concern; little thought seems to have been devoted at this time to the character of the training...."

IN THE MYRIAD of activities that involved the NAP program, some appear to have special significance.

A special board, convened at Pensacola in 1927 to determine just how NAP's could best be utilized, contended that educational deficiencies in men already trained as NAP's prevented adequate use of their skills as pilots and affected their success in training—a primary reason for the NAP "dropout" problem.

The board also duly noted that the training program itself wasn't too good, either.

Improvements were suggested. Potential NAP's would need a high school diploma, be in one of the aviation ratings and be in a second or subsequent enlistment. They must meet the same age requirements as officer pilot candidates. The course given them would be as long, and almost as complete, as that provided for officers.

In addition, training NAP's received once they reached their squadrons was to improve.

Concerted efforts to improve the results of NAP training, and the quality of the men who took it, also came from other areas. Admiral Moffett, for instance, hoped that men could be enlisted in the Navy solely for aviation duty—a radical departure from the approach recommended by the Pensacola board. BuNAV rejected this proposal and countered with a recommendation of its own: Give student aviation pilots preliminary aviation training to weed out those who would probably not make it through Pensacola.

The result was a BuNAV/BuAER letter proposing new procedures for selecting potential NAP's. It called for sending enough volunteer recruits through elimination training to assure that at least ten per week would become qualified for advanced courses.

The letter stipulated that even those who failed this first phase were not to be ignored. After a ten-week general utility course at Great Lakes, they were to be sent to "duty under observation and training aboard the [carriers] *Lexington* and *Saratoga*." They were to have two six-month probationary periods to show enough potential to make it through Pensacola before they were dropped altogether.

The plan was approved by SecNav; it went into effect in January 1929.

Although it soon came under fire, both from another board (convened to study both training and procurement methods) and from Admiral Moffett (who felt that using recruits was wasteful), the basic concept continued in effect for a time. The use of *Lexington* and *Saratoga* as probationary way stations was dropped, but actual training of NAP's was brought into closer conformity with that provided officer pilots.

The use of recruits as potential NAP's brought to three the number of plans for obtaining and training potential NAP's. Men were also being sent direct from the service to Pensacola, without indoctrination or elimination instruction, and others were sent from duty stations to elimination schools before they were ordered to Pensacola.

All the effort began to pay off. Attrition at Pensacola began to decline; NAP's were being better trained.

But it was still too little, too late. Admiral Moffett had already started the move to have the 30 percent requirement for NAP's revised downward—and even the fact that the new approach did cause the attrition rate at Pensacola to drop had an adverse effect on the program.

As more NAP's completed training, planners began to argue that there were enough enlisted's on hand to meet Fleet requirements. That argument led to the suspension of NAP training in 1932. Economy drives caused by the Depression made certain it stayed suspended until 1936, when just enough whitehats were fed into the system to maintain the required 20 percent level.

Shortly before WW II, the number of NAP's had grown in proportion to the increase in officer pilots. In 1939, there were 480 on active duty; estimates called for a complement of 1,100 by 1945.

As their numbers continued to increase until the latter years of the war—when many of them accepted commissions—the NAP's rating structure underwent another shake-up.

In mid-March 1942, the Aviation Pilot rating was re-established in all pay grades. The new setup remained unchanged for a scant four months, but it lasted long enough for the enlisted's in the field to earn the lasting designation "AP's." In July, AP3 was abolished, but AP2, AP1 and APC

were retained until April 2, 1948, before they were eliminated from the rating structure.

It was the last time there would be an AP rating in the Navy.

Although they were assigned to tactical units throughout WW II, AP's from 1943 on were utilized mostly in such "utility" assignments as ferrying aircraft, transport and helicopter piloting and test work. The war did give them an opportunity to shine as "hot" pilots, however; those assigned to "Fightin' Two," for instance, saw plenty of action early in the conflict.

The post-war period was one of turmoil for the AP's—as if they knew the end of their kind was in the offing. Many of those commissioned during the war reverted to their enlisted status, but many of them also received permanent appointments and served for years as limited duty officers. Even so, the number of AP's remained fairly stable—at about 600—even after training was permanently discontinued when the last class of trainees at Pensacola graduated in December 1947.

For that matter, the number on board even increased in 1949 and 1950 as the economy wave that hit all the services also affected Naval Aviation and caused many of those commissioned to revert to enlisted status.

KOREA took care of the roller-coaster aspects of on-board strength. After initially refusing to allow AP's to accept commissions and still remain pilots, officials did an about-face and dangled officers' stripes before them with the assurance they would still fly. Even some former AP's, who had given up flying to accept general line and non-pilot aviation commissions, became Naval Aviators.

With the end of the Korean conflict, the number of AP's continued its inexorable decline. More than half the 620 in the Navy in 1955 accepted commissions and, for a while, there was a steady exodus of enlisted's from the field via the LDO route.

At one time, there were expectations that the last AP would leave the Navy in 1963, but today's on-board count indicates that estimation to be off by several years. Even so, there are not too many years remaining until the Navy's last enlisted pilot enters his aircraft to make that final flight.

HELP TELL THE AP STORY

With the accompanying article, *Naval Aviation News* hopes to generate a desire among past and present Navy enlisted pilots to help fill the gaps in the history of this unique group.

NANEWS would like to hear from readers who are, or have been, enlisted pilots and who have not previously communicated with the magazine. We especially desire photographs (which will be returned), factual information and anecdotes about the lives, training and careers of early enlisted aviators—especially those who were assigned to VF-2B.

Letters may be addressed to *Naval Aviation News*; OP-05A5, Navy Department, Munitions Bldg., Washington, D.C., 20360.

NAVY COMMISSIONS NAS ALBANY

By JO1 Rick Williamson

A NEW NAVAL air station has been "born." In a ceremony at NAS ALBANY, Ga., the station which was formerly Turner AFB was officially commissioned by Vice Admiral Charles T. Booth II, ComNavAirLant, with Captain R. L. Johns as its first commanding officer.

Covering a total of 2,193 acres and equipped with a 12,050-foot runway, NAS ALBANY is located in southwestern Georgia near the Flint River. The nearby city whose name it bears has a population of about 56,000 persons.

Originally established for use as a flying school in July 1941, the NAS was named Turner Field in honor of an Army Air Force lieutenant who was killed in a training accident. After WW II ended, the field was deactivated but was reopened as Turner AFB in the fall of 1947 and became the home of the 31st Fighter Wing.

"Ownership" of the base passed through a series of Air Force commands—including the Continental Air Command, the Strategic Air Command and the Tactical Air Command—until it was decommissioned as an Air Force installation June 30, 1967. The ceremony that officially made it Navy property was held July 1.

During its first year of Navy operations, NAS ALBANY will be in development status, scheduled to become fully operational July 1, 1968. Although many of the buildings and facilities used by the Air Force will also be used by the Navy, several new construction projects are under way and others are scheduled to begin soon.



AN AERIAL VIEW OF NAS ALBANY, GA., SHOWS THE FACILITY'S 12,050-FOOT RUNWAY

Construction already started includes a new gymnasium, another enlisted barracks and another bachelor officers' quarters. A groundbreaking ceremony has already been held at the site of a new commissioned officers' open mess and, at this writing, the contract for a new \$2½ million hospital was close to being awarded.

As part of its designated mission, "maintaining and operating facilities and providing services and material to support operations of aviation activities of the Navy's operating forces and other designated activities and

units," NAS ALBANY is scheduled to become home base for Reconnaissance Attack Wing One early next year. The wing will move to Albany from NAS SANFORD, Fla., when that station is decommissioned.

A GOOD START?

NAS Albany's new commanding officer, Captain R. L. Johns, didn't even wait until his new command was officially commissioned to cause the "social event of the season" at the new Navy installation.

The then prospective C.O. was one of two primary participants in the first official Navy function to be held in the station's recently constructed chapel. The other involved party was Miss Sue Craven of Pensacola, Fla., who became the captain's wife in a two-ring ceremony officiated by Commander (Chaplain) William R. Howard.

The ceremony was held May 15, more than six weeks before NAS Albany was commissioned.

Among those who attended the ceremony were the bride's parents, retired Lt. and Mrs. Leonard M. Craven. After the vows were exchanged, a reception was held at the NCO Club.



CAPT. R. L. JOHNS IS NAS ALBANY C.O.

KODIAK AIRLIFT TO ICE ISLAND T-3

By LCdr. D. J. Florko, USN

ICE ISLAND T-3 is just that—a huge hunk of ice six miles long, three miles wide and 100 feet deep, that broke off Canada's Ellesmere Island about 20 years ago. It has been floating about the Arctic Ocean ever since.

Under contract with the Office of Naval Research (ONR), the University of Alaska's Arctic Research Laboratory maintains a camp on T-3 (T stands for target). An average of two dozen research and support personnel live there, and their work, small comforts and lives depend upon the timely arrival of fuel oil. It is this logistical mission that NS KODIAK carries out.

Temperatures on T-3 range from slightly above the freezing point in the summer to -50° F. in the winter. Surface melting makes the packed-snow-on-ice aircraft landing strip unusable from mid-June through mid-September, so during these months, supplies must be air-dropped by a DC-3 from the Arctic Research Laboratory at Point Barrow, Alaska.

But in the winter, the weight involved in supplying fuel oil alone—over 15,000 pounds per week—is beyond the hauling capacity of the DC-3. To augment the expected shortage last year, the icebreaker USS *Burton Sound* threaded her way through pack ice in August '66 to deliver T-3's winter supply of fuel oil. But even summer conditions were severe and the icebreaker was forced back 80 miles from her destination.

With the northern autumn days becoming shorter and colder, and the fierce Arctic winter fast approaching, another means of transport had to be found quickly. Unless an ample fuel supply were provided, the research camp would have to be abandoned.

So in October 1966, Rear Admiral D. M. White, Commander, Alaskan



BLACK LINE FROM ALASKA TO ICE ISLAND T-3 SHOWS THE TRACK OF KODIAK'S C-54

Sea Frontier, at the request of ONR, dispatched a C-54 from NS KODIAK to the laboratory at Point Barrow. Late that month and during early November, the Kodiak crew flew 15 1,100-mile flights over the polar ice cap, landing each time on T-3's rugged air strip to off-load the cargo. A total of 181,580 pounds was delivered, most of it fuel oil.

The initial operation proved so economical and efficient that in January 1967 when fuel again reached a critical level, NS KODIAK provided a second airlift. In total Arctic darkness, 27.5 tons of cargo were hauled.

However, still a third airlift, start-

ing March 1, was needed. Again, 136 tons of cargo, primarily fuel oil, were transported over the vast reaches of pack ice in severe cold, blowing snow and ice fog. Twenty-eight round trips were made during the three-week deployment.

At one point, little more than half-way through the mission, the operation stalled. The C-54 required an engine change. To get things going again, Captain Ira M. Rowell, Jr., C.O. of NS KODIAK, arranged for the immediate transfer of an R-2000 aircraft engine from Alameda, Calif., to Elmendorf AFB, Anchorage. From Elmendorf, a USAF C-130 delivered the

engine to Point Barrow. Fifteen hours later, the C-54 was repaired.

The Kodiak pilots faced a real challenge. They constantly had to maneuver the C-54 at 100-200 feet above the ice island, flying many approaches on T-3's non-directional radio beacon. Visibility was often so limited by ice fog that the 3,800-foot runway was not sighted until moments before touchdown. The pilot flew strictly on instruments until his copilot called, "Barrels in sight." This meant the empty fuel drums used for line up had been sighted. Kerosene smudge pots crudely lighted the runway.

The approach was flown not unlike a flat "paddles" pass to a carrier—a few knots above stall speed, full flaps and lots of power. At the threshold, the throttles were closed and the plane landed as short as possible. Without reversible pitch propellers and with only a 3,800-foot "iceway," the proper execution of the maneuver is a *must*.

Seldom was the aircraft on deck at T-3 for more than ten minutes. The engines cool rapidly in the Arctic and with a longer delay, they would have required extensive reheating.

Each arrival drew most of the island's population. The men were bundled against the cold and wind; their faces were bearded. Each man welcomed the cargo, for fuel oil was as vital as the food he ate and the water he drank.

The reason this Arctic island is so valuable is that it provides a stable platform from which scientists can gather data of geophysical, biological or meteorological importance. At the present time, it is located close to the international date line and is approximately halfway between the north



WHEN THIS PHOTO WAS TAKEN OF THE T-3 CAMP, TEMPERATURE WAS -48° FAHRENHEIT

coast of Siberia and the North Pole.

For the past year, the ice island has moved in a generally northward direction, as much as three miles within a 24-hour period. Owing to known currents, which provide its propulsion, T-3 is expected to continue in the same general direction.

Newsweek, July 17, 1967, puts its worth succinctly: "T-3 is the biggest bargain the U.S. Navy has ever known. Unsinkable, stable in even gale force storms, it sails the Arctic Ocean in ice floes that would crush the strongest icebreaker. Furthermore, T-3 did not cost a cent to build."

T-3 is also known as Fletcher's Ice Island, named for LCol. Joseph C. Fletcher who headed the USAF Arctic studies on T-3 in the early 1950's. In its continual drifting in the Arctic, T-3 ran aground near Point Barrow in the fall of 1961 and at that point the USAF abandoned it. But currents pulled T-3 loose in February 1962, so the Navy boarded the derelict and research teams once more had a floating ice island on which to continue their research in the Arctic.



C-54 IS LOADED WITH DRUMS OF FUEL OIL



PILOT'S VIEW OF LANDING STRIP ON ICE



THESE OFFICERS AND MEN WERE THE KODIAK GROUP AT BARROW



PLANES ARE SERVICED AT BARROW WITH 25-KNOT WINDS AT -25°



VA-86 PILOT AND VA-147 INSTRUCTOR WALK TO FLIGHT LINE FOR A-7 TRAINING FLIGHT

FROM FIRST VA-86 FLIE

Photographed by

A SQUADRON that once flew the fighter as its first aircraft has based Navy unit to transition to the This bit of historical Naval Aviation Attack Squadron 86 completed a the them out of the cockpits of A-4E Sky of Corsair II's.

They completed the transition J reserve squadron at NAS St. Louis

(Continued)



SERVICING THE A-7 WAS PART OF TRAINING PROVIDED FOR VA-86



TRAINING FLIGHTS IN THE A-7A CORSAIR II WERE PART OF

10 LATEST— CORSAIRS

62 Personnel

able F4U Corsair propeller-driven
the first operational, carrier-
light attack A-7A Corsair II jet.
significance evolved after pilots of
month transition program that took
s and placed them at the controls

some 16 years after VF-921—a
called to active duty during the

e 221



AO3 REDMAN AND AO2 NORMAN LOAD ZUNI ROCKET INTO POD MOUNTED ON CORSAIR II



TRANSITION SYLLABUS FOR PILOTS OF ATTACK SQUADRON 86

CDR. C. R. LONG, VA-86 SKIPPER, PREPARES FOR A-7 FLIGHT



NEW PLANE FOR VA-86, BUT SAME INSIGNIA

Korean conflict. VF-921, whose pilots flew the first *Corsairs* until June 1952, became VF-84 in February 1953 and was again redesignated—this time as VA-86—in July 1955.

Between the two radically different kinds of *Corsairs* were five aircraft types: the F8F-2 *Bearcat* from June until November 1952, the F9F-5 *Panther* from November 1952 until April 1955, the F7U-3M *Cutlass* from April 1955 until November 1956 and the F9F-8T and 8B *Cougar* during transition to A4D *Skyhawk* in March 1957.

VA-86's ten-year association with

the little *Skyhawk* came to an end after the squadron completed its last deployment overseas, a seven-month cruise aboard the USS *Independence* to the Mediterranean. Just a month after they returned from the Med, on March 1, VA-86 pilots and personnel began the transition to the *Corsair II* under direction of VA-174, the Atlantic Fleet A-7A operational training squadron.

During the transition, VA-86 accepted 14 of the Ling-Temco-Vought *Corsair II*'s and nearly doubled in size with the addition of 14 officers and more than 180 enlisted men.

For the squadron's skipper, Commander Charles R. Long, and the rest of the *Sidewinders*, it was a hectic three months—as the photographs on these pages will attest.

Most recently, pilots and support personnel departed home base, NAS Cecil Field, Fla., for MCAS YUMA, Ariz., and a two-week period of refresher weapons training. That completed, they returned to take up residence in Hangar 825 at Cecil Field for the remainder of their ready-for-sea training—preparing for their first deployment with the A-7, scheduled for early next year as a part of CVW-7 aboard USS *Independence* (CVA-62).



EASE OF ACCESS IS FEATURE OF THE A-7A

Until then, training will emphasize development of skills and techniques in the use of the *Corsair II*'s varied weapon systems and in proper utilization of the several new kinds of gear installed in the aircraft.

VA-174, meanwhile, will continue to train A-7A squadron personnel and ready replacement pilots. And the next squadron to form and complete initial A-7A training, VA-82, will eventually join the *Sidewinders* as a member of CVW-7. VA-37, due to be the third *Corsair II* Atlantic squadron, will be formed and follow VA-82.



AQF3 BYRD AND AQFAN MATHIS TROUBLE-SHOOT NEW VA-86 A-7



AMS1 CAPE AND AMSAN PIERCE LAY OUT VA-86 INSIGNIA PATTERN



NEW CORSAIR II IS READIED FOR FLIGHT BY VA-86 LINE CREW



SNAKEYE BOMBS ARE LOADED BEFORE ORDNANCE TRAINING FLIGHT



LT. BRATTON TAKES A HEADER DURING REFRESHER (?) TRAINING



VA-86 PILOTS WERE REQUIRED TO TAKE WATER SURVIVAL COURSE

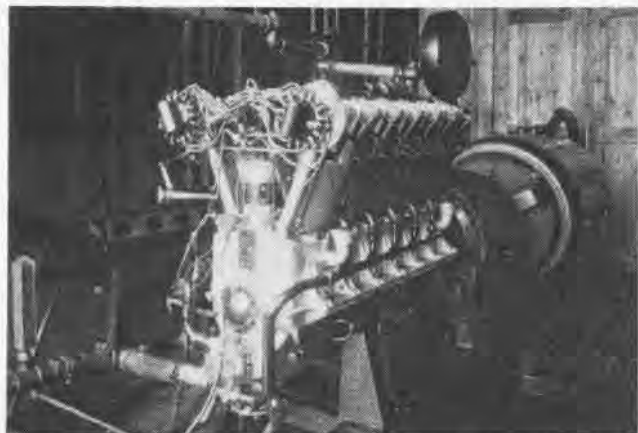
THREE MORE MONTHS: JULY, AUGUST, SEPTEMBER, 1917

In the second three months of WW I, the expansion program got underway. Although there was some evidence that those directing the expansion were profiting by the experience of our Allies across the ocean, their initial moves were both bold and imaginative in comparison with what had been done in aviation prior to our entry in the war. It was too early to see the results of their work or, in fact, how great the expansion would be, but the foundation laid in these months proved solid and sound for the growth that was to come.

JULY

4—The first eight-cylinder Liberty motor arrived in Washington, D.C., for test by the Bureau of Standards. It had been assembled at the Packard Motor Car Company from parts made by manufacturers in plants scattered from Philadelphia, Pa., to Berkeley, Calif. Design, manufacture, and assembly of this motor had taken less than six weeks.

9—Twenty-four potential Naval Aviators, with Ens. Frederick S. Allen as officer-in-charge, reported at the University of Toronto to start flight training under the Canadian Royal Flying Corps. Many of the group were from the Princeton Unit which had been in training at East Greenwich, R.I., while awaiting call to active duty.



DYNAMOMETER TEST OF LIBERTY ENGINE, PACKARD COMPANY, 1918

10—A proposed system of training student officers of the Naval Reserve Flying Corps, which represented a radical change from the existing system, was circulated for comment. The program consisted of three parts: (1) a Ground School for indoctrination into the Navy and study of subjects related to aircraft and flight, (2) a Preliminary Flight School for flight training through five to ten hours of solo, and (3) a Completing Flight School for advanced flight training and qualification as a Naval Aviator and commission as Ensign, USNRF.

23—The ground school at the Massachusetts Institute of Technology went into operation with the arrival of the first commanding officer, Ltjg. Edward H. McKitterick, and a group of 50 men comprising the first class (see NANews, August 1967, pages 24-27). In this and in supplementary programs later established at the University of Washington in Seattle and at Dunwoody Institute in Minneapolis, large numbers of prospective aviators and ground officers were indoctrinated into the service and introduced to the fundamentals of aviation.

24—A large obstacle to the effective expansion of aircraft production was removed by the formation of the Manufacturers Aircraft Association to handle the business of cross-licensing patents between all aircraft manufacturers in the United States.

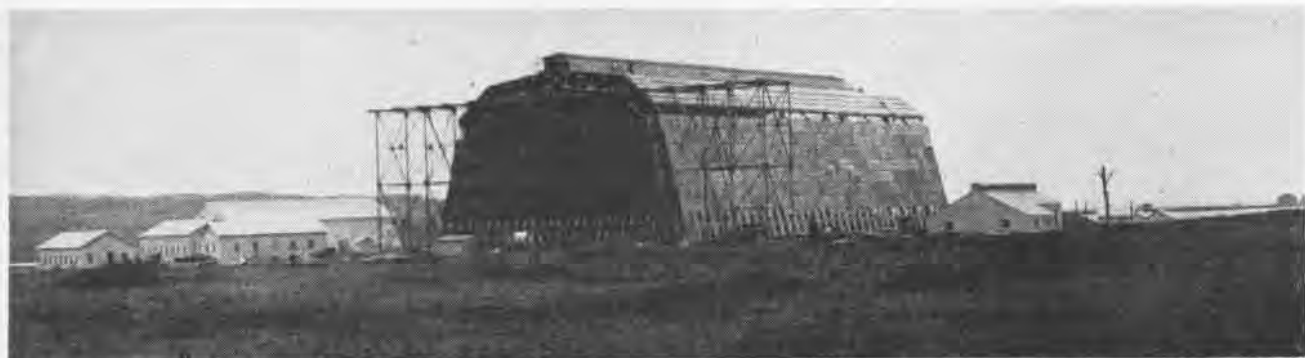
26—The Army-Navy Airship Board considered a proposal by the Bureau of Mines that the experimental production of helium be undertaken and, in its approval, recommended the allotment of \$100,000 to construct a small plant for the purpose. This action, subsequently approved by both Departments, was the beginning of the helium production program in the United States.

27—An Act of Congress authorized the President to take possession of North Island so that the Army and Navy could establish permanent aviation stations and schools. The arrival of Lt. Earle W. Spencer on 8 November 1917, under orders to establish and command a station for the purpose of training pilots and mechanics and maintaining coastal patrol, marked the beginning of the present Naval Air Station, North Island.

27—Construction of a Naval Aircraft Factory at the Philadelphia Navy Yard was authorized for purposes of constructing aircraft, undertaking aeronautical development, and providing aircraft construction cost data.



SIGNAL FACILITY AT MOUTCHIC, A TRAINING STATION IN FRANCE



BY DECEMBER 1917, LTA FACILITIES HAD BEEN ADDED TO MONTAUK WHICH HAD BEEN COMMISSIONED AS A SEAPLANE PATROL STATION

AUGUST

8—The Secretary of the Navy approved the plans to establish one training and three coastal patrol stations in France, the first of several plans dealing with an overseas base construction program. This program was successively expanded and it ultimately provided 27 locations in France, England, Ireland and Italy from which naval air units were operating at the close of the war.

10—Ground was broken for building the Naval Aircraft Factory at the Philadelphia Navy Yard.

14—In a test conducted by Lt. Edward O. McDonnell at Huntington Bay, L.I., a torpedo was launched from a seaplane. It struck the water at a bad angle and ricocheted, nearly striking the plane. This test marked the beginning of serious Navy interest in launching torpedoes from aircraft. Later tests were made at Philadelphia.

16—The first students of the First Aeronautic Detachment to complete the flight course at Tours transferred to Lake Hourtin to begin training in F.B.A. flying boats.

25—Development of flying boats, later designated NC, was initiated by Chief Constructor David W. Taylor in a memo which outlined the general requirements of an airplane needed in war and directed his staff to make further investigation. Taylor stated in part: "The 'United States [Liberty] Motor' gives good promise of success, and if we can push ahead on the airplane end, it seems to me the submarine menace could be abated, even if not destroyed, from the air. The ideal solution would be big flying boats, or the equivalent, that would be able to fly across the Atlantic to avoid difficulties of delivery, etc."

25—The 12-cylinder Liberty motor passed a 50-hour test with a power output of 301 to 320 horsepower, preliminary to being ordered into mass production.

31—NAS MOUTCHIC, established as a flight and ground training station in France, was commissioned under command of Lt. John L. Callan.

In August 1917, NAS MONTAUK was commissioned with Lt. Marc A. Mitscher in command. Operated initially as a seaplane patrol station, facilities were later expanded to include lighter-than-air operations.

SEPTEMBER

7—In tests which led to additional orders for Simon radio transmitters, radio signals sent from an R-6 seaplane flying at Pensacola were received loud and clear by Naval Radio Station, New Orleans, over 140 miles away.

7—A forest green winter service flying uniform, of the same design as the summer uniform, was authorized for all officers detailed to aviation duty.

7—A winged, fowl anchor was adopted as an official device to be worn on the left breast by all qualified Naval Aviators. Before the wings were issued, use of the letters U.S., which had been incorporated in the first design, was abandoned and the design adopted was essentially that of the wings worn by Naval Aviators today. Adoption of wings appears to have been responsible for compiling, in January 1918, the first precedence list of Naval Aviators, at that time numbering 284.

8—A site at the Naval Operating Base, Hampton Roads, was established as an air training station and patrol base and as a center for experimental work in seaplane operation. Detachments under training at the Curtiss School at Newport News and others at Squantum transferred to this location in October and, on 27 August of the next year, the Naval Air Station was placed in commission, LCdr. P.N.L. Bellinger commanding.

17—A kite balloon from USS *Huntington* was hit by a squall. While it was being hauled down to the ship, it struck the water so hard that the observer, Ltjg. H. W. Hoyt, was knocked out of the basket and entangled in the lines. As the balloon was pulled toward the ship, SF2 Patrick McGunigal went over the side, cleared the tangle and put a line around Lt. Hoyt so that he could be hauled up on deck. For this act of heroism, McGunigal was later awarded the Medal of Honor.

17—The Secretary of the Navy approved establishment of 15 naval air stations overseas to be in operation by 1 July 1918, each to be equipped for seaplane operations. Five of them were to have, in addition, facilities for operating airships and supporting kite balloon operations.

18—A production program of 1,700 operational type aircraft was established on the basis of a report issued this date by the Joint Technical Board of Aircraft.

26—Lt. Louis H. Maxfield, commanding the Naval Air Detachment at Akron, Ohio, reported the qualification of 11 students, including himself, as lighter-than-air pilots and requested their designation as Naval Aviators (Dirigibles). These men, the first trained specifically as dirigible pilots, were subsequently assigned Naval Aviator numbers ranging from 94 to 104.

27—Ens. Robert A. Lovett (later SecDef) made the first flight at NAS MOUTCHIC, France, in an F.B.A. seaplane, the assembly of which had been under his direction.

VRC-50 RECEIVES ITS FIRST T-39'S

AT NAS ATSUGI, in July, Fleet Tactical Support Squadron 50 received the Navy's first small jet transport in the Western Pacific area, the North American T-39 Sabreliner. It was the first of three T-39's VRC-50 is scheduled to fly.

The second aircraft was delivered in August and the third T-39 was scheduled for delivery this month. All three are being leased by the Navy under a one-year contract with North American Aviation.

The three jets will be under the operational control of Commander Fleet Air Western Pacific, Rear Admiral Marshall W. White. They are to be used to transport officials, both military and civilian, whose travel in WestPac is a Navy responsibility.

On hand to greet the new Sabreliner upon arrival were RAdm. White and Commander B. B. Fowke, C. O. of VRC-50. They are shown at right in the picture below with North American officials who delivered the plane: Robert Fero, chief test pilot; Andrew Brennan, the firm's representative; and Van Sheppard, senior test pilot and engineer.

Inside the Sabreliner are (left to right) RAdm. White; LCdr. Paul D. Barnes, flag lieutenant, and Captain Paul A. Anderson, assistant chief of staff for operations and plans, COMFAirWestPac; and Cdr. Fowke.

The Sabreliners, capable of speeds up to 560 mph, will eventually replace the 1944 vintage Douglas C-54 Sky-

master, now used for executive airlift. The C-54, with a speed of approximately 213 mph, takes 4-4½ hours to travel from NAS ATSUGI to Naha, Okinawa. This time will be cut to less than two hours in the T-39 which cruises at 518 miles per hour.

The executive version of the Skymaster carries 14 passengers and a crew of eight while the new Sabreliner carries eight passengers and requires a crew of only two pilots. The range of the Skymaster is about 2,500 miles under instrument conditions while the Sabreliner range under the same conditions is 1,400 miles.

Minimum landing speed of the Skymaster is about 92 mph as compared with about 115 for the T-39.

Sheppard remained at Atsugi during the time the VRC-50 pilots were checked out in the new aircraft.

New Camera for Vigilante Designed to Supersede the KA-51A

A \$450,000 contract has been awarded to Chicago Aerial Industries, Inc., Barrington, Ill., to build the KA-51B aerial reconnaissance camera. This will be installed on RA-5C Vigilante carrier-based reconnaissance jets.

It supersedes the KA-51A carried in Vigilantes since 1964 and utilized in Southeast Asia since February 1965. Incorporating an improved high-resolution six-inch focal length f/2.8 lens, the highly automated KA-51B has a combat-proven, high-speed, focal plane

shutter, automatic exposure control, and binary coded data recording in the corner of each film frame. It takes six pictures per second with a minimum of monitoring on the part of the crew. The manufacturer produces aerial reconnaissance systems and optical sighting equipment for the military and the aerospace industry.

Flight Medics Serve Widely In 1966, 152 Trained at Pensacola

In fiscal year 1966, the Naval Aerospace Medical Institute, Pensacola, trained 152 flight surgeons. Of these, 139 were Navy, seven Army, two Public Health Service and four from foreign countries.

Two of the 17 Naval Aviator/flight surgeons now on duty graduated from the Naval Test Pilot School at Patuxent River; one is the first M.D. scientist/astronaut assigned to NASA/Apollo, the other is with the Manned Orbital Laboratory project.

All naval laboratories, as well as many other facilities (such as the Pacific Missile Center, Point Mugu, and the Naval Aerospace Recovery Facility, El Centro), are presently involved in projects oriented towards space medicine. A naval flight surgeon is also assigned to the NASA Manned Spacecraft Center, Houston, together with an MSC aviation physiologist and five hospital corpsmen.

In Southeast Asia, three flight surgeons serve on each aircraft carrier and 31 are deployed with Marine Air Wing units. Six flight surgeons are assigned to the newly formed Fifth Marine Division.



FIRST SABRELINER AT NAS ATSUGI IS INTRODUCED UPON ARRIVAL



COMFAIRWESTPAC OFFICIALS 'CHECK OUT THE QUARTERS' IN T-39

Newsletters to the Field

Point Mugu Opens Data Channels

Two weapon systems newsletters are being published by the Naval Missile Center, Point Mugu, Calif. The *F-4 Newsletter* and the *Bullpup Newsletter* have been established to foster communications between the developer of weapons and the user.

The *F-4 Newsletter* provides informal information on the AERO-1A airborne missile control system, F-4 aircraft wiring, launchers, firing circuits, Sparrow III missile, Sidewinder missile, test benches, test equipment, support equipment, test procedures, publications, and supply support problems. The newsletter will eventually include the F-4J aircraft weapon system which is undergoing evaluation at Point Mugu.

The *Bullpup Newsletter* is designed to facilitate the flow of maintenance information about the Bullpup missile, associated launch aircraft circuitry, and test equipment.

The newsletters both contain diversified articles, useful to those who maintain and operate the various weapon systems.

In every copy of each newsletter, there is a perforated tear-out page on which the sailors may express problems or matters of interest. Addressed to the NavMisCen unit responsible for newsletter articles, this PEP-GRAM or BULL-(pup)-E-TIN provides an informal channel of communication from the field. Thus, a trouble area can be spotted and corrective action initiated to solve the problem long before a formal reporting system could react.

Initial distribution or additional copies of either newsletter may be obtained by written request to Serviceability Division, Code 5320, Naval Missile Ctr., Pt. Mugu, Calif., 93041.

Names, Addresses Change Labs Join Air Development Center

The Naval Air Development Center has announced the adoption of "triplets" on July 1, 1967. On that date, the Crew Equipment Laboratory, the Materials Laboratory and the Structures Laboratory of the Naval Air Engineering Center, Philadelphia, became the Aerospace Crew Equipment Department, the Aero Materials De-



THE FIRST Hawker Siddeley Nimrod, a four-jet maritime reconnaissance aircraft, planned for entry into service with the RAF Coastal Command in the late 1960's, made its first flight from Hawker Siddeley's Broughton airfield on May 23, 1967. The aircraft flew to the company's Woodford airfield where its development program is being carried out. The Nimrod, powered by four Rolls-Royce Spey turbofan engines, is designed to fly at a high subsonic speed and high altitude to the search area, make a low-speed, low-level patrol and a fast return to base.

partment and the Aero Structures Department of the Naval Air Development Center, Johnsville, Warminster, Pa., 18974.

Mail for these departments should be sent to the Warminster address; messages should be addressed to NavAir-DevCen. Telephone numbers remain unchanged. Visitors to these departments should go directly to the Philadelphia location.

Trainer Delivered to VF-126 TA-4F is Navy's 2,000th Skyhawk

In July, Commander William J. Hickman, C.O. of VF-126, NAS MIRAMAR, accepted the Navy's 2,000th Skyhawk from Douglas Aircraft Co. This particular one was the TA-4F



AT NAS Barber's Point, AMH2 Barry L. Fillmore and AMS1 Duane J. Zaleskie use a new tire changer kit built by Fillmore for use with the Orion. It carries two main wheels, two nose wheels, jack and tool box. Two men, using the new emergency kit, can change a blow-out in about one-half hour.

version, a two-place advanced trainer.

Representing Douglas at the ceremony were Leo Devlin, one of the principal designers, and Robert Rahn, test pilot for the first flight of a Skyhawk on June 22, 1954.

VR-21's Pilots are Promoted

Aircraft Commanders on 1st Tour

Five pilots of Fleet Tactical Support Squadron 21, NAS BARBER'S POINT, have become aircraft commanders of the squadron's C-118 *Liftmasters* on their first tour, only three years after graduating from flight training: Lts. John P. Frederick, Lawrence M. Buckner, Victor J. Babyak, Norm K. Matheson, and James E. Connell.

These officers transport supplies and personnel to Pacific Fleet forces. They may airlift an attack squadron from Jacksonville on the East Coast to a carrier operating on Yankee Station and return a *Swift* boat squadron from Da Nang to North Island.

Recently, VR-21 crews logged 2,667 flight hours for an all-time squadron record for one month's operations. They flew 162 missions into South Vietnam and provided priority airlifts for 147 commands during the past year. In the last ten years, the squadron has flown 210,000 accident-free hours and has not had a fatality in over 15 years. Captain Harry E. Sorenson is the commanding officer.

FLEET AIR WINGS ON PATROL



BUILDING barracks, messing facilities and working spaces has meant moving mountains of sand and daily winds are a constant problem.



WITH THE completion of the initial work, the Naval Air Facility, Cam Ranh Bay, will provide an excellent base for Operation "Market Time."

VP-1 Declares a 'First'

Patrol Squadron One, home-based at NAS WHIDBEY ISLAND, is the first naval operational squadron to operate full time out of the new Naval Air Facility, Cam Ranh Bay, Vietnam.

VP-1 commenced its flight operations on May 15 of this year when six of the squadron's 12 SP-2H *Neptunes* deployed from NS SANGLEY POINT, Republic of the Philippines, to carry out air surveillance missions in Operation *Market Time*.

The NAF is a completely new facility, located on a 15-mile stretch of sand that juts out into the South China Sea about 200 miles northeast of Saigon. In 1964 it was nothing but a sandy beach but today it is growing into one of the largest seaports in southeast Asia.

In about two months, the facility will be complete. Until that time, converted house trailers, tents and semi-permanent huts will provide the working and living facilities for the men.

VP-1's remaining six aircraft continue to operate out of Sangley Point.

'Batmen' Receive P-3B

It was the day after the Fourth of July at NAS PATUXENT RIVER, but

for the *Batmen* of VP-24, the fireworks were only beginning. On that day, the squadron received its first P-3B *Orion* and the squadron's flight training program was off with a bang. At the controls of VP-24's first P-3B was squadron skipper Commander A. S. Hibbs.

July 5 was also the day VP-24 switched from NAS NORFOLK to NAS PATUXENT RIVER.

At ceremonies in Norfolk, June 22, VP-24's last SP-2H was piped ashore. The *Neptunes* had logged over 70,000 accident-free hours since 1959.

The P-3 *Orion* is the sixth aircraft flown by the squadron since VP-24 was commissioned at NAS KANEHOE BAY, Hawaii, in 1943. The *Batmen* won their nickname for their participation in testing and developing the *Bat*, the Navy's first air-to-surface guided missile.

Flights above the Arctic Circle

The Royal Order of the Blue Noses gained some new members recently when *Hawaiian Warrior* crews Four and Seven became the first of VP-28's flight crews to fly missions above the Arctic Circle. The flights were made in support of the Annual Ice Reconnaissance Program conducted by the Navy's Hydrographic Office

(NANews, October 1956, pp. 1-5).

Flying a few hundred feet above the ice pack, the trained observers, led by Lt. Robert Freeman of Fleet Weather Central, Kodiak, were able to gather valuable information about the ice. Crew Four, led by I.Cdr. Kerry Mirise, flew from Eielson AFB, Fairbanks, Alaska. The track included such exotic places as Herschell Island in the Canadian Arctic, Barter Island, Oliktok, Lonely Island and Point Barrow on the Alaskan Coast of the Arctic Ocean.

Two weeks later, flying from Elmendorf AFB at Anchorage, Lt. Don Gentry and his crew crossed the Arctic Circle near Kotzebue, Alaska, on the north-bound leg of a track which made three penetrations to the edge of the Arctic ice pack.

Since the summer resupply of key military installations as well as commercial trade and the movement of supplies depend on timely and accurate data on navigable water, the *Hawaiian Warriors*, though far from home, were again providing a vital service.

VP-26's Safety Record

Patrol Squadron 26 completed FY 1967 with a total of 46,963 accident-free hours. The accumulated time dates back to August 1962.

Since September 1958, VP-26 has

amassed over 80,000 hours without an aircraft flight accident. During that period, the squadron has deployed to Rota, Sigonella, Guantanamo Bay, Argentina, Keflavik and numerous cities in the U.S.

In 1966, VP-26 transitioned from the P-2 to the P-3B and began a split deployment to Argentina and Keflavik as the Navy's first operational P-3B squadron.

Back from the Mediterranean

Commander Ian J. Johnson, commanding officer of VP-21, led a six-plane contingent of the squadron back to NAS BRUNSWICK the end of June after its six-month deployment with the U.S. Navy's Sixth Fleet.

Arriving in Rota on New Year's Day 1967, VP-21 relieved VP-24 and then quickly renewed its friendship with local town and base people made during a previous deployment.

For one period during the split deployment, the squadron was maintaining aircraft in Brunswick, Rota, Puerto Rico and Italy and, on several occasions, took part in bilateral exercises with the Spanish and French navies. During its overseas deployment, the squadron managed to send a large percentage of air crews to Puerto Rico for refresher training in ASW during Operation *Springboard*.

On February 22, VP-21 learned that it had won one of the three Atlantic Fleet E's. On March 2, Vice Admiral C. T. Booth, ComNavAirLant, awarded VP-21 the Arnold Jay Isbell award.

VP-21 is also the holder of ten consecutive ComNavAirLant Aviation Safety Awards in recognition of ten years of safe flight, during which it logged over 93,500 accident-free flying hours.

A Return from WestPac

When VP-46 returned to its home base at NAS MOFFETT FIELD in July, over 200 dependents were on hand to greet the 12 flight crews and ground personnel with their new skipper, Commander C. C. Hilscher.

The aircraft returned individually with a low high-speed pass, breaking into the landing pattern abeam of Hangar #2. All nine P-3 aircraft, with crew flags flying above them, then taxied nose to tail to their parking spaces in front of the waiting crowd. Once all the planes were in



AUSTRALIAN Counsel General, Mr. Neil Trustcott (C), tours a P-3 Orion at NAS Moffett Field. His guides for the tour were Patrol Squadron 19 officers, Ltjg. Gordon V. Tolletson (left) and Ltjg. David K. Williams.

position, 36 engines were shut down simultaneously.

On hand to greet the returning *Gray Knights* were Captain L. T. Barco, Jr., ComFAirWing Ten, and Captain G. E. Minor, Chief of Staff, ComFAirWingsPac. The Twelfth Naval District Band provided the music for the homecoming.

During the six-month deployment, VP-46 conducted air operations accumulating more than 7,200 flight hours in the Far East. Many of these hours were in direct support of Seventh Fleet activities, consisting of 12-hour surveillance patrols off the coast of Vietnam and over the sea lanes of the South China Sea. Although VP-46 was based at NAF NAHA, Okinawa, operations were conducted out of the Philippines, Japan, Taiwan and Thailand.



VP-9 CPO'S F. J. Herlby and D. K. Larson display implements they and other PO's used.

VP-49 Completes Split Deployment

VP-49, under the command of Commander R. T. Lemon, has returned to NAS PATUXENT RIVER, Md., after a six-month deployment to Kindley AFB, Bermuda, and NS ARGENTIA, Newfoundland.

In addition to surveillance patrols in the Western Atlantic, VP-49 flew extended patrols to the Azores, Spain and Germany. A total of 5,600 accident-free hours was flown during the deployment, running the squadron's total to 46,000 accident-free hours.

VP-9 Plays Host

In June, at NAS MOFFETT, VP-9, commanded by Commander R. B. Mahon, hosted a variety of military and civilian personnel. Members of the Royal Canadian Maritime Command Squadron 407, U.S. Naval Reserve Squadron VP-878, and approximately 300 dependents and civilian guests attended a squadron Personnel Inspection and an Open House.

The estimated 600 persons in attendance were treated to movies on ASW operations, various displays, and demonstrations of the sub-killers' equipment. Of particular interest to the more adventurous guests was a parachute ride. The squadron's aviation equipment branch had rigged a parachute high in the overhead of the hangar and volunteers were given a safe, but exciting, swing through the air.

The Canadians, on board for five days, toured the Moffett-based squadrons and the San Francisco area and were given an indoctrination flight in VP-9's P-3B.

VP-878, commanded by Commander Stephen Reinertsen and home-based at NAS ALAMEDA, had little time for touring during its annual two-week training cruise. The squadron conducted various ASW training exercises in hot pursuit of the Noel Davis Trophy.

Long known as the *Golden Eagles*, members of VP-9 have added another recognition feature to their P-3B *Orions*. When the familiar side numbers were removed from the tails of their aircraft, LCdr. W. R. Hodge, then maintenance control officer, came up with the idea of painting a golden eagle in the open space.

The idea met with instant approval and now when the *Golden Eagles* fly, personnel can recognize them at once.

SELECTED AIR RESERVE

Fowler Drive Dedicated

The former Golf Course Road at NAS GLENVIEW was recently renamed Fowler Drive and dedicated to the memory of the late Chief of Naval Air Reserve Training, Rear Admiral Richard L. Fowler.

Captain Robert W. Labyak, commanding officer of Glenview, spoke at the dedication. Guests included Mrs. Fowler and her two children, Julia and Richard, and Rear Admiral William S. Guest, CNAResTra.

Since the old Golf Course Road led from his house to the headquarters building, Adm. Fowler used it regularly.

One, Two, Three

The Chief of Naval Air Reserve Training has announced that the inspection of stations, units and squadrons within the command has been completed for FY '67. The top three stations in over-all inspection performance were NARTU NORFOLK, NAS ATLANTA and NAS DALLAS.

Exercise 'Dynamic Action'

In July, three Reserve squadrons, VP-772, VP-774 and VP-777 from NAS LOS ALAMITOS, participated in Exercise *Dynamic Action*, a massive First Fleet ASW exercise off the coast of southern California.

Dynamic Action involved 15,000 men, 32 ships and 17 air units. It was the fourth major exercise this year for the First Fleet and the second ASW exercise for Los Al squadrons. A Naval Air Reserve ASW exercise was conducted from Los Al in March.

During the week-long operation, screening ships and air groups attempted to locate submarines that were trying to reach the heart of the strike group—the aircraft carrier.

VP-892 Crew Commended

Crew Five of VP-892, NAS SEATTLE, is recognized as being 100 percent combat ready, according to a message of appreciation from Rear Admiral William S. Guest, CNAResTra.



NAVY PHOTOGRAPHER H. R. Downs prepares to photograph his dad, TV-personality Hugh Downs, Sr., as he assists Cdr. Tom Williamson (R) pass the gold key of the Naval Air Reserve East Coast PAO to his relief, Cdr. Sage M. Johnston.

In his message to LCdr. William R. Marr, plane commander of Crew Five, RAdm. Guest said: "Through your leadership and ASW effectiveness as patrol plane commander, Crew Five attained 100 percent combat readiness. This accomplishment is a first throughout the Naval Air Reserve Training

Command patrol squadrons. Please extend my appreciation to . . . your crew. Well done."

Herman Ridder Trophy

In ceremonies at NAS ATLANTA, Ga., Brigadier General A. H. Adams, Commanding General of the Marine Air Reserve Training Command, presented the Herman Ridder Marine Air Reserve Trophy to Marine Air Control Squadron 15. Lieutenant Colonel Robert S. McArthur, commanding officer of the squadron, accepted the trophy.

The Marietta-based unit has won the trophy three times on the basis of its being the best Marine unit of its kind.

Change of Command

Captain Reginald G. Armistead relieved Captain John B. Johnson as commanding officer of NARTU WASHINGTON, D.C. Capt. Johnson reported to the Commander, Naval Reserve Training, Fort Omaha, Nebr.



IT'S A family affair at NAS Olathe when ACAN Pat Gravitt, NARDiv 882, flies with his father, Commander T. O. Gravitt, VP-881.

He is the first Naval Aviator to be assigned to that command.

Capt. Armistead was previously head of the Selected Air Reserve Division, Bureau of Naval Personnel.

New Designation, New Aircraft

VS-934, NAS WILLOW GROVE's last VS squadron, was recently redesignated VP-931.

The squadron, which formerly flew the S-2F *Tracker*, is now training in the P-2 *Neptune*, learning flight methods, electronic equipment characteristics and tactical operations.

Commander Samuel A. Cummins is commanding officer of the squadron.

Good Grief!

Snoopy, Charlie Brown's dog in the comic strip "Peanuts" by Charles Schulz, has become a symbol of aviation safety at NARTU LAKEHURST.

LCdr. Roy A. Rogers, NARTU aviation safety officer, clips the cartoon and substitutes NATOPS advice for the dialogue. Posted in the squadron ready rooms and operations office, the NATOPS Snoopy cartoons help make the NARTU pilots safety conscious and remind them of the necessity of following NATOPS.

'The Quiet Warrior'

NARTU NORFOLK recently completed filming a documentary on the Naval Air Reserve, entitled, "The Quiet Warrior."

New techniques for the Nelson Tyler special camera mount (NA-NEWS, August 1966, p. 19), developed



ADR1 Donald L. Hamilton, national pistol and all-Navy rifle and pistol champion from NARTU Washington, D.C., with trophies he won at all-Navy meet at USNTC San Diego. Aviation personnel won 21 of the 43 awards.

by the Atlantic Fleet Combat Camera Group and NARTU NORFOLK, were used for the filming.

Originally designed for vibration-free motion picture filming from helicopters, the Nelson Tyler was utilized exclusively for the making of this film. Silk-smooth color footage was obtained by rigging the mount not only in SH-34's but also in C-54's and atop cars and trucks. In a further development, a Questar mount was adapted to the Nelson Tyler.

High-speed sequence still pictures

were shot from NARTU aircraft by two 35mm cameras triggered simultaneously to produce both broad coverage and precision magnification of 32 times the image size.

According to Commander Ted Wilbur, NARTU's writer-producer-director of the film, "Results were so good that editing became a real problem. Because of the story line and the time limitation of 28 minutes, only a small ratio of the airborne footage could be used. The remainder went into the film library at the Naval Photographic Center."

Captain R. G. Altmann is the C.O. of the Reserve unit at Norfolk.

Awards at Alameda

Two NARTU ALAMEDA Reservists were recently honored for their achievements.

AO1 William S. Antonius received a \$50 check for his beneficial suggestion on the "tour end date computer," which is used to determine the date an aircraft is due for overhaul. His suggestion almost eliminates inaccuracies in aircraft maintenance records.

In another ceremony, Commander Robert L. Kersey, C.O. of NAIRU-871, was cited for his "significant recruiting achievement" by the director of the Eighth Navy Recruiting Area. In the past year, as Navy procurement liaison officer at the University of Nevada, Cdr. Kersey was instrumental in recruiting many candidates for the "Blue and Gold" Naval Academy program.

Captain J. M. Hestilow is commanding officer of the NARTU.



PH1 MILTON "rides" the Questar-Nelson Tyler mount in NARTU Norfolk C-54 Skymaster over Chesapeake Bay. PH2 Botts sets controls.



DURING visit to NAS Dallas, baseball great Duke Snyder, manager of the Albuquerque Dodgers, autographed baseball for TDC M. E. Neuman.

AT SEA WITH THE CARRIERS



OPERATING OFF VIETNAM, SEVENTH FLEET'S BON HOMME RICHARD WAS VISITED BY PROSPECTIVE CNO, ADM. THOMAS H. MOORER

PACIFIC FLEET

HANCOCK (CVA-19)

Naval Aviators assigned to CVW-4 were launched from *Hancock* to join other U.S., Republic of Vietnam and Allied forces in what was called one of the largest coordinated military campaigns of the Vietnam conflict—the assault against enemy troop concentrations, gun and bunker positions and supply areas in the “demilitarized zone” below the 17th parallel.

As ARVN forces and U.S. Marines moved north into the combat area and

other U.S. Marines were landed on the beach from amphibious ships, pilots in A-4 *Skyhawks*, A-1 *Skyraiders* and F-8 *Crusaders* provided close air support. One pilot, Commander Niles Gooding, X.O. of VA-115, called the action a “classic naval warfare scene.” Recalling the view from his *Skyraider*, he said, “I could see the amphibious landing, the destroyers and cruisers firing and the attack planes striking down at their targets.” Several minutes later, Cdr. Gooding and his wingman, Ltjg. Malcolm Tinker, struck their own target—a bunker and gun position.

In an awards ceremony aboard

Hannab, her C.O., Captain H. P. Streeper, presented the Silver Star to LCdr. Clifford M. Johns and DFC's to Commander Henry M. Bailey, Lt. Norman L. Winningham and Lt. Henry T. Dodge III.

The fast work of explosive ordnance disposal personnel aboard *Hannab* in disarming and recovering a 250-pound bomb that broke free from an attack aircraft, described in last month's “At Sea with the Carriers,” is graphically displayed in a series of excellent action photographs on page 33. PH2 D. K. Althizer was the alert man behind the camera.

BON HOMME RICHARD (CVA-31)

While she operated off Vietnam, her planes being launched against such targets as the Uong Bi and Thanh Hoa thermal power plants, *Bonnie Dick* was visited by the then prospective CNO, Admiral Thomas H. Moorer. On a tour of military units in the Far East, Adm. Moorer boarded CVA-31 for a Vietnam operations briefing. He also got the chance to talk with his brother, Captain J. P. Moorer, operations officer for ComSeventhFlt.

More than 100 awards, including a Silver Star and Distinguished Flying Cross, were presented to personnel serving in *Bonnie Dick* and with the carrier's embarked CVW-21 while the ship was in the Gulf of Tonkin. Rear Admiral Vincent P. de Poix, ComCarDiv Seven, presented the Silver Star to LCdr. Marshall O. Wright, VF-211, the DFC to Lt. Phillip R. Wood, VF-24, and the rest of the awards.

ENTERPRISE (CVAN-65)

The *Big E* was back in home port, Alameda, after completing her second combat cruise—and, according to



BRIEFING Adm. Moorer, seated in a VA-212 Skyhawk, are Cdr. Quail and RAdm. de Poix.

some of her returning pilots, she wasted no time in making the transit from the Far East to the West Coast. Accompanied by the nuclear-powered frigate USS *Bainbridge*, *Enterprise* averaged 25 knots on the trip back. There were no recorded objections to the high speeds from pilots or crewmen, who had been away from their home port for a long seven months.

Enterprise has only recently completed a nine-week availability period at the San Francisco Bay Naval Shipyard at Hunter's Point.

INTREPID (CVS-11)

Intrepid is another Seventh Fleet carrier that played host to Adm. Thomas H. Moorer during his West-Pac tour. On her second cruise to the combat zone, the Norfolk-based CVS is serving as an attack carrier during the deployment.

One sailor serving aboard *Intrepid*, who prefers to remain anonymous, knows for sure what he is doing aboard a ship launching strikes in the Gulf of Tonkin. His wife set it down beautifully in a letter he received just before *Intrepid* reached Yankee Station. It was written on Memorial Day.

"To be able to live in a free country should be every man's right," she wrote. "To be able to bring up one's family as one sees fit is an honor only we Americans can really appreciate—but I'm afraid all too often we forget or neglect to give thanks to the power [that] made it all come true, and to the men who have fought and died for this freedom.

"We only think of them once a year. It's a shame every day couldn't be a day of remembering and giving thanks to these men. I'm sure some of



WHEN A 250-pound bomb broke loose from an A-4 Skyhawk as the aircraft was being launched from Hancock, flight deck crewmen scur-



ried for safety (above, left), but as soon as it stopped rolling (above right), ship's ordnancemen raced out to get it defuzed.



ORDNANCE experts gingerly remove the fuze as other crewmen prepare to move the bomb.



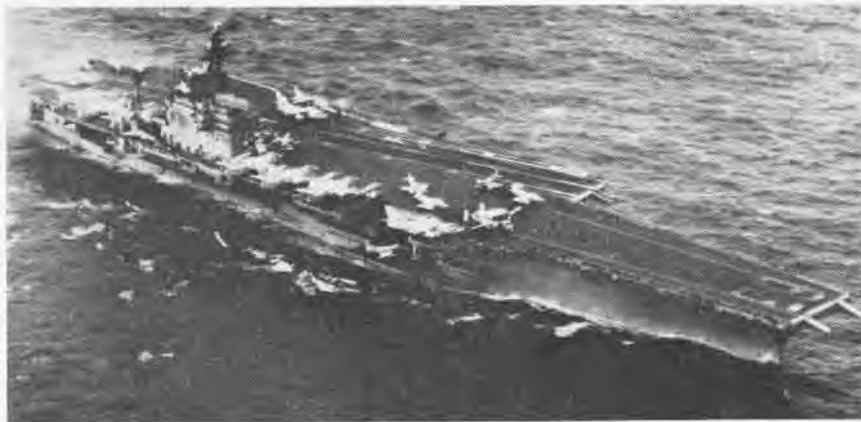
ERRANT bomb, now defuzed, is loaded onto a bomb cart, so it can be moved below deck.



ROPED and tied, the bomb is moved below where ordnancemen will inspect it closely.



SEA SPARROW missile is readied for launch aboard *Enterprise*. *Big E* has returned home.



KITTY HAWK is another Pacific Fleet carrier that has returned from a combat cruise in waters off Vietnam. Her pilots flew 10,000 missions, dropped two million pounds of ordnance.

the disgraceful acts that are happening would be a thing of the past.

"I sincerely hope every American today looked at our flag and felt as I did; that it stirred up the hearts of our people . . . especially the wives who have men in uniform and don't know why they are wearing it, or the cause you men are defending. To have a husband who is able to wear this country's uniform is a privilege and shouldn't be taken as lightly as some do.

"In closing my letter tonight, I want to add I am very proud to be a Navy wife . . . to have a man who can do two jobs as well as you do: serving his country and also holding a family together. I know it must be hard at times but you are doing a superb job of it.

"My love goes to you in double measure tonight, if that is possible, as much as I already love you. And my debt of gratitude goes to you and all of your fellow servicemen for having the guts to stand up and defend our God-given rights to be a free people.

"May God watch over the ship as it goes on toward its final destination and return it to us with a safe ending."

Intrepid entered combat under a new skipper. He is Captain William J. McVey, who relieved Captain John W. Fair in a flight deck ceremony.

KITTY HAWK (CVA-63)

Commander Henry Urban, skipper of CVW-11, was presented the Silver Star for gallantry in action when he led a strike mission from *Kitty Hawk* against a thermal power plant in Haiphong, North Vietnam. The pres-

entation, held aboard CVA-63 before the ship returned to home port, San Diego (NANews, August 1967, p. 33), was made by Rear Admiral David C. Richardson, commander of the Seventh Fleet's Attack Carrier Striking Force.

HORNET (CVS-12)

Hornet's 100,000th arrested landing was logged by her skipper, Captain G. H. Robertson, in an *s-2E Tracker*. The ASW carrier, just turned 24 years old in August, was operating in the Tonkin Gulf off Vietnam.

TRIPOLI (LPH-10)

Marines stormed the beaches of South Vietnam, 17 miles south of Da Nang, and launched what was then the latest in a series of Navy-Marine amphibious assaults to keep enemy forces in I Corps off balance. Operation *Beacon Torch* began on *Tripoli's* flight deck as Marines of Battalion Landing Team 2/3 boarded CH-46 helicopters in murky, pre-dawn darkness and were flown into action.



FATHER-SON lieutenant combination are the Giddens. The son (left) flies with VA-195.

KEARSARGE (CVS-33)

When he landed his *SH-3 Sea King* aboard *Kay* as the CVS operated off California, HS-6's Lt. Tom May had recorded the squadron's 10,000th flight hour for the fiscal year just past.

ORISKANY (CVA-34)

Ens. R. E. ("Skip") Foulks, Jr., VA-163, made *Oriskany's* 121,000th arrestment in an *A-4E Skyhawk*.

TICONDEROGA (CVA-14)

For nearly eight years, Lt. Robert G. Giddens, Sr., and Lt. Robert G. Giddens, Jr., have been chasing each other through the Navy's rank structure. This year the son finally caught up with his father.

The younger Giddens entered the Naval Academy in July 1959, a move some say made him senior to his father. Giddens, Sr., was then a chief aviation ordnanceman, but less than two years later he was commissioned a Ltjg. in the LDO program.

When Giddens, Jr., graduated from the Naval Academy as an ensign, he was just a grade behind dad—but before he could catch up, his father was promoted. Finally, this past January, the younger Giddens also put on the "railroad track" bars of a lieutenant.

Now Giddens, Jr., is a Naval Aviator assigned to VA-195 and has had two combat cruises with the squadron. He has more than 100 missions over Vietnam. His father, who joined the Navy in 1941, is presently OinC of the Airborne Underwater Weapons Detachment at NAS Jacksonville, Florida.

PRINCETON (LPH-5)

Princeton returned to home port, Long Beach, to end a five-month deployment to WestPac. During the cruise, almost all of it spent in the coastal waters off Vietnam, LPH-5 was involved in four major amphibious assaults—beginning with Operation *Beacon Hill One* at Gio Linh and concluding with Operation *Hickory* just south of the "demilitarized zone."

RANGER (CVA-61)

The *Top Gun* is back with the Fleet. An eight-month overhaul at the Puget Sound Naval Shipyard completed, *Ranger* is back at the business of launching and recovering aircraft.

Now equipped with a variety of improvements and new systems, CVA-61 has also returned to Alameda, Calif. The ship was homeported in Bremerton while the overhaul was being held. Now, her crew is undergoing training before the ship deploys to WestPac.

The carrier's first arrested landing since she entered the yard was made by LCDr. Richard A. Barnes, pilot, and Commander Donald M. Lynam, copilot, in a C-1A *Trader*. Another *Trader*, piloted by LCDr. D. W. Sealey, logged the ship's 90,000th arrestment.

BENNINGTON (CVS-20)

Benn crewmen have contributed \$5,108 to the Navy Relief Society in Long Beach, Calif.

CONSTELLATION (CVA-64)

Connie was another Seventh Fleet carrier to host CNO-designate, Adm. Thomas H. Moorer.

CORAL SEA (CVA-43)

Along with the ASW carrier *Kearsarge*, *Coral Sea* joined the 32 ships, 17 air units and 15,000-plus men participating in the First Fleet exercise *Dynamic Action* off the coast of Southern California. The fourth major First Fleet exercise of 1967, *Dynamic Action* was conducted to enhance the proficiency of the participating units in antisubmarine warfare.

What was called the first operational landing of the Navy's newest light attack aircraft, the A-7A *Corsair II*, was made aboard *Coral Sea* by Com-



ABOARD *America*, flight deck crewmen conduct a scrubdown to remove dirt and grease.



THIS interesting view of a "Miss Jacksonville" candidate was taken aboard CVA-66.

mander M. D. Blixt, C.O. of VA-122.

Another A-7 pilot, Commander Carl Birdwell, VA-122's X.O., made *Coral Sea*'s 168,000th arrestment.

Arrestment number 169,000 soon followed. Commander Charles R. Gillespie, Jr., VF-151, made it when he brought his F-4 *Phantom II* aboard after completing a training mission.

ATLANTIC FLEET

AMERICA (CVA-66)

A bit of old Scotland is represented aboard *America* as a young Scottish "laddie's" bagpipe wails above the sounds of a carrier operating in the Med.

The young piper is AEAN Barry Richie MacFarlane, of VF-33, a man who is quick to emphasize the "Mac" in his surname. He practices on his Great Highland Warpipe ("bagpipe" to the uninitiated) daily during off-duty hours.

AOCM Eugene F. Spelman came up \$990 richer recently when *America*'s C.O., Captain D. D. Engen, presented the CVA-66 crewman with a check for a "beneficial suggestion" that saved the Navy an estimated \$68,000. The chief figured out a way to quickly load target drones onto aircraft with existing equipment, and in doing so eliminated the need to buy specialized gear that would otherwise have been necessary to handle the same job.

America's RVAH-5 is claiming a record. According to the squadron's public affairs officer, LCDr. J. H. Pirotte, the 68 consecutive launches of RA-5C *Vigilantes* without using on-deck spares is a new high for this particular feat. LCDr. Pirotte also reported that his squadron's maintenance department has had 104 of 106 flights free of system discrepancies.



'GO' SIGN is given by forward catapult officer aboard *America* as an F-4 *Phantom* nears time for launch. *America* was operating again in the Mediterranean as a unit of the Sixth Fleet.

ESSEX (CVS-9)

After making Bergen, Norway, her first port of call during a four-month cruise to the North Atlantic and the Med, *Essex* hosted three NATO observers as she joined with Norwegian, Danish, Dutch and American forces in combined exercises at sea.

While their ship was in Bergen, *Essex* crewmen wasted no time in furthering friendship with the Norwegians. Activities scheduled by the ship included a dance on board, tours of Bergen and the surrounding mountains and an "open house."

SARATOGA (CVA-60)

Sara has joined the Sixth Fleet in the Med. CVA-60 relieved *Shangri La* in Pollensa Bay, Mallorca, to begin her eighth cruise in the Med.

F. D. ROOSEVELT (CVA-42)

Ltjg. Frank A. Escobar, VA-12, made *FDR's* 162,000th arrested landing in an A-4 *Skyhawk* while the carrier was involved in training exercises at the Atlantic Fleet Weapons Range in the Caribbean near Puerto Rico.

INDEPENDENCE (CVA-62)

Captain Clarence A. Hill, Jr., relieved Captain John P. Fox as C.O. of *Independence* during a change-of-command ceremony held aboard CVA-62 while the carrier was in dry dock at the Norfolk Naval Shipyard, Portsmouth, Va. The first Atlantic Fleet carrier to serve off Vietnam, *Independence* is now undergoing extensive overhaul.

WASP (CVS-18)

Wasp entered dry dock at the Boston Naval Shipyard, where she was undergoing overhaul.

BOXER (LPH-4)

Another ship being worked on in the Boston Naval Yard was *Boxer*. The LPH had successful dock trials but material problems caused delays in completion of some work.

SHANGRI LA (CVA-38)

Soon after she returned to home port, Mayport, Fla., *Shang* was under-

way for the Norfolk Naval Shipyard at Portsmouth, Va., to enter dry dock for completion of a \$1.5 million repair and overhaul period that had been started at the carrier basin in Mayport.

However, the stay in Norfolk was not "all work and no play." Shipyard workers, for instance, turned girl-watchers when 22 young ladies, all contestants for the crown of "Miss Jacksonville-1967," boarded the carrier. It has been reliably reported that the eyes of a few sailors were also turned as the young ladies were given a tour of the ship.

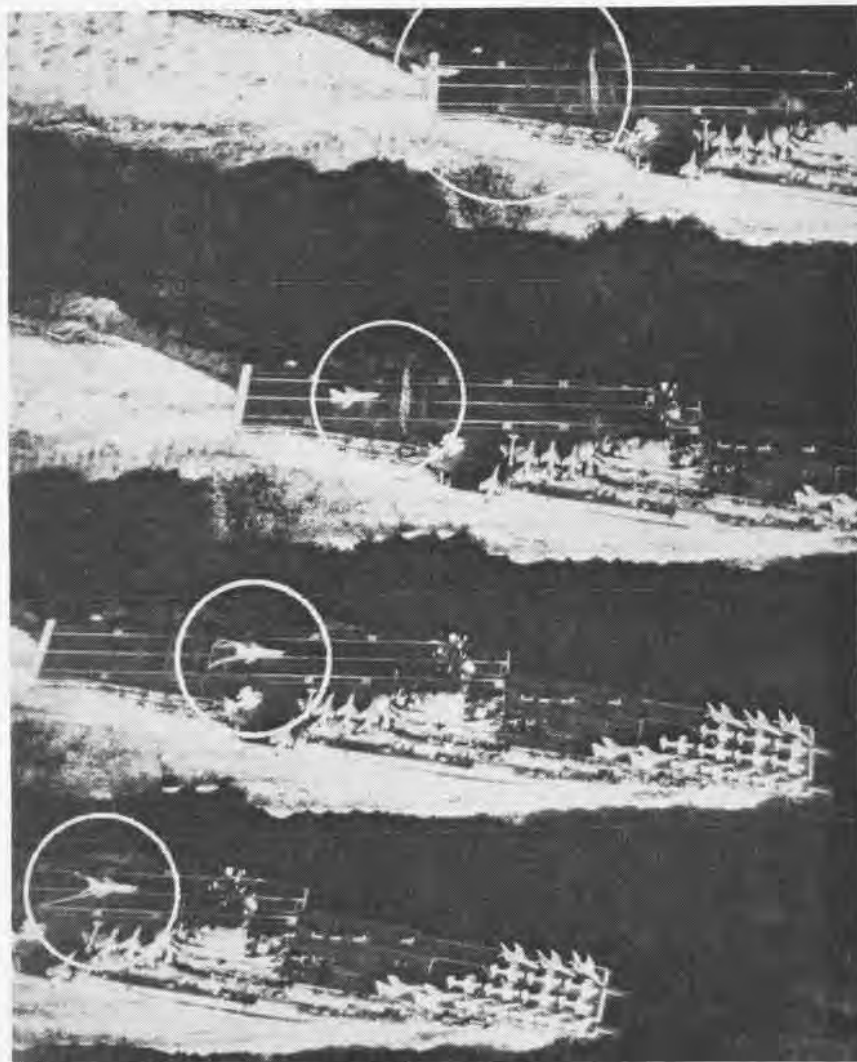
RANDOLPH (CVS-15)

Captain Wynn V. Whidden became *Randolph's* 20th C.O. when he relieved Captain William J. Moran during a change-of-command ceremony.

LEXINGTON (CVS-16)

Lex crewmen, who have chalked 189,000-plus arrested landings to lead the Fleet in this operation, are now claiming that the 611 arrestments they logged in one day's operations represent a new record.

A BARRIER LANDING IN SEQUENCE



IN A PHOTO sequence taken by VFP-63's Lt. Harry Sampson in a reconnaissance jet, Ltjg. John D. Sande brings his F-8C *Crusader* in for a barricade landing, made necessary when the aircraft's tail hook failed to function properly. From top, the sequence shows Ltjg. Sande bringing his jet (1) "over the hump," (2) "in the groove," (3) "into the net" and (4) "home safe." In the landing aboard the USS *Oriskany*, the aircraft was only slightly damaged.

WST INCREASES VP-30'S COMBAT READINESS



ORION WEAPON SYSTEMS TRAINER, DEVELOPED BY U.S. NAVAL TRAINING DEVICE CENTER, IS USED BY VP-30 TO MAINTAIN READINESS

SINCE EARLY this year, VP-30 has increased its combat readiness by the regular use of the P-3A Weapon Systems Trainer (WST), Naval Training Device 2F69B, which simulates the operational aspects of P-3 Orion, BuNo. 152140. The device is also used at NAS MOFFETT and NAS BRUNSWICK.

Fleet testing and evaluation were done by a team from VP-30, consisting of LCdr. F. P. Gigliotti, ComNavAirLant P-3 NATOPS evaluator; LCdr. E. C. Bernard (later relieved by Lt. E. L. Bleyнат), ComNavAirLant P-3 TACC0 NATOPS evaluator; and ADCS E. V. Phelps, AXC C. E. Smith, AXC P. B. McCullough, AX1 W. E. Squires. Acceptance checks were completed in Dec. 1966.

Developed and produced by the Link Group of General Precision, Inc., for the U. S. Naval Training Device Center, the completely computerized WST is housed in two expandable-side trailers: the Operational Flight Trainer (OFT) in one, the tactics trainer in the other. These units can be operated individually in the uncoupled mode or simultaneously as a weapon systems trainer in the coupled mode.

The cockpit training area, located in the OFT, includes the flight instructor's trouble console at which the instructor can insert abrupt malfunctions which simulate actual emergencies which the pilot might encounter in the aircraft. The OFT is so constructed as to provide actual cockpit motion of $\pm 15^\circ$ roll, $\pm 6^\circ$ pitch,

vertical acceleration, and a complete range of weather effects.

The second trailer houses the WST and incorporates the Orion's sophisticated tactical equipment. Many tactical situations can be programmed. The computers are programmed in a matter of minutes and are able to handle the varied tactical situations which might be encountered in ASW.

The instructor monitors the problem by the use of a projection plotter which plots aircraft and targets in varied color traces. A digital read-out enables the instructor to read range and bearing from any target to the aircraft or from any sonobuoy to any target in either yards or miles. The instructor points out alternatives or mistakes as the problem progresses.



CREW MEMBERS LEARN TO HANDLE THE P-3 JOB AT THEIR STATIONS



P-3 TACTICS INSTRUCTORS CHECK OUT CREWMEN'S PROFICIENCY

CAT



CLEAR AIR TURBULENCE (CAT) IS OFTEN DESCRIBED AS A RANDOM PHENOMENON. PILOTS HAVE REPORTED CLEAR AIR TURBULENCE AT SPECIFIC POINTS ALONG AN AIRWAY, HOWEVER AIRCRAFT FOLLOWING CLOSELY BEHIND HAVE NOT ENCOUNTERED IT.

ONE EXPLANATION IS THAT THE ZONE IN WHICH CONDITIONS ARE FAVORABLE FOR THE FORMATION OF TURBULENCE IS USUALLY VERY SMALL AND, TO COMPOUND THE PROBLEM OF LOCATION, THE ZONE IS OFTEN MIGRATORY.



CLEAR AIR TURBULENCE OCCURS MOST FREQUENTLY IN THE VICINITY OF JET STREAMS, ALTHOUGH EVERY JET STREAM IS NOT NECESSARILY A ZONE OF CAT.

THERE ARE THREE AREAS IN THE VICINITY OF THE JET STREAM THAT ARE FAVORABLE FOR CAT: (1) ON THE ANTICYCLONIC SIDE OF THE JET, USUALLY TO THE SOUTH OR EAST, AND AT THE LEVEL OF THE JET AXIS (2) ON THE CYCLONIC SIDE, NORMALLY TO THE NORTH OR WEST, NEAR THE TROPOPAUSE, (3) BENEATH THE JET AXIS IN THE VICINITY OF THE POLAR FRONT.

REDUCING AIR SPEED AND CHANGING ALTITUDE BY 500 TO 1,000 FEET IS SUGGESTED IF CLEAR AIR TURBULENCE IS ENCOUNTERED IN A FLIGHT PARALLEL TO THE JET STREAM.



IF TURBULENCE IS ASSOCIATED WITH A TEMPERATURE CHANGE THE TURBULENT ZONE WILL USUALLY BE TRAVERSED IN A SHORT TIME IF THE COURSE IS MAINTAINED.



Weather Command Ready Is Directly Responsible to CNO

On July 1, the Naval Weather Service Command was established and activated under a commander who reports directly to the Chief of Naval Operations. Its headquarters are located in the Washington Navy Yard, Washington, D.C., 20390.

The mission of the command is to insure the fulfillment of the Navy's meteorological needs as well as DOD's requirements for oceanographic analyses and forecasts. The command will also provide technical guidance

in meteorological matters throughout the naval service. Fleet Weather Centrals and Facilities will have concurrent responsibility to Fleet Commanders in Chief and the Chief of Naval Air Training who will exercise control over the product output to meet the requirements of the operating forces.

CNO delegates the command of the following activities to the Commander, U.S. Naval Weather Service Command: (1) Headquarters, Naval Weather Service Command; (2) Fleet Weather Centrals (Suitland, Alameda, Guam, Kodiak, Pearl Harbor and Rota,

Spain); (3) Fleet Weather Facilities (Argentia, Nfld.; Quonset Point, Norfolk, Jacksonville, San Diego, London, Keflavik, Iceland; Yokosuka, Japan; Sangley Point, R.P.); and (4) the Fleet Numerical Weather Facility, Monterey, California.

Planes to Seed Hurricanes For 1967 'Stormfury' Experiments

Scientists from the Environmental Science Services Administration (ESSA) are prepared to have 1967 hurricanes seeded with silver iodide in a continued effort to learn whether the storms' violence can be lessened.

Plans for Project *Stormfury* have been announced by Dr. Robert M. White, ESSA administrator, and Captain E. T. Harding, commander of the Naval Weather Service Command.

Project *Stormfury*, first established in 1956, is a joint Department of Commerce (ESSA) and Department of Defense (U.S. Navy) program of scientific experiments designed to explore the structure and dynamics of hurricanes and tropical storms.

Until October 15, *Stormfury* scientists, aircraft and flight crews will be on 48-hour alert, ready to proceed to the staging base at NS ROOSEVELT ROADS, Puerto Rico, from which hurricane-seeding missions will be flown.

Seeding will be performed by A-6 *Intruder* aircraft from VA-35, based at NAS OCEANA, Va., and commanded by Commander Glenn E. Kollmann.

Super Constellation WC-121N aircraft, belonging to the *Hurricane Hunters* of VW-4 based at NAS JACKSONVILLE, provide airborne control of all planes in the operation and measure numerous meteorological parameters. Commander John V. Lawrence is the squadron's commanding officer.

As many as 14 planes provided by the Navy, ESSA and the Air Force are taking part in this year's operations. As a Navy *Intruder* releases silver iodide generators, the other aircraft, flying at levels from 1,000 to 40,000 feet, observe and record conditions before and after seeding.

In addition to seeding the hurricane eyewall, Project *Stormfury* is investigating the effects of seeding hurricane rainbands—narrow strips of heavy precipitation found at some distance from the hurricane eye.

Editor's Corner

DREAM GIRL. "If I ever fly again, it will be mild in comparison to flying with the *Blue Angels*," said Mrs. Bonnie LeMaster of Marion, Ind.

In a five-year dream come true, the petite Hoosier had her first airplane ride—with Lt. Dave Rottgering in the *Blues'* TF-9 orientation plane.

Mrs. LeMaster's campaign for a flight started five years ago when she was inspired by an Air Force *Thunderbirds'* show. After lengthy correspondence with Pensacola, a letter of certification as a reporter for her hometown newspaper and the obtaining of her husband's approval, a date with the famed *Blue Angels* at NAS Pensacola was set.

Made an honorary member of the team at the conclusion of the flight, Mrs. LeMaster smiled and said, "It's the most wonderful thing that ever happened to me. I'll be the envy of every boy in Marion."

Study in Psychology. An aircraft arriving for overhaul at the Naval Air Rework Facility, NAS ALAMEDA, is derisively referred to as a "pig." As it advances through the assembly line, the names become progressively less venomous. From "pig," it advances to "animal," to "dodo bird" and so on, until it finally emerges, in all its epoxy-painted splendor, at the end of the line. Then it's "What a looker!"

MINI-FLIGHT DECK. Operating from what is probably the world's smallest floating flight deck, a UH-1D *Huey* helicopter performs routine landings and takeoffs. A detachable platform, installed on a Navy armored troop carrier, expands the flexibility of the Mobile Riverine Force in the Mekong Delta.

Name Change. A mid-air collision put VR-30's Lt. Joe Rozic in the headlines when his C-2A tangled with a pigeon—at 9,000 feet. The impact punched a hole right through the nose section. Some weeks later, the same pilot, flying the same plane, struck another bird.

Lt. Rozic is now "Birdman of VR-30." A suggestion has been made that the C-2's name be changed from *Greyhound* to *Bird Dog*.



A BONNIE 'BLUE ANGEL'

REAL CAN OF WORMS. PO1's Mark G. Powell and Wayne B. Myers, who have re-established the worm farm aboard NS Keflavik, are working on a solution to their production problem.

Both avid fishermen, the sailors acquired the farm from Manuel Oliver, another petty officer who has since left the station. Although they have increased their inventory from 172 to about 800 worms and night crawlers (the crawlers are for breeding purposes), the men believe a larger stock is required to meet potential demands of other fishermen on the base.

"In the near future, I'm going to build a worm shocker," said Myers.

A shocker is an electric shock device which causes worms to hot-foot it out of the ground. It is a probe inserted into the soil where worms are known to be. When current is applied, the creatures get out fast—and presumably leap gratefully into the waiting hands of Powell and Myers.

It sounds like more fun than fishing.

Anchor's Away. The new book on North Island, *Jackrabbits to Jets*, includes this tale involving a pilot in the early days:

"Ens. Emory Haskell, an aviator of exceptional sartorial splendor, came to the seaplane ramp one day, announcing that he planned to establish an altitude record. The CPO carried Ens. Haskell on his shoulders from the beach to the seaplane which was riding at anchor in several feet of water. A 60-pound boat anchor was used for mooring the plane.

"The airplane was readied for flight. Haskell taxied out into the bay, swung into the wind and gunned it. He rocked back and forth, crossing his own wake in a futile attempt to get off the water. . . .

"Finally, Ens. Haskell gave up and went back to the beach where he reprimanded the Chief for sending him out in a ship that wouldn't fly. The CPO received permission to try to see what was wrong. He climbed aboard and *this time* the anchor line was cast off. . . . The Chief took the plane up and reported back that she was adequate and ready to fly. Haskell's reaction was not recorded."



WORLD'S SMALLEST FLOATING FLIGHT DECK?

LETTERS

Origin of 'Greek Fire'

SIRS: As one of those odd characters doing Naval Aviation and flight safety from a desk, I read with interest your RH-3A Nam-Dee-Doo article in *Naval Aviation News* (May 1967, pp. 6-8).

As a member of a Micro-Navy (which, of course, rests—as all navies do—on three columns: "Mines, mines, and mines"), I am sorry not to be able to amend this article with opinion of mine experts, but I can correct a small mistake: "Greek fire" cannot be traced to the days of Alexander the Great, and, furthermore, has nothing to do with mine warfare. May I lecture?

"Greek fire" was invented in A.D. 671 after five years of research by a Syrian engineer called Callinicus (Greek: Kalliukos) who came from Heliopolis to serve the Byzantine emperor, Constantine IV. Callinicus very probably knew of the recipe of a Greek engineer named Martinos, who assisted Justinian I's General Belisar (East Roman Commander in Chief) and General Narses (first Exarch of the East Roman Province at Ravenna) in winning wars in Italy against Vandals and Goths (A.D. 531, A.D. 554, respectively) by burning their ships with a material which could not be extinguished by water.

General Leontios of Anatolia, Defender of Constantinople, was provided just in time with a dark oily composition which is believed to have consisted of native asphalt, sulphur, naphtha, saltpetre (nitre) and lime. Against these hundreds and hundreds of big Arab dromonds and Saracen selanders attacking the town in A.D. 677, Greek fire was ejected from the Theodorion Wall by catapults and, by means of large pairs of bellows, driven out of iron tubes which had been installed aboard "harbour defense cutters." The floating fire destroyed the entire Mohammedan fleet of Admiral Muawija and his son Jesid and liberated Constantinople.

Roughly 300 years later we again hear that this mysterious predecessor of napalm saved Constantinople when Igor of Kiev (A.D. 912-945), a Swedish Viking from the Varangian Family, lost his entire Russian fleet by Greek fire in front of the East Roman metropolis (A.D. 941), thus being forced to open his country to Christian influences (A.D. 945).

That's it.

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Enlisted Reserve Reunion

SIRS: The annual conference of the Naval Enlisted Reserve Association will be held at the Hamilton Hotel, Washington, D.C., on October 27 and 28. For inquiries or reserva-

tions, former enlisted Reservists should write to address indicated below.

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New Name, Old Address China Lake Gets Center Status

The Naval Ordnance Test Station at China Lake officially became the Naval Weapons Center (NWC) on July 1. The center includes the original station and the Naval Ordnance Laboratory at Corona, now called the Naval Weapons Center, Corona Laboratories.

The Pasadena Laboratories become headquarters for the new Naval Undersea Warfare Center (NUWC) and will include undersea technicians from both the former NOTS and the former Naval Electronics Laboratory (NEL) at San Diego. NUWC will retain the ranges and personnel at Morris Dam, Long Beach and San Clemente Island.

The former NEL, San Diego, becomes the Naval Command Control Communications Laboratory Center.

All three commands will report directly to the Chief of Naval Material.

New Medical Service Wings Worn at Aerospace M.D. Meeting

Aviation experimental psychologists and aviation physiologists wore their gold wings for the first time at the recent meeting in Washington, D.C., of the Aerospace Medical Association. Under Secretary of the Navy Robert H. B. Baldwin on April 12 approved a change in regulations, permitting the insignia to be worn by the newest members of the Navy's aviation team.

Similar to the insignia of the flight surgeons, the Medical Service Corps gold oak leaf replaces the Medical Corps leaf with acorn.

In February 1966, aviation experimental psychologists and aviation physiologists were designated as crew members and ordered to duty involving flying. This relatively small group of highly-specialized officers, approximately 65 in number, is assigned such duties as in-flight analysis of human performance in training and Fleet operations. They also provide training for all aircrew personnel in protective equipment and egress systems, as well as test and evaluate new aircraft systems.

NAVAL AVIATION FILMS

Among the latest motion picture films released by the Film Distribution Division, U.S. Naval Photographic Center, the following should prove of particular interest:

MN-10134J (unclassified): *T-28 Standard Operating Procedures—Carrier Landing Procedures*. Techniques for making the first carrier landing. 12 minutes.

MN-10376 (unclassified): *Ready on Arrival*. The story of attack aircraft carriers and the men who man them. 29 minutes.

MN-9550C (confidential): *The Bullpup Weapon System—Bullpup AGM-12B Missile; Handling and Aircraft Checkout Procedures* (U). 29 minutes.

MN-9550D (confidential): *The Bullpup Weapon System—Bullpup AGM-12C Missile; Handling and Aircraft Checkout Procedures* (U). 25 minutes.

MN-9550E (confidential): *The Bullpup Weapon System—Flying Bullpup With Adaptive Controls* (U). Flying the AGM-12B and AGM-12C from launch to impact. Explanation and advantages of the adaptive control system (U). 14 minutes.

MN-10127A (unclassified): *Basic Aerodynamics—Aerodynamic Force and the Co-efficient of Lift*. Meaning of aerodynamic force and the lift component. 23 minutes.

MN-10134F (unclassified): *T-28 Standard Operating Procedures*. Airwork procedures and techniques for the student aviator to follow to accomplish basic airwork in the T-28. 14 minutes.

MN-10134H (unclassified): *T-28 Standard Operating Procedures—Field Entry and Landing Procedures*. Procedures and techniques for entering the traffic pattern at an uncontrolled field, and landing the aircraft on any field. 12 minutes.

MN-10134I (unclassified): *T-28 Standard Operating Procedures—Emergency Procedures*. Correct procedures to follow for making safe landings in the T-28 in the event of engine failure or other emergency. 9 minutes.

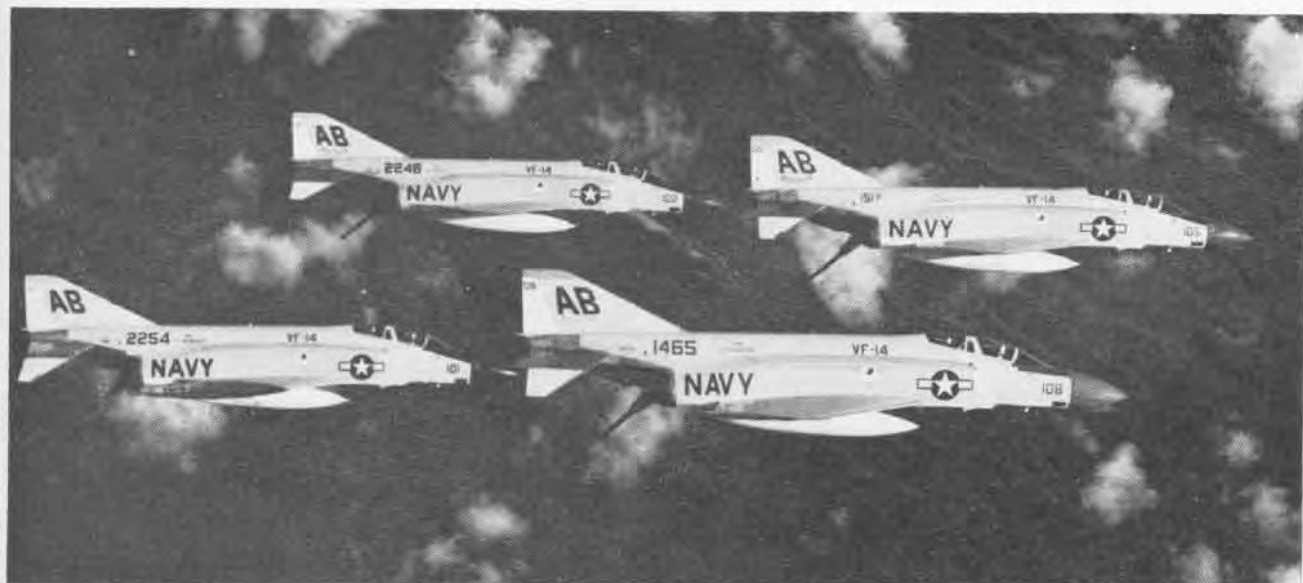
MN-10134L (unclassified): *T-28 Standard Operating Procedures*. Field carrier procedures for field carrier landings. 16 minutes.

MN-10217 (unclassified): *Medical Investigations of Aircraft Accidents*. Procedures for evaluating human factors involved in naval aircraft accidents. 20 minutes.

MC-10592 (unclassified): *To Catch a Shadow*. The modern ASW force in action. Exterior and interior shots of the P-3A Orion as it patrols, detects and attacks an enemy submarine during an actual ASW exercise in the Pacific. 29 minutes.

Note: Distribution of the "Obsolete Film List" (FD-1551) has been restricted to film libraries listed in OpNav Instruction 3150.6C, the Navy Film Catalog (NAVWEP 10-1-777) and supplements. Activities stocking obsolete films must turn in prints to authorized film libraries for inspection and disposal.

Instructions for obtaining prints of newly released films are contained in OpNav Instruction 1151.1D.



SQUADRON INSIGNIA



Fighter Squadron Fourteen, led by Commander J. H. Koach, is home-based at NAS Cecil Field, Fla. Its record of continuous active service began in September 1919. Since that time, the 'Top Hatters' have flown 20 different types of aircraft from sixteen aircraft carriers and several battleships and cruisers.





FROM NEWPORT TO THANH HOA

... and from Memphis to Saint Joe, too. That's where Naval Aviation News goes. The News is your medium for keeping up with aviation developments. The News is a bridge connecting the Atlantic and Pacific with buttresses in Washington and every shore base. Is your unit providing news items every month to keep others informed of what you're doing?

NAVAL AVIATION

NEWS