

naval aviation news



JULY 1979



NAVAL AVIATION NEWS

SIXTY-FIRST YEAR OF PUBLICATION

Vice Admiral W. L. McDonald
Deputy Chief of Naval Operations (Air Warfare)
Vice Admiral F. S. Petersen
Commander, Naval Air Systems Command

STAFF

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and History

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Charles C. Cooney Art Director

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■

Cdr. Chuck Sammons Contributing Editor

Harold Andrews Technical Advisor

COVERS — Front, RM2 Joe Lacaze filmed his fellow Chuting Stars at work. See feature beginning on page 20. NANews' Charles Cooney created back cover arrangement with insignia supplied by NARF Norfolk. Inside back cover amplifies. Here, PHAN William Flynn photographed a smiling VAW-116 Hawkeye aboard USS Nimitz in 1975.



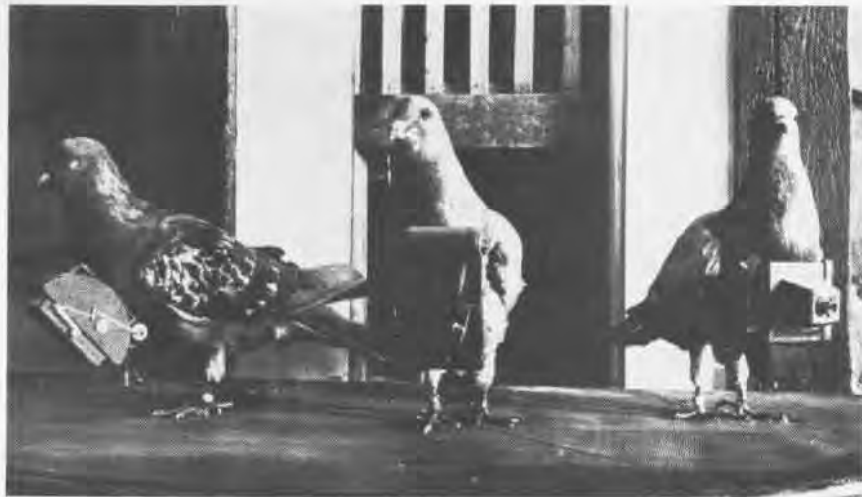
editor's corner

USS BeeBee Stacker. As the story goes around NARU Memphis, someone jokingly remarked, "You AOs ain't got nothin' to do. Why don'tcha go stack some BBs." We're sure AO2 Bryan Craig had plenty to do but found time to stack BBs anyway. He began with pyramid-type structures and worked up to his crowning achievement, USS *BeeBee Stacker*, a 90-pound wonder made in 80 hours, with 103,000 BBs. Had he bought the pellets in bulk at the outset, Craig could have beat the \$110 price tag of



the carrier. Fortified with glue and tweezers he laid the keel and made a solid shell, one BB at a time. After construction of the inner and outer hulls, the shell was filled completely. The cardboard flight deck was covered over and under with a triple thickness of BBs. "It was slow going at first," says Craig. "You can't believe how difficult stacking BBs can be. You learn how to really be patient."

But Can You Prove It? According to NAS Miramar's *Jet Journal*, CWO4 Herman Ussery has achieved a milestone of unusual significance. The VF-51 officer is a 23-year veteran and aboard USS *Kitty Hawk* he passed through his one millionth knee-knocker!



Picture-taking Pigeons. An *NANews* staffer collected this photo at an aerial photography exhibit which took place at the National Air and Space Museum in Washington, D.C., this spring. Following is the accompanying caption: "Pigeons with cameras and a photograph taken by one of them in Germany, about 1908. The magazine *L'Illustration* wrote at that time, 'It is quite natural to see birds becoming photographers at the moment when men are beginning to become birds.' Deutsches Museum, München."

More from the Loft. Max Schwartz sent us this tale of feathered friends from a *BuAer Newsletter*, circa 1933: "QM1c C. W. Mask and QM3c D. H. Lane, pigeon men stationed at Lakehurst, N.J., were the winners of the annual futurity race from Charlottesville, Va., conducted by the Seaboard Homing Pigeon Club on Sunday, 22 October. Miss Blimp, the first bird to arrive at the Navy loft, was clocked in at 1330 covering the distance of 263 miles in six hours and 30 minutes for an average speed of 1,187.49 yards per minute. Miss Akron was also clocked a few minutes later for second place honors. This is the first time that the Navy birds have won the annual futurity, which is participated in by all the pigeon fanciers in this vicinity, and is considered the outstanding event of the season."

The Wolf and the Carrot. When VA-83 captured CVW-17's Golden

Tailhook Award for carrier landing performance, the X.O. explained why. "Carrots," said Cdr. Rex Wolf. "lots of carrots." Someone asked, "So you eat carrots every day, eh, commander, to improve your eyesight?" "No," replied Wolf. "I detest carrots, but I carry a few in my flight suit to smooth out my throttle movements." We don't know exactly what that means and neither did VA-83's skipper, Cdr. Bob Naughton, who ordered his number two man to his stateroom for some rest.

Gyrones. Give yourself an A for aviation knowledge if you know what a gyrone is. By way of explanation here's a quote from *The Aeroplane Spotter*, published in London, October 1944: "For many weeks past we have been hearing of the service exploits of the German reaction-propelled single-seat fighters, and of experiments and service trials with such aircraft in the United States. The news, therefore, that British military gyrones — the class name given to aerodynes (an aerodyne is any aircraft that is heavier than air and derives its lift chiefly from aerodynamic forces) propelled by gas turbine reaction-propulsion units — are now in operational service with squadrons of the Royal Air Force is received with great satisfaction. Available information indicates that British gyrones have so far only been used in action against enemy Flying Bombs. Our reaction-propelled fighters are particularly suited to this task because of their high speed."

did you know?

Ski Jump Patuxent River now has its own ski jump but skiers shouldn't get too excited. The jump is for VSTOL aircraft and is being evaluated by the Naval Air Test Center, using the AV-8A *Harrier*. The ramp has a 12-degree angle of elevation and is 130 feet long with 100 feet of ground-level runway in front of it. The total takeoff distance of 230 feet compares with the 930-foot runway necessary



for a *Harrier* to make a flat-deck takeoff. Tests have been conducted in England to determine the optimum angle of elevation for the ski jump.

The ski jump, according to Robert Traskos, VSTOL consultant to NATC's Strike Aircraft Test Directorate, consists of a "set of links that an engineering platoon can erect across gullies, essentially a tank bridge." The British model was erected on a prepared site in eight hours by Royal engineer troops. In the field, U.S. Marine engineers can prepare a site and erect a ski jump in 24 hours.

The jump is being evaluated at NATC for possible use in the fleet.

Emily Goes Home The Japanese *Emily*, a sojourner in a foreign land for many years, is finally going home. The last survivor of the Kawanishi H8K Type 2, one of the fastest flying boats built in WW II, has been stored at NAS Norfolk for over 30 years. When the war was over, the *Emily* was kept by the U.S. Navy for hydrodynamic tests and as a possible museum exhibit. The flying boat was ferried across the Pacific on a Navy seaplane tender to NAS Whidbey Island and from there to NAS Norfolk through the Panama Canal.

The Japanese Museum of Maritime Science has funded the *Emily's* return to



Japan where it will be restored and become part of an educational display for Japanese youth. Custody of the plane was transferred in a formal ceremony at Norfolk on April 23, attended by U.S. and Japanese government officials.

Gray Owl

The newest trophy on the Naval Aviation scene is the Gray Owl. Sponsored by Grumman Aerospace, it honors the Naval Flight Officer on active duty who has held that designation for the longest period. The sculptured owl on a mahogany base is symbolic of "stalwart and intrepid professionalism."

Grumman presented the trophy to Vice Admiral F. C. Turner, DCNO (Air Warfare), who then presented it to Captain George Larocque, the first Gray Owl. The presentation took place at the Naval Aviators luncheon on June 6, 1979.

Capt. Larocque, who has orders as Naval Attache at The Hague, Netherlands, was designated an NFO in May 1953. He is qualified in the AF, S-2, P-2, A-3 and EC-121.



New DCNO (Air Warfare)

Vice Admiral W. L. McDonald has relieved Vice Admiral Frederick C. Turner as Deputy Chief of Naval Operations (Air Warfare). VAdm. McDonald was formerly Commander, Second Fleet; VAdm. Turner is retiring.

New Supersonic Missile

An advanced integral rocket/ramjet test vehicle developed for the Navy by Vought Corporation made its first flight in April on the Pacific Missile Test Center's range. Launched by an A-7, the test vehicle streaked approximately 90 miles down range at an altitude of 35,000 feet and a sustained speed of about 2,000 miles per hour before executing a programmed terminal dive into the Pacific.

Described by Vought as a major step toward a new generation of high-performance, air-to-surface tactical standoff missiles, the test vehicle is the first of an advanced, low-cost design in the Navy's supersonic tactical missile program. The Naval Weapons Center is providing the technical direction.

The vehicle features a solid rocket and liquid ramjet propulsion system using a common combustion chamber. Boosted to high speed in seconds by solid propellant in the chamber, the vehicle uses the exhausted motor case to burn conventional liquid jet fuel for sustained high-speed, long-duration flight — powered all the way to its target. The vehicle's standoff range, maneuverability and powered-to-target features are vitally important to the next generation of air-to-surface missiles, according to Vought.

Currently tailored to the air-to-surface role and use by attack aircraft, the ramjet vehicle can be scaled larger or smaller for other types of missions, to attain longer standoff ranges and to accommodate various types of payloads.

New Microfilm Viewer

During the next few months, many Naval Aviation maintenance activities will receive the new AR-163A microfilm viewer. This lightweight bench-top/portable viewer will complement the MIARS (Maintenance Information Automated Retrieval System) viewing and printing equipment now in use.

In 20 years the amount of printed data required to support a single aircraft has increased more than tenfold. To cope with the growing mountain of technical information, MIARS was born some seven years ago. MIARS uses a 16mm microfilm cartridge system to present technical data, and the AR-150A reader-printer and AR-151A portable viewer, as the principal means of viewing the microfilm.

As the demand for microfilm increased, it became apparent that a new lightweight viewer was needed, one that was easy to operate and required little maintenance. The latter are the design specifications for the AR-163A now being produced.

The viewer is classified as both bench-top and portable. As a bench-top unit it uses 120 volts a.c. 50, 60 or 400 Hz power, making it compatible with the power source of any workbench. As a portable unit it contains a built-in 12 volts d.c. rechargeable battery and has a total weight of only 20 pounds.

Personnel who will operate the equipment can learn how in a matter of minutes by reading the technical manual, NavAir 17-40AR-163 A-1, included in each unit. Cartridge loading and film movement are manually controlled. It will accept the standard MIARS cartridge, however, with adaptors that come with each unit. It also accepts Type K and M cartridges and 16mm open reels. The unit has been designed to be basically maintenance free. The only replaceable items are the projection lamp, fuses, viewing screen and battery. No other maintenance should be necessary.

Although designed primarily for use in organizational and intermediate level maintenance activities, it has been demonstrated at work centers in all the naval air rework facilities. Consequently, it is now planned to distribute it to depot maintenance activities.

As the use of microfilm increases in Naval Aviation maintenance, most manuals for new weapons systems will be available on microfilm only. When the AR-163A is combined with the present viewing and printing equipment, microfilm will become an easy-to-use and efficient data source.



CNO Safety Awards

The CNO Safety Awards for calendar year 1978 were announced in April. Winners are:

NavAirLant: VF-14, VAs 35 and 46, RVAH-12, VP-10, VS-32, VAW-124, HS-5, VQ-4, VC-2 and HC-6.

NavAirPac: VF-151, VAs 115 and 146, VP-6, HSL-35, VFP-63, VAQ-130, VAW-115, VS-29, HC-11 and VX-5.

FMFLant: HMM-461, HML-167, VMFA-115 and VMA-331

FMFPac: VMGR-352, HML-267, VMFA-531, HMMs 161 and 265.

CNavRes: VF-302, VA-305, VP-93, VC-12, HC-9 and VR-56.

4th MAW/MARTC: VMO-4 and HMM-764.

CNATra: VTs 7, 10, 26 and 27, and HT-8.



grampaw pettibone

Harrier-Kari

The routine AV-8A training mission involved a fire support exercise with four aircraft operating from an auxiliary landing field (ALF) and a secondary confined area landing (CAL) site. The pilot in this incident was the second pilot to execute a vertical takeoff (VTO)/accelerating transition from the CAL site. He had completed two successful VTOs into the VFR pattern. His third VTO was normal and he began to "nozzle out" without noticeable difficulty.

Outside observers noted a nose-low aircraft attitude as he accelerated seaward, however. Over a bay, at 100 feet altitude, 120 knots airspeed and one-half to three-fourth nozzle aft, he moved nozzles abruptly full aft. Consequently, the aircraft, with the low angle of attack, pitched sharply nose down and descended rapidly.

The pilot countered with aft stick and selected nozzles to the hover stop. At this point the pilot considered ejection. He rejected this alternative as he saw his control input becoming effective in arresting the altitude loss. Unfortunately he could not prevent the tail of the aircraft from impacting



the water. Still, he managed to complete recovery, regain altitude and perform a vertical landing on the ALF runway. Damage was classified as substantial category C, and consisted of

dent in the bottom of the fuselage near the speed brake, plus creases along the horizontal stabilizer.



Grampaw Pettibone says:

Holy Harrier-kari! This gent is one lucky man. The near miss was labeled pilot error, resulting from an inadequate transition from vertical to horizontal flight. The angle of attack was low, causing the aircraft to have inadequate lift for wing-borne flight at the time the thrust was vectored completely aft. The pilot had over 400 hours of experience in AV-8As and perhaps through complacency became a passenger in his own aircraft. He was looking out of the cockpit and had not monitored the angle of attack closely enough during the critical phase of transition to conventional flight.

Once he recognized the dilemma, the flyer's rapid corrective action saved the airplane and perhaps his life. The correct decision was probably to eject as he came too close to the water, but ejection may or may not have been successful, depending upon the phase of the pullout when it was initiated. The pilot could not be faulted for not ejecting because of an established sink rate but he did accept a near miss with water entry.

Being what some might call the fastest nozzle-out man in town resulted in wet tail feathers, a bent bird and near disaster. Nuff said!

From the Mailbag:

Workin' on a Chain Gang

Dateline CV. Pre-dawn SH-3H launch into Pearl Harbor, Hawaii, for a routine pickup of the local harbor pilot to bring the ship and a tired crew into port. Sweet smell of liberty lingering in the air! Snappy preflight, engine starts, cockpit systems check, smooth rotor engagement. With "nuthin to it...let's do it" aplomb, the SH-3 smartly displays its steady launch-me position lights. Not to be outdone by a machine, the landing signalman enlisted (LSE) immediately signals for re-



ILLUSTRATED BY *Epom*



removal of all chocks and chains. A quick and confident visual count by the line crew ensues. LSE and both pilots. "Yup, two chocks an' four chains!"

The bright red rotators cut the darkness as the LSE's arm circles, then points like an arrow toward the faint lights of Honolulu. It's up, up and away...but wait!! An emergency hold signal comes from somewhere, and the pilot complies by gently lowering the collective. All are thinking, "Yeah, what is it?" as the night-check maintenance chief runs frantically to the LSE with fist clenched tightly. He thinks, apparently, that he has seen something and requests permission to enter the main rotor arc for an inspection. Permission granted, the chief disappears under the aircraft in the vicinity of the starboard main landing gear. Moments later, he is seen exiting and dangling something long. You guessed it — a tie-down chain!! Three linemen, three aircrewmembers and two pilots had all miscounted ye ol' tie-down chains!



Grampaw Pettibone says:

Holy terminated liberty! In this business, like most others, it's the little things that count, like four tie-down chains instead of three. We really get ourselves into trouble when the big things in life (people) don't take time to count.

Old Gramps has heard this "unchained melody" far too many times. In this case, disaster was averted thanks to the eagle eye of the maintenance chief. Can't say too much for the alertness of the rest of this crew, however!

Stop the fiddlin' around, gents, and get

on with some decent travelin' music, like "Take these chains from my parts and set me free." Play it again, Sam! And again, and again!

Dead Wrong

An A4D pilot had been scheduled for a cross-country trip from his East Coast air station to MCAS Yuma. Purpose of the trip was to establish advance liaison with scheduled refueling stops for a full A4D squadron, all set to follow him in a few days. He was carrying starter probes and miscellaneous maintenance items in a converted drop tank, and each planned fuel stop for the squadron movement was to be provided with the equipment and instructions necessary for proper servicing.

The first leg of his trip was uneventful, but as the pilot made the necessary liaison contacts at a Midwest base, rough weather was rapidly building up to the north and west. Two teletype severe weather warnings had been issued, and the local air base had issued one as well. All the weather was between him and El Paso, his next scheduled stop.

Base weather personnel informed him that severe thunderstorm activity was forecast, surface winds to 65 knots in gusts, very large hail and tops to 55,000 feet. To the north of his course, tornadoes were forecast. Not a very pretty picture to contemplate. The weather at El Paso was excellent and forecast to remain so.

On the strength of the destination weather and being a real get-it-done

type, he didn't secure, but haunted operations and meteorology for the next seven hours hoping for a break in the weather.

The forecast weather developed as predicted and kept moving eastward in waves, with new buildups continually forming. Extreme turbulence was now reported.

He filled out a DD175 after the first four hours, but threw it in the trash can after observing the thunderstorm activity on the base radar.

Finally, about 1730, he filed IFR at 35,000 feet to El Paso, straight through the middle of the storm belt, got another weather briefing, had another quick look at the radarscope (no change) and took off, fueled to maximum capacity, at 1856 CST.

At 1911, he reported breaking out on top at 35,000 feet and followed this up with routine position reports up to 1931 CST. At 1935, a preliminary call by him to Fort Worth radio was abruptly terminated; and at 1937 the A4D dug a 30-foot crater in the ground, evidently striking in a near vertical dive. The pilot rode it in. At the time of the crash, the area was being deluged by a severe thunderstorm.



Grampaw Pettibone says:

Great balls of fire! Whatever possessed this man, an experienced pilot with over 4,900 flight hours, to push into a solid wall of thunderstorms and hope for a hole to appear magically will never be known. We've lost four planes and three pilots to storms in this same area in 60 days and stressed quite a few surviving aircraft to the maximum.

One man, who ejected successfully, died of loss of blood caused by hail punctures before he was located by a rescue party. Today's aircraft cannot consistently take what old Mother Nature can dish out in severe thunderstorms. Even if you disregard the intent of CNO that deliberate flight into published severe weather areas not be attempted or permitted, even if you disregard your almost total inability to maintain heading or altitude, and disregard also the fact that this renders IFR altitude or directional separation worthless, the personal risk and odds on the need for ejection or bailout are too great. It's not a game of "chicken" you're playing, it's for keeps. (February 1963)

CVV

It's not a *Nimitz* or a *Kennedy*. But, within cost constraints, it is a very good ship." So said Vice Admiral Frederick C. Turner last spring. The recently retired DCNO (Air Warfare) was referring to the much discussed aircraft carrier concept called the CVV.

What is a CVV? How does it fit into the strategic posture as a proposed mobile platform for flight operations at sea? This is a summary of the CVV concept.

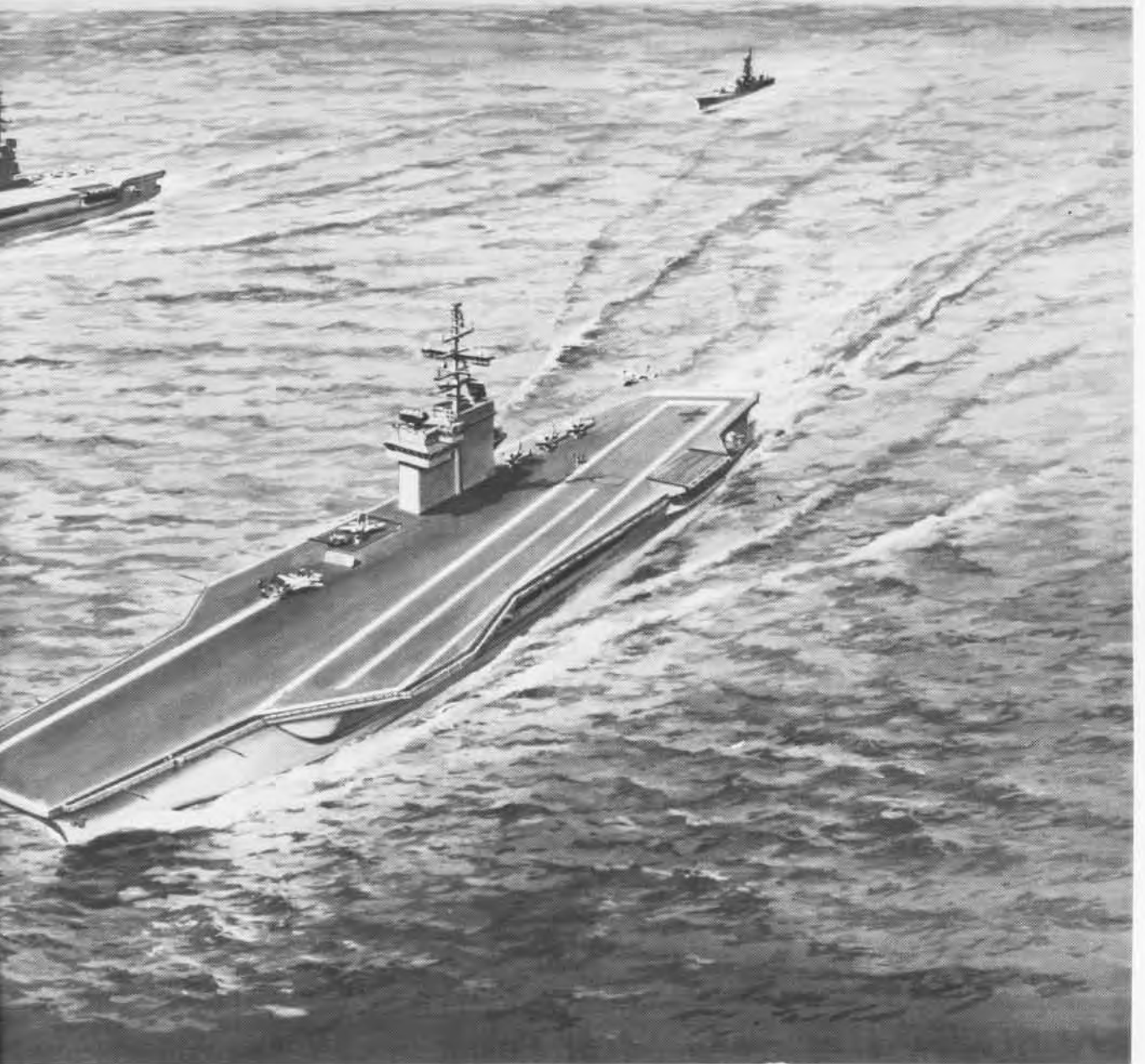
In 1972 a feasibility study for a cost-constrained carrier began. Two years later a conceptual design was ready for review. In essence, the design depicted a minimum-cost carrier adequate in size to operate modern fleet aircraft and capable of replacing *Midway*-class CVs. The completion of this study, however, happened to coincide with a statement of intent by Congress that henceforth all major combatant ships would be nuclear-powered. As a result, interest in this medium-sized, conventionally-powered ship was lost. Attention, instead, was focused on nuclear ships and a repeat of the *Nimitz* design was ultimately selected as the best alternative.

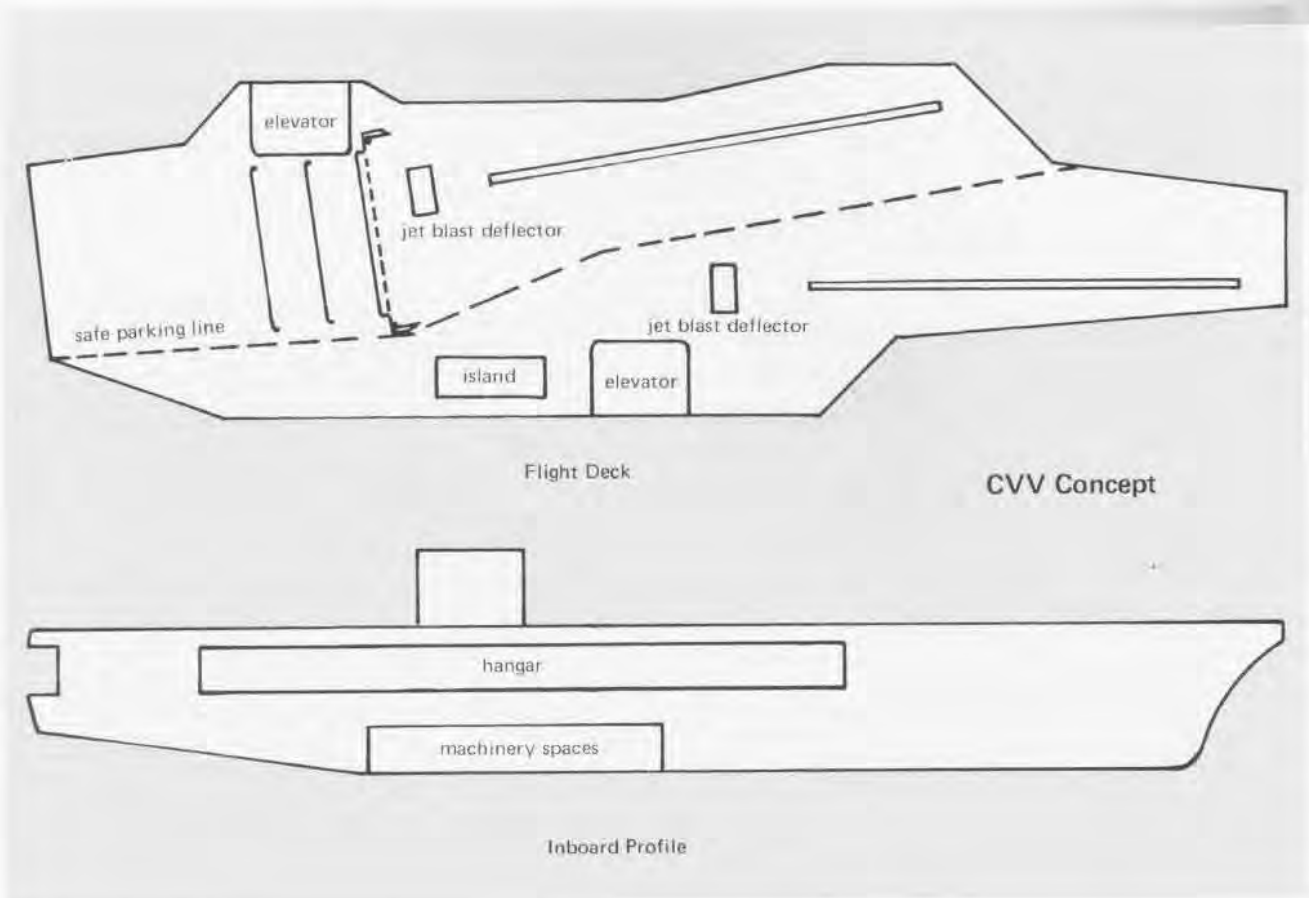
Late in 1976, President Ford, in an unexpected move, deleted the repeat *Nimitz* (CVN-71) from the Navy's ship-building plan and substituted two ships called CVVs. It was not certain just what CVV meant. What was known was that the CVV would be medium in size, conventionally powered and designed primarily to operate vertical short takeoff and landing (VSTOL) aircraft; hence the second V in the title stood for VSTOL. At that time, though, VSTOL technology had not progressed to a point where an all-VSTOL air wing was realistically achievable by the year that this ship would be ready (1987), so the 1972 study for the minimum-cost carrier was pulled off the shelf to become the basis for the CVV.

Ensuing debate focused on whether a nuclear-powered carrier or oil-powered flattops would be built. Ultimately, in 1978, President Carter vetoed the congressionally-favored CVN nuclear carrier, but promised a conventionally-powered carrier in FY 1980. Shortly after the veto, CNO, in seeking a more capable conventionally-powered alternative to the CVV, directed that a study be made to determine the feasibility of building a follow-on to USS *John F. Kennedy* (CV-67). It was hoped that by repeating the design of an



Artist's depiction of CVV at sea.





existing ship costs could be kept competitive with that of the newly designed CVV.

The study indicated that this course of action was possible and a recommendation was made to the President that a repeat *Kennedy* be substituted in the budget for a CVV. The President, though, adhered to his original concept and the CVV has remained as the administration's favored ship.

In supporting the President's choice, the Secretary of Defense stated that the CVV concept represents a reverse in the trend toward larger, more expensive ships but is as capable as the *Midway*-class carrier which it is designed to replace. He further pointed out, and few disagree, that the CV and CVN are more capable but, as weapons systems, cost \$5 to \$6 billion more over their life cycle when the

cost of the increased number of airplanes these carriers could carry is considered. The CVV, therefore, was viewed by the President as affordable and sufficient to meet the Navy's needs while the incremental dollars would be best spent on other naval programs.

The chart accompanying this article compares the CVV in general terms with other concepts in existence: the CV personified by a modified repeat *Kennedy*; the CVN represented by CVN-71 as currently envisioned and *Midway*.

Every effort has been exerted to make the CVV the best possible ship for its size and cost. Historically, few if any other ships have been subjected to as much review and scrutiny by representatives from the fleet. Wherever possible their comments and recommendations have been

Aircraft Carrier Comparisons

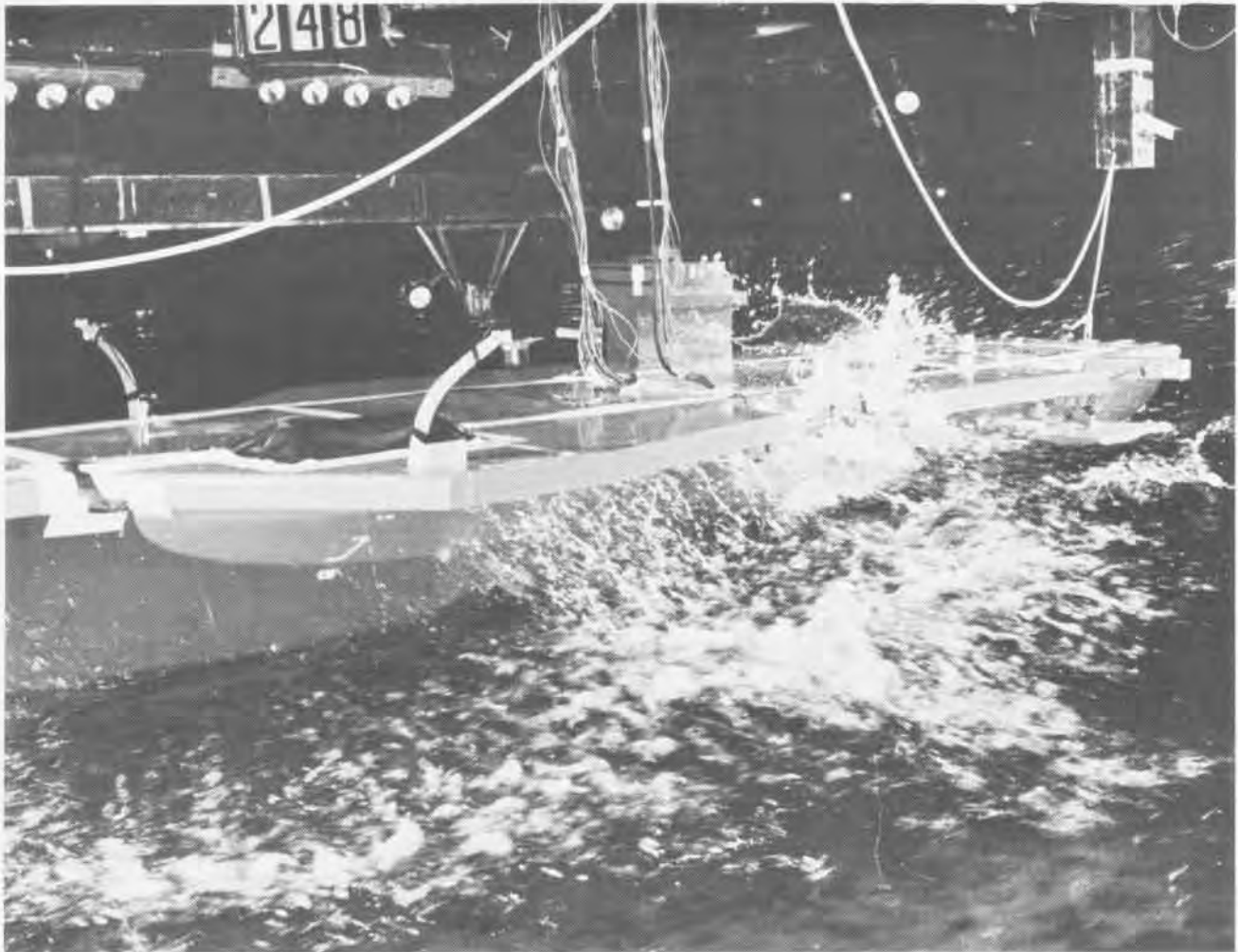
Characteristics	CVV	USS Midway	Follow-on Kennedy	Follow-on Nimitz
Displacement (full load)	62,427 tons	64,700 tons	82,561 tons	96,351 tons*
Length (flight deck)	912' 923' LOA	972'	1,052'	1,092'
Beam	126'	121'	129'	134'
Maximum width** (flight deck)	256.5'	258.5'	267.5'	257'
Shafts	2	4	4	4
Bollers	6	12	8	not applicable
Bollers (required for maximum speed)	5	12	8	not applicable
Maximum speed	28 kts	31.6 kts	32 kts	31+ kts
Elevators	2	3	4	4
Catapults	2 MK 13-1s	2 MK 13s	3 MK 13s 1 MK 13-1	4 MK 13-1s
Arresting gear wires	3+barricade	3+barricade	4+barricade	4+barricade
Aircraft spots (A-7 equivalents)	112	117	153	157
Aircraft	60	65	90	90
Aviation maintenance space (ft ² /aircraft spot)	281	232.5	250.7	271.7
Clear hangar height	24.5	17.5***	25	25.5
Aviation fuel	4,400 tons	3,449 tons	5,919 tons	
Aviation magazine volume	368,000 ft ³	305,300 ft ³	416,935 ft ³	544,400 ft ³
Aviation payload	6,213 tons	5,928 tons	9,719 tons	12,875 tons
Angle deck length	714'	651'	744'	780'
Aircraft capability	F-14, F/A-18, A-7E, A-6E, KA-6D, EA-6B, S-3A, ASW helo, E-2C, recce	F-4J, A-7E, A-6E, EA-6B, E-2B, SH-3G, KA-6D, RF-4B	F-14, F/A-18, A-7E, KA-6D, EA-6B, E-2C, A-6E, S-3A, ASW helo, recce	F-14, F/A-18, A-7E, KA-6D, EA-6B, S-3A, A-6, E-2C, ASW helo, recce
Ship's weapons	3 CIWS	3 5'/54 single mounts	3 CIWS	4 CIWS + NSSMS
ASW capability	ASW module S-3As helos	5 SH-3Gs	ASW module S-3As helos	ASW module S-3As helos
VAST	Yes	No****	Yes	Yes

* Combat load

** Maximum width includes removable deck extensions as follows: CVV - 14.6'; Midway - 14'; Kennedy - 22.5'; Nimitz - 5.8'

*** This is insufficient clearance to perform required maintenance on the F-14 (landing gear drop-check and ejection seat removal)

**** Not presently installed, but could be added



incorporated into the CVV.

Unlike earlier carriers where capability has been the major thrust, *affordability* has been the guiding light in the CVV design. Among the cost-saving measures implemented in the design is a reduction in catapults – from four to two. Elevators also have been reduced to two. And there are three arresting wires compared to four on the large-deck carriers. Two, rather than the usual four, shafts power the ship, but designers believe this modification will cost the CVV only a few knots of speed while reducing the amount of critical fuel required to operate the ship.

As can be seen in the chart, the CVV is shorter than existing CV, CVN and *Midway*-size ships and has less displacement under full-load conditions. The 60 aircraft which it can operate are less than those carried by other carriers.

Earlier this year, the David W. Taylor Naval Ship R&D Center conducted sea-keeping experiments on a CVV model at several speeds and headings (relative to waves) in sea conditions corresponding to sea states 5 and 7. Wetness and impact characteristics of sponsons and elevators were also investigated. Model is shown during tests.

As now envisioned, the reduction in air wing size of the CVV, as compared to the larger deck, would be achieved mainly through a decrease in attack aircraft. However, taking into consideration the flexibility of the F/A-18, the CVV will still have capabilities comparable to a larger-deck carrier in quality, if not quantity, in typical war-at-sea scenarios.

Like the carriers which preceded it and which ply the oceans today, the CVV's mission is to support and operate aircraft and engage in sea control and power projection operations, attacks on targets submerged, afloat and ashore, which threaten control of the sea, and in sustained operations in support of other forces.

The CVV has been conceived with those requirements foremost in mind. It's a very good ship.



Mock-up view depicts the display and decision surface warfare and air warfare areas in the combat information center of the proposed CVV. Raytheon, a NavSeaSysCom support contractor, assembled and helped design mock-up in conjunction with the Naval Ship Engineering Center.

The Mobile Hearing Conservation Audiometer Trailer, called MOHCAT (mow, as in lawn, cat) is a new development which will shortly appear center stage on the Naval Regional Medical Center scene. It is designed to facilitate hearing examination screenings (audiograms) for the multitude of Navy and Marine Corps personnel who labor on ships, in hangars and other environments where noise assaults the ears and can cause damage if precautions aren't exercised.

The Navy requires hearing examinations for personnel exposed to sound levels of 90 decibels for eight hours a day, or higher levels for briefer periods (see chart). It is most difficult, however, for commanders to process their people through medical facilities for these annual checks without sacrificing significant man-hour losses. Taking personnel in increments, say a full busload, from a pierside carrier to a medical facility, requires inordinate amounts of time, even if the facility is only a few minutes away. Whole man-days can be spent accomplishing the examination in this manner. Work schedules can be substantially affected. Ironically, once an individual is in the testing booth, an exam only takes a few moments. The logistics involved in transporting personnel back and forth in groups cause the dilemma.

MOHCAT hopes to change that. Designed by specialists from BuMed,

the Naval Environmental Health Center (NEHC) and the Aerospace Medical Institute, it is a specially-equipped, 27-foot trailer built by Argosy Manufacturing Company. It brings audiometric testing facilities to the people who need them. A self-contained mobile unit, it can be easily towed to the pier or hangar — where those people work.

The MOHCAT at NAS Norfolk is completed and ready for action. It is based and operated out of the Aviation Physiology Training Unit. Three more are currently destined for use at San Diego and Camp Pendleton, Calif.,

and Bremerton, Wash.

LCdr. Jack Greear, MOHCAT project manager and hearing conservation officer at Sewell's Point, strongly endorses the concept. "It will save time," he says, "but more importantly, it will help add to ship and squadron effectiveness in implementing their hearing conservation program. The earlier we can detect degradation of an individual's hearing, the better for all concerned. With MOHCAT we will be able to examine far more people on a continuing basis than is now the case."

Here's how MOHCAT works:

Schedules are coordinated in ad-

MOHCAT



**HAZARDOUS NOISE
MAY CAUSE
HEARING LOSS**



EAR PROTECTION REQUIRED

Total Allowable Noise Exposure
(8-hour day)

Duration (per day in hours)	Sound Level dBA
8	90
6	92
4	95
3	97
2	100
1½	102
1	105
½	110
¼ or less	115



Improper protective gear can lead to ear problems. Opposite page, hearing test is administered in two of four booths in MOHCAT.





vance through correspondence and telephone conversations between an operational physiology unit and the requesting ship or activity. The unit arranges for parking space at pierside or in the hangar and, as necessary, requests the cognizant public works department to provide electrical hookups. MOHCAT is towed into position and almost instantly the shop is set up for business, manned by two trained technicians, normally corpsmen, from the unit.

Groups of four are processed simultaneously. Personnel bring their health records with them and enter the trailer through the forward doorway. They are seated on a curved, vinyl couch where they fill out a brief form and don earphones for a recorded briefing, "The Ear in Health and Disease." That done, they move forward to the center (test section) of the

trailer which is acoustically sealed from the fore and aft sections by doors.

Here, the four are seated in individual booths where they put on earphones again and hold a cylindrical signal device at the end of which is a button which they press when they hear a pulsating tone. Meanwhile, in the forward area, a second technician (who can maintain contact with the first through an intercom) enters test cards into four recorders which inscribe graph-type lines on the cards, much like an EKG, as they receive electrical signals from the patient. The pulsating tone is an innovation from previous testing systems but the apparatus is essentially the same as that found in permanent medical facilities. The test, which is conducted on one ear at a time, lasts about seven and a half minutes.

Afterwards, each person's audiogram results are entered in his or her health record. Selected audiogram cards are retained for comparison purposes when tracing trends in an individual's hearing capacity.

In those cases where a man or woman is not responding normally to the pulsating sounds, the technician has the option of terminating the test. He can then hook up that person to a manually-operated device capable of detecting a broader range of disorders. If necessary, further medical consultation is directed. Rear Admiral George E. Gorsuch, Commanding Officer of the Regional Medical Center, has combined and integrated his resources to provide this valuable service to the fleet. Regional medical center audiologists have been acting as advisors in setting up the program. They ultimately see sailors who fail the screenings of



the MOHCAT. Audiologists refer cases requiring medical and surgical care to the ENT (ear, nose and throat) doctors for treatment.

Meanwhile, as four people are being tested, another group in the rear of the trailer is filling out the form and getting briefed. Says LCdr. Greear, "Assuming no unusual delays occur, we calculate that about 72 people can be tested in a routine working day.

"Because of its slow rate of progression, loss of hearing can result from exposure to noise with your never being aware of it." Thus, the need for periodic tests is clear. RAdm. Gorsuch has also assigned the Occupational Health Service's industrial hygienists to work closely with Environmental and Preventive Medicine Unit No. 2 in measuring noise risks, so accurate information can be provided concerning the potential damage of noise to hearing. NEHC has also staffed its Norfolk headquarters with three military industrial hygienists who will be providing assistance.

The "father" of the mobile hearing conservation program concept, Commander Joe Drozd, former head of BuMed's hearing conservation program, is now stationed at the Naval Safety Center, Norfolk where he continues to help conserve hearing by assisting with MOHCAT and providing computer services to keep a record of hearing tests.

"Another important feature of MOHCAT," says Greear, "involves personal fitting of ear plugs. This is vital because an improperly placed plug won't do the job. We have devices to measure the ear opening and a suitable variety of protective gear to accommodate everyone, no matter where they work or what size they need."

Audiologists say, as a guideline, that anytime you are in a situation where you have to shout at an arm's length away, the environment is too loud and permanent hearing damage may result. People just don't know



that noise causes hearing loss permanently. If you went to the beach with no lotion, your skin would burn because it lacks protection. Likewise, when you are in noise, the delicate mechanism of the ear will "burn out" without some protection like earplugs or earmuffs and, unlike sunburnt skin, will never return to normal.

MOHCAT is now operational at Norfolk. LCdr. Greear says, "We already have a lot of customers using the service. We could use two or more vans. The time saved in man-hours is great, particularly during a time when the Navy is experiencing manpower shortages and retention problems."

Flight deck, opposite page, is one of the hazardous high-noise environments in the Navy. Above, corpsman monitors recorders during hearing test in MOHCAT.

CHUTTING

The young man had a serious, calculating look about him as he gazed through the small oval helicopter window toward the ground. It was a blue, cloudless day over Anderson, S.C. He turned from the window and calmly surveyed each of the other passengers. Then, as casually as you would step from an elevator to begin your day's work, he walked to the rear of the helicopter and jumped — from an altitude of 13,000 feet.

He instantly became a distant speck blending into the mosaic of spring foliage, dotted farm fields and buildings below.

His exit sparked a chain reaction among the other passengers. At specific intervals each man jumped and fell freely toward earth.

It's all in a day's work for these men. It's their job. They are the Navy's parachute demonstration team, the *Chuting Stars*.

Anderson was the site of the first official aerial demonstration of the 1979 season — a joint Navy Day — Shriner air show — for the all-volunteer, 11-man team. Depending upon weather, their season runs from April through October. Normally, the *Stars* will perform between 40 and 50 times a year before millions of spectators. During 1978, they spent over 26 hours in free fall, covering a distance equal to that between Boston and Los Angeles.

Because of the number of civilian and military requests for parachute demonstrations, the Navy has a team on the East and West Coasts. The *Leap Frogs* operate out of Coronado, Calif.; the *Chuting Stars* are based in Norfolk, Va.

Both groups are made up of volunteers from Underwater Demolition Teams and Seal Teams. Members of UDT are commonly referred to as Frogmen. Seals, the Navy's elite counter-guerrilla experts, take their name from their operating environment — sea, air, land. Both are part of the Naval Special Warfare Command. These men are highly skilled in the demolition of explosives, advanced underwater swimming techniques and parachuting. Parachuting plays a vital role in accomplishing their mission in a tactical or hostile environment.

The *Chuting Stars*, however, have taken this highly sophisticated form of airborne infiltration and converted it into a graphic aerial display of free-fall parachuting, or sky diving, as it is more commonly called.

In recent years sky diving has become a very popular sport, both for recreation and competition. Records show that an excess of 4 million jumps are made annually by some 40,000 persons. It is estimated that one-half of all colleges in America have jump clubs.

With this growing interest there must be something to the slogan: sky diving is the ultimate high. Maybe it is, but





STARS

why would anyone hurl his or her body from a perfectly functioning airplane that is going to land safely?

The answers given are not simple and most run the gamut of one-word expletives – freedom, excitement, et cetera. “A minute in free fall is the fastest minute of your life,” explains one team member. “It’s a feeling that cannot be put into words,” is the most frequent answer from the Stars. “It’s a sensation that can only be felt and shared with another sky diver.” They reason that there simply is no other similar experience for comparison.

Most every parachutist argues that it is a lot safer up there than it is down here, claiming, “You take a bigger risk driving your car.”

Team leader, SKCS Bill Goines points out that there are fewer injuries in sky diving than in most close contact sports. “On the list of dangerous sports,” he says, “golfing outranks sky diving.”

Needless to say, sky diving is a sport that demands top physical conditioning, extreme safety precautions and exacting knowledge of your equipment.

For this reason, the *Chuting Stars* are in constant training. Before each season they put in two extensive months of training at the Navy facilities at Roosevelt Roads, P.R., and Key West, Fla. All are active sport parachutists, members of the U.S. Parachute Association, and hold Class D expert licenses.

The Stars are qualified to jump from a variety of fixed and rotary-wing aircraft. They prefer the helicopter because it is able to land at most of their jump sites.

Prior to a show, their aircraft makes a pass at 2,000 feet above the drop zone. The jumpmaster, who is responsible for giving the “go” signal to the other jumpers, throws two pieces of colored, weighted paper – wind drift indicators – from the aircraft. These have the approximate rate of descent a jumper would under his fully inflated parachute. They are used to measure wind speed and drift direction to determine the proper exit point for the jumpers. Ground-wind speed is checked with a hand wind meter. The jumpmaster is in constant radio communication with the team narrator on the ground.

When a jumper exits the aircraft, he meets the full force of a hurricane wind created by the turning rotors and the aircraft’s forward speed. Within seconds, he enters utter silence. No longer buffeted by the winds aloft, he is not even conscious of the sensation of falling.

The Stars attach smoke cannisters to their jump boots so spectators can follow the different colored smoke trails of their descent from the aircraft some two miles above earth.

Free-fall parachuting techniques have seen unparalleled advancement in recent years. The experienced sky diver no longer tumbles and spins earthward but, rather, glides to



Story and Photos
by JOCS Bill Bearden



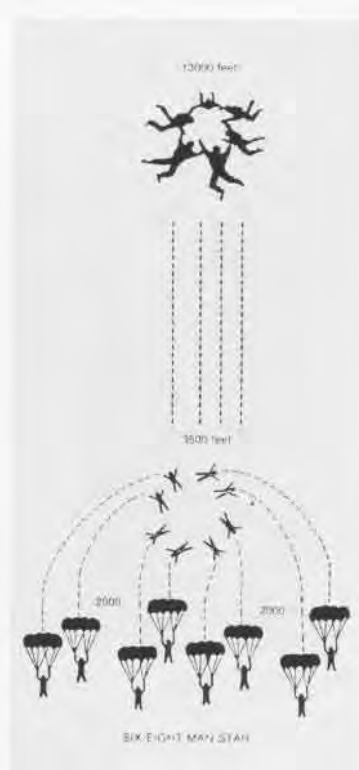
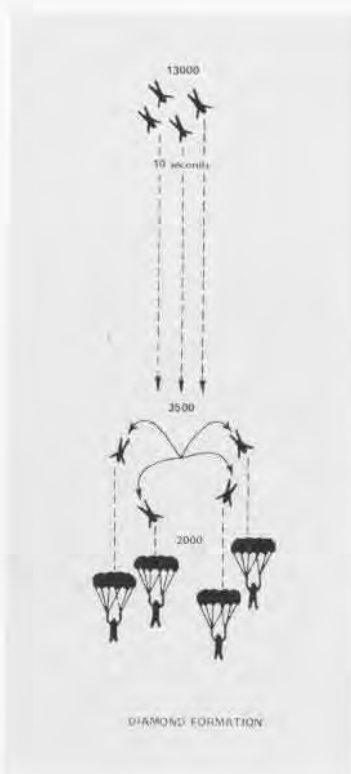
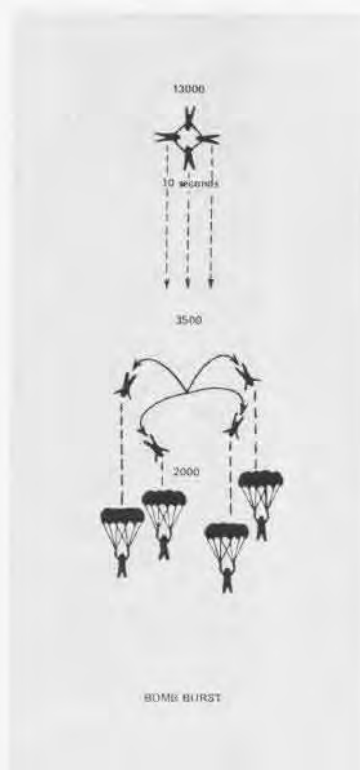
earth in control of both body and mind. In a variety of routines, described and illustrated above, the *Stars* demonstrate the phenomenal amount of control and maneuverability a person has while accelerating through the sky at speeds from 120 to 230 miles per hour. A free faller can actually control his lateral, horizontal and vertical motion through simple manipulation of the arms, legs and torso. With proper body positions a parachutist can accomplish practically any maneuver a high performance plane can. He cannot, however, go up.

The *Stars* use square parachutes, Cruisairs, designed for them by Para Flite, Inc., of Pennsauken, N.J. This ram-air, airfoil type canopy flies, whereas the conventional or round parachute merely descends and creates drag. Cruisairs are controlled by two steering toggles on each side of the jumper which act as steering wheel, accelerator and brake. Their rate of descent is 13 feet per second with an inherent forward speed of 25 to 30 miles per hour. To allow for the canopy's horizontal movement and for a cushioned landing, the jumper must always land facing into the wind.

Team leader Goines narrates various *Stars* routines illustrated above during the Azalea Festival held in Norfolk this spring.

Cutaway: A jumper exits aircraft at 13,000 feet, descends to about 4,500 feet and opens first parachute. Subsequently, he collapses his chute placing himself in an uncontrolled spin. After falling 1,000 feet, he cuts away from the malfunctioning parachute and resumes free fall, opening main chute at 2,000.





Barber Pole: About five seconds after two jumpers exit aircraft they come together and pass baton, then hold hands and slowly start turning, creating a barber pole effect with smoking cannisters attached to boots. They separate at 2,500 feet and open main chutes at 2,000.

Fast/Slow: Two jumpers exit at 13,000. One jumper assumes a head-to-earth position which will cause him to fall from a speed of 120 miles per hour to about 230 miles per hour. The other jumper assumes a spread-eagle position which greatly slows up his descending speed. Distance between the jumpers is illustrated for the audience by smoke trails from boot cannisters. Main chutes open at 2,000 feet.

Diamond Cross: Two jumpers exit and track away from each other for 20 seconds and then track back together, crossing paths. Main chutes open at 2,000 feet.

Bomb Burst: Four jumpers exit and about 10 seconds later come together and hold hands. At 3,500 feet they separate creating a bomb burst effect. Main chutes are opened at 2,000 feet.

Diamond Formation: Four jumpers exit and come together 10 seconds later in a diamond formation. At 3,500 feet they create a bomb burst and open their main chutes at 2,000 feet.

Six/Eight Man Star: After jumpers exit, two maneuver together, forming a base, then remaining jumpers "fly" in, one by one, holding hands until they form a complete circle. At 3,500 feet they separate into a large bomb burst. Main chutes open at 2,000 feet.



Above, team leader Goines checks ground wind speed with hand-held wind meter. After exiting aircraft, upper left, the trajectory will throw Doheny and Bach about 300 yards before they slow up and start their vertical descent. Additional weight of equipment — approximately 60 pounds — is not felt in free fall. Like being underwater, the jumper is in a weightless state until deploying his chute, which gives a G force of 3 to 5 by slowing him from 120 miles per hour to about 10 in one and a half seconds. MARTD Norfolk provides much of the Stars' helicopter transportation.



RM2 Joe Lacaze



Little Robin Gaines of Easley, S.C., learns firsthand from GMG2 Frank Mulcahy the proper method of packing a Cruisair. A primary mission for the Chuting Stars is to assist the Navy with its recruiting and retention goals as well as supporting local community relations programs. To this end they are available to answer general questions from spectators. They also visit hospitals, give talks at high schools and make radio and television appearances. (See page 26 for scheduling information.) Making a perfect standup landing into the wind, a Star uses his steering toggles to control chute. Note smoke cannisters on boots.

The Team



Lt. Dave Griffin
176*



SKCS Bill Goines
322



GMG2 Frank Mulcahy
890



HT3 Rich Doheny
450



PR3 Jonathan Price
153



ABF2 Bob Mitchell
381



QM2 George Yates
516



PN1 Mike Suter
347



PR2 Fred Crawley
463



EM2 Don Hayes
162



QM2 Dave Bach
516

* Indicates number of jumps at time of Anderson show. Mike Suter, a Leap Frog, was jumping with the Stars.



SKCS Bill Goines is interviewed by Greenville radio station WGXL's Monty Dupry. Looking on are Blue Angels events coordinator and Number 8, Lt. Kent Horne, and Hejaz Temple air squadron commander, Terry Vanadore. Right, Lt. Dave Griffin, Stars' OinC, talks with children at Greenville Shriners' Hospital, while Shriner Russell Appleton graphically explains air show aerial acrobatics he performs in his Bellanca craft.



If you are interested in having the Navy Parachute Team, East or West, present a precision free-fall parachute demonstration in your area, you should contact LCdr. Ted Mitchell by calling auto-voicemail 226-4795/6; commercial 202-696-4795/6; or write to Commander Naval Recruiting Command, 4015 Wilson Blvd., Arlington, Va. 22203. Attention: LCdr. Mitchell.



The following is a reprint of a brochure presented as "a tribute to the flying boat squadrons of the Royal Australian Air Force" during the dedication of the Catalina Memorial at Cairns, Australia, on October 9, 1976. It was submitted to *NANews* by Wing Commander L. R. Anderson who was struck by the similarity between No. 11 Squadron and VP-11 as related in "Now and Then" in the November 1977 issue of *NANews*.

Cairns was Australia's most important base for maritime air operations during WW II. For nearly two years, *Catalina* flying boats operated from there, performing a wide variety of tasks.

The *Catalina*, with its extremely long endurance and range, was the ideal aircraft for extensive patrols of the vast Southwest Pacific and contributed in no small measure to the defeat of Japan.

Two squadrons of *Catalinas*, Nos. 11 and 20, were operated by the Royal Australian Air Force at Cairns. This arduous work was carried out around the clock in all weather conditions.

The operations of the *Catalina* squadrons was so secret that very little was told of their exploits and, consequently, few wartime photographs exist.

Besides Nos. 11 and 20 Squadrons, two other RAAF *Catalina* squadrons formed during the war. No. 43 Squadron formed at Bowen on May 1, 1943, and the following month went to Karumba on the Gulf of Carpentaria. It moved to Darwin on April 9, 1944, and disbanded at Rathmines, New South Wales, on May 2, 1945. The fourth *Cat* squadron, No. 42, formed at Darwin on June 1, 1944, and operated from there and Melville Island until its disbandment on November 30, 1945.

The *Black Cats*, as they were affectionately known, made strikes against submarines and surface vessels, dropped supplies to Coastwatchers, mined harbors, escorted convoys, bombed land targets and carried out

daring rescues of airmen downed in enemy territory. The *Cats* ranged as far afield as the coast of China. It was not unusual for crews to see two sunrises on a single, lonely flight.

Catalinas first entered RAAF service early in 1941. The first aircraft arrived in Australia from the United States on February 5, 1941. It was flown across the Pacific by two Australians, Mr. Lester Brain of QANTAS, and Flying Officer G. U. "Scotty" Allen, and in March was allocated to No. 11 Squadron, then at Port Moresby. It was given the RAAF serial number A24-1. By the end of the war, the RAAF had received 168 of these remarkable aircraft.

No. 11 was the only flying boat squadron in the Southwest Pacific area at that time but, on August 1, 1941, No. 20 Squadron was formed at Port Moresby and joined No. 11 in carrying out reconnaissance patrols searching for German submarines and raiders.

When Japan entered the war, the work of the two squadrons increased and, as the Japanese advanced toward Australia, the role of the *Catalinas* grew in importance. They struck at enemy shipping, evacuated troops and civilians and carried out long-range patrols over vast areas. Several *Catalinas* were shot down during this period.

The *Catalinas* operated from many bases and by mid-1942 were using Bowen and staging up through Cairns, which was then an advanced base. In September 1942, one of the senior pilots, Flight Lieutenant A.G.H. Wearne, went swimming during a stop-over at Cairns and lost a leg during a shark attack. Undaunted, he learned to use an artificial leg and eventually returned to *Cats* for operational flying duty, eventually to command No. 20 Squadron and receive the Distinguished Flying Cross.

By November 1942, Nos. 11 and 20 Squadrons had made Cairns their home base and the two squadrons began operating virtually as one, frequently sharing aircraft and crews. Immediately on moving to Cairns, the

Old



and Bold



squadrons were committed to a range of tasks of the utmost importance. These included strikes against shipping and airfields, supply dropping to Coastwatchers at Bougainville, and regular patrols over the sea approaches to Lae, Finschhafen and Salamaua – Run M (inevitably to become known as the Milk Run). Run M was to continue for many months.

In December 1942, the *Catalinas* attacked a destroyer near Buna and bombed Kavieng, Buka and Kahili. Search and rescue duties included the picking up of survivors of HMAS *Armistale*, sunk off Timor, and the crew of a U.S. B-24 bomber in the open sea west of the Trobriands.

The first three months of 1943 brought success after success to the squadrons. An 8,000-ton Japanese troop and cargo ship was sunk, a convoy attacked, Allied personnel were evacuated from Carove Island, landings were made on the Sepik River behind enemy lines to put parties ashore, and the *Cats* shadowed the Japanese convoys prior to the Battle of the Bismarck Sea.

In April 1943, the *Catalinas* extended operations westward and also began their biggest job of the war – the sea mining of all mineable enemy ports in the Pacific Theatre. This task continued almost to the end of the war and extended to the coast of China.

In June, Run O began. This was a sea patrol in the direction of the Solomons and north toward the eastern end of New Britain.

By now Nos. 11 and 20 Squadrons were carrying out increasing attacks on enemy shipping and submarines and, in October, began dropping torpedoes against ships. The following month the squadrons carried out heavy bombing attacks on Kavieng. Night photography also began, with excellent results. One aircraft of No. 43 Squadron operated from Cairns between November 27th and 30th.

All the time the squadrons were continuing supply drops to Coastwatchers and carrying out daring

rescues of Allied airmen, landing on rivers or the open sea, frequently in hostile territory.

The year 1944 opened the usual patrols, escort duty, bombing and mining. But the squadrons were continuing to pay the price for their dangerous work. Many crews were lost – some without a trace. No. 43 Squadron began joining with Nos. 11 and 20 Squadrons for concentrated attacks.

In July 1944, No. 11 Squadron moved from Cairns to Rathmines, NSW, thus breaking the comradeship bond with No. 20. The two sister squadrons had fought as one with great distinction through the toughest years of the war and lifelong friendships had been made. There was a farewell party of some note! (The official history of the squadrons describes it as “hilarious.”) The men of the two squadrons had received 113 decorations and awards up to the end of May 1944.

No. 20 Squadron stayed on at Cairns only a few more weeks. In September, the *Black Cats* lifted off from the beautiful Cairns Harbour for the last time and landed at Darwin where they continued to operate with Nos. 42 and 43 Squadrons.

No. 41 Squadron, equipped with *Martin Mariners*, began flying boat duty at Cairns on July 1, 1944, operating as transports for passengers and freight until the end of hostilities.

No. 20 Squadron, disbanded at Rathmines on March 27, 1946.

No. 11 also disbanded, on February 15, 1946, but re-formed at Rathmines on July 1, 1948. On April 30, 1950, the squadron became non-operational but was reactivated on November 1, 1950, at Amberley, Queensland, and moved to Pearce, Western Australia, a few days later, equipped with *Lincoln* aircraft. From the beginning of 1951 it re-equipped again, this time with P2V *Neptunes*.

In 1968 the squadron took delivery of P-3B *Orion* maritime reconnaissance aircraft and began operations from Edinburgh, South Australia, its current base.



WHAT'S NEW IS OLD

On February 15, Vice Admiral Robert P. Coogan, Commander, Naval Air Force, Pacific, and Captain Thomas G. Moore, commanding officer of USS *Ranger*, officially opened the Minuteman Inn in what was formerly *Ranger's* forward dining enlisted facility. The new facility can serve approximately 1,000 meals per hour (that's meals, not miles) from a menu that features hamburgers, french fries, milkshakes, pizza, chicken, hot dogs and a salad bar.

Proper nutrition was carefully planned into the menu. Actually, there is nothing tricky about providing proper nutrition in a fast food format. The regular meat, potatoes, vegetables and

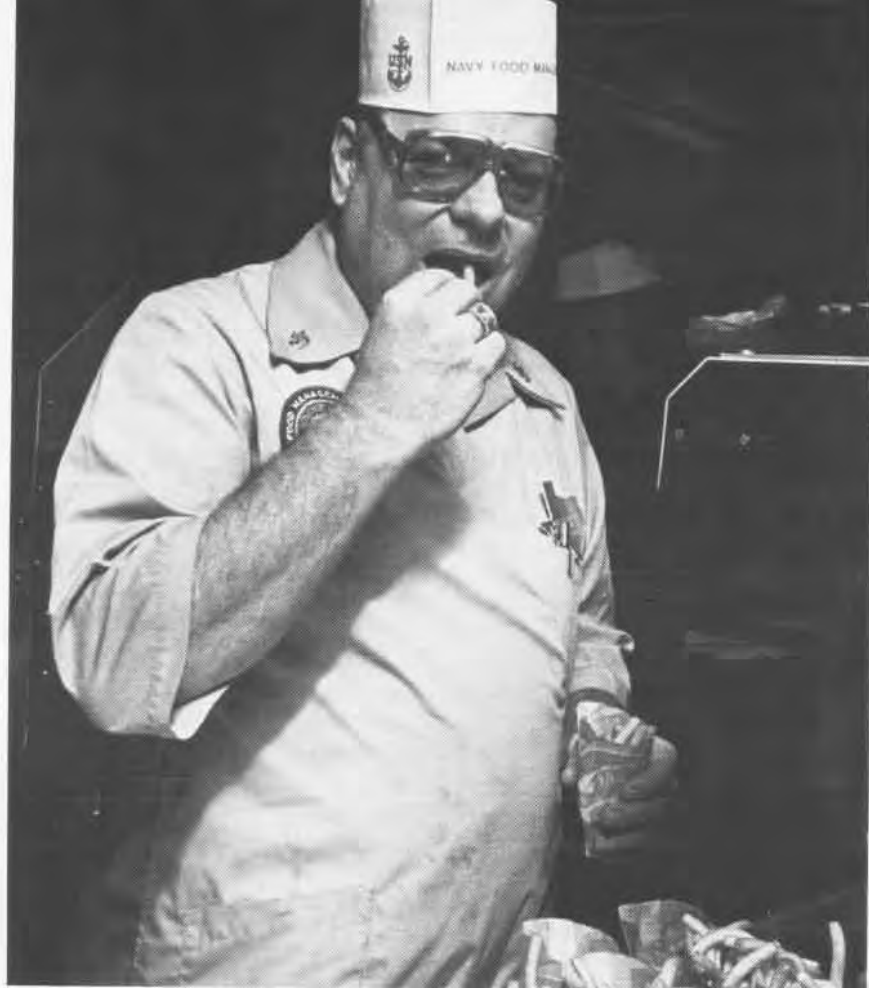
milk of a traditional meal merely are served in a different manner.

Crew members who prefer food prepared in the traditional manner will still have their choice. *Ranger's* after dining facility will continue to provide "meat, potato and vegetable" meals.

In the other photos, MS2 Orlando Mateo prepares burgers and MSCS J. W. Bundy, a member of the Navy's food management team in San Diego, which helped train the Minuteman Inn staff, samples his own cooking.

We included the photo at right because we were intrigued by the prices. We found it in our NAAS Jacksonville historical files. It is captioned "outdoor theater canteen."





PEOPLE · PLANES · PLACES

Awards

Several Sailors of the Year for 1978 are AD1 Henry W. Mathews, VF-143; AMS3 Daniel Farris, NAS Point Mugu; AT1 Edward J. Gawlik, ComNavAirPac (fleet); NC1 Stanton S. Nickens, ComNavAirPac (shore); MS1 Jupiter Garcia, ComNavAirLant; and YN1 Reynaldo B. Lizan, ComPatWing-1,

VP-48, Moffett Field, was presented the United Kingdom Coastal Command Trophy for 1978. The award is given by ComPatWingsPac to the Pacific Fleet patrol squadron which has displayed the highest airborne antisubmarine warfare proficiency during the competitive cycle for the Battle E. The trophy emphasizes the close ties between the maritime patrol plane crews of the U.S. Navy and the Royal Air Force. Cdr. Duval S. Woodford, VP-48 skipper, accepted the trophy for the *Boomerangers* from Air Marshal Philip J. Lagesen, RAF.

Ens. Ron Monroe, a replacement pilot undergoing qualifications in the E-2B with RVAW-110, Miramar, was recently selected By CNATra for the 1978 Daughters of the American Colonists Honor Award. Each year the award is given to the outstanding Navy or Marine pilot graduate of the training command. Upon completion of *Hawkeye* training, Ens. Monroe will serve with the VAW-116 *Sun Kings*.

NAS Brunswick received the Golden Anchor Award for having the best career motivation and retention program of any naval air station in the eastern U.S. and for "overall excellence in people programs," stated VAdm. G.E.R. Kinnear, ComNavAirLant, at the presentation ceremony.

You might say that VA-34 made a clean sweep of retention awards for the past fiscal year. The squadron received the ComMatWing-1 first term retention award, ComNavAirLant Silver Anchor, and the CinCLantFIt Golden Anchor (in photo),

The *Blue Blasters* also won the first Norden Pickle Barrel award. In 1928 an engineer named Carl L. Norden organized a company in New York City for the design, development and production of weapons control



systems. Its pioneering efforts of the late Twenties and early Thirties led to development of the Norden bombsight of WW II, and the company is still in business. In conjunction with ComMatWing-1, the Norden Division of United Technologies sponsors the monthly bombing excellence award. The Pickle Barrel, designed to improve bombing accuracy through increased competition, is presented to the A-6 pilot and B/N with the best monthly bombing scores. The president of Norden Division and Capt. G. H. Hesse, ComMatWing-1, presented the first award to *Blue Blasters* Lt. Dan Westphall, pilot, and LCdr. Robert G. Ponton, B/N.

Established

On February 1, VAQ-309 was commissioned at Whidbey Island. The squadron, assigned to CVWR-30, is tasked with training selected reserve personnel in the tactical electronic warfare role for deployment in support of active forces during mobilization. Operating with four EA-6As, VAQ-309 will also conduct ECM and AEW in support of fleet ops.

Thirteen reservists are members of Audiovisual Unit (AVU) Det 194 at North Island. Established last year and commanded by Lt. John Preves, USNR-R, the film-making unit is the reserve complement of the Pacific Fleet Audiovisual Command at the air station. The detachment receives training on drill weekends from active duty personnel in electronic news gathering techniques, video tape recording and editing, lighting techniques, story production and scriptwriting. Members of AVU Det 194 are professional engineering technicians, writers, motion picture and TV specialists. TV cameramen and photojournalism students.

Anniversary

The *Seahawks* of VAW-126, commanded by Cdr. Vady R. Clark, recently celebrated their 10th birthday nearly three-fourths of the way around the world from their home port in Norfolk, while deployed aboard *Constellation* in the western Indian Ocean. The youngest of the E-2C squadrons in CAEWing-12, VAW-126 was commissioned on April 1, 1969. The squadron has completed six extended deployments aboard *Forrestal*, *America* and *Constellation*, including four Med and two WestPac cruises.

Rescues

The *White Lightnings* of VP-17, under the command of Cdr. R. W. Martin and currently deployed to Cubi Point, were praised recently by the Seychelles Ministry of Foreign Affairs and Tourism for their "prompt and ready response to the request for assistance in searching for the missing boat, *Vigilant*." The 33-foot boat, with five men aboard, was reported overdue when Crew 10 answered the call for SAR assistance. The crew participated in a three-day search that was partially hampered by thunderstorms, low ceilings and poor visibility.

Et cetera

Tiny Broadwick, the first woman to make a parachute jump from an airplane, is shown in the photo with Glenn Martin in a Martin



TT, circa 1913. This jump was over water — note the life preserver she is wearing. Broadwick, who also jumped from balloons, was in her teens when she made her first jump on June 21, 1913.

PEOPLE · PLANES · PLACES



Yuma crash crew checks out a TA-7C after the pilot performed an emergency wheels-up landing. At the time, pilot Lt. Bill Bailey and copilot Lt. Bill Johnston were deployed at the air station with VA-174, Cecil Field. The *Corsair II* sustained very little damage.

The Aviation Boatswain's Mate Association is asking commands to submit nominations for Atlantic and Pacific Fleet Aviation Boatswain's Mates of the Year to ABMA Secretary, 13775 Paseo Cevera, San Diego, Calif. 92129. Nominations are open to active duty ABs in pay grades E-4 through E-7.

Former Olympic decathlon winner Bruce Jenner flew in a TA-4 at Point Mugu, while promoting an air show to be held later this year. Jenner's pilot was Capt. James M. Hickerson; PR1 Tom Sharpee prepared Jenner's flight suit and oxygen equipment.

Not long ago AK2s Rhonda D. Oldham and Betty S. Ferris became members of the Naval Reserve. Today, as a result of the Reserves' advance pay grade program and personal initiative, Oldham and Ferris are VR-53's first female C-118 flight attendants, setting another historic milestone for the recent winners of the Noel Davis Trophy. Cdr. Dale G. Schaefer is C.O. of the Memphis-based squadron.

The Navy has a lot of ships but even more sailors, so not too many sailors get to take the helm. And a Marine behind the wheel is almost unheard of. LCpl. Curtis



L. Coker, a captain's orderly aboard *Saratoga*, changed all that recently when he became a full-fledged helmsman. Coker is believed to be one of the first Marines to qualify as helmsman on an aircraft carrier.

The Navy has climbed into the driver's seat in the F/A-18 development testing program. The first Navy preliminary evaluation of the new strike aircraft got under way at NATC Patuxent River on March 23. The test pilots on the evaluation team, headed by LCdr. John E. Padgett, include LCdrs. Steve Abbot and Dick Richards and M.J. Paul Bacon, USMC. LCdr. Padgett was the first Navy pilot to fly the *Hornet*.

The second F/A-18 *Hornet* flew March 12 at McDonnell Douglas, St. Louis. After several flights in St. Louis, the second aircraft joined the first at NATC Patuxent River where the flight test program continues.

Grumman photographer Larry Van Wallendael recently snapped this photograph of an A-6 *Intruder* going through high loft maneuvers for ordnance delivery



at Oceana. On board were VA-42's LCdrs. Bob Houser, pilot, and Lou Lalli, B/N.

Miss America 1979, Kylene Baker, was given a brief tour of *Coral Sea* recently. C.O. Capt. Stanley R. Arthur (left) and

crew members gave Miss Baker a warm welcome as she was escorted on board.



Change of Command

ComFitAEWWing Pac: RAdm. Paul T. Gillcrist relieved RAdm. Frederick G. Fellowes.

ComSeaBasedASWWingsLant: RAdm. David Harlow relieved RAdm. Robert Carius.

CVW-8: Cdr. Robert H. Ferguson relieved Cdr. Judson H. Springer.

HC-9: Cdr. James L. Lovejoy relieved Cdr. Don W. Hodge.

HSL-34: Cdr. Frank M. Dirren, Jr., relieved Cdr. Richard C. Strand.

NAS North Island: Capt. Warren E. Aut relieved Capt. David L. Harlow.

NAS-0374: Capt. Walter L. Matthes relieved Capt. Claude P. Caviness.

VA-15: Cdr. John Mazach relieved Cdr. Robert Smith.

VA-37: Cdr. Asbury Coward IV relieved Cdr. Robert J. Spane.

VA-165: Cdr. Ian K. Graham relieved Cdr. Haywood G. Sprouse.

VF-84: Cdr. Emory W. Brown, Jr., relieved Cdr. Thomas S. Treanor, Jr.

VF-142: Cdr. Marvin M. Krupp relieved Cdr. Frederick L. Lewis.

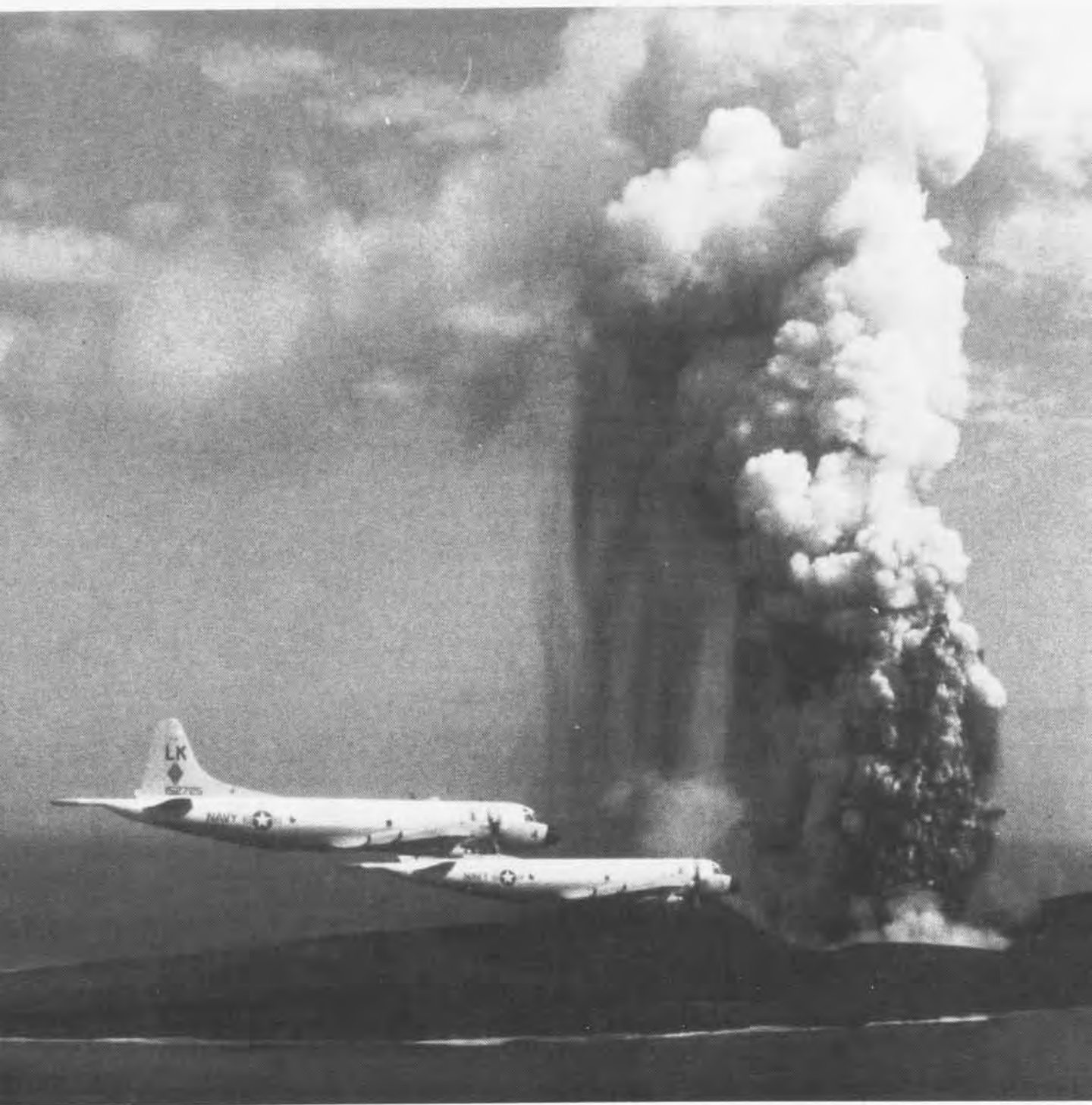
VMFA-333: Maj. Klass Van Esselstyn relieved LCol. Gene A. Brown.

VP-67: Cdr. Ronald E. Blair relieved Cdr. Carter H. Scales.

VR-58: Cdr. Robert W. Kortum relieved Capt. John R. Turner.

VQ-3: Cdr. David S. Thompson relieved Cdr. Hugh K. Barnhill.

VXE-6: Cdr. David A. Srite relieved Cdr. William A. Morgan.





Iwo Jima?

JO1 E. G. Palacios snapped these aircrewmembers of VQ-1 working on an A-3 Skywarrior.



Wing Walker

Photographer caught this parachutist during a show for local residents at the close of a recent Helicopter Wing Reserve exercise.



Leap Frog

This experimental ground effect craft was developed by VFW-Fokker. Press release notes that "... the X 114 can, like an aircraft, fly freely when necessary and, for instance, leap over obstacles."

Out of the Sea

In this 1966 photo VP-26 Orions fly over the volcano Syrtlindur off the southern coast of Ireland.

YOUNG EAGLES

Young Naval Aviators may see *Golden Eagles* as staid gentlemen who concur in Grampaw Pettibone's harsh words to young pilots. But every *Golden Eagle* was once a bold youngster who loved flying better than anything else and discounted his own and his plane's limitations. The lucky ones survived, grew wiser, helped develop Naval Aviation. Some became *Golden Eagles*. Their reunions are filled with reminiscences of flying incidents that would cause Grampaw Pettibone's hair to pop his helmet. Gramps kept his lid only because in 1920 there were no *old* aviators and he was no more experienced than some of the other youngsters.

An example is a 1925 round-trip flight from Norfolk to Philadelphia. At that time there were no airways, no airway communication, no voice radios, no aviation maps, no flight clearances. VO-3 had just returned from a year of catapult hopping in light cruisers and turned its planes in for overhaul. But, to save wear and tear on their new planes, they retained old UO-1 #6726, on wheels, as a "dog plane" (for general utility). Its wing fabric was slack, its rear windshield was missing, and its gas tanks, which were the sides of the front cockpit, had corroded until they had lace tops. But the J-3 engine ran smoothly. Nobody worried about the open tanks, they just never completely filled them.

When I had to do business aboard the cruiser in Philadelphia, I got permission from ComAirLant to go in the dog plane. I picked up some Rand McNally state maps and went home ready for a dawn takeoff.

During the evening, a duty officer phoned that Lt. Isaac (Ike) Schlossbach was flying a torpedo seaplane to Philadelphia and that I was to go with him, so that only one plane would be away. I had never seen Schlossbach and only knew that he was senior to me and had been flying a bit longer.

Norfolk was frozen solid and a north gale was blowing when I introduced myself to Schlossbach in the lee of a hangar before dawn on December

By George van Deurs, NA#3109

Rear Admiral van Deurs, USN(Ret.), is the author of "Anchors in the Sky," a biography of Spuds Ellyson, the first Naval Aviator.



10. It was too cold to talk. For an hour we stomped our feet and shivered while a crew tried unsuccessfully to start the Packard engine in the experimental torpedo seaplane. Then Ike phoned the staff and got permission for us to use the dog plane instead.

I had left my maps at home; Ike only had navigational charts. Neither

of us had flown the route before. With the open tank tops and north wind, the UO could not reach Philadelphia nonstop, so we agreed to find Anacostia by following the Bay and the Potomac River.

I took it off. In the air, we swapped controls frequently and spent the intervals trying to beat some circulation



Golden Eagles

half way down the eastern shore I remembered that my limited night flying had all been in seaplanes. I had never tried a night landing on wheels. My first impulse was to let Ike do it. Then I realized he had not made a landing or takeoff all day. (Most Naval Aviators trained before 1923 were only trained in seaplanes and many of them had not yet qualified in land types.) For all I knew, Ike was one of them. I didn't want to check on that at night above the eastern shore.

From Cape Charles I headed over-water for the brightest light I could see. It became a flood-lighted grain elevator near the Hampton Roads Naval Base. Chambers Field was dark. I circled, rooftop high, and saw a windsock drooping straight down. Still no lights. Too cold to wait longer, I picked the long diagonal, skimmed the roof of the balloon hanger and felt my way to a landing. We were taxiing

into fingers and toes. I landed the machine at Anacostia, rolled up to the line and asked for gas. Then we huddled beside a potbellied stove in a line shack to thaw.

Lt. C.A.F. (Ziggy) Sprague came in and we asked him for a map to Philadelphia. "Don't have one I can give you," he said. "But there is one you can look at on the wall of the office at the other end of the line."

"Too cold to walk that far," Ike said.

"You don't need a map," Ziggy said. "Just follow the railroad that goes by here and you'll come to Philly."

We did.

There we agreed to meet on the field at 1400 and separated to do our chores.

For nearly two hours that afternoon a Naval Aircraft Factory crew tried to start our cold engine. It popped into life less than half an hour before sunset. We wanted to get home. With the north gale on our tail, the plane would make it nonstop down the eastern shore. Again no maps and neither of us had flown that way before. But Ike wired Norfolk to light the field because we would be in after dark, and I took the plane off.

It was dark before we reached the Delaware Capes. The plane had no lights, so we could not fly south by compass. From 5,000 feet, however, starlight let us tell land from water, so we managed to stay between the Chesapeake and the Atlantic until we ran out of land near Cape Charles.

I don't know what Ike thought. But

toward the hangars when the lights came on and the crash trucks dashed onto the field with sirens and flashing red lights.

Ike's wire had not arrived. Someone in the BOQ heard a plane circling and pushed the crash alarm as the fastest way to get lights.

Nobody said anything about our judgment. Such dizzy flying was so nearly routine that Grampaw Pettibone never raised an eyebrow because no one was hurt. But this yarn is tame compared to some told by other *Golden Eagles*. It never had a chance at a reunion bull session, so I am pleased to relate it here.

No, *Golden Eagles* were not always conservative old flyers.

letters

Right Commendation

Please be advised that HM-12 received the Navy Unit Commendation vice the Meritorious Unit Commendation as reported on page 24 of the April issue of *Naval Aviation News*.

T. W. Tilt
HM-12
NAS Norfolk, Va. 23511

Evolution

While reading your February 1979 issue, I noticed an error which you may want to correct. In "People, Planes, Places" you said of CVW-6 aboard *Independence*, "In six days, air wing aircraft recorded 449 flight hours, 371 cat shots and 628 arrested landings."

I am unable to comprehend how an air wing can log 257 more arrested landings than cat shots. Would you please send me an explanation, if the numbers were not in error.

G. A. Stearns, Lt.
VA-56
FPO San Francisco 96601

Ed's Note: When we received this letter, we went to our source. This is the reply we received.

Lt. Stearns has discovered our secret. Utilizing the relatively old aviation trick of logging "Mustang" (Parker P-51) or Schaefer time, *Indy* and CVW-6 have developed a method of creating centurions twice as fast as normal with the stroke of a pen!

Seriously, however, a review of the original story has revealed a typographical error which occurred between the rough and smooth copy. The actual number of catapult shots should read 571 vice 371. During the at-sea period in question, catqualls for C-1As flown by the ship and VRC-40 included launching by deck running as well as catapulting.

Lt. Stearns is to be commended for being such a sharp-eyed SLUF (A-7).

Dick Schram, Cdr.
PAO, USS *Independence* (CV-62)
FPO New York 09501

PAMA Convention

The 8th annual convention of the Professional Aviation Maintenance Association,

Published monthly by the Chief of Naval Operations and Naval Air Systems Command in accordance with NavExos P-35. Offices are located in Bldg. 146, Washington Navy Yard, Washington, D. C. 20374. Phone 202-433-4407; Autovon 288-4407. Annual subscription: \$18.00, check or money order (\$4.50 additional for foreign mailing) direct to Superintendent of Documents, Government Printing Office, Washington, D.C. 20402. Single copy \$1.50.

Inc., will be held August 18, 1979, in Alexandria, Va.

PAMA, organized in 1972 to promote professionalism among aviation mechanics, technicians and repair agencies, is dedicated to the promotion of safety, knowledge and dignity in the aircraft maintenance profession.

For further information contact Mr. Edwin N. Morey, 7221 Carol Lane, Falls Church, Va. 22042, telephone 703-573-5660.

Help

The F-8/RF-8 *Crusader* (that's F8U to those of you nearing retirement) is the subject of my next book, an operational history of the development and use of the MiG Master in the U.S. Navy and Marine Corps and the French Navy.

All operational aspects are of interest: maintenance, field mods, fighter, strike and recon versions; anything which helps describe the *Crusader's* career in some detail. When relating sea stories, please specify date, location, ship, squadron, etc., when possible.

Photos available for extended loan will be copied and returned.

Barrett Tillman
P.O. Box 135
Athena, Ore. 97813

Ed's Note: Tillman is the author of "The Dauntless Dive Bomber of World War II."

First

Reference the Awards section in "People, Planes and Places" of your February issue.

I wish to sincerely congratulate CAG Wheatley and Skipper Merrill on their outstanding accomplishment in achieving 1,000 traps - particularly on the same recovery.

However, it's not the first time. In mid '76, the exact date escapes me, Commander Gary Starbird and I accomplished the same act aboard USS *Midway*. We recovered number 1 and 2 on the first recovery of the day. We even had the right airplanes, I was in "double zero," an F-4B from VF-151, and Gary, then C.O. of VA-56, was in 401, an A-7A.

Looking at the list of 1,000, I'm sure there must have been others before us, but it was a fun day at the time and I'm sure it was for Commanders Wheatley and Merrill.

Jack Finley, Capt.
C.O., USS *Kawishwi* (AO-146)
FPO San Francisco 96601

Hobby

I would appreciate any aircraft slides or photos your readers might be able to send me. I am a disabled vet and collecting is my hobby. I will also trade.

Leonard Kellman
P.O. Box 321 East Station
Yonkers, N.Y. 10704

I am the Technical Aviation English Master at the Ecole de Maistrance Aero, Cours Preparatoire de L'Aeronautique Navale and the Section d'Initiation au Vol at the Naval Air Station, Frejus/Saint-Raphael, Var.

My interests are history of aviation generally, all of the early flying machines, especially those of the Navy, including heavier and lighter-than-air and the older rotary-wing types.

I need photos, postcards and any negatives anyone has no further use for, in any condition; also any black and white slides, especially those of dirigibles for a historical project.

Mr. B. Mofflin
Salle des Professeurs
Ecole de Maistrance Aero et CPAN
Base Aeronautique Navale
83700 - Saint Raphael
France

Fly-In

The 8th Annual National Stearman Fly-In will be held September 5-9, 1979, in Galesburg, Ill. For further information contact Ted McCullough, 821 S. Whitesboro St., Galesburg, Ill. 61401.

Reunions

VAW-116 will hold its first annual *Sun King* reunion in San Diego, Calif., on July 21, 1979. All former *Sun King* Naval Aviators, Naval Flight Officers and Maintenance Officers are invited. For further information contact the Commanding Officer, VAW-116, NAS Miramar, Calif. 92145 or call 714-271-3591; autovon 959-3591.

The 6th reunion of the original VMF-312 (1943-45) will be held at the Marine Memorial Club, San Francisco, September 13-16, 1979. Contact Al Krenzberger, 9 Idlewood Road, Kenfield, Calif. 94904.

VQs 1 and 2 will hold their fifth reunion August 5 at Bolling AFB, Washington, D.C. For further information contact Commander Tony Peltz, 718 N. Armistead St., Alexandria, Va. 22312, telephone 202-692-8613, 703-256-7340 or autovon 222-8613.

The back cover represents but a sprinkling of the insignia which abound in the Naval Aviation community. This particular collection was sent to us by Naval Air Rework Facility, Norfolk, whose dedicated personnel offer assistance to aviation units which seek help in designing their insignia, be they new or revised. OpNavInst 5030.4C of November 6, 1974, contains details, especially those concerning dimensions, on the insignia program. Excerpts from the directive follow:

- Use [of insignia] fosters morale, aids in creating a sense of unity, and promotes esprit de corps. Further, they are a means of carrying the identity of a command by perpetuating its lineage and traditions. It is, therefore, important that they be well conceived, having enduring significance, and be in keeping with the dignity of the service.
- Insignia are expected to reflect the professional character of a command and its readiness to perform appointed missions.
- Heraldic designs symbolizing mission are desired, including symbols such as beasts, fowl, fish, equipment, or weapons typical of the mission, the sea, or the air.
- The design should be simple, with one or two items therein, as opposed to [being] cluttered with many items. The latter is a very common mistake and lessens impact of the design, particularly when viewed from a distance. The design should be developed in strong colors of good contrast.
- The design should portray dignity rather than humor, although subtle humor presented in good taste is permissible. Ludicrous cartoons, Bugs Bunny-type figures, or gruesome portrayals are not acceptable.

Those who would like professional help with their insignia are invited to contact: Mr. E. M. Matney or Mr. J. W. Carrol, NARF Norfolk, NAS Norfolk, Va. 23511, autovon 690-8128 or 690-8503, respectively.

Any further questions regarding insignia can be directed to the CNO Aviation History Office, Op-05D, the approving authority for aviation insignia. Telephone: 202-433-4355/58; autovon 288-4355/58.

Each unit should submit colored photos of insignia and copies of decals of approved insignia to Op-05D where they will be retained in the historical records and used for reference purposes.

