NAVAL AVIATION NEWS

JULY 1982


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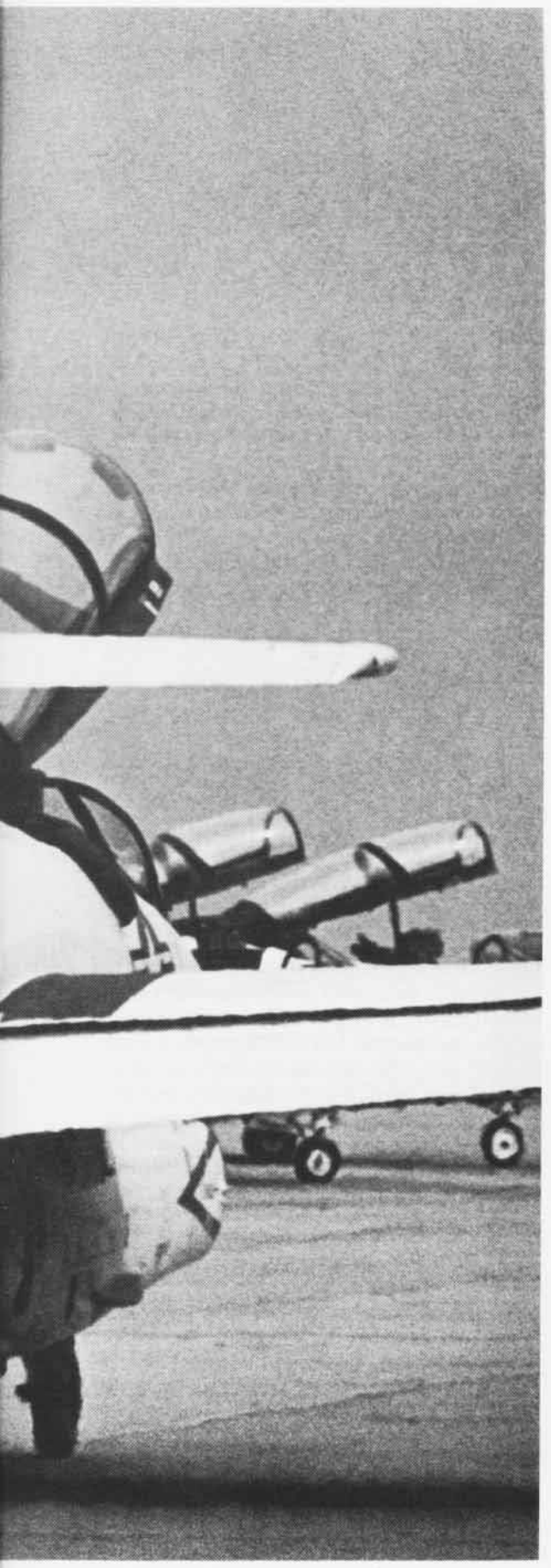

naval aviation news

Sixty-Fourth Year of Publication

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COVERS — Front, a T-28 Trojan from VT-27 at NAS Corpus Christi shows a whirl of prop. Back, a T-2 Buckeye from VT-23 at NAS Kingsville prepares for takeoff. Inside, blurred by jet exhaust heat, a T-2 Buckeye at Kingsville taxis out for takeoff. (Photos by JOC Kirby Harrison)

Features

Departments

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STATE OF THE ART

Orville Wright Achievement Award

Lieutenant Junior Grade Brian Ward is the 1982 recipient of the Orville Wright Achievement Award, sponsored by the Order of Daedalians and presented to outstanding graduates of U.S. military pilot training classes for leadership, academic achievement and flying ability. Ltjg. Ward was nominated for the award by Commander, Training Air Wing Two, NAS Kingsville, Texas, for his performance while assigned to VT-22.

The Order of Daedalians is a nonprofit, charitable organization, headquartered at Kelly AFB, Texas. It is dedicated to ensuring that the U.S. will always be preeminent in air and space, encouraging flight safety, fostering esprit de corps in the military air forces, promoting the military as a career, and aiding deserving young people in specialized higher education through the establishment of scholarships.

CNO Safety Awards

The following are the winners of the 1981 CNO Aviation Safety Awards:

NavAirLant: VAs 42 and 174, VFs 41 and 43, VP-26, VS-30, VAW-124, VR-24, HM-12, HSL-34, and HS-15.

NavAirPac: VAs 95, 127 and 146, VF-21, VP-40, VS-33, VC-5, VAQ-133, VAW-113, HC-3, HS-2, HSL-35, and RVAW-110.

CNATra: VTs 6, 7, 10 and 23, and HT-8.

NavAirResFor: VA-303, VC-12, VF-202, VP-68, VR-57, and HS-75.

FMFLant: HML-167, HMM-264, HAMS-32 and VMGR-252.

FMFPac: HMH-361, HML-267, HMM-268, VMA(AW)-121 and VMFA-314.

4th MAW: HMM-764 and VMA-133.

NavAirSysCom: PacMisRanFac, Barking Sands, Hawaii

The 1981 CNO Readiness through Safety Award went to the Chief of Naval Air Training for completing the safest year in the history of the Naval Air Training Command. Flying just under 500,000 hours, the training command had only seven major accidents for a rate of 1.43 accidents per 100,000 flight hours. This represents a 47-percent reduction from the 1980 rate. Seven major air commands compete for this annual award. The recipient is given temporary custody of the trophy for one year and permanent custody of a replica. The winner of this award is a dual recipient of the Admiral James S. Russell Naval Aviation Flight Safety Award. Sponsored by the Order of Daedalians, it recognizes the major Naval Aviation command that has demonstrated excellence and effectiveness in aircraft accident prevention.

Contract for Trainers Awarded

Beech Aerospace Services, Inc. (BASI), a subsidiary of Beech Aircraft Corporation, has been awarded Navy contracts for FY 82 totaling $16.4 million for contractor support of Beechcraft training aircraft. A $10,355,000 award is for support of jet prop, single-engine T-34C primary trainers, and a second award of $6,096,000 is for the jet prop, twin-engine T-44A advanced trainers.

The Navy operates a fleet of 169 T-34Cs at NAS Whiting Field, Fla., and 60 T-44As at NAS Corpus Christi, Texas.

BASI's support responsibility includes providing on-site staff, spare parts and ground support equipment. Both the T-34C and T-44A have established reliability and safety records which exceed Navy contractual requirements. BASI has supported the T-44A since 1976 and the T-34C since 1977.

Recruiting Command Has Good Year

Fiscal year 1981 was the most successful year for officer recruiting since FY 77. The Navy Recruiting Command achieved at least 100% of its goal in nearly every major program, including Naval Aviation. Aviation program goals were the highest of all officer programs — 1,400 pilots and Naval Flight Officers (NFOs). The command attained 921 pilots against a goal of 890, and 535 NFOs against a goal of 510.

This represents the highest number of accessions in these programs since 1970. It also represents an increase of 200% over the FY 80 results.

Contributing to this success was the Recruiting Command's increased emphasis on officer recruiting. Total FY 81 officer attainment was 4,767. This figure includes pilots, NFOs, surface warfare candidates, staff corps candidates and nuclear propulsion officer candidates.

The Navy Recruiting Command projects that it will continue its success this fiscal year in overall officer recruiting. The command also expects to recruit more nuclear propulsion officer candidates than ever before. This year's goals are set at 795 pilots and 315 NFOs. By the end of April, the Recruiting Command had attained 690 pilots and 301 NFOs.

Laser Visor

Hughes Aircraft Company has developed specialized diffraction optics techniques which enable an experimental laser eye protection visor to deflect wavelengths of potentially blinding light used in lasers without reducing visibility. The growing use of lasers in applications such as communications, range finding, target identification and aircraft piloting has increased demand for eye protection without loss of natural vision. The visor was developed by Hughes' Radar Systems Group, El Segundo, Calif., under contract from the Naval Air Development Center. It is designed to replace current devices which use colored dyes to absorb laser beams, much like dark glasses reduce the intensity of bright sunlight. Dyes reduce visibility and can cause distracting discoloration.

Hughes Aircraft Company

The experimental visor, shown here on a mannequin, is produced in separate segments. Production units would be constructed in one piece for mounting on an aircrewman's helmet. The visor could also be produced as eye protection goggles for ground personnel.

Grampaw Pettibone

Harried Harrier

Four AV-8A *Harriers* were made ready and assigned to specific pilots who would fly them exclusively during a one-week training exercise at an expeditionary field. One of the aircraft was down for a leaky fuel control unit (FCU). After consultation with power plant personnel and maintenance control and technical representatives, the aircraft maintenance officer (AMO), who was also the detachment officer-in-charge (OIC), changed the discrepancy to an up gripe, and no corrective maintenance action was performed. The power plant quality assurance representatives disagreed with the AMO's decision and actions.

The following day the four *Harriers* deployed. At the expeditionary field, the leaky fuel control aircraft completed six sorties within three days before it was again grounded. The fuel control leak had become more severe. On this occasion the OIC, after consulting his maintenance crew, ordered the FCU changed. Because of a shortage of maintenance personnel, the work was performed by a power plant mechanic and a quality assurance representative during the evening and morning shifts. No collateral duty inspector (CDI) was available to check the work.

The OIC, the pilot assigned and maintenance control personnel mapped out a procedure to field test the newly-installed FCU. The plan required a low-power engine turn with FCU adjustments, followed by power acceleration checks, and final FCU adjustments at low power.

The well-intended plan was never executed. The assigned pilot departed the area with the OIC to file their flight plan for the anticipated return

flight to home base. A substitute pilot, who had not flown the aircraft and had not been briefed on the procedure, was tasked to perform the low-power turn and engine acceleration checks.

Due to flight line congestion, the initial low-power turn and FCU adjustments were not performed. A power plant representative equipped with a communication headset was stationed at the taxiway throat to assist the pilot with the acceleration checks. The substitute pilot, unaware of the agreed-upon procedure, taxied past the waiting mechanic, returned to the line and secured the engine. He described the engine acceleration performance to maintenance personnel who made subsequent adjustments to the FCU.

The aircraft was readied for the flight to home field. The power plant and maintenance control representatives requested that the aircraft be flown by a qualified post-maintenance check pilot and proceed directly to home base, which was only 20 minutes away.

The Detachment OIC and the subject *Harrier* pilot returned from base operations, assumed their FCU repair plan had been carried out, and prepared to launch.

During start, the trouble engine rpm hung momentarily at 22 percent. The pilot nudged the throttle forward to ensure a smooth start and noted that idle power stabilized at a lower rpm than expected. Subsequent checks prior to takeoff showed the rpm to be barely within acceptable Natops limits. A power plant mechanic assisting with the launch asked the pilot if the idle rpm was O.K. The pilot nodded affirmatively and then taxied as aircraft number four for the flight to home base.

The division flight leader elected to return with all four aircraft around a circuitous one-hour route in order to exhaust fuel from the external tanks. Upon arrival at home base, the four *Harriers* entered the traffic pattern for an overhead break. At a five-second interval, the pilot of number four extended the speed brakes and slowly reduced power, keeping the throttle about one-half inch forward of idle stop. At 250 knots he lowered the landing gear, checked 1,500 feet of his altimeter and then observed a warning light. Surprisingly, he noted the engine rpm was at 15 percent. He immediately pushed the engine relight button and lowered the aircraft's nose altitude in order to obtain sufficient airspeed for engine relight. The engine did not respond. Passing through 1,000 feet, the pilot broadcast that his engine had flamed out and that he was ejecting. He exited the aircraft

ILLUSTRATED BY Osborn

at 400 feet in a 10 to 15-degree dive with a 5,000 foot-per-minute sink rate. The aircraft was destroyed; the pilot received serious injuries.

Grampaw Pettibone says,

Holy hopeless *Harrier* hazards! This crowd was just an accident looking for a place to happen – and found one!

To Gramps, this episode reflects one of the most colossal collection of screw-ups ever corralled in any one consortium. The decision to Up a Down aircraft without performing proper corrective action violates all sound maintenance practices. The fragmentary or total lack of supervision, and the failure to provide adequate personnel, adhere to prescribed maintenance procedures, consult technical publications or to inspect work, coupled with some downright dumb decisions, resulted in serious injury to the crewman along with the destruction of an expensive aircraft.

Problems like these have long been characteristic of potential disasters associated with small detachment operations, good intentions notwithstanding. And in this case, like most others, I'm sure there were many. There certainly appears to have been little else.

Nonprofit organizations don't need a tax shelter like this, but you can rest assured that the taxpayers need a shelter from such a nonprofit disorganization as this.

A Matter of Priorities

Rain fell in a steady drizzle as the F-14 *Tomcat* rolled, under tow, from the flight line to the wash rack area where it would receive its regularly scheduled weekend scrub in preparation for the following week's flight schedule. The brake rider, concerned with the rain, closed the canopy to protect himself and the sophisticated cockpit instruments from the steadily increasing drizzle.

Once the aircraft was parked and chocked, the brake rider secured the cockpit and attempted to exit. He actuated the normal canopy select handle; however, the canopy moved only a couple of inches up off the cockpit sills and stopped. Realizing that the nitrogen charge must be low, he then attempted to manually push the canopy open but with little success. The canopy moved only another two to three inches and stopped.

The brake rider signaled to the tow crew supervisor that the canopy would not open. The tow crew checked the canopy actuator nitrogen gauge and noticed that the pressure was very low. The crewman turned to bring the nearby nitrogen cart alongside the aircraft to service the canopy actuator system. As he walked toward the cart, he was startled by a loud explosion, and realized immediately what had happened. He turned to see the double cockpit F-14 canopy fall to the deck near the aircraft. After the dust, smoke and debris had cleared, the brake rider exited the aircraft.

Grampaw Pettibone says:

Jumpin' Jehoshaphat, if this doesn't beat all! Within the previous two months, this young lad had received two ejection seat/canopy checkouts, had recently completed brake rider school and was fully qualified.

During the tow from the hangar area, the brake rider noted the time. He became concerned about the lateness of the hour and the pending squadron basketball game in which he was to play. When the canopy failed to open, his concern mounted. Impatience led to frustration. He was not content to wait the 5-10 minutes which would be required to service the canopy actuator and open the canopy. Timely attendance at the squadron basketball game had now become his most pressing priority. Fully aware of his actions, the brake rider consciously selected the canopy

jettison handle, blew the canopy from the aircraft and climbed down from the cockpit.

Following the incident, the brake rider was escorted to the base dispensary. He was administered a physiological and psychological profile and determined to be fit in all aspects for duty.

This literally blows my mind! Maybe this young lad was, in fact, fit for duty. Well, I am fit to be tied! His irresponsible actions resulted in a quarter-of-a-million-dollar damage to the F-14 aircraft. We don't need, and can't afford, that kind of help, gents!

CNATra

Rear Admiral Peter B. Booth heads the Naval Air Training Command, a large and widespread organization consisting of six air wings which encompass 20 squadrons, 900 aircraft and some 14,000 naval and civilian personnel. During his career, he has had a succession of fighter squadron assignments, including Commanding Officer of VF-11. Following a year on the staff of DCNO(Air Warfare), and another as personal aide to the Chief of Naval Operations, RAdm. Booth commanded USS *Sylvania* (AFS-2) and USS *Forrestal* (CV-59). He then served as Chief of Staff to Commander Third Fleet in Hawaii. RAdm. Booth was Deputy Director, Strategy, Plans and Policy Division, Office of the Chief of Naval Operations, before becoming Chief of Naval Air Training. He holds a Master of Business Administration from Stanford University.

Since 1911, the Naval Air Training Command has trained over 125,000 Naval Aviators. In 1981, the coveted Wings of Gold were earned by 1,481 Naval Aviators.

Naval Aviation News recently asked RAdm. Booth to comment on the training command and flight instructor duty from his vantage point as Chief of Naval Air Training.

NANews: Rear Admiral Booth, what changes have taken place in Naval Aviation training over the past few decades?

RAdm. Booth: The type of training that pilots receive today is considerably superior in quality and breadth compared to when I went through flight training some 25 years ago. For instance, a lot of our young pilots today have their first solo in the T-28. That aircraft used to be an intermediate trainer. Now we start some of our students off in the T-28, and 17 flights later they solo in that big 1,400-horsepower, 8,000-pound airplane which is about the size of a WW II fighter with roughly the same performance. Another difference is jet training. Students with 50 to 70 hours in the T-2 intermediate jet trainer now solo in what is called the gun pattern which involves five aircraft, one towing a 1,000-foot banner. The other four aircraft fly a three-dimensional, figure eight-type pattern around the banner. This maneuver is far more demanding in my judgment than anything I ever did in intermediate flight training. Advanced jet training today is also different. Students get about a dozen flights in air combat maneuvering and an equal number of flights in the bombing pattern. Simulators throughout the command are in widespread use and result

A midshipman going through NROTC summer aviation indoctrination is a blur as she pulls the screen to activate the ejection seat trainer.

Photo by PH1 Terry Mitchell

"The Naval Air Training Command is the bedrock of Naval Aviation. It's where it all starts in terms of attitudes and perceptions. I've been here since January and I might say that it's the best aviation job in the United States Navy." RAdm. Peter B. Booth, Chief of Naval Air Training

in not only more thorough training but a fewer number of flight hours than would be necessary without them. Overall, I would submit that the quality of training has improved significantly over that of 20-30 years ago.

What about the relatively new aviation Limited Duty Officer (LDO) program? What contribution will it make to the training command? Are you pleased with the quality of the LDO Aviator selectees?

Their initial contribution will be to serve as selectively retained graduate (SERGRAD) flight instructors throughout the training command. They will be filling flight instructors' billets, responsible for teaching student Naval Aviators the Navy way of flying. Follow-on tours (sea duty) will be as flight deck, aircraft handling, and catapult and arresting gear officers aboard aircraft carriers.

You ask if I am pleased with the quality of the LDO Aviator selectees. Absolutely. These individuals are extremely bright, highly motivated people who are doing a superb job. There is no doubt about it, I am impressed with their performance.

In the fleet, the perception of instructor duty seems to be that it may be less career enhancing than other shore assignments. How do you feel about that apparent problem?

Many years ago, all Naval Aviators did at least one tour in the training command. In more recent years, we've had a lot of other demands in the U.S. Navy, such as filling billets aboard carriers around the world, sending officers to postgraduate school, as well as manning shore-based replacement training squadrons, etc. Consequently, there have been fewer opportunities for pilots to take tours in the training command. I might add that 70 percent of all of our training squadron commanding officers historically have had a tour in the Naval Air Training Command once in their careers.

In my travels, the instructor pilots I have talked to, both senior and junior, are highly motivated and are interested in and like what they're doing. There's a great sense of satisfaction in training young pilots. The vibes and feedback that I've received in my time here have been very positive, not only with the student pilots but with the instructor pilots as well.

You question if the duty is career enhancing. I don't know what *is* career enhancing. Duty on CNO's staff might be career enhancing. Duty on a carrier might be career enhancing. Duty in the training command might be career enhancing. What it boils down to is how well you do your assigned job in the Navy no matter what your responsibilities may be or where you may be assigned. There is no question in my mind that an instructor who does well in the training command as an instructor pilot or Naval Flight Officer will look back upon it as career enhancing, as will his selection boards.

Has it been difficult to fill flight instructor billets?

I must preface my answer by saying that we're short about 2,300 Naval Aviators throughout the Navy. We're short in the fleet replacement squadrons and in sending officers to postgraduate school. We are short in sending people to staff jobs and we're also short of pilots here at the training command. Since I've been here, however, I have not heard anyone complaining because he or she is flying too much.

What you're saying, then, is that the fleet grapevine may be giving instructor duty a bum rap?

As you know, in past years the training command has worked very hard to produce the required number of pilots. But, because of a lot of other needs of the Navy, there just were not enough pilots and maintenance people to support our mission. That has changed over the past two years. At CNO's direction, the Naval Military Personnel Command has endeavored to fully man the training command. We are currently manned at 90 percent, and it's getting better. With these recent staffing improvements, we have been able to train the required number of pilots during that time, and will do so this year.

I have talked with literally hundreds of folks in the past few months and I can say that the instructors enjoy their duty and the chance to fly considerably more than anywhere else in the fleet.

In summary, I think the perception of training command duty of the seventies has changed. The word is getting out in the fleet that instructor duty can be career enhancing, personally very satisfying and one during which a shore-based tour of duty can be enjoyed with the family.

Does instructor duty help an aviator's career by increasing his experience in flying, as well as in working with people?

Absolutely. If a fleet pilot comes to the training command after three years in a squadron, he may have flown 1,000 hours. But when he comes here as an instructor he learns a great deal more about flying. There is a hypothesis that the more comfortable you are in the air as an aviator, the better naval officer you are likely to be. That's hard to prove but, if you're a good, professional aviator, I think

there's a carryover into your abilities as a naval officer because you have more self-confidence. It's like getting older – you may not get any smarter, but you get wiser. You start to get a little more comfortable with things which may have made you uncomfortable before. I believe the same thing applies in aviation. Duty where you do a lot of flying and are exposed to many students, in a very dynamic and fast-paced environment, makes a more confident aviator.

What makes a good flight instructor? Are there special qualities or personal characteristics required?

First of all, an instructor basically must be a good aviator. Next, he must be enthusiastic, enjoy what he's doing and be able to transmit that enthusiasm to his students. Finally, he must be the type who enjoys the sense of satisfaction that goes with teaching others.

What do you think about women Naval Aviators as flight instructors?

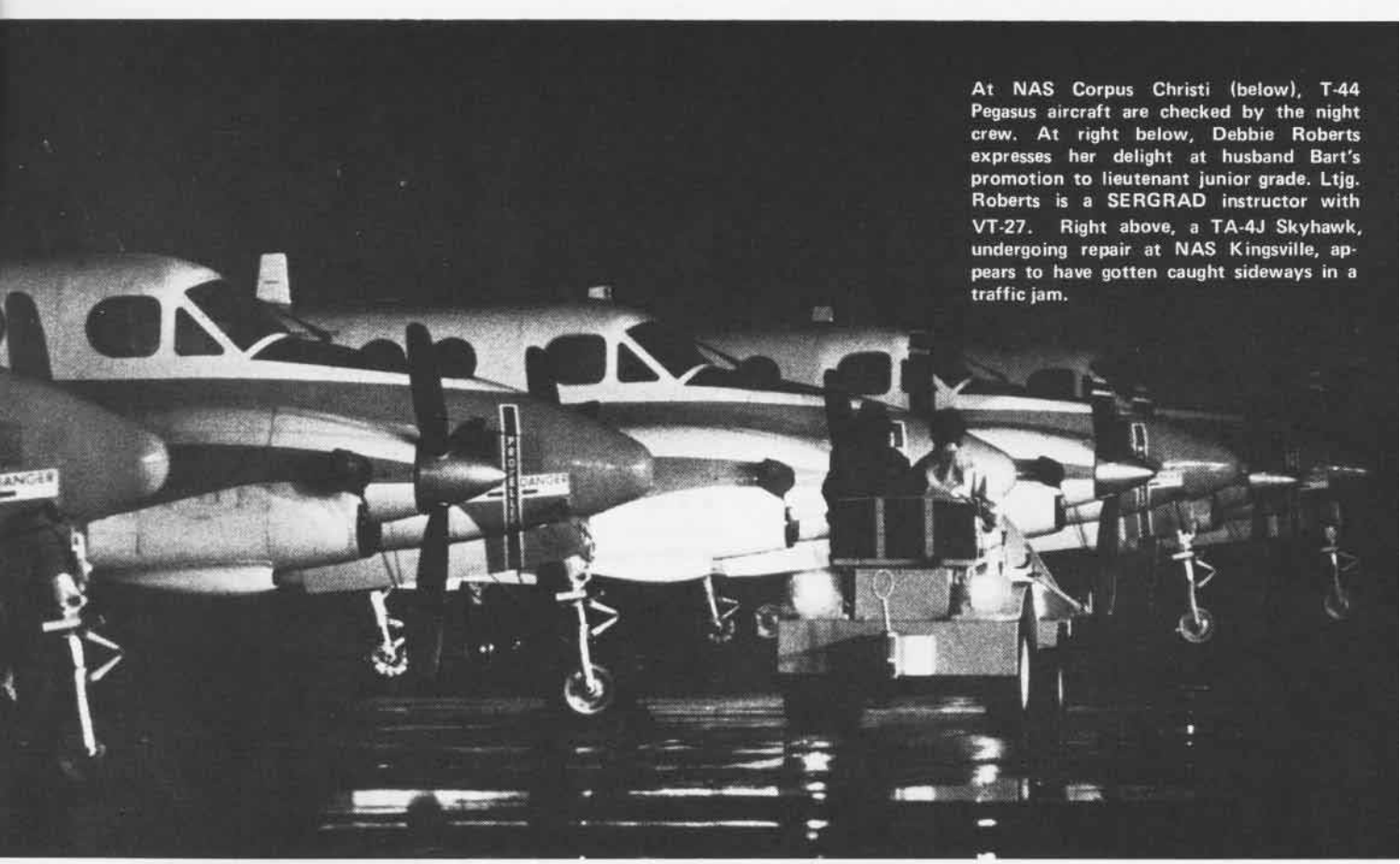
I have personally met several of our female instructors and found them to be extremely capable and professional. They are very well accepted and have no real problems. I recently flew a T-28 and requested that there be an instructor pilot in the back seat. The instructor turned out to be Lieutenant Junior Grade Shelley Pennington, who was a pleasure to fly with and very professional. It brought back memories. When I soloed for the first time on my sixteenth birthday in Atlantic City, my flight instructor was the wife of a Navy lieutenant, so women pilots are not new to me. I think the women are doing absolutely fine. They're just as motivated and capable as anyone can be. We're training about 25 women aviators this year and they're doing very well.

The mixture of SERGRADs and returning fleet pilots is apparently working very well. To what do you attribute this success?

If we didn't have SERGRADs in the training command as flight instructors, we would be hard pressed to meet our training goals. We have SERGRADs in the jet pipeline, in primary squadrons and a few in the multiengine pipeline. These pilots, who were in the top one-third gradewise as students, serve 18-month tours, after which they are assigned to duties that would guarantee a warfare specialty. The feedback from the training squadron commanding officers is universally very positive regarding the capabilities, professionalism and enthusiasm of the SERGRAD instructor pilots. A big benefit to the SERGRADs is that while they are instructors they get a lot of flight time and learn a tremendous amount about aviation in a short time.

Looking into the near future, there seems to be a great deal that is going to happen with the possibility of a new aircraft being introduced into the Naval Aviation training program. Would you please comment on the undergraduate jet flight training system (VTXTS) program?

We are of course anxious to have the VTXTS come on



At NAS Corpus Christi (below), T-44 Pegasus aircraft are checked by the night crew. At right below, Debbie Roberts expresses her delight at husband Bart's promotion to lieutenant junior grade. Ltjg. Roberts is a SERGRAD instructor with VT-27. Right above, a TA-4J Skyhawk, undergoing repair at NAS Kingsville, appears to have gotten caught sideways in a traffic jam.

line simply because the T-2s and A-4s we have are getting progressively older and more expensive to operate. The introduction of new VTXTS aircraft, flight simulators, academics, and a training management and support system will be a plus in terms of training quality. The concept of the training system will avoid many of the perturbations that have been experienced in previous incorporation of new training aircraft into the training command. The system can be expected to operate with greater training effectiveness and significant savings in operating costs.

As it now stands, the first VTXTS aircraft will be programmed to replace a T-2C intermediate squadron at NAS Kingsville.

How about simulators? What role do they play in the quality and the cost of flight training?

Modern simulators are capable of accurately duplicating all phases of flight training to include weapons systems, air combat maneuvering and carrier landing training. In the simulators we can expose the student Naval Aviator/Naval Flight Officer to extreme situations not possible in the aircraft, without risk. The simulators save up to 95 percent of the cost of a jet flight hour and 35 percent of the cost of a helicopter flight hour.

They have proven their value in terms of improving the quality of our graduates. For instance, an A-4 student will fly 19 simulator hops *before* his third back seat hop. I have personally flown students on their third and fourth hops, and was amazed at how well they did in procedures and flying.

An important part of flight training includes survival training. I understand that in recent years more realism has been introduced into the sea survival phase. Exactly what can a new flight student expect in this regard?

Our new flight students complete a very comprehensive and realistic water survival training program during indoctrination, including a one-mile swim in flight suit, CPR training, first aid, underwater swim, equipment lectures with hands-on training, underwater egress in the single-place "Dilbert Dunker" and the relatively new multiplace dunker. This program has been beefed up considerably in the past few years and produces the most realistic training next to the actual situation. It has paid dividends and already saved lives, and that is our goal.

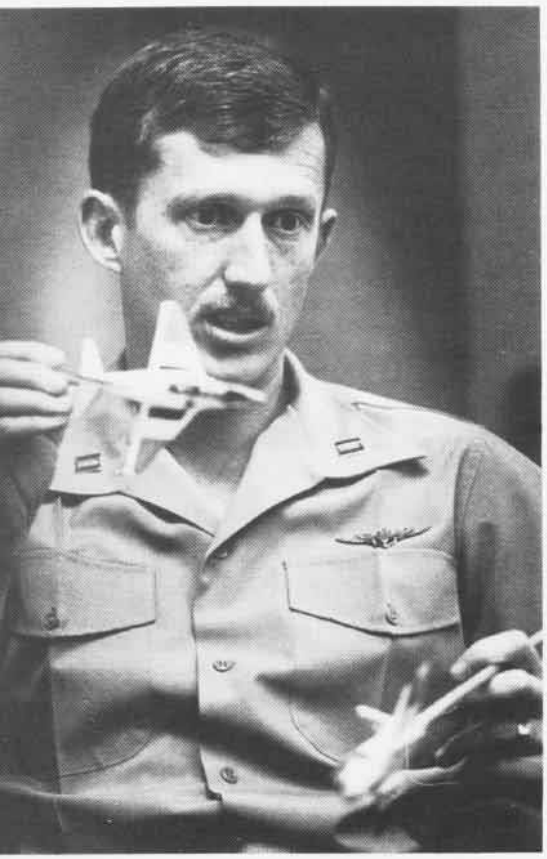
You mention the relatively new multiplace dunker. How is it different from the Dilbert Dunker that is so familiar to Naval Aviators?

The Navy has developed a multiplace dunker (the 9D5) to simulate the helicopter and multiengine aircraft ditching environment. This device provides the student with underwater egress training from various aircrew positions within the aircraft. I went through it last February and found that not only does it get your undivided attention, but it is a superb training device.

Do you have any comments on the future of Naval Aviation?

In my judgment, never before in the peacetime history of our country have we relied more on or seen a greater need for a strong Navy. Almost everything that comes into or goes out of the U.S. travels by sea, including a large percentage of our strategic materials and petroleum needs. We do about 50 percent of our trade with Japan and a high volume of our trade with Western Europe. Japan is almost totally dependent upon Persian Gulf oil. What if that pipeline to Japan and the Persian Gulf were severed or threatened? Japan would start to go down the tube quickly. That's true to a degree of Western Europe, although it has a few more reserves. The economic posture and strength of the U.S. would be adversely affected because we are so dependent upon worldwide economics. Our military strength and our standard of living are derived from our economic strength and ability to operate freely on the high seas. Twenty years ago, we had access to about 130 bases throughout the world. Today, we have only about 35. At the same time that there is an increased dependence of the U.S. on the economic intrastructure of the world, there is a dramatic decrease in the access to bases overseas.

The bottom line is that to protect the vital and worldwide interests of the U.S., seapower is needed. The aircraft carrier is the mainstay of that power in the decades to come. We're seeing that today in the Falkland Islands. We've seen it time and time again in the Indian Ocean and the Western Mediterranean. Whether it is in the form of helicopters, aircraft carriers or contributions by the VP community, I don't think we've ever seen a time in the peacetime history of this country when the need for Naval Aviation was more apparent. ■



An instructor pilot in VT-22 at NAS Kingsville uses models to get the idea across to a student in the advanced jet phase.

Story and Photos
By JOC Kirby Harrison

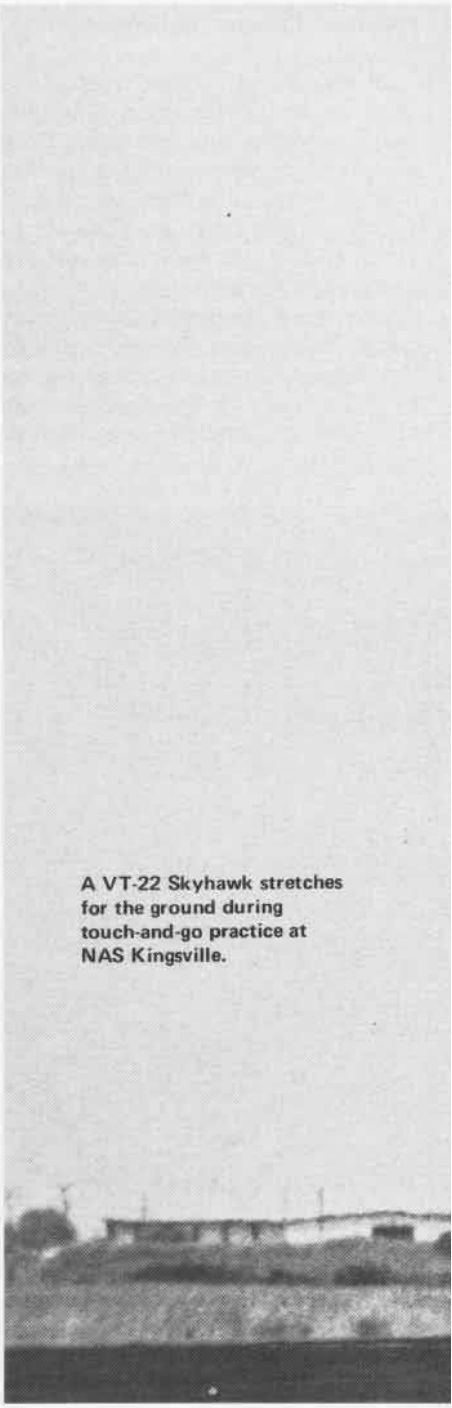
The secret is out. Flight instructor duty is good in South Texas. In fact, "It's a *hell* of a good job," says one flight instructor, who adds, 'I'm constantly amazed more people haven't found out about it. This was my first choice of duty (after a tour with a fleet squadron) and it's the second time I've been stationed here."

On his first tour of duty at NAS Corpus Christi, the lieutenant had gone straight from receiving his Navy Wings to 18 months of instructor pilot duty as a Selectively Retained Graduate (SERGRAD).

According to Captain Eugene Teter, chief staff officer at Training Air Wing Three, that officer discovered the secret early by going directly to instructor duty. "As a student," says Capt. Teter, "you don't have the opportunity to appreciate the job of the instructor or to enjoy the area. You're either flying or you've got your head in the books."

Capt. Teter earned his wings at Corpus Christi and recalls his own apprehension at his first set of orders to return as an instructor pilot. Now, on a second tour of duty in the training command, he exhibits an obvious liking for the job. "Nothing has kept me younger and more in touch with the reality of the job than the enthusiasm and motivation of the instructors and students here. It's contagious."

Approximately 400 instructor pilots help turn out 760 new Naval Aviators each year in the South Texas training sites. They teach primary flight training in the T-28 *Trojan* and advanced multiengine prop flying in the T-44 *Pegasus* at NAS Corpus Christi on the Gulf Coast. At NAS



A VT-22 Skyhawk stretches for the ground during touch-and-go practice at NAS Kingsville.

Quality Instructors Build Quality Pilots

Lt. Cliff Weller, with VT-27, reaches for his gear prior to an instructor training flight in the T-28 at NAS Corpus Christi.

Chase Field, Beeville, Texas, a 30-minute flight to the northwest, and at NAS Kingsville, an equal distance southwest, they teach intermédiate jet in the T-2 *Buckeye* and advanced tactical jet in the TA-4J *Skyhawk*. It is an ideal area for flight training. At all three locations, the fast tempo of operations is rarely interrupted by weather bad enough to stop flying.

"In the jet pipeline," says VT-26 skipper Commander Bill Meneeley, "numbers are sometimes the name of the game. If our students don't complete all the requirements on schedule, the backup spills over and affects the advanced jet training phase, as well as the class coming behind them." If you add to that the natural urge of the Naval Aviator to be flying, there is never a lack of opportunity to fly.

Since the desire to fly is a prime motivator of the Navy pilot, the availability of aircraft and the opportunity for flight time is one of the most attractive aspects of instructor pilot duty. More than 40 hours of flying time a month is expected by most of the pilots, and 60 hours is not unusual.

Lieutenant Don Sammons, an S-3 *Viking* pilot now teaching advanced jet with VT-24, notes that the hours in the air make for long days but that there are few complaints. "As long as they keep the flight time coming, it makes it all worthwhile," he says. "A lot of people here figure the only bad situation is one in which you can't be flying."

At VT-31, Lieutenant Commander Jack Boniface agrees. After a three-year tour of duty aboard ship in a non-flying status and two years at the Naval War College, he is catching up on flying in the T-44. "Sending a young aviator to a non-flying job. . .is like giving him a sports car as a reward for learning to drive, then making him sit on the curb and watch someone else cruising in it."

A "dream come true," is how Lieutenant Junior Grade Robin Rumble described her instructor pilot duty as a SERGRAD with VT-28. "Some of the friends with whom I went through primary and advanced [training] and who went straight to a squadron don't have half the flying hours I have."

It's a point noted by two instructors at VT-26. Marine 1st Lieutenant Dale Homire is a SERGRAD who came to the squadron after receiving his wings. In 18 months, he has accumulated 800 hours of flying time. Lieutenant Harvey Swift flew the A-7 with a fleet squadron before coming to instructor duty and has 1,000 hours in the *Corsair*. "The only thing is," Swift explains, "it took me three years to get that many hours [in the fleet]."

According to Ltjg. Rumble, the important thing about the unusual amount of flying time as an instructor is the effect on the instructor pilot's own flying skills. "The accumulated hours, constant attention to proper procedure and safety, along with discussions with students and other instructors, have definitely made me a better pilot."

Former fleet squadron pilots agree. "I've learned a lot more about flying from teaching," says Marine Captain Thomas Koger with VT-24.

Lieutenant Commander Ron James, formerly an E-2 *Hawkeye* pilot with the fleet, agrees. "In the fleet, you can slip a little and it's easy to forget why everything has to be so exact. This brings it all back in perspective, and I'll probably be more demanding of myself and the people who fly with me when I go back to the fleet."

The mixture of former fleet squadron pilots and SERGRADS, according to Chief of Naval Training planners, has enhanced the quality of instruction available to the student aviators. And, among the pilots coming from the fleet, there is an increasingly even balance of jet, multiengine and prop aviators.

"This squadron is really unique," says VT-23's Lt.Cdr. James. "We have people here who have flown everything from helicopters to attack (aircraft)."

Marine Captain Ed Carr of VT-22 at NAS Kingsville flew the RF-4B *Phantom* and was a former SERGRAD. Like other instructor pilots, he likes the mix and would like to see more jet pilots, especially from the attack community, coming back into the primary phase of aviator training as instructors. A majority of instructors in primary are prop pilots and Carr feels that students at that level would

A TA-4J Skyhawk is prepared for flight. In the background, a T-2 Buckeye, known affectionately by students and instructors as "the North American safety jet" is on final approach at NAS Chase Field.

benefit from a more balanced pool of experience and knowledge.

"It would give the student a more sound basis upon which to make a decision whether to go on to jet training or multiengine at an early stage," he says.

Corsair pilot Lieutenant Donn Perkins at VT-23 admits being uneasy about going to instructor duty, especially after flying a single seater. It was all I could do at first to sit on my hands."

Being able to sit on your hands and fly with your mouth, is a major factor in being a good instructor, according to VT-26 skipper Meneeley, a bear of a man who has been known to carry a stuffed bear into the cockpit with an apprehensive student.

"Let's face it," he says with a wide grin. "There are times when some students are tense to the point where it can affect their flying. It's hard to stay tense with a man who brings a stuffed Poo-Bear into the plane."

It is an attitude of adapting to the needs of the individual student which is echoed by Lt.Cdr. James. "As far as teaching technique goes, I'll use whatever will make the light go on for that particular student."

Lt. Craig Luigart flies as an instructor at Corpus Christi and recalls trying to make that "light" go on for one of his students. "He was really having trouble with landings. I had tried every way I knew how to put it into terms he might understand, and it just wasn't there. I was trying to decide whether or not to give him a 'down' when we went up for one last try. I considered letting him fly around for a while and relax, and then I thought maybe it would just prolong the agony, so I told him to relax and take it down. I couldn't believe it. Every leg was perfect and he flew it to the ground like it was on a wire. He hit the landing right on the money.

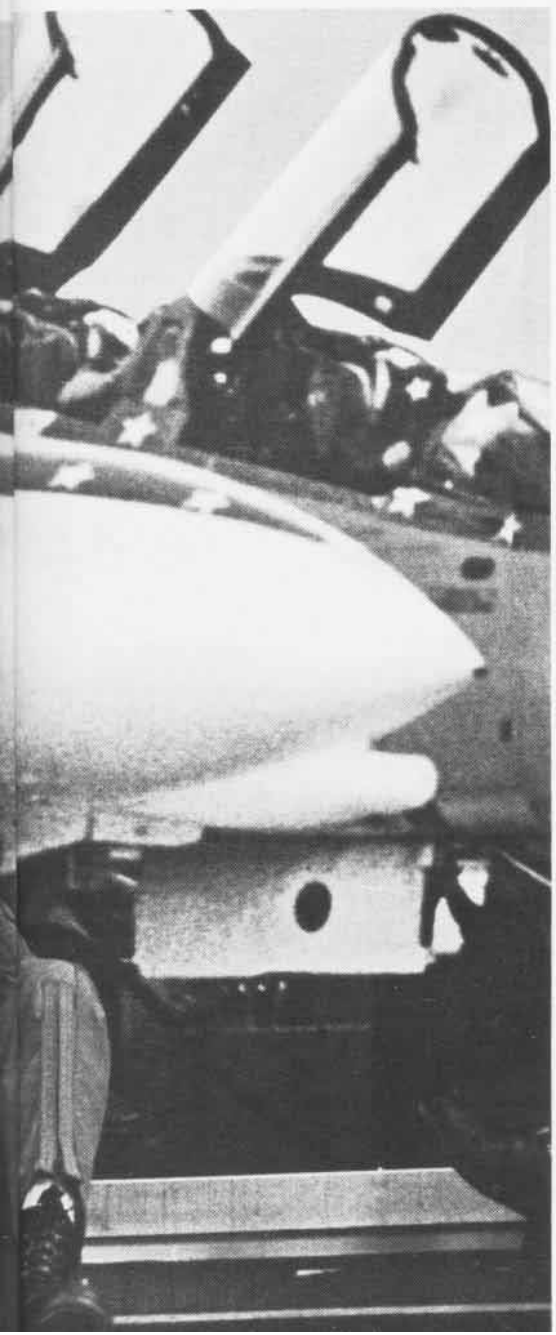
"I had to resist an urge to grab the ICS [intercom] and cheer. And I thought to myself, 'Good grief, what did I finally say that made it all clear.'

Overshadowed by what awaits in the fleet, student pilot Ens. Gary Sola gets in study time in the VT-23 ready room before the F-4 Phantom mural.

Just to make sure it wasn't a fluke, I had him go around and make four or five more landings. Every one of them was perfect. We never did figure out what it was that did it, but he said it all came to him suddenly and he wondered why it didn't happen sooner.

"We got out of that plane after the last landing, grinning like a couple of crazy people. The boost I got from that is like nothing else in the world. It compares with any satisfaction I've ever gotten from flying in the fleet."

However, the real reward, says Commander Ralph Fink, commanding officer of advanced prop Training Squadron 31, comes when the student gets his wings. "It comes in seeing someone who has never flown in an airplane before in his life learn to fly, in seeing that enthusiasm. There are guys walking around here who can tell you the name of the instructor who taught them to fly faster than they can remember their own mother's name."



Capt. Teter agrees. "When the day comes and they finally pin on the Navy Wings, it is one of the most touching things I've ever seen to watch the new Naval Aviators rushing around looking for that instructor to thank him or her. That appreciation makes the instructor positively glow. . . ."

Bob Curry is in the Limited Duty Officer aviator program and had never flown before being accepted as a candidate. "I've never enjoyed anything so much in my life," he says, "but I know that guy in primary was carving granite to turn me into a pilot. I think the greatest single trait an instructor pilot can possess is patience."

"The best instructors," says Ensign Chuck Kamanski, a student in intermediate jet with VT-23, "are those who don't get frustrated easily, and I know some of them must feel frustrated."

Most of the instructor pilots admit there are difficulties, especially in dealing with repetition, whether it's going over the same preflight check five times in one day or in seeing the same mistake made by five different students in one day. "Your biggest enemy as an instructor pilot is complacency. You have to be patient and realize that even though you've seen that mistake a dozen times, it's the student's first time."

The feeling among instructors and students is that the multiengine pilots adapt more quickly to teaching than the single-seater pilots. In a P-3 *Orion*, for example, says Lieutenant Rick Cernohorsky at VP-28, you're constantly going through a training phase, either learning as the second or third pilot, or teaching and learning as the PPC (primary plane commander). You're used to having someone else in the cockpit, if nothing else."

Some instructors have already had experience teaching in other fields. Lieutenant Robert Leninger, for example, had taught skiing. "I already knew I enjoyed being a teacher, and I don't regret at all this being my first choice of duty."

In time past, there was a feeling among some aviators that a tour of duty as an instructor pilot was a holding pattern in the career ladder, if not worse. That feeling has changed. Marine pilot Captain Thomas Koger is a former SERGRAD who has returned for a second tour of duty, this time with VT-24. "I'm not worried about it affecting my career one way or another," he states. "I work on the theory that if you take the job they give you and do it well, the recognition will come."

Lieutenant Brick Nelson, a landing signal officer with VT-22 remembers, "My initial reaction on getting orders here was that it might be a disadvantage in terms of career advancement, but I think the importance of training the next generation of Navy pilots is being realized."

The SERGRADS are almost unanimous in their feeling that the tour as instructor pilots can only help their careers. The fact that approximately 94 percent of them are getting not only the aircraft they want on leaving instructor duty, but the location as well, is hard evidence. Ltjg. Rumble of VT-31 will be transferred this summer after a tour of duty as an instructor pilot. "I got exactly what I wanted," she says, Fleet Air Reconnaissance Squadron Three at NAS Barbers Point, Hawaii.

Ensign Ted Houck, a SERGRAD at VT-25, voices the feeling of most of the Selectively Retained Graduates. "I don't feel for one minute that anyone will leave a tour of duty here saying, 'I didn't get anything out of it.' "

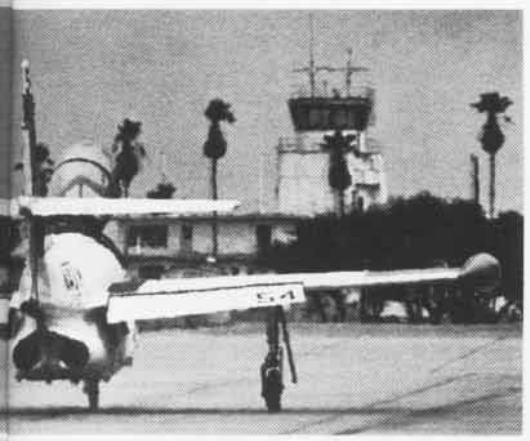
Cdr. Meneeley is a big man who leans back in his chair with the air of someone who is still flying, and his dedication to teaching several generations of Naval Aviators is more than lip-service. He speaks of patriotism, loyalty and the future with ease. "We're part of a national commitment," he says. "This is where tomorrow's Naval Aviation is coming from."

His executive officer Commander Kenneth Carlton adds, "We're looking for people who want to instruct and who realize that the product which comes from here may be flying on his wing one day. Quality instructors build quality pilots." ■

JOC Kirby Harrison

A T-2 Buckeye jet exhaust blurs the flight line and tower at NAS Kingsville. Below, the T-head piers on the Corpus Christi waterfront are part of a pleasant Gulf of Mexico scene familiar to Navy people stationed at the nearby air station.

Courtesy of Blackwell Photography



THERE IS LIFE IN SOUTH TEXAS

By JOC Kirby Harrison

So you just got orders to duty in South Texas and you can't even find a place called Beeville on the map. Your buddy, who would look at the negative side of winning the Irish Sweepstakes, is making vague references to life in the desert, and the only thing you can remember about Texas is that J.R. rose from the dead in Dallas. You're feeling so low that you could sit on a dime and dangle your legs.

Cheer up. Contrary to the television image, South Texas isn't desert. In fact, the Naval Aviation training triangle formed by NAS Corpus Christi, NAS Chase Field, Beeville, and NAS Kingsville, is a green, well-tended farming area with mild winters. The summers are made for the miles of public beach along the Gulf of Mexico, and a steady breeze makes even the hottest days liveable.

"The nice thing," according to instructor pilot Lieutenant Doug Payne of Training Squadron 23 at Chase Field, "is that they [the civilian community] don't just *tolerate* the Navy here. You get the impression they *want* us here."

"I believe the Navy is a sort of insurance policy," says Beeville Navy League Secretary and Executive Director of the Chamber of Commerce Wilson Clark. "I hope we won't need to use it, but it makes me feel good to know it's there. We're happy with the Navy and we think the Navy's glad to be here." *(Continued)*

Linda Burgess of the Kingsville Chamber of Commerce agrees. "The rapport between the Navy and the community is really very good." She points out as an example the Navy's participation in the town's anniversary celebration July 4. Kingsville, founded in 1904, is this year's nominee as Main Street, USA, and the Navy is coordinating its annual Navy Relief Festival with the anniversary event.

In Corpus Christi the atmosphere is much the same. The air station organizers estimate that more than 100,000 visitors viewed the open house Navy Relief Festival in April. That isn't a bad turnout, says Corpus Christi Chamber of Commerce spokesperson Chris Garcia, who explains that the population of the city is only a little less than 250,000. In turn, the city's Buccaneer Days organizers expect thousands of persons from the Navy community to attend that 10-day celebration.

At Beeville, the Navy League organized a Navy Appreciation Day three years ago, hosting as many as 1,500 Navy personnel and their families at a giant, outdoor barbeque. "We feed 'em and furnish the beer," says Beeville's Clark. "We just want the entire Navy community, especially the enlisted folks, to know we're glad they're part of this community."

A VT-27 student prepares for a T-28 flight.

In typical Texas fashion, Clark added, "You tell people in the Navy that if they don't like it anywhere else, come on down to Beeville. We'll treat 'em so many different ways they'll just have to like one of them."

There are other events even more unique to South Texas that a Navy man or woman may want to consider. County fairs and rodeos are distinctly western in flavor, especially the Mexican food, and Texas chili which rumor has it can light a fire rivaled only by a *Tomcat* afterburner.

JO2 Ed Preston and SN Julie Thorsten smile at the end of a 1.5-mile run.

A spectacular sight, at least in scope, is the King Ranch, the largest in the world. How large is it? Burgess of Kingsville laughs. "Try South Texas," she advises, adding more accurately that it is 823,000 acres. That's 1,285 square miles, a few cattle larger than the State of Rhode Island. The 12-mile public tour loop is considerably smaller but the local community can get a more intimate look during open house events like the annual benefit barbeque.

For those with a taste for adventure, there are numerous rattlesnake roundups. And if you enjoyed the roundup, don't miss the rattlesnake races. Says one pilot who went on his first roundup this spring, "I feel a lot safer walking around the fields here than I did walking some of the big city streets back east."

Lieutenant Commander Ron James of VT-23 emphasizes that being stationed in South Texas and being active outside the job means ". . .you have to entertain yourself. It's not a place for spectators who are used to buying a ticket, sitting down and being amused.

"The first thing that struck me about this place was that everyone was incredibly friendly, and how easily people here accept the Navy into local organizations."

Lieutenant Commander Robert Leninger of VT-28, who met his wife while a student at Corpus Christi, is one of the pilots whose activities take them *off* the station to continue doing what he does *on* the air station. Leninger is an active member of the Corpus Christi Radio Control (model plane) Club. "I've made some terrific friends here," he says.

According to Lieutenant Craig Luigart at Training Air Wing Four in Corpus Christi, an increasing number of Naval Aviators are discovering the growing ultralight aircraft organizations. One ultralight group offers a course in flying the craft to Navy pilots and students for $50. Rental of the ultralight aircraft is restricted to those who have completed the course and, considering the normal instruction/solo rate of $200, $50 is a bargain. Lt. Luigart admits, "Rumor has it that some of the students here qualified in an ultralight before they soloed in the T-28 [in primary training]. These are guys who really want to fly."

For those who think of South Texas as arid, take a look at the hundreds of miles of beach that stretch from Mexico to Louisiana. "I like to fish, and if there is anything they've got a lot of here, it's water," says a VT-28 instructor. Fishermen won't have to travel far from home if they're stationed at Corpus Christi. There are lighted fishing piers at the air station, and special services runs a fishing charter boat. Water lovers who prefer their boats under sail will find one of the largest catamaran fleets in the southern U.S. in Corpus Christi. Both the Buccaneer Days and Bayfest celebrations feature numerous regattas for boats of all classes.

Hunters whose game is on the wing can find sport in looking for duck and white-wing dove. And they may be pleasantly surprised to find that more turkeys are bagged every year in Texas than in the rest of the U.S. combined.

In the fleet or in the training command, careful preflight is required.

If you'd rather pull the trigger on a camera than a gun, try the 47,261-acre Aransas National Wildlife Refuge, home for the rare whooping crane. At the Rob and Bessie Welder wildlife refuge, bird watchers have counted as many as 400 species of birds on the 7,800-acre tract.

"Everything isn't outdoors, however," points out Corpus Christi's Ms. Garcia. She mentions specifically the city's symphony and theater playhouse, and art and science museums. If that isn't enough, Austin and Houston are both less than two hours from Kingsville, Beeville and Corpus Christi. "Austin and Houston are both large metropolitan areas with all anyone could ask for," she says.

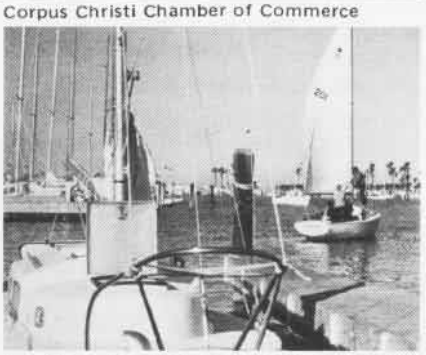
Two hours to the south one can enjoy an afternoon, or longer, in old Mexico. The growing town of Reynosa is just across the Rio Grande, and Monterrey is 145 miles further. South Texas is nearly bilingual, with about 50 percent of the population of Mexican heritage. The John E. Conner Museum in Kingsville is an educational and entertaining showcase of Mexican influence on the area, and also features shows on wildlife, marine biology and local art.

Educational services are not lacking in the area. Texas A&I University at Kingsville with 8,000 students, offers a wide range of day or night courses. Corpus Christi State University is just outside the air station north gate in Corpus Christi. A few minutes further up the road is Del Mar College. Del Mar, a two-year college offering an associate degree program, and Corpus Christi State with a sophomore/senior curriculum, and bachelor and graduate degree programs, both consider themselves community colleges. "In fact, the average age of students at the two schools is somewhere in the late 20s," says Ms. Garcia.

The elementary and secondary school systems in South Texas are considered by families in the area to be of high quality. "I think they're comparable to schools anywhere in the U.S., and in many instances a damn sight better," says Wilson Clark.

Lieutenant Commander Jack Boniface of VT-31, on a second tour of duty at Corpus Christi, points out that 15 of the 29 instructors at the advanced multiengine prop training unit are working on a masters degree program, "either through Texas A&I or Corpus Christi State."

Corpus Christi Chamber of Commerce



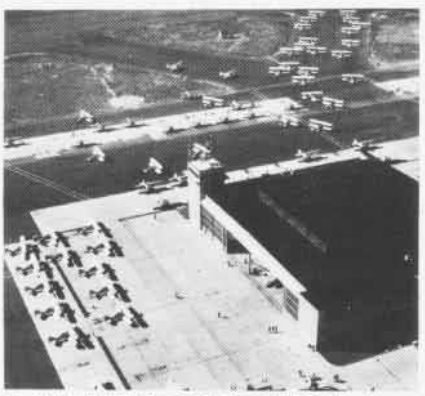
A sailboat gets underway in the yacht basin at Corpus Christi.

Lt.Cdr. James is quick to defend life in the South Texas area for Navy personnel and families assigned to any of the three air stations. Previously deployed to NAS Sigonella, Sicily, he remembers receiving orders to NAS Kingsville. "When people we knew found out, they would sympathize and feel sorry for us, and I'd tell them, 'You don't know what isolation is if you haven't been to Sigonella.'

Ltjg. Robin Rumble, a SERGRAD with VT-31, says instructor duty at NAS Corpus Christi was exactly what she wanted.

"Then I remember flying in the Mediterranean, and how I'd be sitting outside the Navy Exchange in Rota, Spain, listening to someone talk about how they would like to be stationed someplace else. The next day, I'd be in Naples, or Greece, listening to the same story from someone else. You'd have thought it was the same person.

"The point is," he explains with a grin, "where you're stationed is only as good or as bad as you let it be. And that includes South Texas." ■



In the old days at Corpus Christi, primary trainers roll out for takeoff.

The Best in the Business

CNATra Instructor of the Year

By Commander Howard Wheeler

If the Naval Air Training Command were to produce its own *That's Incredible* show, undoubtedly the first story would be about the 1981 winner of the David S. Ingalls Award – Flight Instructor of the Year.

The recipient is Captain John R. Taxeras, USMC, who is an advanced helicopter instructor pilot at Helicopter Training Squadron Eighteen (HT-18), NAS Whiting Field, Milton, Fla.

A look at Capt. Taxeras' activities both on and off duty over the past year gives a clear picture of why he was selected over 1,200 other instructor pilots as the best and most productive flight instructor in the entire Naval Air Training Command during 1981.

When asked about the award and how he earned it, he spoke like a man who had his life sorted out. He knew where he had been and where he was going. "When I came to Pensacola," he said, "I had one goal in mind and that was to fly. I had a number of assignments in the fleet that precluded my getting the flight time I wanted. So, when I came here, I was determined to make up the difference." And fly he did!

During 1981, Taxeras logged 834 accident-free instructional flight hours and completed 471 of 483 (97%) scheduled flight events. In addition to those hours, he logged 305 instructional hours in the 2B18 synthetic instrument trainer.

Marine Capt. John R. Taxeras (above and right) begins the day by preflighting his H-1 Huey at HT-18, NAS Whiting Field, Fla.

Although he had approached the job thinking that being a flight instructor might not be his cup of tea, there was a surprise in store for Capt. Taxeras when he took up his duties with HT-18. "I discovered that I had a knack for instructing although I had never taught before. I felt I was a competent aviator and the job boiled down to passing on what I knew to my students in a manner they could quickly grasp. I went at it like I had a vested interest because I knew I would be sharing the same airspace out in the fleet with them some day, perhaps even the same cockpit.

"I got to the point where I enjoyed it more and more, and I just kept on flying. The more I flew, the more proficient I became and the more hours I got," he said.

Even with a full daily instruction schedule, he found he had time to become involved in other facets of training squadron activities. "I got involved in the development of

Photos by PH3 Dennis Spotts

the tactics package we were putting together and the new syllabus for the H-57," he recalled. He also became a standardization pilot, which added to his flying duties and his experience. "Before I knew it, I had exceeded my own goals," he said.

The commander of Training Wing Five, Captain J. P. Smith, put it this way, "Capt. Taxeras' 1,145 total instruction hours in support of the training syllabus are a truly exceptional accomplishment. They are even more impressive when it is recognized that he uses his skills to get the most out of those hours in instructional value and in motivating his students to put forth their best efforts."

Early in Capt. Taxeras' tour he did not give much thought to becoming instructor of the year but that changed when he realized that he was a serious contender. "I just continued to march when I realized that I had a shot at it," he said.

He pointed out that the opportunities to amass a great deal of flight time and experience are even greater today than when he first arrived. "There are a bunch of high rollers here and they are getting flight time that makes me look like I am dragging my feet. There are instructors who have logged the same number of hours in six months that I earned in eight."

The flight instructor tour has been a good one in many ways for Taxeras. He has a number of irons in the fire besides those which involve his work as an instructor. He and his wife Brenda bowl and play softball regularly. He is an active leader in the Santa Rosa County 4H Club and teaches wood-working skills to area young people. Recently, the Taxeras' sponsored a Swiss student as part of an international foreign youth exchange program. And what does Capt. Taxeras do in his spare time? He goes to school two nights a week.

Capt. Taxeras is currently working on a masters degree in management science from Troy State University. He thinks flight experience and his professional duties are of primary importance to career development but he feels graduate education is also a definite plus. "Squadron scheduling is flexible enough," he says, "so I can fly two or three hops early each day and still have time for classes." Typically, the classes go from 4:30 to 8:30 p.m., two nights a week for ten weeks.

Staying in shape hasn't been a problem either. Taxeras enjoys running enough to have entered the 1981 Marine Corps marathon in Washington, D.C., and looks forward to participating in the race again this year. He runs 10 kilometers regularly just to stay in condition.

He summed up his outlook this way, "I like the challenge of teaching somebody how to fly. I am not a teacher but I think I have learned to do a reasonably good job. I am here because I want to fly, and to make the most of this tour. And that's what I've been doing." ■

T-28 Spans the Generation Gap

By Commander Howard Wheeler

This is a story about an aircraft and a couple of Naval Aviators who flew it.

The T-28 trainer aircraft has become a legend in its own time. It is a taxpayer's dream, having aged gracefully over the years and having enjoyed a full and rewarding career that spans more than three decades of active service. And, that career isn't over yet.

Commander Doug McWhorter, assigned to the Chief of Naval Aviation Training staff at Corpus Christi, says of the T-28, "I just love the sound of that old bird. Most of today's generation of Navy pilots acquired their basic skills in that airplane and have fond memories of it. I'm sure they feel the same way I do about it."

Out on the flight line they call the T-28 "the old oil hog" or more often just "the hog." But despite such references, pilots know that it is a good instructional aircraft, big and powerful enough to provide the right kind of flight experience, yet tolerant of what might otherwise be fatal mistakes in other aircraft types.

Captain William B. Nevius, USN(Ret.), has good reason to remember one of these aircraft in particular. As a lieutenant junior grade in 1955, he was a flight instructor with Advanced Training Unit 803, NAS Corpus Christi, racking up flight time and enjoying his work.

It was on April 13 of that year that his first child was born. Capt. Nevius also remembers that it was a period of heavy flight scheduling with a large backlog of students. There was not much time for this hard-charging instructor to sit back and contemplate his new role as a father. In fact, on the day he brought his wife and infant daughter Colleen home from the hospital, he had already flown a couple of hops. His logbook shows that the T-28 he flew that day was bureau number 137648.

With a satisfying career and growing family, the years seemed to slip by quickly. His family did not stop growing until it leveled off at six – four girls and two boys.

But there was something about that first child. As she grew, learned and matured, the girl and her dad developed a close father-daughter relationship. During Colleen's preteen years, they talked a great deal about flying and the Navy.

Colleen remembers those talks well. They were her introduction to the world of the Naval Aviator. When the Naval ROTC Scholarship Program opened up to women, she applied for admission to Purdue University and became one of the first women accepted into the NROTC program. Upon graduating in 1977, she was commissioned an ensign. About the same time, the Navy made Naval Aviation training available to women and again she jumped at the chance.

Ensign Colleen Nevius commenced flight training in Corpus Christi that year. She did her primary and advanced training in the T-28 and went through the helicopter pipeline. On the first day of February 1979, a proud father pinned his Navy wings on an equally proud daughter. Then Ens. Nevius went off to her first tour of duty with Helicopter Combat Support Squadron Six at NAS Norfolk.

Capt. William B. Nevius (above left), now retired, and his daughter Lt. Colleen Nevius both flew T-28 BuNo 137648, 23 years apart. Below, the same T-28 is still in service at VT-27 in Corpus Christi, shown here getting new paint and minor maintenance.

When Naval Aviators get together, the conversation almost always drifts around to airplanes and flying, and it is no less true when the aviators are father and daughter. On one recent occasion, the logbooks were brought out and poured over with interest.

To their surprise they discovered that Colleen had soloed the same T-28 her father had flown exactly 23 years earlier on the day he brought her home from the hospital at Corpus Christi. Examining the logbooks further, they discovered that Colleen had flown nearly a dozen of the same T-28s her father had piloted during his tour as a flight instructor in the mid-1950s.

When asked about the T-28 and her flight training experiences, Colleen recalls, "It was an incredible workhorse. At the time I went through the program, they were planning on phasing out the T-28. I've even got a coffee mug that says 'The Last of the *Trojan* Drivers' on it. I was pleased to be in on the tail end of that era. They told me that three years from the day I started in 1977 there would be no T-28s left flying. I guess they were wrong."

Despite predictions to the contrary, the T-28s are still serving. Bureau number 137648 is assigned to VT-27 at NAS Corpus Christi and is in its twenty-ninth year of continuous service. Capt. Nevius flew it during its first tour, Colleen flew it on its eighth tour when it had some 16,000 hours, and it is presently approaching 18,000 hours.

According to Cdr. McWhorter, the T-28s will remain in use at least until the winter of 1986. It is likely that bureau number 137648 will break 20,000 hours of flight time before it is finally put out to pasture. ■

Lieutenant Nevius has orders to the Naval Test Pilot School, NAS Patuxent River, Md. She is one of thousands of Naval Aviators who will always think of the T-28 Trojan with lasting affection.

JOC Kirby Harrison

naval aircraft

By Harold Andrews

Student Naval Aviators today receive their primary training in one of the newest aircraft currently in Navy service — the Beech T-34C *Turbo-Mentor*. Fitted with a P&W PT-6 turboprop engine, it is an ideal trainer leading to either strike (jet), maritime (multiengine) or rotary-wing (helicopter) pipelines, all turbine-powered. Most students and instructors flying these aircraft are probably unaware that the *Mentor* basic design is considerably older than they are. Nearly 34 years have elapsed since the first *Mentor* flew.

Conceived as a potential military primary or two-place civilian trainer, several YT-34s were initially tested by the U.S. Air Force. In 1950, the T-34A became the Air Force's primary trainer.

The Navy began its search for a primary trainer in 1953, evaluating three proposed aircraft, the Temco *Plebe*, the Beech *Mentor* and the Ryan *Navion*, before selecting the T-34B. For two decades, beginning in 1955, the T-34B *Mentors* were the Navy's principal primary trainer (*Naval Aviation News*, January 1973, pp. 20-21). Some still serve as indoctrination aircraft for potential student Naval Aviators, and many are surplus T-34s used by various flying clubs.

By the late fifties the need for a turbine-powered primary trainer was apparent. However, evaluation of a small number of Temco TT-1 jet trainers in this role determined that jets were not cost-effective and the T-34Bs continued in service.

In 1973, another search was undertaken and plans were made to develop and evaluate two T-34Bs modified with P&W PT-7 turboprop engines and other design improvements including cockpit air conditioning. With essentially double the power of the T-34Bs, the two YT-34Cs presented a considerable engineering challenge. Following flight development, they were judged as meeting the Navy's needs cost effectively. The first 18 production T-34Cs were ordered in 1975.

Early flights revealed problems within the greatly expanded flight envelope of the new *Mentor* and deliveries for BIS trials and service use were delayed until late 1977. With correction of the problems, the T-34Cs delivered are serving the training command well.

Along with the T-44s, T-2s, TA-4s, TH-57s and TH-1s, the T-34Cs are the newest aircraft in the Navy's efforts to have an all-turbine-powered fleet in Naval Aviation training. A long life, probably at least equal to that of their T-34B predecessors, can be expected. The success of the Navy version has also led to export sales of similarly powered *Turbo-Mentors*, including some equipped with armament as very light attack aircraft. The *Mentor* design has come a long way from its beginnings.

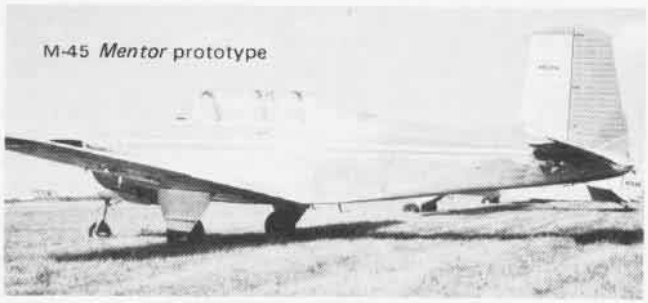
Plebe, Mentor, Navion

Turbo-Mentor


T-34C

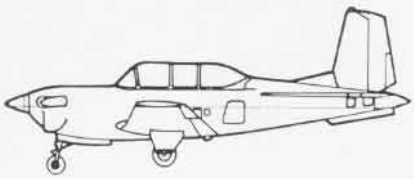
T-34B

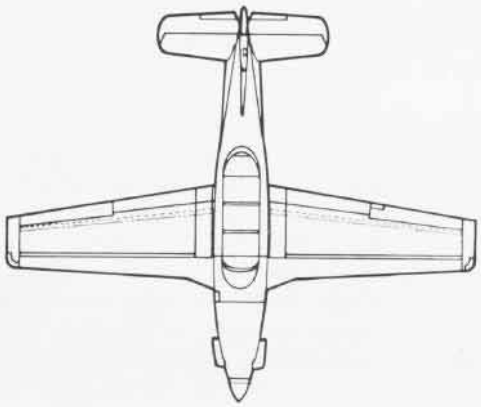
YT-34


M-45 *Mentor* prototype

T-34C

Span	33'6"
Length	28'9"
Height	9'7"
Engine	715-shp P&W PT6A-25 turboprop
Maximum speed	246 mph
Service ceiling	30,000'
Maximum range	1,000 mi.
Crew	One instructor, one student





F-8

A flight of F-8Es (F8U-2NE) from VF-11 during a 1962 deployment on board USS Franklin D. Roosevelt (CVA-42). Opposite page, two F8U-1s from VF-124 fly over San Francisco in the early 1960s.

Last of the Crusaders

Story by Captain Thomas C. Irwin, USNR-R

Light Photographic Squadron Sixty-Three (VFP-63) was disestablished at NAS Miramar, Calif., on June 30, 1982. It was the active Navy's last F-8 squadron and gave witness to the transition of the* Crusader *to the Naval Air Reserve. VFP-206 and VFP-306 at NAF Washington, D.C., are flying the Navy's remaining F-8s.

This is the story of that great and gallant fighter.

The Fighting Crusader

A new breed of war bird joined the other denizens of the skies on March 25, 1955. It's an old breed now and was recently retired from the active fleet.

When it was young it was a fighter, faster than anything the Navy had at the time. It was Chance Vought's bird, the *Crusader*, its response to the Navy's call in 1952 for a new carrier-based supersonic fighter.

The first *Crusader*, the XF8U-1 prototype, flew from the Muroc dry lake bed at Edwards Air Force Base with Vought's chief test pilot John W. Konrad at the controls. He flew the plane for 52 minutes, easily passing Mach 1 in straight and level flight. Flying at supersonic speeds on a first test flight had never been attempted before with a new aircraft, but it proved the confidence Vought had in the initial design of the plane. It was evident from the beginning that the *Crusader* was an exceptional aircraft, and the 1957 Collier Trophy was awarded to the Navy and Chance Vought jointly for its design and achievements.

The first production F8U-1 took to the air in September 1955 and completed carrier qualifications aboard *Forrestal* by April 1956. As testing progressed, records began to fall as the *Crusader* racked up a flock of firsts.

On August 21, 1956, Commander R. W. "Duke" Windsor captured the Thompson Trophy when he flew a production F8U-1 over a 15-kilometer course at China Lake, setting a new speed record of over 1,015 mph.

The same year in December, VX-3, skippered by Captain Robert Dose, received the first *Crusader* at Atlantic City, N.J. The first operational squadron, VF-32, took delivery of the *Crusader* at NAS Cecil Field, Fla., on March 25, 1957, exactly two years after its first flight. Commander Gordon Buhrer was then the squadron C.O.

On June 6, 1957, Capt. Robert Dose and Lieutenant Commander Paul Miller completed the first coast-to-coast, carrier-to-carrier flight, launching from *Bon Homme Richard* off the coast of California and recovering on *Saratoga* off Florida.

The following month, Major John H. Glenn set a coast-to-coast speed record in an F8U-1P, a photoreconnaissance

Capt. Irwin flew the Crusader *from 1964 through 1979 as a member of VF-24, VF-124, VF-34W2, VFP-206, and finally as C.O. of VFP-306. He is now a pilot for TWA and, as a drilling reservist, is assigned to OP-506.*

version of the *Crusader*, flying from NAS Los Alamitos, Calif., to New York's Floyd Bennett Field in 3 hours, 23 minutes. His average speed was 725 miles per hour, exceeding Mach 1.

The *Crusader* operated in a hostile area for the first time in February 1958 when VF-32, aboard *Saratoga* on the first operational deployment of the aircraft, flew over Lebanon during the Mideast crisis. VF-32 was later replaced on station by VMF-333, flying F8U-2s from *Forrestal* on the Marine Corps' first F-8 carrier deployment.

That same month, VF-154 under Commander Francis Timmes and VF-211 under Commander D. C. Davis were the first West Coast squadrons to receive the F-8. VF-154 and its *Crusaders* deployed first, joining the Seventh Fleet in the Pacific aboard *Hancock*.

An F-8A arrested landing and catapult launch aboard *Enterprise* on January 17, 1962, by CAG-1 Commander George C. Talley, marked the start of the first nuclear carrier's air operations.

But all this couldn't have happened without a sound training program.

The first F-8 training was conducted at the Chance Vought plant in Dallas, Texas, in October 1956. The class included Lieutenant Thomas B. Hayward (later CNO) from VF(AW)-3. Elements of that squadron and VF-53 combined to form VF-124 in 1958 as the West Coast's replacement training squadron at NAS Moffett Field, with Cdr. Timmes at the helm. In March 1959, it became the first F-8 squadron to exceed 1,000 hours in one month.

On the East Coast at NAS Cecil Field, VF-174 became the home of F-8 training and by 1961 it had as many as 40 aircraft aboard.

VF-124 moved to NAS Miramar in June 1961, as part of the base loading concept, which concentrated all fighters at one base on each coast. There it became known as the *Mutha* squadron, finally assuming all responsibility for F-8 training when VF-174 transitioned to the A-7A in July 1966. VF-124 received the first F-8C in April 1959, the

F-8s: As to Js

Variable geometry wing design is one of today's aerodynamic solutions to the problem of building a fighter that will fly well at both subsonic and supersonic speeds. During the F-8 era, the problem was dealt with differently.

The design of the *Crusader* was radical considering the state of the art of the time with its two-position, variable-incidence wing. Raising the wing to its cocked-up position for takeoff and landing also droops the full span leading edge and the ailerons which act as flaps. The result is increased wing camber, slower approach speeds and improved over-the-nose visibility. Never let it be said that F-8 pilots don't have a sense of humor. A favorite trick of F-8 drivers was to lower the wings and fold them at the same time while pulling into the chocks after a mission. The sight of all those control surfaces moving at once would stop people in their tracks, particularly on cross-country stopovers at airfields where personnel were not familiar with the F-8.

The F-8s were powered by various models of the Pratt & Whitney J57 turbojet engine. Maximum (afterburner) thrust improved from the 16,000 pounds of early models to the 19,500 pounds of the P420 engine of the last models. The basic dimensions of 54 feet, 6 inches long; 15 feet, 9 inches high; and wing span of 35 feet, 8 inches varied slightly in the different models. But, like the pilots who flew it, with time the weight gradually increased. In the case of the F-8, however, the added pounds were due to modifications and changes to the airframe.

All F-8s, except the RF-8s and TF-8A, had four 20mm guns. The F-8A, B and C models had retractable rocket packs in the lower fuselage, aft of the nose wheel well holding 32 2.75-inch folding fin rockets. This system eventually was discontinued. A "Y" pylon on the fuselage missile stations eventually made it possible to carry two more *Sidewinders*, for a total of four. F-8E and later models had wing stations which increased the aircraft's capabilities to include air-to-ground attack roles.

With each change came improvements and by the time the last production F-8E came off the line, it was capable of speeds near Mach 2.

Like all new aircraft, the *Crusader* had growing pains. At

Original Designation	Number Built	1962 Designation	Number Remfg.	Post Remfg. Designation
XF8U-1	2			
F8U-1	317	F-8A		
F8U-1P	144	RF-8A	73	RF-8G
F8U-1T	1	TF-8A		
F8U-1E	130	F-8B	63	F-8L
F8U-2	187	F-8C	87	F-8K
F8U-2N	152	F-8D	89	F-8H
F8U-2NE	286	F-8E	136	F-8J
F8U-2NE(FN)	42			
Total	1,261		448	

Of the 1,261 built, the last were 42 F-8E (FN)s for the French Navy.

In 1978, the Philippine Air Force purchased 25 F-8Hs which were in storage at Davis Monthan AFB. The planes were shipped to the high bay at the Dallas LTV plant, where they were completely rebuilt and flown to San Diego for sea shipment to Luzon.

Reserve F-8A Crusaders make touch-and-go landings at NAS Dallas. The Navy's only remaining F-8s are presently flown by VFP-206 and VFP-306 at NAF Washington, D.C.

the beginning, oversensitive pitch control caused excessive airframe stresses during factory testing, which resulted in the loss of one aircraft and its pilots. It was evident that considerably more precision was needed in the *Crusader* to make good carrier landings.

Chronic landing gear strut failures made it necessary to move the accumulators for the flight control systems out of the main landing gear shock struts, with which they had been combined to save weight. Eventually, the airframe backup structure was strengthened and stronger landing gear struts were installed.

The approach power compensator (APC) was developed to reduce pilot workload during approaches. It used angle of attack to compute throttle setting to maintain proper approach speed and, later, added UHT movement and vertical acceleration inputs. By mid-1964, the use of the APC was taught as the primary mode of carrier approach.

Prior to entering a spin, the *Crusader* would depart normal flight by swapping ends a few times. Holding all flight controls neutral except a little forward stick, the pilot had to wait for a spin to develop before commencing recovering procedures. Recovery required extension of the leading edge droop using the emergency system to the landing position which limited air speed for the rest of the flight because it could not be retracted. A modification in the 1970s solved the problem by allowing hydraulic lowering and retracting of the droop edge during spin recovery.

All flight controls were moved by tandem actuators which used pressure from two separate hydraulic pumps. With no mechanical back-up system, simultaneous loss of both systems caused an immediate and violent pitch-over. Modifications provided a slow bleedoff of hydraulic pressure and a UHT locking capability. Putting the rudder on the utility hydraulic system permitted limited steering, enough to allow flight at least to a safe ejection area.

The pneumatic motor that fed the 20mm guns was driven by air pressure from the emergency pneumatic system, which also powered the emergency landing gear extension system. Leaks frequently developed during or even before firing, causing the gun system to fail. To improve reliability, separate charging switches for the upper and lower guns modified the system to isolate the pairs and air leaks. An adequate supply of air pressure for emergency lowering of the landing gear was assured by system design.

A remanufacture program from 1967 through 1969 extended the service life of the F-8. It transformed the F-8B, C, D and E, into the F-8L, K, H, J, and the RF-8A into the F-8G (see chart).

Load-carrying capability was increased, new wings were installed, landing and arresting gear was improved, the external starter turbine was incorporated internally, radar was improved, and ECM and armor protection provisions were installed. In the F-8J, boundary layer control was added, along with a double drooped wing leading edge similar to the system in the French version of the airplane. This reduced the approach and catapult end speed requirements by almost 10 percent. To improve directional stability at high speed, ventral fins were added to those models which did not originally have them – the F-8L and RF-8G.

In all, 448 aircraft were remanufactured, the largest number being the F-8J.

During flight operations at sea, a Crusader is about to catch the carrier's arresting gear wire.

first F-8D in October 1960, and the first F-8E in 1962. The last fleet F-8A left VF-124 for long-term storage at Litchfield Park in March 1964, and the squadron received the last production F-8E that September.

RF-8A/Gs operated by Navy and Marine squadrons on both coasts were typically deployed with carrier air wings as detachments. These aircraft, the photoreconnaissance versions of the *Crusader*, played an important role in the Soviet/Cuban missile crisis of 1962, when pilot and photo-interpreter teams from VFP-62 and VMCJ-2 combined to fly high-speed photoreconnaissance missions over Soviet missile sites in Cuba. Presidential citations were awarded for

PH2 T. Staley

An F-8H comes in for a recovery on the flight deck of USS John F. Kennedy (CVA-67) in 1971.

the role they played in supporting American actions during that crisis.

VFP-63 later provided detachments for both the East and West Coasts after VFP-62 was decommissioned in 1968 and assumed the duties of "Crusader College" when VF-124 transitioned to the F-14 *Tomcat* in 1972.

The high-time year for the F-8 was 1964 with 230,570 hours flown and 41,799 carrier landings. As squadrons thereafter began transitioning to the F-4, the F-8s were slowly replaced on all but the 27C aircraft carriers (Ships that received the 27C modification had axial deck modernization.). Except for RF-8G detachments and VF-154's last F-8D deployment in *Coral Sea*, all Navy F-8 flying in Vietnam was from the smaller decks. Both fighter and photo Marine F-8s were based at Danang and occasionally aboard ship. The ship-based F-8s were used primarily for combat air patrol but also regularly flew photoreconnaissance and photo escort, flack suppression and bombing missions.

It was in the air superiority role, however, that the F-8 excelled. Eighteen North Vietnamese MiGs were shot down by F-8s, the first by Commander Hal Marr, C.O. of VF-211, on June 12, 1966. The F-8 emerged with a 6.3:1 kill ratio, the highest of any aircraft in the conflict. In his book *MiG Master: F-8 Crusader*, Barrett Tillman vividly describes all the F-8/MiG engagements. No one pilot got more than one kill in the F-8. But Air Wing 21, with VF-24 and VF-211, accounted for more MiG kills than any other Navy air wing and *Bon Homme Richard*, hosting two different air wings, more than any other carrier.

East Coast fleet F-8 activities ended in October 1969 when VF-13 and VF-62 were disestablished.

Navy and Marine Corps reserve units received F-8s as newer models arrived in the fleet, and operated them from five naval air stations. In March 1968, three of these F-8 squadrons were activated during the USS *Pueblo* incident.

When the Reserve Force squadron concept was introduced in 1970, four VF, two VFP and two VSF squadrons were established – with F-8Hs, F-8Js and RF-8Gs. However, by the time VF-191 and VF-194 returned from the last F-8 cruise in *Oriskany*, they were the last U.S. Navy operators of the fighter model. They flew their last F-8Js in March 1976. *Crusaders* are still flying in the French *Aéronavale* and in the Philippine Air Force.

The RF-8G photoreconnaissance *Crusader* remained in fleet service until last month when VFP-63 was disestablished, leaving reserve squadrons VFP-206 and VFP-306 at NAF Washington, D.C., as the last operators.

From 1957 through mid-1982, the Navy and Marine Corps flew the *Crusader* some 2,360,000 hours and made more than 385,000 landings.

The F-8, once a familiar sight at American military air facilities around the world, is now most often seen on static display at some of the same locations and aviation museums.

Its record of achievement will never be diminished as it moves from active service into retirement. It will always be the plane that moved Naval Aviation to the forefront of supersonic tactical flight. Those who flew the *Crusader* – loved it. Those who didn't – respected it. ■

1,000 hours and up in the Crusader

By 1960, several pilots were nearing the 1,000-hour mark in the F-8. Lieutenant Commander James B. Stockdale (later a POW who retired as a Vice Admiral) came in first in March 1960.

Lieutenant Commander Bruce Morehouse was the first of about 65 pilots to reach 2,000 hours.

Five F-8 flyers reached 3,000 hours, the first being Commander R. A. Peters in 1971, while C.O. of VF-191. He also had the most F-8 carrier landings with almost 800. Commander D. R. Morris was the second to attain 3,000 hours in 1972, while skipper of VF-24. He was followed in 1973 by his X.O. and MiG killer, Commander John B. Nichols III. The next year, Lieutenant Commander Jerry Unruh joined the group.

Commander W. F. Flagg was the last to reach 3,000 hours, in 1978, and is also the high-time pilot, with 3,272 hours in various models.

Everyone Flies at

By Jeanne Gray with Capt. R. W. Lloyd and Cdr. Rich Jaeger III

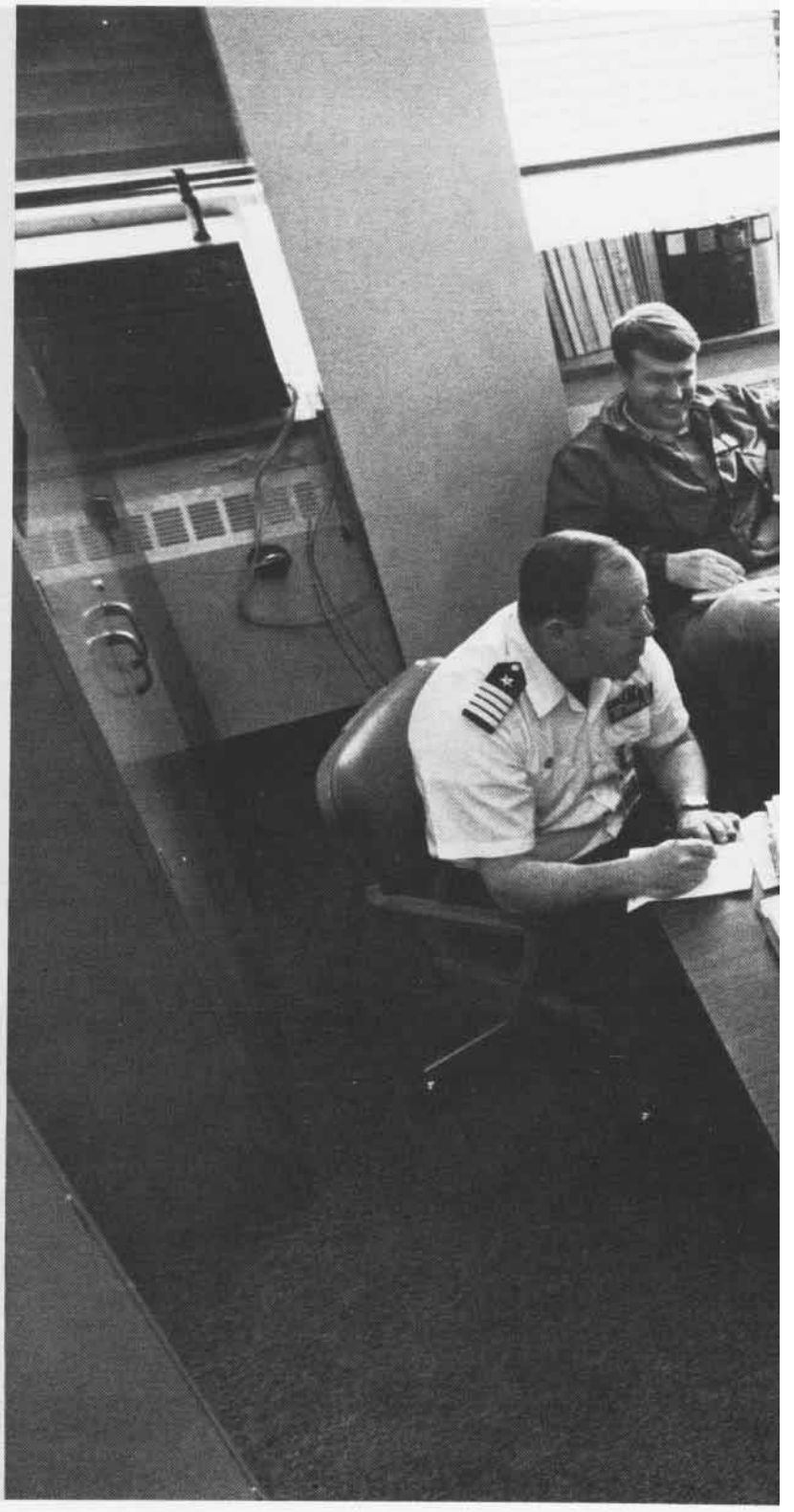
That's the word passed by commanding officer, Captain R. W. (Bill) Lloyd to his military flight staff.

With production in full swing, pilots and crewmen at the Sikorsky Naval Plant Representative Office (NavPro), Stratford, Conn., have their hands full.

The eight Navy pilots, including Capt. Lloyd, average in addition to their normal workload between 20 and 30 test flight hours each month regardless of weather conditions. The enlisted cadre consists of three Navy chiefs, one Marine Corps gunnery sergeant and two Army staff sergeants, some of whom carry the same workload as the pilots. At NavPro in the Sikorsky plant, it is the year of the helicopter and "everyone flies."

NavPro serves, under the control of the Naval Air Systems Command, as a link between the buyers of military equipment – in this case, the Navy, Army, Air Force, Coast Guard and NASA plus several foreign governments – and the government's selected manufacturer, Sikorsky Aircraft Division of United Technologies Corporation. Sikorsky is the largest helicopter manufacturer in the world with facilities located in southern Connecticut and West Palm Beach, Fla.

NavPro Stratford oversees the



Morning pilots' meetings at NavPro Stratford are common. Clockwise from left are Capt. Bill Lloyd, Lt. Jack Lewis, Lt.Cdr. Bob Spaulding, Cdr. Rich Jaeger III, Lt.Cdr. Terry Eargle, Cdr. Mike McNaull and Lt.Cdr. Steve Brust.

NavPro Stratford

administration of Sikorsky's government contracts, monitors and approves test flights, assists in production scheduling and provides on-site coordination in every area. It sets priorities and makes recommendations where conflicts exist.

A lot happens before NavPro pilots get their hands on a new aircraft. The process begins years before when the government first determines the requirements and specifications for an aircraft to be designed and built by a particular manufacturer, usually selected in open competition. Following approval and funding with participation by the sponsoring military service, the Department of Defense and both houses of the Congress, the government executes a contract with a manufacturer to build either a preproduction or prototype aircraft to meet the government's initial criteria. If all goes well, more funds are allocated to continue the project. The preproduction aircraft then goes through an extensive series of flight tests by both the contractor and government test pilots through Board of Inspection Survey (BIS) and structural demonstration trials. If the prototype meets expectations, another contract is awarded for full-scale production. The complete cycle from the initial concept through the preproduction phase to contract and testing of the production aircraft, according to the current system of military procurement, typically takes from eight to ten years to complete before deliveries are in full progress.

For example, the CH-53E *Super Stallion* was approved for development in November 1971, and the first production aircraft was delivered in December 1980. The SH-60B *Seahawk* development competition was won by Sikorsky in September 1977 and first production delivery is scheduled for April 1983.

Ideally, before the final production contract is awarded, all of the functions that will be the responsibility of the NavPro are spelled out in contract, and any special instructions pertaining to administration of the contract are contained in an accompanying letter. In reality, special instructions and peculiar program requirements usually surface throughout the duration of contract performance and require special handling and consideration.

Well before receipt of a contract for a new program, each functional division within NavPro is assigned responsibility for its particular portion of the program. A specific individual, along with assigned staff personnel, performs a continuing, in-depth contract review after contract award. A systematic evaluation of aircraft performance is an economical and effective method of identifying the contractor's compliance or noncompliance with the contract. The evaluation helps the analyst ferret out potential problems before they become contractual nonconformities. For example, an aircraft may have a hydraulic leak (according to NavPro, a brand new helicopter shouldn't leak even one drop an hour) or a panel that doesn't fit right. These small items could lead to nonconformance with the contract, so resolution will begin and continue until the problem is solved.

The NavPro's primary responsibility is to provide on-site assistance to the procurement contracting officer and the program manager in all functional areas, including engineering, quality assurance, property administration, production surveillance, flight acceptance, and the industrial security of procurement.

Tracking all the paperwork and the wide range of programs can be an awesome task. So, along the way, the work is shared by military and government service civilians alike. They make up a team that is responsible for providing on-site assistance in all functional areas. The functional areas are broken down into divisions and headed by government civilian employees.

In the contracts division, headed by Tom Altoonian, a contract specialist with over 18 years of experience, orders are issued for work to be performed by the contractor under the direction of Paul Sterling, a graduate engineer. The engineering division evaluates the contractor's engineering techniques, monitors and evaluates the contractor's progress in the developing program and reviews design changes in any existing programs. The quality assurance division under division director Don Schoen is responsible for determining that the contractor has a program which will ensure a product that meets all specification requirements. Production specialist, Sal Planeta, heads the production management division which sees to it that proper materials and state-of-the-art technology are applied during production. The industrial systems division, directed by Lou Zeolla, monitors production and costs, and prepares proposals for contracts while the administration division under Sandy Erskine handles support requirements.

NavPro personnel are the eyes and ears of NavAirSysCom's functional and program managers.

Capt. Lloyd and Commander Rich J. Jaeger III, X.O., participate in the flight acceptance program to the extent that the production schedule requires. It is not uncommon at NavPro Stratford to have one or more of the officers already flying before working hours in the morning and continuing to fly long after normal secure time. This is one reason why key civilian positions within the coordination offices are so valuable. Civilian personnel are proud of being part of NavPro Stratford and when asked "For whom do you work?" they reply, "Navy." Approximately 134 are spread throughout the Sikorsky facilities in support of NavPro.

The joint mix of enlisted personnel is made up of Navy chief petty officers AMCS Frank Vickers, AECS Jim Davidson, and ADCS Walt Kaare; Army SSgts. Ken Trickey and Glen Fulghum; and Marine GySgt. Chuck Lightle.

All eight Naval Aviators assigned to NavPro Stratford are actively involved in acceptance testing and support flight in five different types of aircraft currently being procured under contracts with Sikorsky. Because of the high level of Sikorsky production, everyone flies. The Naval Aviators wear two hats as production acceptance pilots and program coordinators in their respective areas.

While flying his quarterly standardization flight recently, Capt. Lloyd surpassed 4,000 helicopter flight hours. Although he is an aeronautical engineering duty officer (AEDO), Capt. Lloyd has continued as an active aviator. He currently flies the UH-60A *Black Hawk*, CH-53E *Super Stallion*, CH-54 *Skycrane* and SH-3/

VH-3 *Sea King* helicopters in performing his duties.

Cdr. Jaeger has over 3,000 flight hours and specializes in the *Black Hawk* and the SH-2F at Kaman Aircraft in nearby Bloomfield, Conn. Since reporting as X.O. of NavPro Stratford, Cdr. Jaeger has received orders to report to HSL-35 as Executive Officer in early 1983.

Commander Mike J. McNaull, as programs director, is responsible for overall coordination of specific government programs such as the CH-53E *Super Stallion*, UH-60 *Black Hawk*, SH-60 *Seahawk* and overhaul programs involving the SH-3H *Sea King*. Because of his background, he performs the additional duty as chief pilot for SH/VH-3 and eventually the SH-60B.

Lieutenant Commander Steve R. Brust is receiving training to qualify as a CH-53E production acceptance pilot. He recently reported from VR-24.

There are three aeronautical engineering duty officers assigned at NavPro Stratford in addition to Capt. Lloyd.

Lieutenant Commander Terry Eargle, a graduate test pilot with over 2,500 hours, is the government flight representative who functions essentially as an air operations officer. He is responsible for air field operations at three Sikorsky flight test sites, for government and company test pilot training qualifications, and for performance and flight test activities.

Program manager Lieutenant Commander Bob Spaulding oversees *Hawk* programs, including the Army UH-60A *Black Hawk*, Navy SH-60B *Seahawk*, and prospective Air Force HH-60 *Night Hawk*.

Lieutenant Terry M. Kupovits is a former Army aviator who received his wings in 1967. In 1975, he earned his Navy wings after completing Navy flight training. His first duty at NavPro was as program manager of the CH-53E with additional duty in the NavAir Project Office PMA-261. Recently he was reassigned as the assistant government flight representative because of the increased flying activity at the Sikorsky Aircraft plant. With his broad background as a military pilot with over 3,000 flight hours, he was one of the first two U.S. Navy pilots qualified in the production CH-53E, and has also qualified in the SH-3/VH-3 and H-60. Lt. Kupovits has recently been selected as an AEDO.

Lieutenant Jack R. Lewis is the in-house manager for the U.S. Army's CH-54A/B *Skycrane* overhaul program, and is currently the U.S. Navy's only CH-54 pilot. He is also qualified in the UH-60 *Black Hawk*. Lewis oversees not only the SH-3H conversion program for PMA-274 at NavAir, but also the spare parts production program.

The NavPro officers, with broad backgrounds and fleet experience, have become specialists and experts in their respective aircraft. Because of the multiple aircraft qualifications, quarterly standardization flights are required while training is continually conducted both formally and informally. Additionally, because of the limited number of pilots, they share copilot responsibilities. They take the lead in training by researching procedures, and studying design and associated problems related to the aircraft they fly. The demands placed on these pilots in many cases exceed those normally faced in the fleet because, in acceptance flight testing, so many things can go wrong. Although the aviators at NavPro devote many hours everyday to program manager responsibilities and coordinating efforts with the company, which is their primary responsibility, every pilot at NavPro spends a great deal of time in the cockpit. Each pilot becomes a resident expert in at least one aircraft and serves as a backup for other flight tests.

For every hour in the air, the pilots dedicate at least two hours on the ground, either briefing or debriefing, doing ground checks and required paperwork.

Naval Aviators in the fleet, as well as aviators in the other services, can be assured that professionals like themselves have already checked out the aircraft they're flying, and that everything from the doors to flight systems have been tested and retested. In short, the aircraft they fly have the NavPro "stamp of approval." ■

Lt. Terry Kupovits strapping into the pilot's seat of a UH-60 Black Hawk prior to commencing ground checks.

Pictured in front of the aircraft NavPro Stratford pilots fly are (l-r) Capt. Lloyd, Cdr. Jaeger, Lt.Cdrs. Eargle and Brust and Lt. Kupovits.

HMS Invincible

A Sea Harrier makes the first launch from the ski-jump bow of HMS Invincible. The Royal Navy has two operational squadrons of Sea Harriers, both based at RNAS Yeovilton. Two new carriers equipped with jump bows, Illustrious and Ark Royal, are presently under construction.

What's in a name? If you're British, a lot because they take great pride in the names they give their ships. Take *Invincible*, for example.

Today's *Invincible* is the sixth in a line of proud Royal Navy ships bearing the name. She is representative of Britain's transition to the V/STOL-equipped aircraft carrier.

The first *Invincible* was a windjammer captured by the British from the French in 1747. Today's *Invincible* is designed with state-of-the-art engineering and built to handle twentieth century high-technology V/STOL aircraft and helicopters. It is impressive by any standards.

HMS *Invincible* was launched on May 3, 1977, 230 years to the day of the capture of the first *L'Invincible*. She is the largest warship built for the Royal Navy since the 1950s, stretching 677 feet long, with a 115-foot beam, and displacing 19,500 tons. Her propulsion consists of four Rolls Royce Olympus gas turbines – the same family of gas turbine engines used by the *Concorde* supersonic jetliner and the *Vulcan* bomber. The engines drive two shafts through the largest reversing gearboxes installed in any ship in the Royal Navy. Electrical power, sufficient to light a modest-sized town,

Under the leadership of commanding officer Captain M. H. Livesay, HMS Invincible was ordered to the South Atlantic this spring in response to the British sovereignty dispute with Argentina over the Falkland Islands.

is provided by eight Paxman Valenta diesel generators (similar to those used in a high-speed train).

Invincible's design incorporates facilities for command and control of maritime forces, deployment of nine *Sea King* ASW helicopters in support of a force at sea, and the capability of providing area air defense and surface strike, using *Sea Harrier* V/STOL aircraft and the *Sea Dart* medium range surface-to-air or surface-to-surface missile system.

Invincible's appearance is distinguished from a conventional aircraft carrier by the ski-jump bow, a seven-degree ramp which greatly improves the takeoff performance of her *Sea Harriers.* The ramp enhances the lift of the aircraft being launched, enabling a greater payload to be carried. She is the first ship to be fitted with the ski-jump, a British invention. Its use with V/STOL aircraft eliminates the need for catapults and arresting gear.

With a ship's company of around 1,000, *Invincible* is capable of prolonged operations at sea and is designed accordingly. Below deck, she has three dining halls, two main galleys and recreation spaces. Closed circuit television from the ship's own studio, or regular BBC programs, can be seen in all messes. There is an extensive library, a chapel, and well-equipped medical and dental facilities. Other features include waste disposal plants, stabilizers, and self-retracting stump masts for use when transferring stores at sea. Her large hangar is serviced by two aircraft elevators and is designed for operations in the hostile environments of radiation from nuclear fallout and chemical warfare. The ship's communications, sensors and weapons are part of an integrated system monitored by a computer complex which enables the ship to take command not only of her own aircraft and weapons but also other ships of the Royal Navy and NATO. ■

In May 1747, the 74-gun French ship L'Invincible was captured off Finisterre and registered on the British Navy's inventory in August of that year. She served until 1758 when she was wrecked on a shoal near Portsmouth, England.

Invincible number two, also a 74-gun ship, saw action off Cape St. Vincent in 1780 and St. Kitts in 1782 against the French. Under Captain Thomas Pakenham, she fought in the Glorious First of June battle in 1794. She was present at the capture of Trinidad in 1797 and the surrender of Surinam in 1799. She was wrecked in the North Sea in March 1801 while sailing to join Admiral Nelson in the Baltic.

Number three was a 74-gun vessel launched in 1808 and then used as a coal depot ship in Devonport, England, from 1852 until 1861.

The fourth HMS Invincible was a 6,000-ton cruiser armed with 14 guns. In July 1882, she took part in the bombardment of Alexandria, Egypt. In 1900 she became a depot ship for destroyers based at Sheerness. She foundered off Portland, England, in 1914, while under tow.

During 1914-18, the fifth ship, a 17,000-ton battle cruiser saw action off Heligoland Bight. She then became the flagship of Vice Admiral Sir Doveton Sturdee and, with HMS Inflexible, sank two German cruisers in the Battle of the Falkland Islands. On returning to home waters, she became the flagship of the Third Battle Cruiser Squadron and was sunk at the Battle of Jutland.

Photo by JOC Kirby Harrison

Chief of Naval Operations Admiral Thomas B. Hayward shakes hands with well-wishers following his talk at the annual Association of Naval Aviation convention.

Best Offense also the Best Defense

by JOC Kirby Harrison

Sea power appeared in the form of horsepower May 7, with some of the Navy's top leadership present at the Association of Naval Aviation's seventh annual convention in Anaheim, Calif.

The theme of the four-day convention was "the role of Naval Aviation in sea control and in force projection," and the discussions frequently involved the growing Soviet navy and a need for the continued growth of the U.S. Navy.

Speaking before approximately 1,000 association members and guests at the morning symposium, former head of Naval Intelligence and then Deputy Director of the CIA Admiral Bobby Inman emphasized that not only has the balance of power changed and the gap narrowed between U.S. and Soviet naval forces, but the Russian navy continues an outward push to establish a presence at maritime chokepoints and in unstable situations.

"But what worries me most," said Inman, "is the burgeoning mobility of Soviet power." He noted as a specific example the ability of the Soviet maritime industry to get equipment and weapons delivered to Afghanistan, in particular the rapid airlift capability.

"The Soviet (economic) system doesn't work well," said Inman, "but it has maintained a steady

(Continued on page 40)

Vice Admiral Wesley McDonald, Deputy Chief of Naval Operations (Air Warfare), addresses the American Helicopter Society members and guests.

Things Are Better But Money Still Short

The exhibit center for the American Helicopter Society's annual convention, May 4-7, at the Disneyland Hotel in Anaheim, Calif. was imagination-made-real with a dazzling array of products from the rotary wing industry. Behind glass-enclosed viewing ports, jet turbine engines whirled. In a corner crouched a full-size Hughes 500MC *Defender* helicopter, while on an adjacent videotape screen, scenes exploded as the agile aircraft darted in to fire a missile and a tank erupted in a ball of flame.

In the ballroom, the scene was black tie and awards, with Deputy Chief of Naval Operations for Air Warfare Vice Admiral Wesley McDonald as the main speaker. With typical aplomb, he told the society's members and guests that, as a fixed wing pilot, he had had little direct association with rotary wing aircraft "but much direct respect."

"I always used to look back before each cat shot to see if the angel (search and rescue helo) was on station. Now the association with rotary wing is sort of forced on me. My son is a helicopter pilot."

To the amusement of the helicopter-oriented audience, McDonald told of going for a ride with his son as the pilot and being allowed to take the controls with what the admiral described as ". . .a death grip on the stick."

Turning to the future of military rotary wing development, VAdm. McDonald was hopeful if not encouraging. "Things are better," he said, "but the money is still short. We are not in a defense utopia."

He reminded the hundreds of engineers, businessmen, designers and rotary wing enthusists that in the 1970s the Navy actually purchased only half the helicopters it needed, with the result being a growing shortage of rotary wing aircraft in the Marine Corps and antisubmarine warfare community, as well as obsolescence. "And when venture capital becomes short, the tendency is to forego research and development in favor of immediate acquisition."

In the 1960s, he said, the Navy was involved in the development of 11 new types of helicopters. In the 1970s, only four were under development and just three actually made it to production. "Now we're lucky to have one or two new helicopters under research and development."

VAdm. McDonald expressed appreciation to the Army for its "dogged continuing research," from which the Navy has benefited, and he expressed hope for joint services research and development in the rotary wing field.

Looking to the future, he noted initiation by the Secretary of Defense of a joint services research and development project on the JVX helicopter, with the Army as the lead service. McDonald described the JVX as having the "significant capability" of self-deploying over thousands of miles and said the Navy envisions it for use by the Marine Corps as a medium lift and assault aircraft, and as a vehicle for other Navy applications. He added that the Navy and Marine Corps hope to acquire 800 to 1,000 of the JVX.

The Navy's plans to build up to a 600-ship Navy, McDonald said, will have only 15 carrying fixed wing aircraft. "Over 200 ships will carry rotary wing aircraft to extend their capabilities."

"We presently have 1,300 helicopters performing more than 13 missions," the admiral said, adding that while plans are to acquire 600 new helicopters over the next six years, that figure is subject to changes in the new budget. The Navy also plans to extend the capabilities of small ships with approximately 90 *Seasprite* helos over the next three years, and the budget presently calls for 44 new AH-1T *Cobras* by 1984.

"LAMPS (Light Airborne Multi-Purpose System) is a success story," the Navy's air warfare boss said of the Navy's newest helicopter. "IBM and Sikorsky did well. The aircraft [SH-60 *Seahawk*] has met all the specs, operating successfully in sometimes awesome environments where seas were running 30 feet and winds over 30 knots. We're looking forward to replacing the *Sea King* with a variant of the SH-60."

In military rotary wing aircraft communities and within the industry, said VAdm. McDonald in conclusion, "The key is a willingness to work together for the good of all." ■

investment in the military and underwritten investment in Cuba and Vietnam."

The former CIA deputy said he anticipates a new Soviet leadership in the near future, one with "an arrogance and willingness" to use its military power. To what degree they will use it, he added, "depends on how willing they think we are (to resist)."

Vice Admiral Wesley McDonald, also in remarks at the symposium, echoed that forecast. "They (the Soviets) must *know* their ships will be put at risk," he explained of potential confrontations.

He described U.S. naval strategy as one of deterrence, "to move effectively and efficiently our forces to maintain our sea lanes. Sea control, on, over and under (the sea) is the key.

"We are an offensive Navy (and) this is where carrier aviation hits its stride," McDonald told the audience, emphasizing the mobility, flexibility and autonomous nature of carrier aviation. "It allows a selective striking power."

VAdm. McDonald also emphasized the importance of the aircraft carrier in U.S. naval strategy. "Against any force," he said, "the carrier as the central point of the battle group is the factor that will enable us to win."

He pointed out that for the Navy to get the 15 big-deck aircraft carriers it wants, even anticipating delivery of nuclear-powered *Roosevelt* 14 months early, extensive service life extension overhauls will be required for *Midway* and *Coral Sea*. "Do you realize how old *Coral Sea* is?" he asked rhetorically, in reference to the 38-year-old carrier. *Midway*, commissioned in 1943, is even older, by one year.

Chief of Naval Operations Admiral Thomas B. Hayward, speaking at the luncheon in the keynote address, underscored earlier remarks by Adm. Inman and VAdm. McDonald. Hayward expressed little doubt that the cure for the present U.S. economic situation will certainly affect the military, but he noted the necessity for "keeping priorities in perspective " and the need to avoid "overshooting the mark on emotional issues."

He said that while we worry about the "tug of war" over the budget, "the American public has forgotten about Iran [the hostage crisis]. And Poland, a very significant event, we're forgetting that."

"We have a plateful of problems, and problems with keeping our problems in perspective," he said, adding that the first priority is to "keep our system alive and keep it free."

Responding to accusations that the U.S. has no national strategy, Adm. Hayward said bluntly, "Hogwash!"

Listing four major points, Hayward said, "Our national strategy should be as clear as a bell to anyone who wants to look at it." That strategy, he said, is recognition of global responsibilities, a coalition strategy to rely on U.S. allies "and a forward defense strategy." He added that this includes greater investment in strategic weapons, increased mobility and flexibility, clear naval supremacy and the offensive capability to ". . .carry the fight to the enemy, when we want to, where we want to."

Adm. Hayward stressed that "Today, it's the United States Navy's sea-based air power that is the only significant difference between ourselves and the Soviets." He voiced in no uncertain terms the need to meet the 15-battle group goal planned for the Navy as a move in the right direction to maintain that sea power edge.

He also decried what he described as "an air of defeatism and defensive thinking. It is a time for great leaders to step forward, and for a great America to follow. We are a great nation with a great opportunity. We have to get on with it now."

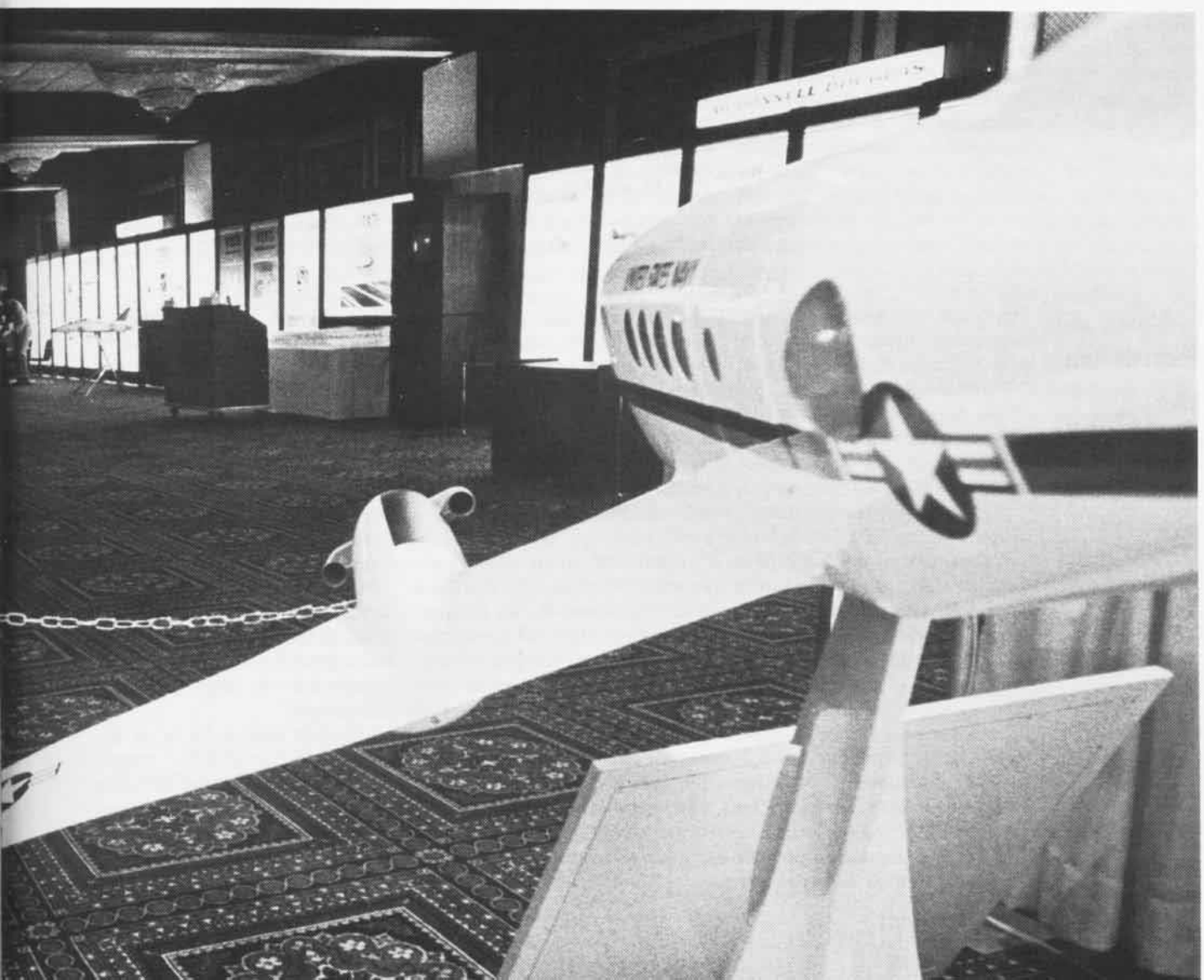
Speaking of the Navy, Adm. Hayward said in conclusion, "We have confidence and pride. The U.S. Navy is not going to let America down." ■

Admiral Thomas B. Hayward was the Navy's No. 1 aviator until he retired June 30. The new Chief of Naval Operations is Admiral James D. Watkins, whose previous assignment was as Commander in Chief, U.S. Pacific Fleet.

Vice Admiral Wesley L. McDonald is expected to be relieved as Deputy Chief of Naval Operations (Air Warfare) late this summer. His relief will be Vice Admiral Robert F. Schoultz. VAdm. Schoultz, Naval Aviation's Gray Eagle, comes to his new assignment from duty as Commander Naval Air Force, U.S. Pacific Fleet.

A T-44 appears to be flying into the exhibit hall at the Association of Naval Aviation's convention. Aviation industry exhibitors displayed hardware ranging from new aircraft and engines to gyroscope-steadied night vision binoculars.

Winners of the Outstanding Achievement Award for Helicopter Operations pose with their prize. (l-r) AW2 James H. Pritchard, Ltjg. Robert T. Elder, Cdr. Richard Catone and AW2 Timothy Pearson of HS-11 received the award for their daring rescue of a shipmate who ejected after a "cold cat" launch off the carrier John F. Kennedy (see story in "People-Places-Planes" in this issue).



TOUCH AND GO

Keeping Them Flying

Out near the far edge of the Pacific, the jet shop at NAS Cubi Point in the Philippines is doing a major part in keeping naval aircraft flying. In 1981, the 200 military and civilian personnel in the shop set a Navy record by processing more than 1,200 aircraft engines. According to Aircraft Intermediate Maintenance Department Officer Commander R. R. Tafuri, that represents an 80-percent increase over the past three years.

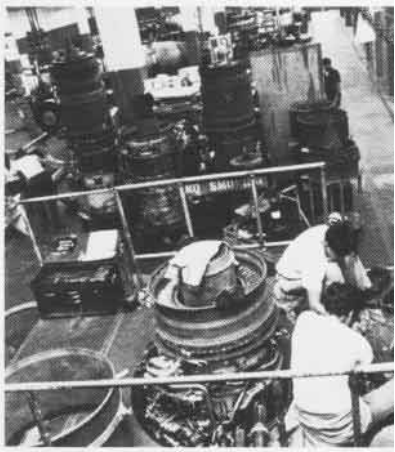
The jet shop, known officially as Power Plants Division 400, is the largest of eight divisions at the AIMD and the largest complete engine repair facility in the Navy. While most facilities specialize in three types of engines, the jet shop at Cubi Point works on no less than eight different types and 14 model series of engines. It is also the only division that supports all four major components of Naval Air: helicopters, transports, patrol and carrier-based aircraft.

Those assigned there admit it is often a 12-hour-a-day job, frequently seven days a week. But they note there is a great deal of job satisfaction in providing a vital service to the fleet. And, the logistics aspect of being at the far end of a supply pipeline offers its challenge. A two-week wait for parts is not uncommon, according to Cdr. Tafuri, who adds, ". . .rather than wait, we must be innovative and make things happen."

A recent Bravo Zulu message from Commander Fleet Air Western Pacific Rear Admiral Jack O'Hara noted that "The continued overall high aircraft readiness posture enjoyed within WestPac is due in large measure to the dedication and high technical competence typified by the entire Cubi Point AIMD aircraft engine repair facility."

The bottom line behind such accolades is simple, according to Lieutenant Commander B. C. Fowler, jet shop division officer. "We're the biggest, the most complex and the best." **JO2 Barbara Burfeind**

JO2 Barbara Burfeind



Jet shop personnel at the AIMD in Cubi Point, Philippines, dig into yet another repair job.

Naval Air Reserves Get Horizontal Lift

The Naval Air Reserve is beginning a new chapter in its history with a change from the vertical integration of aircraft from the active duty fleet to a horizontal integration of the Naval Air Reserve into the total force concept.

Testifying earlier this year in support of the FY 83 Navy budget, Secretary of the Navy John Lehman, Jr., told the House Armed Services Committee that the shift will begin this year, "from a vertical integration of our aircraft – the practice of putting older aircraft models in the reserve as we phase newer ones into the fleet – toward horizontal integration of the Naval Air Reserve into the total force."

Secretary Lehman said the Navy will establish reserve squadrons for virtually all of the front line fleet aircraft, beginning with the first active F/A-18 squadron. With introduction of the F/A-18 *Hornet*, said Secretary Lehman, the Navy will have Selected Reserve units qualified and equipped to augment fleet units immediately in front-line aircraft.

Chief of Naval Operations Admiral Thomas B. Hayward told the House Armed Services Committee that he and the Secretary of the Navy were carefully reviewing the Naval Air Reserve program with the full intention of modernizing the tactical air squadrons. Besides the F/A-18, Admiral Hayward said they were looking toward introduction of the A-6E into the Naval Reserve. Also being considered is the addition of more DC-9 *Skytrains* to the 13 C-9Bs already in reserve transport squadrons, replacing aging C-118 aircraft.

The horizontal integration concept has received support from Rear Admiral Frederick F. Palmer, Chief of Naval Reserve. According to RAdm. Palmer, a slowdown in the transfer of aircraft from active to reserve forces in the mid-seventies "has led to a Naval Air Reserve force that is not sufficiently modernized or compatible with fleet units with the same or similar missions."

He said the result is an exceptionally qualified reserve force which is not immediately employable aboard aircraft carriers either as full squadrons or as individuals to fill fleet squadrons.

Disciples Play the Bad Guys

A detachment of Fighter Squadron 301's *Devil's Disciples* recently deployed to Nellis AFB near Las Vegas for a unique training experience as the "bad guys." At the invitation of the Air Force 433rd Fighter Weapons School, the squadron dispatched seven F-4 *Phantoms*, 14 aircrew members and 42 enlisted personnel to the Air Force base. The *Disciples* were assigned to fly MiG-23 *Flogger* tactics, utilizing Soviet formations, against Air Force F-15 *Eagle* instructor pilots in training.

The syllabus demanded that the F-4s fly in two sections, employing adversary tactics and weapons parameters. The mountainous terrain in the engagement arena, accurate ground control intercept information, and the dedication of aircrews and ground support to the completion of each mission enhanced the realism of every sortie, according to squadron skipper Commander Tom Leonard.

As the adversary, *Phantom* aircrews were educated in the use of "beyond visual range" attacks as well as standard visual identification tactics as seen from a different perspective. Sweep versus sweep tactics, as well as area defense missions, were flown during the week of exercises. The Fighter Weapons School instructors expressed satisfaction with VF-301's knowledge and dedicated use of adversary tactics as required by the syllabus. They point out that realistic training involves recognition of the threat and accurate application of tactics to defeat that threat. The *Devil's Disciples* flew 38 sorties as the "threat".

VF-301 maintenance personnel provided aircraft for all scheduled events, and every airplane that participated as an adversary had an "up" radar. **JO2 L. Creesy**

Super Stallion Makes Debut

The Second Marine Aircraft Wing's Aviation Element Exercise 2-82 in March saw the first major field use of the new CH-53E *Super Stallion*. In all, 40 helicopters from MCAS(H) New River participated in the helicopter assault on the Oak Grove, N.C., outlying field. The attacking infantry force was K Company, Second Battalion, Sixth Marine Regiment.

Ten *Super Stallions*, 10 CH-53D *Sea Stallions* and 13 CH-46 *Sea Knight* helicopters of Marine Aircraft Group 26 were used in the troop movement. Accompanying the cargo contingent were two AH-1 *Sea Cobras*, two UH-1 *Hueys* and four OV-10 *Bronco* observation aircraft from Marine Aircraft Group 29.

The 12-day exercise included communications training and a command post exercise to test staff officer tactics and strategy. Intelligence, logistics and operational problems involving enemy forces were presented from wing headquarters and evaluators analyzed the aviation group's reactions to determine probability of success or failure.

During the live portion of the exercise, MAG-26 and MAG-29 aircraft performed troop insertions, ordnance missions, airborne forward air control and aerial reconnaissance.

Engineer and transport support came from New River's Marine Wing Support Group 27, augmented by Cherry Point Marines from Wing Engineer Squadron 27. Communications support was provided by technicians from MABS-26, augmented by Cherry Point's Marine Wing Communications Squadron 28, Detachment A.

A highlight for the families of the Marines came March 13 when the Oak Grove encampment was opened to them and combat rations were served to all. **Sgt. Hugh Hawthorne**

Scotland Comes To Memphis

Three aviation enthusiasts and air traffic controllers from Prestwick, Scotland, found their interest in military aircraft somewhat limited at home and recently spent a month in the U.S. traveling around and looking at aircraft.

According to Barry Fryer, some of the planes he and friends James Creegan and David Turner find most interesting never pass through their area, "so we came here instead."

The trio spent a cool February day visiting NAS Memphis, getting close look at naval aircraft and photographing (with permission) some of their favorites. In addition to the flight line, the group also made a stop at the maintenance hangar where C-118s and P-3s were undergoing repairs.

Of special interest were the aircraft markings and squadron insignia. "That's one thing really interesting about military aircraft. And the markings on Navy planes are the most distinctive and flamboyant of all," pointed out Fryer.

Also on the travel itinerary were visits to other spots featuring military aircraft, including the Naval Aviation Museum at NAS Pensacola. Asked if they planned to visit any of the conventional tourist attractions in America, the Scots replied in the negative. "Disneyland and the Grand Canyon will always be here," explained one. "But these old planes won't be. We have to see them while we still can." **JO1 Melanie Morrell**

JO1 Melanie Morrell

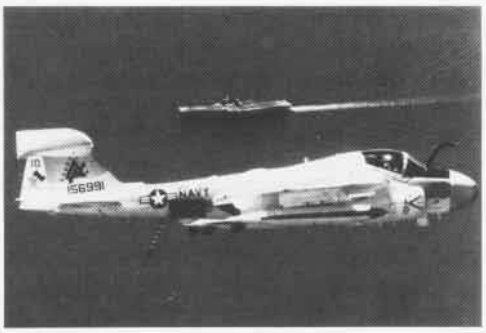
Scot aviation enthusiast James Creegan discusses A-4 Skyhawk with AC1 Dale Arnold.

PEOPLE·PLANES·PLACES

Awards

Aviation shore activities and aircraft carriers were among the winners of the 1982 Captain Edward F. Ney Memorial Awards for excellence in Navy food service: NAF Atsugi, Japan; NAS Patuxent River, Md.; NAF Washington, D.C.; *Coral Sea*; and *Midway*. This is the 25th anniversary of the Ney Memorial Awards.

VAQ-309 of NAS Whidbey Island has won the Golden Tailhook Award as the best carrier squadron of the nine West Coast reserve squadrons under operational control of Carrier Air Wing Reserve Thirty. The *Axemen* of VAQ-309 fly EA-6A *Intruders*.



One of the squadron's four EA-6A Intruder two-man jets flies above USS Lexington.

Two helicopter squadrons of MAG-39 were recently honored for achievement in flight safety. HMA-169 and HMA-369 both received the Fleet Marine Force, Pacific Annual Aviation Safety Award for completing one year's operations without a major aircraft mishap.

The *Spruance*-class destroyer *David R. Ray* (DD-971), with HSL-33 Det 9 aboard, has won the 1981 LAMPS Ship Safety Award. According to CNO, "The performance of the *David R. Ray*/HSL-33 Det 9 LAMPS team was characterized by exemplary professionalism in its approach to aviation safety." The destroyer is believed to be the first *Spruance*-class ship to receive the award.

Two individuals have been selected for recognition by the Navy Helicopter Association: Lt.Cdr. Bill Boone, HSL-36, was named the Atlantic Region Navy Helicopter Association's Pilot of the Year. Aviation Structural Mechanic (E) First Class Stephen M. Strader, HM-14, was named Airborne Mine Countermeasures Utility Aircrewman of the Year.

William Engbrecht, an engineering technician in the Crew Systems Branch at Point Mugu, recently received a special award in Naval Aviation Physiology. The award has been given four times since it was originated in 1969, and Engbrecht is the first civilian to receive it. The citation commended him for his expertise in aircrew life support equipment and ejection systems, and stated that "he has come to be known as the authority on form-fit helmets, visual target acquisition system helmets and aircraft onboard oxygen generating systems. . ."

A four-man helicopter crew from HS-11 recently received the Association of Naval Aviation's prestigious Outstanding Achievement Award for helicopter operations, at the ANA annual convention in Anaheim, Calif. Accepting the award were pilots Cdr. Richard A. Catone and Ltjg. Robert T. Elder, and crewmen AW2 Timothy T. Pearson and AW2 James H. Pritchard. The four men were responsible for the rescue of an EA-6B *Prowler* tactical officer who had ejected when the aircraft got a "cold cat" and the launch was aborted. A very heavy sea state and winds gusting to 45 knots hampered efforts, but AW2 Pritchard credits the reflective tape on the NFO's helmet for revealing his location. The incident occurred during operations aboard *John F. Kennedy* in the Mediterranean.

Records

Lt.Col. William D. Carr, C.O. of VMA (AW)-533, stands behind Bob Searle, a Grumman technical representative, as he congratulates Maj.Gen. William H. Fitch, Commanding General of 1st Marine

Aircraft Wing, on his Grumman A-6 1,000-hour award. (l-r) Capts. Henry Krauss, Larry Astyk and Dale Cappell stand by to receive their 1,000-hour awards. Maj.Gen Fitch has accumulated over 6,000 flight hours in tactical aircraft.

Several squadrons marked accident-free flight-hour milestones: VP-40, 107,000 hours; VT-24, 35,000; VT-9, 20,000; VF-1, 13,800; HC-9, 12,000. During Med operations, Cdr. John R. Wood, C.O., Cdr. John M. Sumnick, X.O., and Lt.Cdr. Harry G. Stanbridge of VF-142 recently surpassed 1,000 flight hours in the F-14 *Tomcat*. They

are pictured here receiving a plaque and a 1,000-hour patch from Charlie Quiter, a Grumman representative.

VF-213 *Blacklions* returned recently from NAF El Centro, repeating the success they achieved during their 1980 gunnery detachment by scoring the highest hit banner recorded in F-14 gunnery. In eight days of air-to-air gunnery practice, the *Blacklion* aircrews achieved unprecedented high scores on banners towed by the *Saints* of VC-13. The record banner, with 413 hits, was attained by five aircraft flying on a single flight. Lt.Cdr. Greg Gerard set the individual record, scoring over 100 hits on two different banners. The squadron C.O., Cdr. W. J. Haley, had a high individual score of 123 hits on a single banner. All eight aircrews in this competitive exercise achieved an "E" for gunnery excellence.

C.O. of VMFA-232, Lt.Col. Kevin P. O'Mara, completed 3,000 flight hours in the F-4 *Phantom* while on a six-month deployment to MCAS Iwakuni, Japan. The major portion of Lt.Col. O'Mara's flight time came while flying with the *Blue Angels*.

Maj. Robert P. Reiten, VMAQ-2 Det Z's C.O., received a 2,000-hour award from Grumman tech rep Bernie Baake. Maj. Reiten is believed to be the first Marine Aviator to achieve a record total of 2,000 hours in the EA-6B *Prowler*. He has accumulated over 4,000 combined *Intruder/Prowler* hours. VMAQ-2 Det Z is currently deployed to MCAS Iwakuni, Japan.

Honing the Edge

HC-9 recently deployed a detachment of two aircraft, six officers and 18 enlisted personnel to CVW-17 at NAS Fallon, Nev., for combat search and rescue exercises. The detachment flew 15 sorties in seven days for 40 aircraft flight hours, successfully completing all scheduled evolutions. For the first time, HC-9 was trained to execute a night combat search and rescue mission with an air wing. Severe cold weather provided aircrew and maintenance personnel with new challenges and excellent training opportunities for aircraft de-icing and cold weather operations. HC-9 was commended by CVW-17 for its dynamic and professional support.

The *Royal Maces* of VA-27 returned to their home port at NAS Lemoore, Calif., this spring after a highly successful seven-month deployment with CAW-14 to the Western Pacific and Indian Ocean on board *Coral Sea*, flying the A-7E *Corsair II*. Last summer, the *Maces* departed Alameda, bound for the Far East where they spent 78 continuous days at sea over Thanksgiving and Christmas. In January they headed north for operations off the coast of Japan.

Et cetera

Forty years after the bombing of Pearl Harbor, Navy personnel and dependents from Point Mugu, Port Hueneme and several other southern California commands were called upon to help Paramount Television recreate what Franklin D. Roosevelt called

JO2 Dallas Bellamy

One of the Pacific Missile Test Center's target ships seems to explode in a ball of flame while extras dash for cover and a second wave of "Zeros" head in for the attack. Several target ships from PMTC had starring roles as the 1941 Japanese attacks on Pearl Harbor and Cavite were recreated in the Port Hueneme harbor.

"a day that will live in infamy." The scenes will blend with others gathered during a year's filming around the world for the final product, ABC Television's "Winds of War." The 16-hour television series, scheduled to air in the fall of 1982, is based on Herman Wouk's best-selling novel of the same name.

The first fleet squadron to land aboard *Enterprise* in three years was VS-37. The carrier had just completed a major three-year overhaul. Commanded by Cdr. Dan Rainey, the *Sawbucks* of VS-37 began work-ups aboard the *Big E* in preparation for her scheduled WestPac cruise. "We're all very excited about deploying on *Enterprise*," Cdr. Rainey said. "She's undoubtedly the best carrier in the Navy." The very first fleet trap aboard *Enterprise* was made by Cdr. Lee Tillotson, commander of CVW-11, who led the way in a VS-37 *Viking*.

Change of Command

CVW-7: Cdr. Donald L. McCrory relieved Capt. Thomas S. Treanor, Jr.

HM-14: Cdr. Morris G. Steen, Jr., relieved Cdr. Frederick T. Massey.

HMM-164: Lt.Col. Gordon L. Pirtle relieved Lt.Col. H. T. Nance.

HS-4: Cdr. Thomas F. Finley, Jr., relieved Cdr. H. David Black.

MAG-39: Col. Donald E. P. Miller relieved Col. Kenneth D. Waters.

NAS Patuxent River: Capt. Robert I. Heisner relieved Capt. Thomas N. Flanary II.

VA-75: Cdr. Earl Wolfgang relieved Cdr. Joseph Mobley.

VA-81: Cdr. William C. Miller III, relieved Cdr. George J. Webb, Jr.

VA-105: Cdr. Robert G. Brodsky relieved Cdr. Dale V. Raebel.

VAQ-133: Cdr. Will P. Gray relieved Cdr. R. F. Purdy.

VF-1: Capt. Frederick L. Lewis relieved Capt. Robert E. Tucker.

VP-47: Cdr. Bruce W. Barker relieved Cdr. Dennis A. Pignotti.

VP-48: Cdr. Richard Parodi relieved Cdr. Lawrence J. LeDoux.

VQ-4: Cdr. Charles J. Osier relieved Cdr. Francis W. Hilton.

VR-57: Cdr. Charles R. Bourbonnais relieved Cdr. Bobby G. Patterson.

VS-21: Cdr. William M. Rule relieved Cdr. Richard M. Sanford.

VS-29: Cdr. James K. Bell relieved Cdr. Jack L. Olson.

VS-32: Cdr. Stephen C. Wood relieved Cdr. Gerry B. Rhodes.

VT-2: Cdr. Charles D. Shields, Jr., relieved Capt. Jerry M. Crumly.

PROFESSIONAL READING

By Lieutenant Commander Peter Mersky, USNR

Prange, Gordon W. *At Dawn We Slept: The Untold Story of Pearl Harbor*. McGraw-Hill Book Company, New York, N.Y. 10020. 1981. 848 pages. Illustrated, indexed. $22.95

This must surely rank as one of the most significant historical publishing events of the decade. In one of the most thorough and all-encompassing research efforts in recent years, the late Gordon Prange (who died in 1980), after 37 years of painstaking researching of the Pearl Harbor story, has written what is perhaps one of the finest books available covering December 7, 1941.

Drawing on countless interviews with the participants, both Japanese and American (some immediately after the conclusion of WW II, when Prange was chief of the Historical Section under General MacArthur in Japan), he details the first discussions of an attack on the American naval base at Pearl Harbor, the preparations and how the Americans could have been ready but were not. The attack itself is covered as seen through the eyes of the Japanese pilots who made the torpedo runs, as well as the American soldiers and sailors.

Most of the photographs are of people rather than the action. Previously unpublished photographs of the attack are rare, and the publishers and author apparently decided to depict the people involved instead of reprinting hackneyed photography. Well-drawn maps depicting various situations, fleet actions and even the dispersal of Japanese submarines off the U.S. West Coast in December 1941 are important complements to the text. All considered, a formidable but unique effort and, at today's prices, quite a bargain in terms of quantity and quality.

Phillips, Christopher, *Steichen at War*. Harry N. Abrams, Inc., 110 E. 59th St., New York, N.Y. 10022. 1981. 256 pp. Bibliography, indexed. $40.00.

Early in 1942, as America was gearing up for its massive war effort, a 62-year-old photographer born in Luxembourg in 1879 was put in charge of the U.S. Navy's Aviation Photographic Unit.. Lt.Cdr. Edward Steichen – he made captain by war's end – and his men roamed the Pacific with the carrier task forces taking thousands of photographs both at sea and on land. He frequently flew on raids that were launched from the flattops.

Leafing through this book is sometimes like peering into the lives of old friends and discovering things you did not know about them. Some of the pictures and scenes are very familiar even though you might not know the exact place, person or circumstance in the photograph. Knowing more of the particulars puts the pictures into perspective.

The introduction details Steichen's pre-war career, his earlier service in the Army as a photographer in Europe in WW I, and his pre-WW II society photography, all of which gave him the credentials to head the Navy's photography unit in 1942.

And, of course, the book has pictures – lots of pictures. All are beautiful black and white photographs with individual stores of the war as seen through Navy and Marine eyes on land, sea and in the air. This volume is an important contribution to the coverage of America's role in WW II.

Sullivan, Jim. *Fighting Colors, F4U Corsair in Color*. Illustrated by Don Greer. Squadron/Signal Publications, 1115 Crowley Dr., Carrollton, Texas, 75006. 1981. 33 pp. Paperback. $5.95.

A large format picture book, this is another in the publisher's *In Action* series which has been popular over the last several years. The photos are unusual and previously unpublished, for the most part. The Marines are well covered, which is appropriate since the Corps was a heavy user of the bent-wing *Corsair* in WW II and Korea. A large portion of this short but very useful book is taken up with pages of specially prepared color renderings, showing details, cockpit layouts and pilot gear, as well as the usual general arrangement of the aircraft itself.

All models of the F4U are covered from the F4U-1, the first operational variant, to the -5N night fighter and AU-1 ground support fighter, which served primarily with the French Aeronavale in Algeria and Indochina.

This book has a lot to offer in very few pages and should be welcomed by *Corsair* buffs.

Letters

Curtiss-Wright SB2C

I have been asked to write a documentary article about the Curtiss-Wright SB2C aircraft series for the American Aviation Historical Society. I need information about its conception, design, development, manufacture, test history, Naval Aviation fleet deployment and air operations, etc. Literature, drawings, photos and personal accounts of the airplane in unusual situations will be credited and returned to the lender.

Lt.Cdr. Stephen Jack, USNR(Ret.)
9800 S. Sepulveda Blvd., Suite 722
Los Angeles, CA 90045

TV-1 Shooting Star

I am preparing a detailed history on the Lockheed P-80, TO-1, TV-1 *Shooting Star* in the Navy and Marine Corps for *The Hook* magazine. I would appreciate the loan of photos, slides and documentation on TV-1s in VF-52, VMF-311, JTU-1, ATU-3, ATU-200, test units, Naval Reserve, station markings and other assignments. I would also like to hear about personal experiences in flying and maintaining the aircraft. Photos and information on Air Force F-80 aircraft are welcome for my other research interests. All material will be returned promptly, and I will reimburse for postage and processing costs.

Robert Esposito
409 Orchard Avenue
Somerdale, NJ 08083

Army/Navy in Vietnam

I am researching U.S. Army aircraft in Vietnam in preparation for a history which should provide an accurate and detailed account of Army aviation during U.S. occupation. Many of the Army units operated in close coordination with Naval Air units and I would like to hear from anyone who served with such a unit. I need information about the Army and Navy aircraft in regard to unit structure, location, dates of operation, assignments, and aircraft configuration and markings. Photos are especially important.

The information I'm finding difficult to obtain is that concerning the Army P-2E *Neptunes* which operated with VP-31, Det North Island and many of the Navy helicopters I often worked with in the southern regions of South Vietnam.

Wayne D. Mutza
3728 S. 19th Street
Milwaukee, WI 53221

Operation Endsweep

The time and setting noted on pages 17 and 21 of your March 1982 issue, describing HM-12 helicopter operations off the coast of North Vietnam in 1973 during Operation *Endsweep*, were entirely accurate. However, a more informed reader might be able to identify the side number YH-12 as belonging to HMH-463 from MCAS Kaneohe Bay, Hawaii, not HM-12.

Walter N. Prendergast
HMH-462
FPO San Francisco, CA 96603

Ed's note: You, and two other readers, are absolutely correct. The Marine CH-53 (configured with mine sweeping gear) from HMH-463 in the photograph worked with HM-12 during Operation Endsweep off the North Vietnamese coast in 1973. It's good to know we have an attentive readership.

VC-63

I am attempting to contact shipmates who served with my deceased father, RM2 John Leslie Watson, in the Navy during WW II. The men to whom I address my inquiry are those antisubmarine aviators of Composite Squadron 63 who flew with my father in Grumman TBF *Avengers* from the deck of USS *Natoma Bay*. My father's service record indicates that *Natoma Bay* directed air offenses against Japanese positions in New Ireland and the Gilbert and Marshall Islands in the Pacific.

Dennis Watson
5420 Gainesville Road
Springfield, VA 22151

Reunions, Conferences, etc.

VP-21 (1943-69) first Blackjack reunion, July 16-17, 1982, Brunswick, Maine. Contact: VP-21 Reunion Hqtrs., 1749 Burroughs Drive, Dayton OH 45406 or telephone (513) 426-6000 (weekdays); (513) 278-8057 (evenings/weekends).

USS Langley (CV-1/AV-3) (1922-42) reunion, September 24-26, 1982, Rickeys Hyatt House, Palo Alto, Calif. Write: Paul R. Gibbs, Secretary, Covered Wagon Association, 941 West "A" Street, Dixon, CA 95620.

squadron insignia

The motto of Light Photographic Squadron 63 (VFP-63), NAS Miramar, San Diego, was *The Eyes of the Fleet*, indicating its mission of photographic reconnaissance.

VFP-63 began as VC-61 on January 20, 1949, at NAS Miramar. In July 1956, VC-61 was redesignated VFP-61, and received its first F8U-1P *Crusader* in September 1957. The squadron was redesignated once more in 1959 as VCP-63 and in 1963 it was given its designation of VFP-63. The RF-8G arrived in the squadron in 1965.

Photographic detachments from the squadron played an active role in the Korean War and were deployed to the Vietnam war zone from 1964 through the termination of hostilities. In 1972, VFP-63 assumed responsibility for fleet replacement training of fighter pilots and maintenance personnel for all F-8 squadrons, as well as supplying five deployable reconnaissance detachments. When "Crusader College" was disestablished in 1975, the squadron returned to its role of photoreconnaissance.

During its more than three decades of service to the fleet, the squadron has flown the following aircraft: the photo-modified F9F-2P *Panther*, the F2H-2P *Banshee*, the A3D-2P *Skywarrior* (later designated the RA-3B), and various versions of the RF-8 *Crusader*.

VFP-63 deployed two detachments to the Atlantic Fleet and three to the Pacific Fleet until its disestablishment on June 30, 1982. Its last skipper was Cdr. David M. Beam.

The following squadrons also flew the F-8 Crusader:

VF(AW)-3	*Blue Nemesis*
VF-11	*Red Rippers*
VF-13	*Fighting Thirteen*
VF-24	*Fighting Renegades*
VF-32	*Swordsmen*
VF-33	*Tarsiers*
VF-51	*Screaming Eagles*
VF-53	*Iron Angels*
VF-62	*Yellow Tails*
VF-84	*Jolly Rogers*
VF-91	*Red Lightnings*
VF-103	*Sluggers*
VF-111	*Sundowners*
VF-124	*Crusader College*
VF-132	*Swordsmen*
VF-141	*Iron Angels*
VF-142	*Ghost Riders*
VF-143	*Puking Dogs*
VF-154	*Black Knights*
VF-162	*Hunters*
VF-174	*Hell Razors*
VF-191	*Satan's Kittens*
VF-194	*Red Lightnings*
VF-211	*Checkmates*
VF-214	*Red Checkertails*
VF-661	unknown
VF-703	*Stallions*
VF-931	unknown
VF-201	*Hunters*
VF-202	*Devil's Disciples*
VF-301	*Stallions*
VF-302	*Fighting Photo*
VFP-62	*Eyes of the Fleet*
VFP-63	*Hawks*
VFP-206	*Peeping Toms*
VFP-306	unknown
VSF-76	unknown
VSF-86	*Saints*
VC-13	unknown
VCP-61	*Crusaders*
VMF-122	*Lancers*
VMF(AW)-212	*Fighting Corsairs*
VMF-215	*Red Devils*
VMF(AW)-232	*Death Angels*
VMF(AW)-235	*Thunderbolts*
VMF-251	*Checkerboard*
VMF-312	*Flight Barons*
VMF-321	*Superheats*
VMF-323	*Death Rattlers*
VMF-333	*Shamrocks*
VMF-334	*Falcons*
VMF-451	*War Lords of the Navy*
VMF-112	unknown
VMF-321	unknown
VMCJ-2	*Playboys*
VMCJ-3	*Eyes and Ears*
VMF-351	unknown
VMF-511	unknown
VMJ-4	unknown
VU/VC-1	*Blue Allii's*
VU/VC-2	*Blue Tails*
VMCJ-1	*Golden Hawks*
VC-3	unknown
VU/VC-4	unknown
VU/VC-5	unknown
VU/VC-7	*Red Tails*
VU/VC-8	*Red Tails*
VU/VC-10	unknown
VX-3	unknown
VX-4	unknown
HAMS-13	unknown

List compiled by Captain Tom Irwin, USNR-R

naval aviation news