Fist of the Fleet Association

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NEWSLETTER

April 2018

Preserving the Past Providing for Today
Promoting the Future

SPRING EDITION

By: Jerry "Ricochet" Fritze

Without getting into the history, development and evolution of electronics as applied to Naval Aviation I am going to open the A-7 presentation with a bit of techie stuff. First: the word *digital.* As applied today digital refers not only to the virtual world of the Internet but also the various ways in which we communicate over the Internet and with devices such as our phones. The word itself is just a trash can into which we dump *everything.* An applied definition of digital is a binary code comprised of zeros and ones which is the driving force and the *heartbeat* of the modern age. Back in the day the A-7E was considered to be the first "all digital" aircraft in the Navy and that is something of a misnomer as there were certain analog and mechanical elements within it's electronics and instrumentation. People also tend to think of computers and cellular phones as digital and again they err as hardware can *operate* on and *transmit* in digital but it cannot *be* digital. To-may-to, to-mah-to, whatever.

Today, people think it's no big deal to slap a 16GB memory chip in a motherboard slot and get on with their lives or gaming. But it wasn't always that simple. Before the motherboard, the memory chip and the "modern" digital age there was *solid state.* A printed circuit board (PCB) mechanically supports and electrically connects electronic or electrical components using conductive tracks, pads and other features etched from one or more sheet layers of copper laminated onto and/or between sheet layers of a non-conductive substrate. Components such as transistors, resisters, diodes and capacitors are generally soldered onto the PCB to both electrically connect and mechanically fasten them to it (wikipedia). The solid state transistor was manufactured, or *grown* from gypsum and had 3 leads, input, output and a go/no-go gate. Today's processors and memory chips are also grown but their layering is far more intense, their computations deeper and more rapid. Open up one of the three computers for the A-7E AN/ASW-30 Auto Flight Control System and you will see rows and rows of 4x4 or 3x4 PCBs plugged in to a conductive strip. In the bottom of each box are mechanical synchronizers and the top has rows of relays. Each of these boxes is a bit smaller than the size of a modern blade insert for a server and each only performs *one* function. A *simple* view of this is to take the inputs from the rate gyros, determine the departure from the flight characteristics of the selected hold mode, and send corrections in roll, pitch and yaw (NavAir 01-45AAE-1 A-7C/E NATOPS).

In 1976 in AIMD we were given the first ***5K*** memory chips to mess with. We burned them all out trying to solder them in. We found out later they were something like $1,000 each. But modern computer advancements enabled the next revolution in Naval Aviation: Fly-by-wire. Fly-by-wire eliminates the complexity, the fragility, and the weight of the mechanical circuit of the hydromechanical or electromechanical flight control systems; each being replaced with electronic circuits. The F-18 Hornet, which replaced not only the A-7 Corsair II and A-6 Intruder in light attack but also the F-14 Tomcat in the air superiority role, is an aesthetically pleasing airframe. Like modern-day humans it is lithe, well-knit, intelligent and adaptable. But don't disparage the A-7 as being more like the stereotypical Neanderthal: sluggish, boorish, brutish and one ugly son of a bitch. Nothing can be farther from the truth. Neanderthal were robust, communicative and artistic beings who survived in the harshest of climates and were successful for over 200,000 years. They were in fact the most accomplished of all pre-modern humans. And just as we all carry legacy genetic material from Neanderthal Hornet development owes much to the success of the Corsair II, and the Intruder and Phantom. Together these aircraft maintained the standards of Naval Aviation and it's tradition of victory through the most trying circumstances this nation ever fought through: the air defense network of North Vietnam.

These days I am always amused when shopping for records and stereo components to see repeated comments on how the sound quality of "older" systems is so much better than the latest digital media players. Solid State Baby! Nothing created in the "modern" digital age is going to give you a better playback than equipment that was specifically designed for that purpose. Why do you think DJs and recording and concert sound engineers use it? Just goes to show ya, *new* ain't always *better.*

~Later!~

Mission Statement

Perpetuate the history of Naval Aviation Squadrons VT-17, VA-6B, VA-65, VA-25 and VFA-25,
Remember deceased veterans and comfort their survivors,
Conduct charitable and educational programs,
Foster and participate in activities of patriotic nature,
Assist current active squadron members, and
Provide assistance to family members in times of emergency.

PRESIDENT'S MESSAGE

Greetings from Park City, Utah where the late winter has turned to an early summer. This has been a quiet winter as the ski season was nothing to brag about, with snow levels about 60% of normal.

Be sure to read about our "Military Hero of the Game" later in the newsletter. Doc "Willie" Ewing served as the squadron's flight surgeon during the mid-1970s and was honored at Dodger Stadium last month in front of 40,000 plus baseball fans during a Dodger game. He still resides in Lemoore, CA where the local paper ran a great article about him.

Some cool things are occurring in the aviation world. EAA has it's annual fly in set for July 23-29 in Oshkosh, WI. This year will celebrate the 100th Anniversary of the Royal Air Force among other highlights. *AirVenture* is a fabulous event and should be on every pilot's bucket list. *Hook '18* is coming up on September 6-9, and the theme will be the future of Carrier Aviation. By all indications, autonomous aircraft will be operating regularly off the carrier flight deck within five to ten years. This will be closely followed by the *Reno Air Races*. For those of you who miss flying Spads, the May issue of *FLYING* magazine has a great article on how to buy the old warbird that you always wanted. Be aware that engine oil changes are not included with your purchase price.

For those of you who just want the thrill of flying without the ownership hassle, you might consider joining a local chapter of the Commemorative Air Force. Chapters are located all over the country; we even have one at the Heber Valley Airport near Park City where they maintain and fly a PT-17 Stearman, a PV-2 Harpoon WWII Navy bomber and other aircraft.

We're still on schedule for a reunion in San Diego in late summer 2019. We will try to schedule the reunion to coincide with the MCAS Miramar Air Show. The 2018 show is set for September 29-30, 2018. The 2019 show date will be announced around year end as it is tied to the Blue Angels Air Show schedule. So stay tuned. I'll be working up logistics and other events to hopefully include a visit to the San Diego Air & Space Museum and the USS Midway with it's new Theatre celebrating the Battle of Midway.

Finally, let me finish on a humorous note. Although I'm a terrible golfer, golfers have an excellent sense of humor. Just read this short story.

A Golf Tragedy. Golfer Kills Wife...Accidentally

Verne was teeing off from the men's tee. On his downswing, he realized that his wife, Joy, was teeing up on the woman's tee directly in front of him. Unable to stop his swing, he nailed it, and hit her directly in the temple, killing her instantly. A few days later, Verne got a call from the coroner regarding her autopsy.

The Coroner said, "Verne, your wife seemed to have died from blunt force trauma to the head. You said you hit a golf ball and hit her in the temple, is that correct?" Verne replied that, "Yes, sir, that's correct." "Well, inexplicably I found a golf ball wedged up her ass." said the Corner who was perplexed at the autopsy discovery. Verne then asked him if the golf ball was a Titleist 3, and the Coroner replied, "It was indeed a Titleist 3, how did you know that Verne?" Verne replied dryly, "That was my mulligan."

Have a great spring and make sure the fairway is clear before you tee off!
Chalks

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Blue Angels Tour Dates

May 5/6 MCAS Cherry Point Airshow NC
May 12/13 MacDill AFB Air Fest FL
May 23/25 US Naval Academy Air Show MD
May 26/27 Bethpage Jones Beach Air Show Wantagh NY

Jun 2/3 NAS Patuxent River 75th MD
Jun 9/10 Rhode Island National Guard Air Show North Kingstown RI
Jun 16/17 Chippewa Valley Air Show Eau Claire WI
Jun 23/24 Vectren Dayton Air Show OH
Jun 30/Jul 1 National Cherry Festival Air Show Traverse City MI

Jul 14/15 Pensacola Beach Air Show FL
Jul 21/22 Biloxi Gulf Coast Air Show Keesler AFB MS
Jul 28/29 Fargo Airshow ND

SKIPPER'S CORNER

Greetings from Fallon, Nevada. We are wrapping up a three week detachment where the squadron executed over 170 sorties totaling 209.2 flight hours and expended over 82,000 pounds of live and inert ordnance during air-to-surface strike fighter advanced readiness program, or A/S SFARP. Arriving in Fallon three weeks prior, the outlook was not so favorable. Due to factors beyond the squadron's control, we started SFARP with one aircraft on our line. That makes executing a five aircraft schedule impossible. But thanks to the herculean efforts of our Sailors, we ended the detachment with seven aircraft. At one point, we had eight sitting on our line! From one to eight is truly remarkable. This enabled us to accomplish what we set out to do: start the long journey towards being ready for deployment next spring.

Next for the squadron is a ten day detachment to Key West, Florida to focus on air-to-air employment. Getting there will not be easy as the deck is still stacked against us with limited aircraft availability. But with the hard work and dedication our Sailors demonstrate day in and day out, I am confident we will crush it in true Fist fashion. Proud to be a part of this elite organization. Proud to serve. And as always,
Damn proud to be a Fist!
Skipper

FROM THE COCKPIT By: LT Gerald "Soul Patch" Anderson

In February of this year VFA-25 was operating in a limited status. With only one flyable aircraft, most of the pilots in the squadron were not able to be current or proficient due to factors outside of the squadron's control. We needed help from our sister squadrons, so VFA-143 agreed to help us out by flying six pilots in the span of three weeks. Starting February 5th, VFA-25 pilots went to NAS Oceana to fly Pukin' Dog jets and conduct tactical missions for pilot currency. This helped out the Fists a great deal keeping pilots current for the impending workup cycle. During this time, we also worked with the Sidewinders of VFA-86 to get our pilots in the air. The teamwork demonstrated by CVW-7 was awesome.

Workups

Deployment is a year away, but just right around the corner in terms of the squadron's preparation. In the final week of February, VFA-25 went to Oceana for air-to-surface SFARP lectures. SFARP is a unit-level training program intended to maximize the tactical proficiency of strike fighter aircrew across the full spectrum of missions by using academic lectures, simulators, and tactical training flights. Post lectures, VFA-25 went back to Lemoore to begin pre-loads that consisted of simulator events and tactical flights. In the month of March, VFA-25 went to Panama City, Florida to conduct a missile shoot exercise. Firing missiles is something that is rare in a naval aviator's career due to the limited chances a pilot will get to do so. This detachment was a great chance for pilots to focus on air to air employment, and see the results of firing a missile against unmanned aerial targets. VFA-25 fired two AIM-9X, two AIM9-M, and two AIM-120 missiles. I myself got to shoot an AIM-120 and an AIM-9M in one flight, which was one of the coolest and most rewarding things I've done in VFA-25. In April, VFA-25 started air-to-surface SFARP in Fallon, Nevada. A/S SFARP consists of tactical sorties that begin with unopposed strikes then build up to self-escort strikes (SES) that consist of multiple bandits in a complex and dynamic environment. SFARP is also an opportunity for pilots to employ ordnance ranging from Mk-76 light practice bombs to 1,000 pound live precision-guided munitions and high-speed anti-radiation missiles (HARM). Employing air-to-ground ordnance is the focus of A/S SFARP and so far, we have employed 3,500 bullets, nine Mk-83 (1000lb general purpose bomb), 27 Mk-82 (500lb general purpose bomb), 44 laser guided training rounds (LGTR), two GBU-32 (1000lb JDAM), one GBU-38(500lb JDAM), one HARM, six GBU-12 (500lb laser guided bomb), and eight BDU-45 (500lb heavy inert). Flying in a tactical environment has been a challenge for all pilots in VFA-25 due to our limited resources, but now that pilots are flying daily, the squadron is becoming more lethal and proficient every day. VFA-25 looks forward to new challenges as we continue working up to deploy in 2019.

FROM THE HANGAR DECK

I would like to open this letter from the Hangar Deck by thanking you for your continued support of the Sailors past and present that are or were attached to the greatest squadron in Naval Aviation. Since the 75th Anniversary and the renewed promise that you would pay for books associated with college education, I have seen quite the number of people taking classes and using the program. This organization is unlike any I have ever seen in my 20 years of active service as you continue to strive to make a difference in the lives of those attached to the FIST OF THE FLEET.

Our squadron has seen a lot of things happen since the previous newsletter. First, we completed a detachment to Tyndall Air Force Base outside of Panama City, Florida where the FIST pilots got to perfom numerous missile shoots in support of the start to the pre deployment training cycle. Though it was cooler than everyone would have liked, it was an excellent time for all those that went both on and off the flight line. If you ever get a chance to go Panama City, I would recommend it.

The remainder of the quarter was spent both in preparation for and in execution of air to ground exercises in Fallon, NV. The exercises were three weeks designed to start the push of the squadron towards being deployment ready. The squadron really pulled together to make something from nothing as they pulled our aircraft out of their periodic maintenance intervals and back to full operational status. While I would say that we have significant work ahead of us to be deployment ready, Fallon was a good start. It definitely made me DAMN PROUD TO BE A FIST!

Very Respectfully,
CMDCM(SW) Jeremiah Holler

The art work of the A-7E Corsair II

Have you paid your 2018 Dues?
Annual Dues: $25/YR
Life Time Dues $200
Mail dues to Financial Officer:
Chuck Webster 2441 Lock B Road North Clarksville TN 37043

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DID YOU KNOW: NAVY, MILITARY AND OTHER INFORMATION

Local coach honored at Dodger Stadium by: Noe Garcia Staff Reporter The Sentinel Apr 23, 2018

LOS ANGELES — As Dr. Willie B. Ewing stood on the grass of Dodger Stadium, he couldn't believe what he was seeing around him. The crowd of over 47,000 was on its feet and cheering and clapping for him. "That was probably, to be real honest, that was kind of indescribable," Ewing said. "That's probably the best description I can give to you. No words can really describe what that was like." Ewing, an assistant coach for the Lemoore softball team and lifelong Dodger fan, was watching his favorite team take on the Arizona Diamondbacks. It was also Sunday, April 15, and every baseball fan knows that means it's Jackie Robinson Day in Major League Baseball.

The special day commemorates and honors the day Jackie Robinson made his debut for the Brooklyn Dodgers in 1947 and also broke the color barrier by becoming the first African American to play in the MLB. At the same time, the Dodgers pay tribute to the nation's Armed Forces by honoring a "Military Hero of the Game" during each regular season home game. And Ewing was that Military Hero of the Game. "That was one of my heroes growing up," Ewing said. "I'm where I am because of people like him doing things that paved the way to allow me to do that. To be honored on that same day when everybody else is honoring him as well, just absolutely amazing."

Ewing was nominated by Dennis Powell, a former Major League pitcher who spent eight seasons in the MLB, including the 1985-86 seasons with the Dodgers. He said it was just an honor to be nominated but to actually get picked and have the date of April 15, Ewing couldn't believe it. He was also accompanied by his family including his wife, daughter and son.

He first joined the Navy in 1975 and entered the Naval Aerospace Medical Institute and became one of the Navy's first African American Jet trained Flight Surgeons. In 1979 Ewing helped establish the Family Practice Department and was Chief of Emergency Services at the Naval Hospital. He then served as Chief of Aviation medicine until he was honorably discharged from the Navy in 1986. He's currently practicing family medicine and serving as the Chief of Staff for Adventist Health Systems Central Valley Network

This kind of service earned him the National Defense Medal, the Meritorious Service Medal and Commendation from the Secretary of the Navy for Physical Fitness Standards. And it also earned him a spot at Dodger Stadium. So there he was before the game going through the clubhouse and the first three people he ran into were none other than some of sports biggest legends: Tommy Lasorda, Magic Johnson and Frank Robinson. He stopped and got to talk with them for a little bit before he went on a tour of the Dodgers memorabilia. The Gold Gloves, bats, Hall of Fame items and more were all part of the stops to look at, but the one item he really wanted to get a picture of was with a picture of Robinson himself. After their tour, they were taken to their seats to enjoy the game.

Ewing was taken down to the field in the first and was watching the game from down near the field. Dodgers outfielder Matt Kemp came off the field and gave him a hand shake and hug, while thanking him for his service. Then came the middle of the second inning. I remember hearing the guy say, "Attention ladies and gentlemen," but I didn't hear anything else after that," Ewing said. "I knew he was saying stuff, but I was in suspense. It was unbelievable."

He looked up and saw the faithful blue going crazy on their feet with all of them applauding him. Ewing waved to the crowd with a giant smile on his face. "When everybody stood up it looked like the whole stadium just moved," Ewing said. "My thought was, 'Jeez, 50,000 people and I'm standing right in the middle of them.' They're pointing at me and it was like, 'whoa this is crazy.' I would've never imagined that it would've been anything like that."

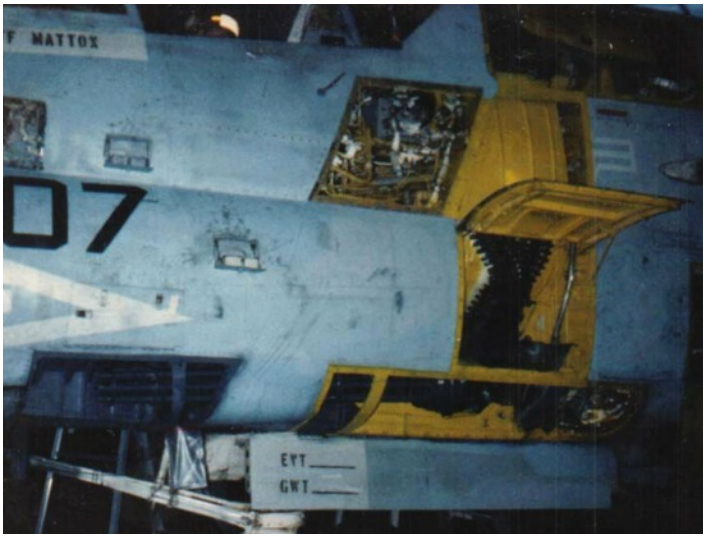
While he was being honored, the JumboTron was displaying photos of him. There was one of when he was first sworn into the Navy, another when he's just come home off his ship and one with him between two of the Dodgers World Series trophies.

As he was coming off the field, Dodgers outfielder Joc Pederson shook his hand from the dugout and thanked him for his service. Pederson also gave him a ball. "It's sitting right in the middle of my desk," Ewing said.

As he headed back up the stairs to his seat he was serenaded by more applause and people making their way over to him to thank him for his service and shake his hand. "If I could have one thing that you could do and that was if every service guy could live that moment it would be absolutely amazing," Ewing said.

Clayton Kershaw went on to strike out 12 Diamondbacks and the Dodgers won 7-5, but Ewing was the biggest winner of anyone that day.

It gets hot on the roof.



M61A1 Vulcan access panels

Just another day. It's not just a job! Oh wait……..

The Troubleshooter. If he says No, then you don't go.

Old time peep show? Nope, engine inspection

Sometimes no matter what you do that bird don't fly.

FISTORY: GREEN TAILS OVER 'NAM: THE CORSAIR II

The Vought YA-7A/A-7A

Origins of the A-7 reside back in a 1962 USN initiative which produced the VAX ("Heavier-than-Air, Attack, Experimental") program seeking a follow-up design to the aging A-4 platform. A budget-conscious approach was selected in which an existing airframe was to serve as the basis for the new aircraft. This would also expedite development and ultimate serial production of the strike fighter. Key industry powerhouses such as Douglas, Grumman, North American, and Vought (part of Ling-Temco-Vought = LTV) put forth various submissions, each with potential. The Vought submission in particular was based on their successful F-8 "Crusader" carrier-based strike fighter which became a proven USN contributor during the 1960s. Its airframe was modified slightly to include a shortened fuselage but retained its high-mounted, swept-back wings (though with greater span), tricycle undercarriage, and under-cockpit intake. The adjustable, pivoting wing mainplanes of the F-8 were dropped to simplify the new design for both production and maintenance/operation. After evaluation of all the competing types, the Vought submission was selected in February of 1964 and assigned the USN designation of "A-7" with the name of "Corsair II" - honoring the successful war-winning World War 2-era Vought F4U "Corsair" carrier-based, prop-driven product.

Development of the A-7 platform was relatively fast and three YA-7A developmental models were ordered by the USN in March of 1964. A first flight was recorded on September 26th, 1965 with the engine of choice being the Pratt & Whitney TF30-P-6 turbofan of 11,350 pounds thrust. Its non-afterburning engine decreased fuel consumption which adding operational range but limited speeds to the subsonic range. The initial design was also fitted with all-important radar in the nose via the AN/APQ-116 series system and a Head-Up Display (HUD) in the cockpit made it the first American aircraft to feature this useful, now standard, technology. An ejection seat increased pilot survivability and an advanced, digital weapons suit made for an accurate bomb-delivery platform when compared to contemporaries

The wing mainplanes were hinged outboard of the hardpoints for improved carrier storage and the tricycle undercarriage designed with the rigors of carrier operation in mind. Underwing hardpoints numbered six in all (three to a wing) and two side-fuselage stations were also in play - mainly to carry AIM-9 "Sidewinder" short-range, Air-to-Air Missiles (AAMs). Total stores capability was theoretically 15,000 pounds made up of a mix of conventional drop bombs, guided ordnance, and homing/guided missiles. Initially 2 x 20mm Colt MK 12 cannons were fitted for close-in work and 250 rounds were afforded per gun installation. A later mark introduced a single 20mm rotary gun with 1,030 rounds carried.

With testing behind it, the YA-7A graduated to its first production form as the "A-7A" and these were taken into USN service in 1966 through Squadron VA-147. In 1967, Initial Operating Capability (IOC) was reached. The A-7 appeared at a time when the American military was firmly committed to actions in and around Vietnam. As such, the Corsair II's baptism of fire was quick to be seen as the aircraft was shipped to the theater in number. Its first sorties came during December of 1967 beginning a long and storied service life for the Vought product.

The A-7A was produced in 199 examples and featured the same powerplant of the developmental-minded YA-7A.

The YA-7A. This picture was rendered on to the wall of the ops-side chow hall.

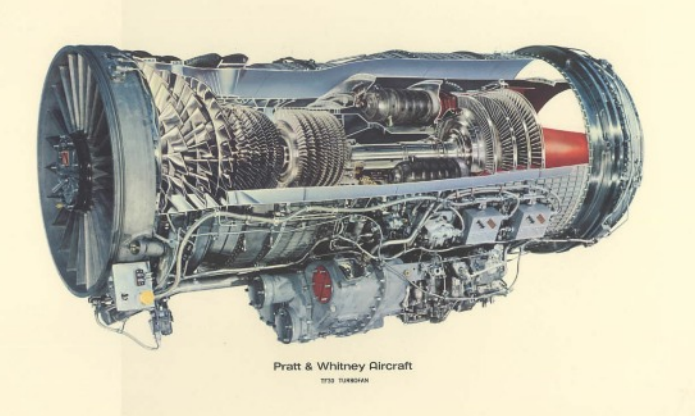
The VA-147 "Argonauts" were the first fleet squadron to fly the Corsair II

The A-7B/C/D

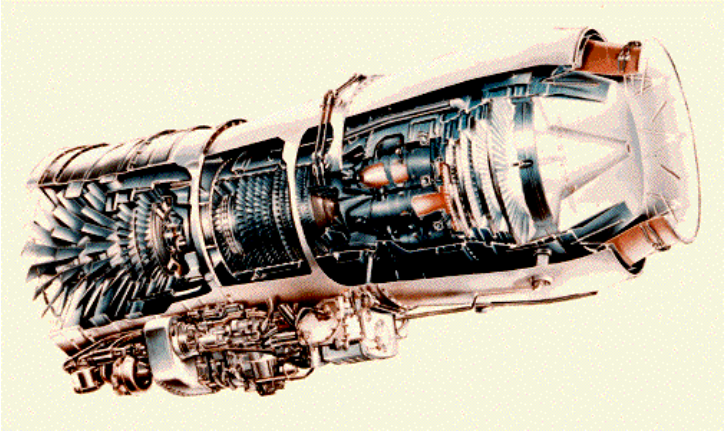
The follow-up production model became the A-7B which installed the TF-30-P-8 engine of 12,190lb thrust and these were later modernized with the TF30-P-408 engine of 13,390lb thrust and had their original AN/APQ-115 terrain-following radars (as featured in the A-models) replaced by the AN/APQ-116 series. Total production of B-models reached 196 examples. Sixty-seven examples of the A-7C model followed and these carried a TF30-P-408 engine of 13,400lb thrust output. They were eventually featured with the avionics/armament suite of the upcoming A-7E model. A trainer form emerged as the TA-7C and this featured a two-seat cockpit for student and instructor while being forged from 24 examples of the existing A-7B stock as well as 36 pulled from the A-7C total. The United States Air Force (USAF) realized the value of the A-7 as a strike platform and ordered its own batch from Vought as the A-7D. These were fitted with the license-built Rolls-Royce Spey turbofan (as the local Allison TF41-A-1) and gave up the 2 x 20mm cannon approach for a simplified 1 x 20mm M61 "Vulcan" internal "Gatling-style" cannon arrangement. They carried AN/APN-185 nav radar and AN/APG-126 terrain-following radar. The "Pave Penny" laser tracker and maneuvering flaps were also part of the product. Serial manufacture became an impressive 459 total example of which many were handed to Air National Guard (ANG) units and saw their combat debut over Vietnam in 1972.

A-7B of VA-25 deployed aboard USS Ticonderoga CVA-14 in 1969

TA-7C



TF30


TF41

Right: The A-7D. The main structural difference is the relocation of the refueling probe to be housed in the hump aft of the cockpit.

Source: https://www.militaryfactory.com/aircraft/detail.asp?aircraft_id=116

NEXT TIME IN FISTORY: GREEN TAILS OVER 'NAM, THE A-7E