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INSIDE

IN THE NEWS

- Headlines – Sweden and Finland look set to join NATO. Plus views from two readers living in these countries
- The first T-7A Red Hawk advanced trainer jet destined for delivery to the US Air Force is unveiled by Boeing
- The new USMC Aviation Plan was revealed on May 3 – see pages 15-17

28 Fight's On! With the 'Sun Downers'

Jeff Bolton visits the US Navy's VFC-111 'Sun Downers' at its Naval Air Station Key West home as they take on a fleet of Navy Super Hornets

36 Reapers Bow Out

A fixture of US air defence in Europe for more than a generation, the departure of the 'Grim Reapers' F-15 fighters marks the end of an era as Bob Archer reports

40 China's New Tanker

David Axe reports on the PLAAF's ambitions for the new Xi'an Y-20U airborne tanker which revolutionise its fighting tactics

46 60 and Special

Many special mission C-135s are now 60 years old and still going strong. Bob Archer celebrates the examples that remain in USAF service

56 Pavin the Way!

Yissachar Ruas visits Moody AFB in Georgia to catch up with the latest USAF platform that could one day be needed to infiltrate behind enemy lines: the HH-60W Whiskey

62 A Lack of Numbers

Babak Taghvaaee looks at the negative impact of Islamization on the operational readiness of the Iranian Air Force during the recent Army Day

78 David Cenciotti

62 Arya N



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SEE PAGE 96 FOR
FULL DETAILS

**COMBAT
AIRCRAFT**
SUBSCRIBER
EXCLUSIVE



66 Kansas State Report: Enter the Center

Tom Kaminski casts his eye over the air bases in the Sunflower State and their rich histories

74 Getting Ship-Shape

David Isby explores the fast-evolving world of unmanned aerial vehicles serving with the US Navy and Marine Corps

78 Italian Wild Weasels

David Cenciotti recently visited Ghedi Air Base, home to the Italian Air Force's 155° Gruppo Electronic Warfare Tactical Suppression (ETS), to learn how the Tornado ECR and F-35A Lightning II are being used to train for dangerous enemy radar destruction missions, dubbed 'Wild Weasel' tactics by the USAF

86 Taliban Hunters

Babak Taghvaei reports on the Northrop F-5E Tiger IIs at the IRIAF's Forward Operating Base in Birjand, near the border with Afghanistan

88 Jump Jets In The Desert

Despite the diminishing use of Harriers, the US Marine Corps still needs new pilots. For this, El Centro in California provides specific conditions for weapons training, as Joe Copalman discovers

97 Cutting Edge

With a loss of many manned airframes since Russia invaded Ukraine, David Axe dives into Ukraine's use of military drones to defend its territory against the aggressors

36 Bob Archer



88 Joe Copalman



ON THE COVER

Cover image:
F-5N Tiger, nose number 115, of VFC-111 breaks away from the formation in the skies over its home station at NAS Key West Ted Carlson



FIGHT'S ON! WITH THE SUN DOWNERS

Jeff Bolton visits the US Navy's VFC-111 'Sun Downers' at its Naval Air Station Key West home

With more than 100 years of combined fighter pilot experience, an eight-ship gaggle of 'Sun Downers' F-5N Tigers sit idling in a symmetrical row on the active ramp at Naval Air Station Key West. All the pilots

wear identical flight helmets featuring their squadron's historic 'Setting Sun' artwork, in addition to a large red star on the back crown identifying them as adversary or 'bandit' pilots, as they are colloquially known. Squadron flight equipment personnel have also taped their individual callsigns neatly on the

bottom back of their helmets, just above the nape of the neck: Baffle, Roy, LC, CYNDI, Clifford, Stevie, Yort and CJ were the names visible.

Each of the bandit pilots glances up briefly as a line of eight hulking gray US Navy Boeing F/A-18E Super Hornets, informally known as 'Rhinos', taxi by a



Main Image: A F-5N Tiger of VFC-111, nose number 115, breaks away from the formation in the surrounding area of home station, NAS Key West **Ted Carlson**

Bottom right: The TOPGUN Adversary patch

short distance away, before launching in afterburner in groups of two into the humid Gulf of Mexico airspace.

The visiting Super Hornets are from an active-duty US Navy fleet squadron preparing for an imminent nine-month deployment aboard an aircraft carrier as part of a Carrier Strike Group (CSG). They have flown into NAS Key West for two weeks to sharpen their air-to-air fighting skills under the tutelage of the 'Sun Downers' before they embark.

As the fleet jets taxi past, it's impossible not to notice that the F-5 fighter jets are diminutive in physical size compared to

the Rhinos and it doesn't look like a fair fight on the horizon between the modern fourth-generation Super Hornets and the third-generation Tigers that were designed in the 1950s. However, a closer inspection of the F-5s reveals something extremely rare and very important. It won't be a fair fight, not for the Super Hornets, because the now well-known TOPGUN graduate patch is sewn on the right shoulder of the flight suit of every 'Sun Downer' pilot manned up in the F-5s. This colorful patch, which has the word 'Adversary' additionally stitched on a rocker below the bottom of the patch, is the only clue that a doctoral level class in dogfighting is about to be taught to the Rhino crews over the next 90 minutes.

Commander Derek 'Baffle' Ashlock, commanding officer (or skipper, as

squadron leaders are known informally in the US Navy) of the 'Sun Downers', will lead the fight from the front. He looks over his shoulder, nods to the pilot to his left and, on his signal, all 'Sun Downer' canopies come down in unison as they taxi to the active runway and roar into the air only minutes behind the Super Hornets. It's a small but impressive display of attention to detail and a nod to the extraordinary professionalism of the 'Sun Downer' pilot instructor cadre.

A Hawker Hunter jet from red air contractor Airborne Tactical Advantage Company (ATAC) launches right behind the F-5s as a part of their threat presentation. A few minutes later, the words all true fighter pilots are waiting for and love to hear are spoken over the radio: "Fight's on!" An absolute melee





VFC-111 MISSION SETS

The 'Sun Downers' squadron has 16 single seat F-5Ns and one two-seat F-5F (the famous 'Frankentiger' or 'Family model') and more than 70 personnel, including 30 pilots, to provide a full suite of training services for the US Navy.

These missions are varied and include:

FLEET REPLACEMENT SQUADRON (FRS) TRAINING

Navy FRS pilots have completed flight school and are learning how to fight their assigned aircraft for the first time. 'Sun Downers' instructors introduce these naval aviators and naval flight officers (NFOs) to the skills of aerial combat maneuvering (ACM) and basic fighter maneuvering (BFM) in a demanding walk, run, sprint syllabus.

STRIKE FIGHTER ADVANCED READINESS PROGRAM (SFARP)

This course is one of the required work-up phases for deploying strike fighter units where the latest graduate level fleet air combat tactics are taught to them.

FLEET UNIT LEVEL TRAINING (ULT)

This training program joins US Navy ships and squadrons together in complex missions that are supported by VFC-111.

AIRWING FALLON SUPPORT

The 'Sun Downers' sister squadron, VFC-13, based at Naval Air Station Fallon, typically provides fleet support at Fallon and VFC-11 supplements them as required with aircraft and/or personnel.

VFC-111 TRAINING

Building a world class bandit pilot takes a massive amount of training and a high number of flight sorties. The 'Sun Downers' commits enormous resources to this task.

The activity level in the squadron is constant, with normal training days consisting of two to three sorties. Add extensive time for debriefs between the bandits and their students, and between the bandit pilots themselves, and the days get very long. As has long been tradition in the US Navy, one person answers to the word 'Skipper' in a squadron, and 'Baffle' is a highly unusual Skipper among a squadron of enormously experienced bandits.



Left: VFC-111 Flight Equipment office where pilots don the tools of the trade: flight helmets, survival vest and g-suits. Notice the distinctive squadron livery of VFC-111 'Sun Downers' bandit placed on the flight helmets **Jeff Bolton**

Bottom left: The F-5 Adversary patch worn by VFC-111 pilots

Below: VFC-111 F-5N displaying the Commanding Officer artwork: nose number 111 and the sun on the rudder **VFC-111**

of radio calls, g-force induced grunts, sharp breaths, aerial vectors and bogey calls are uttered with great rapidity. It's a giant tangle of slashing fighter jets in the restricted airspace over the Gulf. A dogfighting class is now in session.

The Red Air sea change

The US Navy red air adversary mission is flown exclusively by Navy Reserve squadrons by design, but changes within both the Navy and US Air Force communities over the past several years are forcing the services to find new ways to train fleet and squadron pilots without the benefit of what was once a virtually endless supply of US military combat jets and highly experienced fighter pilots. Today, active-duty US fighter squadrons are focused entirely on their tactical missions. Every hour that fleet aircraft fly in the red air mission is one less hour that would be flown in fleet missions, which would have a dramatic negative effect on combat readiness. Navy reserve red air squadrons are also subject to limited numbers of available airframes for their mission sets, and they are constantly adjusting their airframe mix to increase their capabilities.

A sizeable and highly capable private red air industry has been rapidly developing over the last few years to meet the needs of training US and allied pilots in the tactics, techniques and procedures of nations hostile to the US and its allies. Many of the red air training missions are still flown exclusively by military units.

Amid the numerous challenges in the current red air universe is the biggest issue of all: a growing military aviation threat from not one, but two, near peer nations in China and Russia. The need to professionally and rapidly train US fighter pilots to counter the hostile threat of those nations has never been more critical.

The 'Sun Downers' mission

The US Navy disestablished its four active duty (VF) red air adversary squadrons post-Cold War in the 1990s and that role is filled today by five squadrons in the Navy Reserve's Tactical Support Wing (TSW). That this critical mission is entrusted exclusively to the Naval reserve community is testament to their enormous experience and capabilities. VFC-111 was established in January 2006 at NAS Key West and inherited the rich and colorful squadron history of the VF-111\

VF-111 'Sun Downers' squadron that was disestablished in 1994 while flying F-14 Tomcats.

VFC-111 employs all three types of Navy sailors: Active-duty, Training and Administration of the Reserve (TAR, whose sole purpose is to provide administrative support for the reserve component) and Selected Reserve (SELRES). The squadron's personnel structure may seem like a minor detail, but it is the most important element driving the success of their red air mission. More than 70% of the pilots are SELRES, who flew either Legacy or Super Hornets in the fleet, and almost all have graduated from TOPGUN, earning either a blue (friendly) or red (adversary) patch, and most are current airline pilots. They possess an incredibly deep well of experience that few pilots attain – achieving the level of competence required to teach young fleet pilots the complex, dynamic and highly demanding air-to-air combat syllabus takes many years to develop.

The 111 SELRES pilot cadre, like those of the other Navy reserve groups, is unique among fighter squadrons because they all have primary jobs outside the Navy. They also choose to serve in an additional



Below: A cockpit shot of a VFC-111 pilot and their view while at the controls of one of the unit's F-5s VFC-111

career as bandit pilots – no one does it for the money given that flying jobs in the commercial sector are vastly more profitable. But being a bandit pilot, teaching aerial combat at the highest level and serving their country is an intoxicating lure for fighter pilots whose credentials mark them among 'the best of the best.' Some SELRES pilots are local and commute out of Key West for their

primary jobs, while others commute into Key West from places like Salt Lake City in Utah, Virginia Beach in Virginia and Atlanta, Georgia, at significant personal and professional costs.

According to every pilot that takes part, flying and fighting in combat jets is unsurpassed and the camaraderie of squadron life is unmatched in the civilian world. Equally impressive are the diverse

enlisted personnel at 111. While the pilots are the most visible representation of the squadron, enlisted personnel shoulder the heavy burden of ordering parts, keeping the computers running, scheduling, administration and myriad of other unseen jobs that are unrelenting, vital and irreplaceable to keep the squadron taut and operating at the very highest level for their unique mission.



THE 'SUN DOWNERS' COMMANDING OFFICER DEREK 'BAFFLE' ASHLOCK

After the F-5s and Super Hornets returned from their first flight of the day and completed an exhaustive debrief, *Combat Aircraft Journal* sat down with Commander Derek 'Baffle' Ashlock for a wide-ranging interview.

Ashlock is an open, affable officer and is unmistakably a fighter pilot. He was a Hornet baby, meaning he reported directly to F/A-18 training directly from flight school and spent most of his naval aviation career in Hornets. He completed three deployments and logged 535 arrested landings aboard 11 aircraft carriers. After leaving the Navy in the late 1990s he came back into the service in 2009. He is the oldest fighter pilot in the US Navy at age 58 and is hoping to fly and serve for years to come.

During our interview he juggled phone calls from his airwing commander, office drop-ins from his staff, pilots and maintainers, and emails from every corner of the Navy universe - sometimes accompanied by a chuckle, sometimes a raised eyebrow, other times with a deep sigh and a head shake. He would also fly and fight two more times during the day after our interview.

When asked if it was dynamic to be an adversary fighter squadron skipper, Ashlock chuckled: "It is, but I would not trade it for anything. I always heard that the absolute best job in the Navy was commanding a fighter squadron and I've discovered that is true."

So CAJ took the opportunity to ask a few questions.

CAJ: How was the fight with the Rhinos this morning?

Cdr Ashlock: They're on a steep learning curve, but they're coming along well. The challenge is that we only have them for a relatively brief period and there is a lot to plant in their brains before they depart for deployment.

CAJ: How does the TOPGUN background of the majority of your pilots influence how you bridge that time gap?



Cdr: Good question. The secret to TOPGUN graduates is that you can not be just a great fighter pilot or tactician. You must also be a great instructor, bottom line. If you are unable to translate, teach, process the airspace and fight at the very highest level then it is tough to have the impact the Navy needs on young pilots. That is where very deep experience and true fighter

pilot talent helps in the process.

CAJ: You have two more flights today, where you will fly and fight, each as dynamic as this morning. How does your body feel pulling 6 or 7gs at almost 60 years of age?

Cdr: It is definitely a challenge and heavy stress on your body. It has long been said that flying fighters is a young person's game and that is mostly true.

Above: Sun Downers Commanding officer Derek 'Baffle' Ashlock gives the thumbs up in his F-5 cockpit VFC-111

I work out, stretch, bike, eat right most of the time and try hard to take care of myself. It also helps that I'm old, so I've seen most of what we teach many times in my career.

It's an honor, truly, to fight the kids. Well, wait! They're not kids, but at my age it seems like it sometimes! If I meet one of the youngsters who beats me in a one versus one dogfight it might be time to hang it up. Until then I'm full up in the fight.

CAJ: Tell us about fighting in the third-generation Tiger against fourth- and fifth-generation fighters like the Super Hornet and the Raptor.

Cdr: We get that question a lot and the answer is more layered than you might think. One of our main missions is teaching ACM [Air Combat Maneuvers] and BFM [Basic Fight Maneuvers] to pilots from the Fleet Replacement Squadron [US Navy training unit] and their time with us is their first true exposure to dogfighting and multi-ship air-to-air combat. A lot of those rules haven't changed since Von Richthofen's day. From that perspective, the F-5 is perfect for the mission because we don't need fourth- or fifth-generation fighter technology to teach basic tactics or present hostile nation threat scenarios to the new pilots. It is a smart, cost-

efficient move by the Navy to use the Tiger in this role. Its fast, nimble, has a tiny visual signature when nose on, and is absolutely murder in a one-v-one phonebooth dogfight! The Raptor... forget about it. Those are ruthless killing machines. They kill absolutely everything they want to. I'm glad they are on our side.

CAJ: Where else does the F-5 do well?

Cdr: We are also a vital part of the large adversary force resident within the Navy. We consolidate with the other squadrons when necessary to teach hostile tactics in the high-end fight and we use some of our unique advantages to challenge the blue team's more modern capabilities. I'll leave it at that.

CAJ: You've been around for long enough to see the full advent of private red air contractors. What is it like integrating them into red air training?

Cdr: They are great to fly with – many of the pilots are people I have flown with during my career and they are outstanding red air experts. They are fulfilling a very important role and I don't know a single pilot in the squadron, including me, who does not absolutely hate the sight of a gray fleet jet doing a red air mission. We need every one of the hours on those airframes for fleet work, so contractor

red air helps us extend the life of those aircraft for our fleet pilots doing the mission around the world. That is a really good development.

CAJ: You have spoken a lot about the collective experience in the squadron. Can you give us some insight as to what it's like to debrief a red air mission composed of -111 TOPGUN pilots, who are quite literally the best fighter pilots on the planet?

Cdr: First, everything you may have heard is true. On days where the fight doesn't go significantly as briefed or deviates in a way that is inappropriate or potentially unsafe, the debriefs are absolutely hardcore and brutal, no matter your rank or experience. Pilots are literally inches from life or death in some of the aerial scenarios we fly and our instructors fight like demons to protect everyone in the jets. At 700 miles an hour in contested and confusing airspace with 16 jets, it can get chippy. In the debrief it takes enormous will and very, very thick skin to endure harsh but fair criticism. But here is what you do not often hear: that criticism is never given to tear down a pilot. Never. They are human beings and a vital part of our military. We sharpen each other in a very hard way so we can fight better on the next sortie. That's the only goal. The





country expects us to be the best in the world at our craft and every member of this squadron knows that intimately.

CAJ: What's next for you?

Cdr: Two more hops today! Beyond that, I'm headed to a new job in the naval reserves soon, so I'm pressing hard and squeezing the juice out of every moment I have left here as CO. I never dreamed I would make it to this moment in my career and I'm humbled every day by the trust and responsibility that comes from being selected to serve here. I am also very honored to be a part of the naval reserve personnel that are called on to instruct and excel in the red air mission – one of the most critical missions in the entire nation.

The phone rings yet again and Commander Ashlock excuses himself with a handshake and a promise to return when he is able. Within a few short minutes the Rhinos and 'Sun Downers' take flight again for the next hop. The pace of aerial combat red air training is relentless in the US Navy and is very well served by the professional 'Sun Downers' bandits of VFC-111. 🇺🇸

Above: The F-5F Franken Tiger nose is significantly longer than the single seat F-5N, seen here underneath one of NAS Key West's sun shelters **Jeff Bolton**

Left: VFC-111 F-5N, nose number 105, flies in formation with another 'Sun Downer' prior to one of many adversary air training flights during a normal day with the unit **Ted Carlson**