

# COMBAT AIRCRAFT

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TALES OF THE TROUBLESOME

# TOMCAT



PART ONE





One of the most famous naval fighters of all time, the mighty F-14 Tomcat enjoyed a career with the US Navy that lasted more than 30 years. Its home was the carrier flight deck – one of the harshest environments for a military aircraft – and the F-14 experienced more than its fair share of incidents and accidents.

REPORT **Tony Holmes**

The F-14 Tomcat was in service with the US Navy until 2006. While it enjoyed a special place in the hearts of many aviators and enthusiasts, it was a fighter that endured a problematic career. **Rich Cooper**

**O**F THE 632 Grumman F-14 Tomcats that were built for the US Navy, no fewer than 144 were lost between December 30, 1970, and March 29, 2004.

The majority of these accidents were the result of pilot error, particularly during carrier landings. Although the Tomcat had good low-speed handling characteristics thanks to its 'swing-wings' and clever lift devices — spoilers plus full-span leading-edge slats and trailing-edge flaps — the aircraft could be a handful in the final stages of a carrier landing. It was poor at holding an accurate approach speed or glideslope angle and it tended to veer away from a heading. The jet also suffered from high pitch inertia, causing it to float in the final seconds prior to landing. High residual thrust meant that pilots had to use low throttle settings, giving poor engine response when more power was required. Finally, indifferent lateral control made precise heading control difficult.

The Tomcat was hamstrung for much of its career by unreliable and underpowered engines whose in-flight failures resulted in the loss of more than 50 aircraft, equating to roughly \$1.5 billion. Aside from suffering a seemingly endless series of turbine failures — particularly during the type's early years of fleet service — the Pratt

& Whitney TF30 turbofan engine proved particularly susceptible to compressor stalls when the jet was being flown at high angles of attack (AoA) during vigorous maneuvering while undertaking air combat training. Such stalls, which usually resulted in the Tomcat entering an irrecoverable flat spin, caused 31 crashes, and a total of six deaths, during operations between 1976 and 1993.

This appalling rate of attrition prompted high-profile Navy Secretary, and naval flight officer, John F. Lehman to testify before the congressional appropriations sub-committee in 1984 that the 'F-14/TF30 combination was probably the worst engine/airframe mismatch we have had in many years. The TF30 is simply a terrible engine'. His opinion was echoed by veteran fighter pilot RADM Paul T. Gillcrist, who flew the Tomcat in the early 1980s during his time as the commander for all Pacific Fleet fighter squadrons at NAS Miramar. 'I do not believe that anyone who has ever flown the F-14A Tomcat would argue with the statement that the airplane's greatest single weakness is the engine. The decision to cut the [Pratt & Whitney] F401-PW-400 destined US Navy fighter aircrews to fly on the pointed end of the spear in F-14s powered by what they referred to as 'two pieces of junk' for an unprecedented 18 years.

'It was not until November 1987 that the first F-14A+ [subsequently redesignated as the F-14B] configured with the new General Electric F110-GE-400 engine reached VF-101 at NAS Oceana.'

## New motors

Although the acquisition of the F110 solved many of the engine-related issues that blighted the A-model Tomcat throughout its US Navy service (the last F-14 lost to a TF30 failure crashed as late as April 1, 2003), the new General Electric powerplant had a few reliability issues of its own during the early phase of service. Indeed, there were two fatal accidents hauntingly similar to the incident on September 20, 1995 that is detailed later in this feature.

The first of these had actually occurred more than two-and-a-half years earlier, on March 15, 1993, when F-14B BuNo 163411 — the very last A+/B-model Tomcat built by Grumman — disintegrated in flight 20 miles east of Nags Head, North Carolina, during a VF-101 training sortie, killing LT William E. Daisley and LCDR Fred D. Dillingham. Liner burn-through in the afterburner was the suspected cause. This fault in the F110 had been





**Left:** F-14A BuNo 161296 of VF-1 is removed from the USS *Kitty Hawk* (CV 63) flight deck after a barricade landing on June 30, 1984. The right main gear refused to fully extend. Although the Tomcat had its faulty gear leg ripped off upon landing it was a textbook recovery and the jet was flying again within two weeks.

**US Navy**

**Inset:** A TF30-P-41 turbofan. **Danny Coremans**

**Below:** The wide spacing between the TF30s is revealed in the remains of VF-51 F-14A BuNo 162602, which broke in two after a ramp strike while attempting to land at night on board *Kitty Hawk* on July 11, 1994.

**US Navy**

detected by General Electric three years earlier, prompting the company to instruct Grumman to perform special inspections on the afterburner 'cans' and the surrounding nacelles following engine runs at Calverton.

An identical liner burn-through severed the flight control rods of F-14D BuNo 161158 from VF-11 on February 18, 1996. The jet was flying at Mach 1.2 just a few hundred feet above the water during a competitive training unit mission from USS *Carl Vinson* (CVN 70) in the southern California operations area at the time of its demise. Again, the resulting conflagration engulfed the jet with such speed that neither the pilot, LT Terrence L Clark, nor the radar intercept officer (RIO), CDR Scott Lamoreaux, had time to eject. According to a story written by journalist Michael E. Ruane and published in the *Philadelphia Inquirer* newspaper shortly after the accident, 'the wingman [in a second Tomcat] could not tell if the F-14 blew up first and then hit the ocean,



The Tomcat could be a real handful in the final stages of a carrier landing. Clearly struggling, the pilot of VF-2's F-14D 'Bullet 104' (BuNo 163900) makes a heavy landing aboard USS *Constellation* (CV 64) in April 2003. **US Navy**

“The Tomcat remained a challenge to fly through to its retirement by the US Navy in October 2006



The crew of a VF-143 F-14B braces for launch from USS *John F. Kennedy* (CV 67) in June 2002. Four months earlier, 'Dog 101' (BuNo 162923) had its nose gear strut disintegrate while launching from CV 67. **US Navy**



F-14A 'Nickel 104' (BuNo 158618) vents fuel in late February 2002. The aircraft was lost in a landing accident just days after this photograph was taken. **VF-211 via author**

as a replacement for the jet's original analogue flight controls. Based on the system built for the Eurofighter Typhoon, the DFCS used fly-by-wire software to send commands to the rudders and 'tailerons' to dampen Dutch roll and adverse sideslip when on the glideslope for landing. It also controlled wing rock on take-off. During air combat, the DFCS improved departure resistance when maneuvering at high AoA and gave the pilot a far greater chance of recovering the jet should it depart from controlled flight following a stall.

Despite these somewhat belated improvements, the Tomcat remained a challenge to fly through to its retirement by the US Navy in October 2006.

Worryingly for its crews, during the final years of fleet service several F-14s were lost following component failure caused by the age of some of the jets still in use. VF-143's LCDR Christopher Blaschum became the last Tomcat crewman to lose his life in an accident involving the aircraft (specifically F-14B BuNo 162923) on March 2, 2002 when, according to his RIO, LT(jg) Rafe Wysham, who ejected safely, the nose gear strut disintegrated as their Tomcat was being catapulted from the flight

**Below:** The very last US Navy Tomcat to be written off in a flying accident is retrieved from its watery grave. F-14D BuNo 164344 of VF-31 crashed on March 29, 2004. **US Navy**

deck of USS *John F. Kennedy* (CV 67) in the Mediterranean Sea.

'Following the crash, all 156 Tomcats in the navy inventory were temporarily grounded so that their nose gear — specifically the outer nose gear cylinder strut — could be checked for the type of fatigue cracks and corrosion pitting that had caused the undercarriage of the jet to fail during its catapult shot,' recalled



VF-143 pilot LT(jg) Joseph Greentree.

'The nose gear strut failed early on in the jet's launch cycle. Airframers in the maintenance departments of VF-143 and our sister squadron, VF-11, worked round the clock removing nose gear legs and inspecting them. They managed to turn all the aircraft around in just 72 hours. Soon after we arrived in-theatre [off the coast of Pakistan during Operation 'Enduring Freedom'], VF-211 then lost a jet when its tailhook separated, and again we were grounded for three days while our aircraft were inspected and passed fit to fly.

'Theses failures were rather disconcerting, because I remember one of my instructors in VF-101 telling me that the two things that would never break on the Tomcat were the nose gear and the tailhook! Both failures were put down to undetectable corrosion caused by the sheer age of the jets involved.'

Through preventative maintenance, a thorough inspection of surviving airframes and the accelerated retirement of the oldest Tomcats, the attrition rate among the dwindling ranks of F-14s was drastically reduced during the jet's final years in the fleet. Indeed, not a single example was lost in its final 30 months of front-line service.

Liner burn-through in the afterburner section of the F110 engine destroyed F-14D BuNo 161158 from VF-11 on February 18, 1996. An investigation found that the fierce fire in the right engine had severed the flight controls with such speed that neither the pilot, LT Terrence L. Clark, nor the RIO, CDR Scott Lamoreaux, had time to eject. **David F. Brown**





The Tomcat had a less than favorable safety record and LT Neil 'Waylon' Jennings and his RIO, LT T. J. 'Buga' Gusewelle, survived one of the more spectacular accidents to befall the type. This is their compelling story...

REPORT **Neil 'Waylon' Jennings and Tony Holmes**

**S**EPTEMBER 20, 1995, was a standard day aboard the aircraft carrier USS *Abraham Lincoln* (CVN 72) except for one noteworthy exception — we were headed eastbound on our way home from a six-month deployment to the Persian Gulf. We were about half-way through a transit that would take us back to our home base in San Diego, California. Assigned to VF-213 'Black Lions', which was the sole F-14 unit within Carrier Air Wing (CVW) 11, I had spent most of my deployment flying missions over Iraq in support of Operation 'Southern Watch'. Now, we were finally heading back to our waiting families. It takes approximately six weeks for an aircraft carrier to travel from the



**Left:** Newly promoted LCDR Neil Jennings poses for a photograph at NAS Miramar in his VF-213 blue 'Friday sierra hotel' flight suit. This shot was taken several months after his high-speed ejection. **Author via Sally Jennings**

**Below:** The ill-fated 'Lion 112' [F-14A BuNo 161146] during a work-up near NAS Fallon, Nevada. **Ted Carlson/ Fotodynamics**

Middle East to California. On the trip westward to the Persian Gulf at the start of the deployment there is a lot of excitement and anticipation regarding the mission you are on and the ports you will see. In contrast, the trip home is marked by long days and sleepless nights, and much of the crew has 'channel fever', longing to be home but not getting there quickly enough.

September 20 was a Wednesday, and it began like any other day on the ship. I woke up at around the crack of 10, crawled out of my rack [bed], showered, dressed and headed down the narrow passageway to VF-213's ready room, where the aircrew congregated in between training, working and flying events. On the flight schedule I was crewed with my RIO, LT T J 'Buga' Gusewelle. I enjoyed flying with 'Buga'. He was a great officer and a great RIO, and he had a spark of enthusiasm that set him apart from the crowd. He loved flying the Tomcat and that made me love flying it too. The deployment we were on was 'Buga's' first and my third overseas cruise.

# TOMCAT

## TERMINATION







The flight schedule had us down for a 14.00hrs brief and a 16.00hrs launch. Our mission was to fly a ship's service hop in support of the destroyer USS *John Paul Jones* (DDG-53). We would be flying a cruise missile profile while simulating an attack on the warship. Neither 'Buga' nor I were particularly interested in either the brief or the mission, mostly because we were designated as the 'spare' for the flight. This meant that we would not get airborne unless one of the 'go birds' had a maintenance issue and was unable to launch. In other words, we had the less than enviable task of getting our aircraft ready to launch, but there was little likelihood that we would get to go flying. Being the spare usually involved doing all the work of getting ready to go flying, but without the reward of actually getting airborne.

'Buga' and I met in the ready room just before 14.00hrs, checked the weather, looked at the list of divert fields, sat through a flight brief, compared notes, did a quick crew brief and then had about 10 minutes to take care of our other administrative tasks before we headed out the door. A little after 15.00hrs we left the ready room and stepped into the passageway where maintenance control was located. The maintenance chief handed us the aircraft discrepancy book for 'Lion 112' [F-14A BuNo 161146]. We read through the binder of recent maintenance actions and noted that our jet had a marginal radar, but that all the other systems were up and working. We left maintenance control, cut back through the ready room and headed down a passageway that took us to the para-rigger's Shop. We suited up into our flight gear and headed outside,

not knowing that we would be using most of the gear to survive that day. At around 15.15hrs we arrived on the flight deck and walked aft, looking for our assigned F-14, 'Lion 112'.

The jet was parked all of the way aft on the starboard side of the deck, and it had been chained down with the tail hanging out over the water. Considering that we had been on cruise for five months, 'Lion 112' still looked remarkably good. Our plane captain had taken pride in the aircraft, and he had worked hard to get the exterior of the jet clean. The flight deck was a greasy, grimy and crowded environment, and it took extra effort to keep the jets looking good while they were continuously being used on missions. I was always glad to man up a jet that looked as good as 'Lion 112' because it gave me confidence that the aircraft was ready to go.

**Above:** F-14A BuNo 161617 'Blacklion 106' was the Tomcat that bore Neil Jennings' name and 'Waylon' callsign during VF-213's 1995 WestPac deployment. **Author via Sally Jennings**

**Right:** CVW-11 undertook three WestPac/Persian Gulf deployments embarked in USS *Abraham Lincoln* (CVN 72). This photo was taken shortly after the carrier had sailed from San Diego on April 11, 1995 at the start of its six-month-long deployment. **US Navy**



It was a beautiful day, with great visibility and a thin cloud layer at around 10,000ft. The temperature was quite bearable compared to the Persian Gulf that we had just recently left.

I didn't pay much attention to the pre-flight of the aircraft. When I got to my ejection seat, however, I inspected my Martin-Baker GRU-7(A) like it was the most important piece of equipment on the planet — which it pretty much was. For most of my career I had been in the habit of double and triple-checking every cotter key, pin, fastener, nut, bolt, clip and strap on the seat. Even though I was in the spare aircraft, I took my time making certain that my seat was ready to use, and it was.

With the pre-flight completed, we started the engines, got the generators on line, powered up the systems and completed the required checklists. We had just finished when we saw a 'yellow shirt' heading in our direction, giving our plane captain the signal to remove the chocks and chains that held us firmly in place. Hey, maybe we were going to go flying after all. All of a sudden there was a flurry of activity as our young plane captain and his two assistants pulled the chains off, kicked the chocks out from under the tires and did a final visual check of 'Lion 112' to make sure we were ready to taxi. 'Buga' jumped on the radio and verified that LTs 'Haggis' Karger and 'Smoke' Stinson were having problems with their F-14. The launch had already started, and aircraft were roaring off the catapults. Whatever issues they were having, there was no time to fix their jet before the launch would be complete. This meant that 'Buga' and I were definitely getting into the air.





## Called into action

Any opportunity to go flying was relished. We were both psyched that we were taxiing to the catapult because it meant that we were going to escape the floating grey prison that had been our home for the better part of half a year. 'Buga' used the opportunity to poke fun at 'Haggis' and 'Smoke' on the radio, which was standard fare. It was to be expected when you went 'down' and there was a spare ready to replace you.

Take-off checklists completed, engines at full power, final checks done, afterburners lit and I saluted the catapult officer. He completed his last look-over, touched the deck, pointed forward and waited for the catapult to fire. Another catapult officer below the deck pushed a button on a console, steam pressure was ported through a complex launch system and we were roaring down the catapult, going from zero to 150kt in just two seconds. The catapult shot would take your breath away. As the jet accelerated you got tunnel vision, and you felt a rush of adrenalin that cannot be described. It was both exhilarating and addictive, and there was nothing in the world that matched it.

Once we were away from the deck I did a clearing turn, got the gear and flaps up, disengaged the afterburner and leveled off at 500ft. Compared to the helter-skelter world on the flight deck, being airborne was quiet and relaxing. The air was smooth, our jet was flying crisply and we were lucky to be alive. Seven miles from the boat we started our climbing left turn to 8,000ft. We leveled off at the assigned altitude and I initiated a sharp left turn to go find the ES-3A Viking tanker [from VQ-5 Det B] that was waiting for us overhead the ship. We visually spotted the ES-3 at about seven miles and proceeded

**Above:** Between June and September 1995, CVW-11 was committed to flying 'Southern Watch' missions over Iraq on a daily basis. 'Blacklion 105' (BuNo 160695) was photographed over Iraq during a defensive counter-air mission. **VF-213 via author**

**Above right:** F-14As from VF-213 carefully parked in CVN 72's crowded hangar bay. The unit embarked 14 Tomcats at the start of the cruise and had lost 'Blacklion 116' (BuNo 161273) during training off Hawaii on April 27 when it suffered an engine stall – the bane of the TF30-powered F-14A. **Author via Sally Jennings**



to rendezvous from the left side. The Viking was holding overhead the ship in a continuous left-hand turn, waiting to pass the 3,000lb of fuel that would give us enough gas to complete our mission.

Two of our squadron-mates in another F-14 had reached the tanker just before us, and we watched as they completed refueling. LCDR 'Stash' Fristachi and LT 'Stinkin' Cassole were flying the only other F-14 airborne during our cycle, and they were assigned the same mission as us. Within a few minutes they disconnected from the fuel hose and departed off the right side of the ES-3. The tanker pilot then gave us a signal that we were cleared to move aft and plug in. As per the brief we were scheduled to get 3,000lb of fuel from our tanker, which was enough to pump us back up to a full load of 20,000lb. It only took a few minutes to get our allocated gas. I then moved over to the right side of the tanker, where the ES-3 pilot and I exchanged hand signals. We watched his fuel hose retract and we then departed off his right side and proceeded outbound

in the direction of *John Paul Jones*. 'Buga' checked us out with *Abraham Lincoln's* fighter controllers as we proceeded on the mission.

The crew of *John Paul Jones* had recently upgraded their weapons system software, and our job was to make several low and fast flights by the ship to allow them to check the functionality of their radar and weapons system. It was only 70 miles from *Abraham Lincoln*, and it did not take us long to transit to our assigned holding fix, which was 40 miles south of the ship at 20,000ft. We caught sight of 'Stash' and 'Stinkin' en route and rendezvoused on them briefly. They had arrived at the holding fix a few minutes ahead of us. 'Buga' checked us in with our controller, and shortly after that 'Stash' and 'Stinkin' departed the holding point, starting their first run on the destroyer. Our goal was to follow them in a 10-minute trail.

Within a few minutes we got a call on the radio to turn inbound to *John Paul Jones* and start our run. I pushed the nose of our F-14 over in a descent, unloaded





the wings and willed our fuel-heavy Tomcat to accelerate as quickly as it could — at sea level the speed of sound is more than 600kt. The controller on board *John Paul Jones* had asked us to do our flyby as fast and as low as we could go, and our goal was to arrive at the ship at 500ft doing just over Mach 1. At 30 miles out we could see a small dot on the smooth ocean surface that was our target for the flyby. We continued to accelerate and descend, and somewhere around 10 miles from the ship we leveled off at 500ft, doing almost 600kt indicated.

As we got closer to the ship I briefly glanced in the mirrors on the canopy bow and saw that a large vapor cloud covered the back half of our aircraft. At high speeds, and especially on humid days, it was not uncommon to see a shock wave that attached itself to the aircraft. A couple of miles from *John Paul Jones* we could see several dozen sailors standing in various places on the deck, waiting to watch us fly past. The destroyer had been at sea with us for the entire deployment, its mission being to provide a defensive capability — specifically against any aerial threats — for the carrier battle group via its Aegis radar and RIM-67 SM-2 surface-to-air missiles. As we flew past the ship we

**Above right:** VF-213's 'Blacklion 101' (BuNo 162599) accelerates along the deck of USS *Abraham Lincoln* (CVN 72) in 1995. This jet suffered a fatal take-off accident at Berry Field, Nashville, on January 29, 1996. **Author via Sally Jennings**

**Below:** BuNo 161146 joined VF-213 from VF-111 during October 1992. The jet is shown at Miramar in August 1993 following the change of tail markings. **Craig Kaston via David F. Brown**




could see the faces of some of the crew. They were excited to be getting their own personal airshow.

As the ship passed behind us I initiated an aggressive right-hand climbing turn that would carry us back up to our holding altitude. As I pulled the stick back and nudged it slightly right, I set a little more than 6g for the climb. As soon as I loaded the aircraft up with g there was a troublesome 'bang' and the jet rolled dramatically and uncontrollably to the left. Instinctively, I countered the left roll by moving the stick right, but despite my best attempts to control the aircraft we kept rolling harder left. In an instant it felt like the nose snapped downward in full left yaw and I was certain we were on a vector headed downward toward the water. My head banged hard on the right side of the canopy and, all of a sudden, time stood still.

In a timespan that lasted for little more than a few hundredths of a second, the comfortable air-conditioned cockpit of our navy fighter became foreign and hostile. I was confused about what had

happened, and I was desperate to sort out our situation. I stared at the engine and flight instruments, but the gauges held no usable information. In short, the instrument panel was a blank slate staring back at me, telling me nothing about our dire predicament.

I attempted to regain control of our tumbling aircraft by centering up the stick and pulling the throttles back out of afterburner. I noticed fire off the right side of the aircraft, somewhere aft. I couldn't discern the horizon. There was no differentiation between sea and sky. Nothing made sense, and I was sure that we were not going to make it out of the situation alive... 

**NEXT MONTH** 'With our fighter turned into a convertible, there was nothing more to do, so I let go of the controls, crossed my arms, grabbed tightly on the webbing on either side of my survival vest and wondered if the wind blast was going to hurt really bad...'

**Don't miss the second part of this compelling story in our November issue.**







TALES OF THE

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# TOMCAT



PART TWO



Of the 632 Grumman F-14 Tomcats that were built for the US Navy, no fewer than 144 of them were lost between December 30, 1970, and March 29, 2004. LT Neil 'Waylon' Jennings and his RIO, LT T. J. 'Buga' Gusewelle, survived one of the more spectacular F-14 accidents – they describe the incident in the second part of this feature.

## REPORT Neil 'Waylon' Jennings and Tony Holmes

IT WAS SEPTEMBER 20, 1995, aboard the aircraft carrier USS *Abraham Lincoln* (CVN 72), which was heading eastbound on the way home from a six-month deployment to the Persian Gulf. Pilot LT Neil Jennings was assigned to VF-213 'Black Lions', the sole F-14 unit within Carrier Air Wing (CVW) 11, and he was crewed with radar intercept officer (RIO) LT T. J. 'Buga' Gusewelle. Flying a simulated attack profile on one of the carrier strike group's ships, Jennings and Gusewelle heard a 'bang' and the jet rolled dramatically and uncontrollably to the left. Jennings takes up the story.

Instinctively, I countered the left roll by moving the stick right, but despite my best attempts to control the aircraft we kept rolling harder left. In an instant it felt like the nose snapped downward in full left yaw and I was certain we were on a vector headed downward toward the water. My head banged hard on the right side of the canopy and, all of a sudden, time stood still.

I attempted to regain control of our tumbling aircraft by centering up the stick and pulling the throttles back out of afterburner. I noticed fire off the right side of the aircraft, somewhere aft. I couldn't discern the horizon. There was no differentiation between sea and sky.

Nothing made sense, and I was sure that we were not going to make it out of the situation alive.

The next second-and-a-half lasted for what felt like 45 minutes. My mind accelerated to hyper-speed as I recalled experiences with my wife and children. My memories were vivid, with scenes from home played out in incredible detail. I recalled countless random thoughts all the way back to my childhood. I had a deep sense of peace, and there was no fear. My thoughts of my family were of sadness for my young children, who I imagined would be growing up without a father. Watching the canopy come off snapped me back to real time, and everything resumed at normal speed. Less than two seconds had passed, but I had relived a lifetime of experiences.

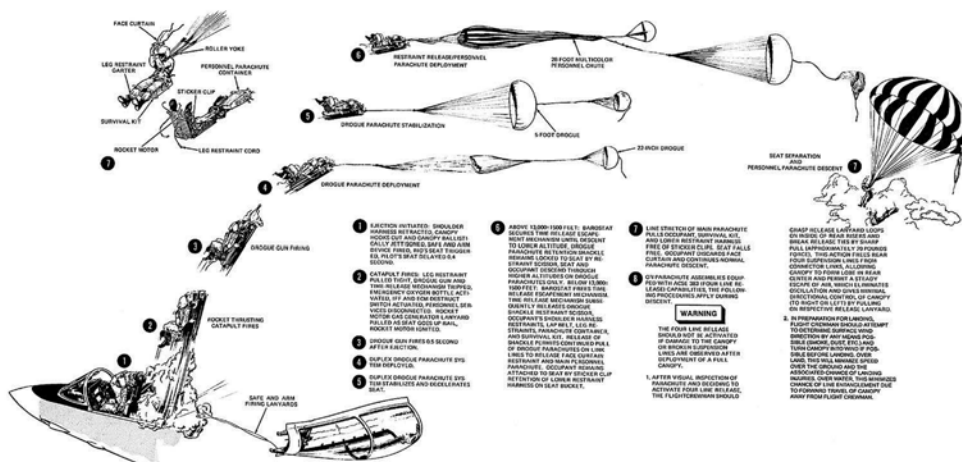
The 'ejection decision' is a topic that is often discussed by aircrew who ride on ejection seats in the course of their daily work. In the navy, ejection is a standard item that is discussed during every flight brief. Most aircrew have similar decision points as to when they would reach down and pull the yellow and black handle. However, every aviator puts their own twist on when and why they would make the decision to get out. For better or worse, when an aircrew pulls an ejection handle, it initiates an unstoppable chain



**Left page:** VF-213 'Black Lions' had an almost 30-year association with the Tomcat until it transitioned to the Super Hornet in 2006. **Rich Cooper**

**Right:** A still taken from the video that captured the fiery demise of 'Blacklion 112' as the fighter exploded while flying at almost 600kt. **via Jennifer Jennings**

**Below:** A diagram from the NATOPS flight manual for the F-14A depicting the ejection sequence. **US Navy**



of events that guarantees that a sleek and beautiful aircraft will be turned into a pile of unrecognizable junk. The decision is final and irrevocable.

Sitting just 8ft behind me, 'Buga' knew the situation was dire. There was a fire in his cockpit, and he knew that, regardless of the consequences, we were going to have to give 'Lion 112' back to the taxpayers and find another ride to the ship. Right after the canopy came off, for an instant I thought, 'good on you, 'Buga'. Even though I still didn't believe we would survive, I was proud of him for pulling the handle. The last time I had looked we were doing more than 600kt, which was not good. It was generally known that high-speed ejections were deadly, and we were going way too fast to get out safely. It didn't matter. Our odds outside the aircraft were better than staying in it, and we were on the ride of our lives.

With our fighter turned into a convertible, there was nothing more to do, so I let go of the controls, crossed my arms, grabbed tightly on the webbing on either side of my survival vest and wondered if the wind blast was going to hurt really bad. I squinted through the hot fire that enveloped me, and I mentally prepared to ride my seat up the rails. There was a bright flash as 'Buga's' seat fired, and it suddenly became very hot where I was sitting.

A few hours after the crash, 'Buga' told me that he looked down as he punched out, and all he could see was the cockpit of our Tomcat. The front part of our jet had broken off somewhere forward of the wings. I didn't have long to contemplate the disadvantages of sitting by myself in the middle of a gigantic fireball. My seat fired with a kick and I rocketed up and away from the burning wreckage. Strangely, as I cleared the cockpit there was not even a wisp of wind. There was no wind blast, no flailing limbs, no blunt-force trauma injury, nothing. I had barely accelerated away from our ailing aircraft when I felt my seat let go of me and fall harmlessly away. My parachute opened with an explosive force. I was incredulous that I was still alive. I had expected





the worst, but by the grace of God I had survived.

## Good chute!

I have been told that the terminal velocity of a Martin-Baker ejection seat is somewhere around 180kt. Something interesting happens when you are hurtling along at racing car speeds and then are rapidly decelerated to nearly a standstill. At that moment the straps on your parachute harness cause friction burns in all the places where they are riding close to your skin. Your flight suit offers very little protection as the heat is transmitted directly through the material. It's amazing to think that the friction created from just a couple of inches of

strap movement is enough to cause burns that last several days, but that is a part of the process.

Immediately after my parachute opened, I saw a large splash in the water directly below me. I looked down and to my right and saw the burning wreckage

of our F-14 as it spiraled towards the water in a left-hand death roll. It was almost completely engulfed in flames. Panels were missing, I couldn't tell the top from the bottom and what was left was nearly unrecognizable. Hanging in my parachute, watching the scene unfold

“ I looked down and to my right and saw the burning wreckage of our F-14 as it spiraled towards the water in a left-hand death roll. It was almost completely engulfed in flames

CDR Neil Jennings

**Above:** Jennings and Gusewelle had been tasked with flying a simulated attack on the USS *John Paul Jones* (DDG 53) on September 20, 1995. This image shows VF-213 F-14Ds preparing for a mission.  
**Ted Carlson**





## VF-213 'BLACK LIONS' — A BRIEF HISTORY



Equipped with the F-14 for almost 30 years, VF-213's association with the Tomcat lasted longer than any other fleet unit bar VF-2. Established on June 22, 1955, at NAS Moffett Field, California, VF-213 was initially equipped with the F2H-3 Banshee. The 'Black Lions' undertook a solitary 'WestPac' deployment with the jet in 1956-57 and transitioned to the F4D-1 Skyray shortly thereafter, completing two more 'WestPacs' with the aircraft in 1958 and 1959. By the time the 'Black Lions' embarked on USS *Lexington* (CVA 16) for a third 'WestPac' in October 1960 it had swapped its Skyrays for F3H-2 Demons.

Like all other Pacific Fleet fighter units, VF-213 moved to Miramar in the summer of 1961. It would call 'Fightertown USA' home for the next 36 years. The 'Black Lions' became one of the first Pacific Fleet fighter units to receive the Phantom II in February 1964 when VF-96 transferred 10

F-4Bs to VF-213. The squadron briefly became VF-116 that year for service with the recently redesignated CVW-11 (formerly CVG-11), but the VF-213 identity was re-established in September 1964.

As part of CVW-11, the 'Black Lions' undertook seven Vietnam War deployments between October 1965 and July 1974. The unit claimed a single aerial victory (an An-2 downed on December 20, 1966), delivered more than 6,000 tons of ordnance and completed 11,500 combat missions, all from *Kitty Hawk* (CVA 63). After one final 'WestPac' deployment with the Phantom II in 1975, the squadron began its transition to the F-14A in September 1976.

Just 13 months later, VF-213 undertook its first cruise with the Tomcat when *Kitty Hawk* departed NAS North Island for a seven-month deployment. CVW-11 was temporarily switched to the Atlantic Fleet carrier USS *America* (CV 66) for its next two

**Top right:** CVW-11 was the first air wing assigned to the USS *Abraham Lincoln* (CVN 72). Between September and November 1990 it sailed from Norfolk to NAS Alameda.

**US Navy**

**Right:** Three F-14As from VF-213 close up in tight formation at the start of an air combat hop from NAS Fallon, Nevada, in November 1980.

**US Navy/  
Robert Lawson**

was surreal. It was like watching a movie that I was in.

I then conducted a quick body-parts inventory and verified that all my toes and fingers still wiggled. I was thankful to have all the same pieces attached to me that I had started the day with. As I coasted downward, I thanked God a hundred times. I also wondered what the salt water was going to feel like on my burned face and neck, and I knew it was not going to be pleasant.

My next set of actions all mirrored what I had been taught in aviation physiology. Inflate the life preserver, connect the lobes, deploy the parachute four-line release, drop the raft and locate the parachute release fittings. Initially, I





attempted to steer over towards 'Buga', but as I started turning towards him I became concerned that I might actually hit him. I gave up on trying to land near wherever 'Buga' came down and I prepared for my own water entry. We each had a little less than a minute to coast down and get ready for the landing.

I'm not sure what I was expecting, but when my feet hit the water I went 3 or 4ft under. It was an uncomfortable feeling, but my life preserver popped me back up to the surface within a couple of seconds. My parachute fell into the water in front of me and I never saw it again. I then retrieved my raft, which was attached to my seat pan via a lanyard, and I climbed in and wondered if the warm water meant that there might be sharks nearby. I pulled my feet safely into my cramped raft, but then I thought that if a shark came after me after I had just survived an aircraft crash then it just wasn't to be my day. Bravely, I put my feet back into the warm sea water and didn't think another thought about it. I was right about the salt water and the burns — my face and neck stung like hell.

As I sat in my raft, taking inventory of what had just happened, *John Paul Jones*

was bearing down on me at flank speed. I could see that I didn't have much time left in the water, so I removed my flare gun from my life vest and started firing off my pencil flares as quickly as I could get them loaded. I figured I would only have one chance in my lifetime to use some of the equipment that I had been lugging around on every flight and I wanted to light off all of my pyrotechnic devices before I was rescued. I also wanted to make sure they knew where to come and fish me out. Before I could get my last flare loaded, a motor whaleboat from the ship was sitting next to me in the water, and strong hands were pulling me safely inside. It felt really good.

The boat crew gunned the engine and raced over to pick up 'Buga'. I was happy to see that he was alive and looking good, except he was oddly holding his hands above his raft, showing that he had severely burned fingers. Apparently, the fire had been intense in the rear seat. Within minutes the motorboat was hoisted back aboard *John Paul Jones* with me, 'Buga' and our three rescuers in it. We had no training to prepare us for what happened next, and from this point on we just made it up as we went.

We were first directed to a small broom closet that had a sign on the door that announced that we had arrived at the ship's sick bay. Someone treated our burns with a white cream, and we chatted briefly with a few of the crew. The captain then came down to meet us and graciously presented us with two hats and two shirts that had the destroyer's name and crest on them. We were thrilled to receive a souvenir from our valiant rescuers. A couple of guys led us down to the mess deck, where we addressed a large number of the crew via a PA system that had been hastily set up for us. We thanked the crew for pulling us out of the water and apologized for dripping salt water all over their clean decks. A couple of minutes into our visit we were told that our 'ride' had arrived to take us back. What ride? I didn't know what 'Buga' was thinking, but I certainly wasn't ready to go back to the *Abraham Lincoln*. There was nothing good waiting for us back on the aircraft carrier, and I was in no hurry to get back there.

Our escorts had us practically running up to the aft flight deck, where an SH-60 helicopter was waiting with its engines running and its rotors turning. We were

'Blacklion 112' was nearing 15 years of service when it was lost so spectacularly on September 20, 1995. **Ted Carlson**





heading back to the floating grey prison, and there was no way to get out of it. At least we were going to be able to get into some dry clothes. It was a small consolation, but it was something to look forward to.

During the 20-minute transit back to the carrier our SH-60 pilots kept looking back at us as with an odd look on their faces, as if we were aliens from another planet. I'm not sure what they were thinking, except that maybe they were pissed we were dripping corrosive salt water on the floor of their clean helicopter. Or, maybe they thought that we were in trouble and we were really going to get it when we got back. Whatever it was, I felt guilty, and I wasn't sure why.

Our chariot entered *Abraham Lincoln's* airspace, and the air boss directed our SH-60 into starboard holding on the right side of the ship. 'Buga' and I watched out the window while all the aircraft we had launched with took their turns at landing back aboard. It felt odd to be the only guys in our group to come home without a jet. At least we made it back on time. The military thrives on punctuality, and we returned promptly at our recovery

**Right:** A veritable army of brown-shirted troubleshooters crowd the cockpit of 'Blacklion 104' (BuNo 161274) in August 1993.  
**US Navy**

**Below right:** At the start of its 1996-97 'WestPac', VF-213 participated in the 'RIMPAC' exercise. A highlight of this event for VF-213 was the firing of 32 air-to-air missiles, 26 AIM-54A/Cs and six AIM-9Ms.  
**US Navy**



cruises — in 1979 and 1981 — during which the 'Black Lions' conducted operations in the Mediterranean and the Indian Ocean. Shortly after completing the second *America* cruise, VF-213 became one of a handful of Tomcat units to be assigned the photo-reconnaissance mission when it began training with the Tactical Air Reconnaissance Pod System (TARPS).

It embarked on the newly overhauled USS *Enterprise* (CVN 65) with CVW-11 for the carrier's 1982-83 'WestPac'. Additional deployments on board 'Big E' would follow in 1984, 1986, 1988 and 1989-90, after which CVN 65 went into the yard as part of its scheduled service life extension program. CVW-11 switched to the brand new USS *Abraham Lincoln* (CVN 72) and deployed on its first 'WestPac' with the vessel in May 1991. During this cruise VF-213 flew many missions over southern Iraq as it helped to enforce the UN-mandated no-fly zone over the country, which evolved into Operation 'Southern Watch' in August 1992.

By the time VF-213 next went to sea with CVN 72 in June 1993, it was the only

surviving Tomcat unit within CVW-11.

Sister squadron VF-114 had fallen victim to budget cuts that halved the F-14 force in the wake of Operation 'Desert Storm'.

As previously noted, the Tomcat endured high attrition during its long career with the US Navy. The loss rate was particularly bad during the 1990s. Ironically, prior to this spike, the 'Black Lions' had enjoyed one of the best safety records with the F-14. Indeed, in March 1983 the unit had celebrated 17,000 accident-free flying hours — an unprecedented achievement in the Tomcat community at that early stage in the jet's service with the fleet, as no fewer than 55 F-14s had been destroyed in accidents during the previous nine years.

VF-213's run of bad luck commenced on June 29, 1991, when it lost two jets following a mid-air collision over the South China Sea. One of the Tomcats crashed, although the crew ejected. The other aircraft landed in Singapore where it was declared a write-off.

On July 20, 1993, a month into the unit's 'WestPac' cruise, LT Matthew Claar suffered a ramp strike in an F-14A at night in the





time, even if we neglected to bring back our Tomcat.

After the fixed-wing aircraft recovered the air boss cleared our helicopter to land. We touched down, the doors flew open and there were a dozen guys waiting for us. I saw two stretchers sitting on the flight deck and I quickly made up my mind that I was going to walk down to the ship's sick bay on my own two legs, no matter what. A short argument with my commanding officer, CDR Fred 'Killer' Kilian, ensued, before I embarrassingly loaded myself aboard one of the stretchers, but only after he ordered me onto it for the third time. I tried not to notice as four relatively small guys struggled to carry me over to the bomb elevator, almost dropping the stretcher twice. In hindsight, riding the stretcher to the sick bay was the second most dangerous thing I did that day.

## The enquiry begins

For the next two hours 'Bugá' and I were poked, prodded, X-rayed, checked out and treated for our burns. About an hour into our medical check I got tired of smelling burnt hair, so I borrowed a pair of scissors from one of the corpsmen. I snuck off to a nearby bathroom, where

it took less than two minutes to cut off what remained of my crispy moustache. The fire had also taken most of my eyelashes and eyebrows, but I didn't want to look any funnier than I already did so I left them intact.

In between medical tests my skipper led me to a side room, where he handed me a phone. My wife Susie was on the other end. It was 03.00 in San Diego and she had received 'the call'. I always told her that if it was a call then it was good news, but if they showed up in an official navy vehicle wearing their dress blue uniform it was bad. She was a seasoned navy wife, and she was glad to be woken by phone. I downplayed my injuries and we had a great conversation. Later she told me that she didn't sleep a wink the rest of the night.

As soon as the doctors finished their tests 'Bugá' and I were turned over to the mishap board, where the real fun began. Six officers had been assembled to serve on a board that would investigate every conceivable detail related to the loss of our fighter. A white-hot spotlight was firmly focused on our noggins and there was nothing we could do but patiently work with them to get through a lengthy

question-and-answer period. One at a time, 'Bugá' and I sat down at the far end of the long table and were grilled with countless questions about our flight, our personal lives, our families, our training and just about everything you could think of. When you sign for your jet, take it out and then neglect to bring home your multi-million-dollar government asset, a lot of questions tend to be asked of you.

On the day of the mishap the questioning went on well past midnight, and started again promptly at 08.00 the next morning. The board was annoyingly repetitive in its queries. What did you see? Did you notice anything out of the ordinary? Was there anything strange about how the engines were running? No matter how they rephrased them, the inquisition boiled down to the same set of questions that were asked over and over again. Personally, I didn't have a story to tell. One second we were flying along and the next second we were tumbling out of control at more than 600kt surrounded by fire. I didn't know what happened or why.

By the afternoon of the third day the board decided it had got everything out

One of the final Tomcats built, BuNo 164348, was VF-213's first F-14D 'CAG bird'. It is seen just seconds away from slamming back onto the deck of USS *Carl Vinson* (CVN 70) during a CVW-11 carrier qualification period in the SoCal ops area in the autumn of 2000.

**Ted Carlson**





of me that it could. One of the board members, LT 'Chuck' Norris, took me to a room where a videotape of our crash was cued up and ready to watch. The tape had been recorded from the bow of the *John Paul Jones* by one of the ship's crew [and can be found on YouTube]. I never met the person who recorded our crash, but I will be forever grateful for his excellent work with a camera. The video he took told a far more complete story about our mishap than either 'Buga' or I could ever tell. Even better, it exonerated us from all responsibility for the unfortunate event. When 'Chuck' played the tape for me, I was shocked by what I saw.

It showed our fighter cruising along at the speed of sound, with a vapor cloud intermittently covering the back half of our aircraft. Just after we passed *John Paul Jones* our jet exploded into a gigantic fireball. On the screen the fireball was about 20 times the size of the aircraft. Less than a second after the detonation, two distinct pieces of wreckage emerged from the explosion, both engulfed in flames. In hindsight, I believe that the larger piece was the main part of the aircraft and the smaller piece was the cockpit section that we were riding in.

After I viewed the videotape there were no more questions from the board. Just like that, it was all over and I was a nobody again. Two weeks later my burns had healed sufficiently enough for me to return to flying. A couple of months after that, 'Buga' was back up in the air too.

## Tomcat tension

In February 1996, our squadron had deployed from NAS Miramar to NAF El Centro to fly missions over the training ranges in California and Arizona. On one of the flights my new RIO and I were east of Yuma, turning eastbound in a right-hand turn at around 15,000ft and 450kt. As soon as I initiated the turn the nose of the aircraft dropped unexpectedly. I pulled back on the stick to counter the sudden movement, but the stick wouldn't budge. I tried easing it slightly forward, but that only made things worse. I quickly rolled wings-level and started working to sort out the problem. Something was blocking the controls and the stick wouldn't move back past a certain point. Trim didn't help and there were no other options with the flight controls. Nothing on the instrument panel indicated that there was anything wrong.

**Top right:** The remains of 'Blacklion 103' (BuNo 160390) on November 12, 1994, having been recovered from the Pacific Ocean. Pilot LT Kara Hultgreen and RIO LT Matthew Klemish had ejected seconds before the aircraft hit the water during the final stages of its approach to CVN 72. Sadly, only Klemish survived.

### US Navy

**Right:** Although LTs Maddock and Taylor were forced to eject following a mid-air collision on June 29, 1991, LT(jg) Kent Fitzgerald and his RIO LT Mike Engler in 'Blacklion 205' (BuNo 159832) managed to regain control of the badly damaged jet and limped to a military airfield in Singapore.

### US Navy



Indian Ocean. Although both he and RIO LT Dean Fuller ejected, Claar was killed and six deck crew were injured.

Early the following year, CVW-11 became the first air wing to receive female aviators, with two pilots (and a RIO) going to VF-213. Tragically, the next accident to befall the 'Black Lions' involved one of these pilots, LT Kara Hultgreen. She was killed when her jet crashed into the sea south-west of San Diego during the final stages of its landing approach to CVN 72 on 25 October 1994 at the very start of a 16-day training period. Both Hultgreen and RIO LT Matthew Klemish ejected, but only the latter survived.

LCDR Stacy Bates and LT Matt Crawford were forced to eject from their F-14 off Hawaii on April 27, 1995, when it entered an irrecoverable flat spin while conducting air combat with another jet flown by VF-213's CO. The second Tomcat lost by VF-213 during this deployment was the aircraft with Neil Jennings at the controls. Finally, on January 29, 1996, LCDR Stacy Bates and LT Graham Higgins perished when their F-14 plunged into a Nashville suburb after departing Berry Field following a maximum-performance take-off. According to eyewitnesses, the aircraft climbed vertically into a low

overcast and then plummeted back down through the clouds less than 90 seconds later, killing both the crew and three civilians on the ground.

The navy ordered the squadron to suspend its operations for three days for safety reasons after the second of the squadron's four crashes. VADM Brent Bennett, commander, Naval Air Forces Pacific, immediately ordered the squadron to stand down again after the crash in Nashville to review its safety record and procedures.

Despite these setbacks — which resulted in the CO, CDR Fred Kilian, being relieved of his command just days after the Berry Field crash and calls for VF-213's disestablishment — the unit persevered with the F-14 and eventually deployed with CVW-11 on its 1996-97 'WestPac' aboard *Kitty Hawk*. Upon returning home in April, VF-213 flew straight from *Kitty Hawk* to NAS Oceana, Virginia, having been the last fighter unit to leave Miramar when it commenced the cruise some six months earlier. The 'Black Lions' started their transition to the F-14D shortly afterwards.

VF-213 would duly complete four deployments with the D-model. The first of these, from November 1998 to May 1999





Watching the ground slowly coming closer, I touched the lower ejection handle and felt the comfort of the black and yellow loop in my hand. I thought it was likely that I was going to have to use it again, but before I did that I decided that I would try pulling the stick back as hard as I could to see what would happen. At the limits of my strength something gave way and the stick pulled through whatever obstruction had kept it from moving aft. It still felt stuck, but it rested slightly aft of where it was previously located, and we were no longer in a descent.

Using trim only, I flew our Tomcat back to El Centro, declared an emergency and landed on the long runway. During a maintenance inspection of the flight controls a piece of rubber was found wedged in a pulley right where a control cable was routed through one of the firewalls. It was close — I couldn't believe we had nearly lost a jet thanks to a small piece of rubber.

A couple of months later I was mercifully assigned to fly F/A-18 Hornets at NAS Lemoore, California, where I served for 10 years as a strike/fighter pilot. The Hornet is a beautiful jet with great flight systems

and outstanding avionics. I never had a mission, in training or otherwise, where the F/A-18 gave me a reason to doubt that it would get me home. Sadly, that was not the case in the F-14.

During 20 years of flying fighters I stopped counting the number of jets — primarily F-14s — that crashed and friends who died. By the time I finished my flying career I had personally watched three jets hit the ground, had been an on-scene commander once and had served on five mishap boards. In the case of our Tomcat crash, there was no definitive explanation as to what caused our jet to explode. The board blamed a faulty component in the engine oil system, stating that the mostly likely cause of the explosion was a sump tank failure followed by catastrophic failure of an engine, but with the wreckage buried in 17,000ft of water, they never knew for certain. Personally, I am at a loss to explain the event, but I am thankful that we made it back. I can't explain how we survived tumbling out of control at 600kt in a fighter that broke apart, except to say that God was looking out for us that day. 🙏



**Below:** If the crew had ejected near to CVN 72 they would almost certainly have been plucked from the water by a rescue swimmer deployed from the plane guard SH/HH-60 Seahawk assigned to HS-6. **US Navy**







## POSTSCRIPT

CDR Neil Jennings lost his two-year battle with non-Hodgkin's lymphoma cancer on February 14, 2017. A highly skilled pilot with more than 900 carrier landings to his name, 'Waylon' flew in Operations 'Desert Storm,' 'Southern Watch' and 'Enduring Freedom' in both the F-14A (with VF-1 and VF-213) and the F/A-18A/C (with VFA-97 and VFA-147) and served as an adversary instructor with VF-126 flying the A-4F and F-16N. He was one of the few naval aviators the co-author has met who was not a fan of the Tomcat, despite logging more than 1,500 hours in the fighter. Nevertheless, 'Waylon' had a grudging respect for the F-14.

Tony Holmes would like to thank Jennifer Jennings, widow of Neil Jennings, for the provision of photographs from her late husband's collection for this article. Thanks also to The Tailhook Association's Mark Aldrich, as well as David F. Brown and Ted Carlson who kindly provided photographs; to former 'Black Lion' CDR Doug Denny and naval aviation historian Mike Crutch.

**Above:** Jennings and Guswelle pose with 'Blacklion 106' (BuNo 161617) on the Miramar ramp prior to performing their first flight together after the accident.  
**via Jennifer Jennings**

**Top right:** F-14D BuNo 164341 heads north towards southern Iraq on October 23, 2005, at the start of an Operation 'Iraqi Freedom' mission.  
**Scott Timmester**

**Right:** 'Blacklion 213' (BuNo 164602) armed with a GBU-38 and a GBU-12 on board USS Theodore Roosevelt in January 2006 during the F-14's last operational deployment with the US Navy.  
**Rich Cooper**



embarked in USS *Carl Vinson* (CVN 70), marked the F-14D's combat debut when it bombed targets in Iraq during Operation 'Desert Fox' in December 1998. The following month two VF-213 crews engaged a pair of Iraqi MiG-25s that had entered the no-fly zone, firing two AIM-54Cs at extreme range without success — it was the first time the US Navy had employed the Phoenix missile in anger.

CVW-11's 2001-02 deployment saw VF-213 in the vanguard of strikes in Afghanistan for 'Enduring Freedom'. Flying lengthy missions lasting up to 10 hours at a time, VF-213 crews dropped 452 laser-guided bombs on a variety of targets through to December 15, 2001.

Transferred to CVW-8 on January 23, 2002, thus bringing to an end a 38-year relationship between VF-213 and CVW-11, the 'Black Lions' suffered their only F-14D loss on January 26, 2003, when an aircraft crashed into the Caribbean on approach to USS *Theodore Roosevelt* (CVN 71) during training. Both crew ejected successfully.

VF-213 was committed to Operation 'Iraqi Freedom' during its five-month combat cruise in 2003, flying 198 sorties primarily at night from CVN 71 while the vessel sailed in the eastern Mediterranean. Heavily involved in supporting special operations forces in northern Iraq, 'Black Lions' crews dropped 196 precision-guided munitions totaling 250,000lb between March 22 and April 15.

VF-213 paired up with VF-31 'Tomcatters' for the Tomcat's final deployment, which got under way on September 1, 2005. Flying from CVN 71, the unit was again heavily committed to operations over Iraq. In five months of intensive flying the two F-14D squadrons tallied 1,163 combat missions between them.

On April 2, 2006, the unit embarked on its transition to the F/A-18F Super Hornet, being redesignated as VFA-213 in the process. Still assigned to CVW-8, the 'Black Lions' have since completed four operational deployments with the aircraft, seeing considerable combat over Afghanistan, Iraq and Syria.

