The sun sets on the Arabian Gulf, and a Tomcat o
VF-213. In its US Navy career of over 30 years the F-1
has rarely been away from the action. It began i
career flying top cover for the US evacuation of Saig
and ended it policing Iraq. In the intervening period
was involved in every major US action, from tussle
with Libyan fighters over the Med to pinpoint bombi
in Afghanista

Last cruise of the Tomcat

After three decades the US Navy service of the mighty Tomcat is drawing to a close. The F-14 ended its front-line duty as it began – on combat operations. For the last cruise of the 'Cat' two squadrons deployed aboard USS *Theodore Roosevelt* for operations over Iraq.

Below: VF-213's most colourful aircraft wears the appropriate Modex '213'. The squadron also has a 'CAG-bird' and 'Boss-bird' with full-colour markings, but not the blue rudders. Most of the Tomcats of VF-213 and -31 are around 14-16 years old. The first production F-14D flew in February 1990, while the last of 37 was delivered in July 1992. Grumman converted another 18 F-14As to D standard, of which only a few are still flying.

Seldom in the history of aviation has the withdrawal of an aircraft evoked so much emotion as the rapidly approaching retirement of the Grumman F-14 Tomcat from US Navy service. In September 2005 the very last Tomcat cruise commenced when VF-31 'Tomcatters' and VF-213 'Black Lions' set sail on the USS *Theodore Roosevelt* (CVN 71) for a scheduled six-month cruise towards the northern Arabian Gulf. The latter transitioned to the Boeing F/A-18F Super Hornet in spring 2006, with the former converting to the F/A-18E Super Hornet in the summer.

Many feel the F-14 Tomcat has been retired too soon, and not without reason. This magnificent jet is still an outstanding aerial combat performer and outclasses the newer Boeing F/A-18C Hornet in many aspects. Even over the F/A-18E/F Super Hornet – the Tomcat's successor – the swing-wing jet has certain advantages that the US Navy will unquestionably miss in future combat.

There has been a lot of discussion about this issue. Clearly, the Tomcat is a lot faster, has a better climbing rate, a higher payload, a better bring-back capability and endurance. It is a perfect strike and close air support (CAS) platform. The F-14 was the only fighter capable of employing the long-range Hughes AIM-54 Phoenix air-to-air missile, a missile hardly fired in combat by the US Navy. Nevertheless, the Iranian Air Force reportedly used this missile with excellent results in the Iran-Iraq war during the 1980s. The US Navy retired it in 2004 and the Tomcat now solely relies on the short-range Raytheon AIM-9 Sidewinder and medium-range Raytheon AIM-7 Sparrow.

Although exclusively used as an air-to-air and reconnaissance platform for the first two decades of its career, the Tomcat has starred as a fighter-bomber since the mid-1990s. Its excellent range and weapon load made it a great jet to cover some of the capabilities that were lost with the retirement of the Grumman A-6 Intruder attack plane.

VF-31's black-tailed 'CAG' jet flies over Iraq in November 2005. It carries a single Sparrow on the port wing to provide a measure of self-defence, and to partially balance the LANTIRN pod on the starboard side.

Initially the Tomcat carried dumb bombs but soon some intrepid naval aviators recognised its potential as a precision bomber. A Lockheed Martin LANTIRN targeting pod was added and laser-guided bombs soon became standard ordnance. Its two-man crew also made it ideal for duties that had become unknown in the US Navy: the Forward Air Control-Airborne, or FAC-A mission. This specialised task is demanding. The identification and targeting of small targets close to friendly forces is difficult and the crew has to communicate extensively with ground troops, as well as with other strike aircraft. A qualified two-man crew is therefore highly desirable. The only two Tomcat squadrons flying in Operation Allied Force over the former Yugoslavia in 1999 became famous because of their achievements in the close air support role.

Soon after the JDAM satellite-guided bombs became available the F-14B and F-14D were certified to employ this class of weapon (the older F-14A did not have the required digital databus). JDAM received its baptism of fire with the Tomcat in 2002 during Operation Enduring Freedom in Afghanistan, where the long range, high payload and two-man crew made it the Navy's weapon platform of choice while operating from carriers in the Indian Ocean.

However, potential combat performance is not the all-deciding factor when it comes to keeping or replacing an aircraft type. The costs of modern warplanes and aerial warfare have exploded during

Armed and ready, a VF-31 F-14D waits in front of the jet blast deflector to move forward to the catapult. The F-14D was the only Tomcat model to sport both infra-red and AXX-1 TCS under the nose.

Over Iraq the main task is to provide on-call close air support against targets that may be encountered by ground forces. Imagery from the Tomcat's LANTIRN pod can be transmitted to ground-based laptops by the ROVER datalink.

the last decades. Modern air forces have to look at service life and maintenance costs in order to determine the feasibility of purchasing or keeping aircraft. And the Tomcat is a bad performer when it comes to maintenance. "It is one of the greatest planes ever built for the Navy, and also one of the most beautiful," contends Captain William G. Sizemore II, commander, Carrier Air Wing 8 on the *Roosevelt*. "It has great endurance and flexibility. It is bittersweet to see it go but it is getting old, it is three times as expensive to fly as the Hornet."

Maintenance

Commander James 'Puck' Howe, as XO the second-in-command of VF-31, says the mission-capable percentage rates of his Tomcats are in the high 80s. "That rate tells that we can fly our mission but not necessarily that every system is working properly. However, the full mission-capable rate, which means that everything works, is in the low 80s which is still very good." These are fairly impressive numbers but it does not reflect how much effort is required in order to achieve them. In VF-31 Lieutenant John Turner, the Maintenance Material Control Officer, is responsible for the maintenance department. "It is a tough job. The biggest problem is the man-hours per flying hour, which is 40. I have 186 maintainers working on the jets." With 170 personnel, a Hornet squadron has slightly less manpower available for a plane that needs much less maintenance efforts. "With the Tomcat more things break and we have to work harder to get them flying."

Lieutenant Turner started in 1990 as an electrician working with Tomcats. "When I started in the Navy they warned me not to go to F-14s because of the hard work. But it is a very rewarding job." On New Years' Eve 2002 he got his orders for VF-31 and was on his way to the ship in a few days time. Despite the hard work and long working days he still is happy to be with VF-31. "It is very special to be in this very last cruise because the F-14 was the first plane I worked on."

Commander Rick 'Twig' LaBranche, commanding officer of VF-31, praises his maintainers. "Most maintainers do more than 12 hours per day," he maintains. "They want to fix the problems and really do a great job, they are a very proud bunch of people." While working on a Tomcat in the hangar bay AME (Aviation Structural Mechanic Safety Equipment) Richard Baxley of VF-31 does not complain about his long working days: "Because of the busy long days, the cruise goes faster." His colleague, AME Justin Jachnig, adds that it is just like one's first car. "You put your blood, tears and sweat in it but you don't want to get rid of it."

According to Commander LaBranche, the avionics are prone to problems in particular, but the problems are not all about avionics as Lieutenant Junior Grade (LTJG) Rip 'Flounder' Gordon experienced during an ACM training hop in the Gulf. "I was flying FELIX 104 when the flaps of one of my wings inadvertently went down. It happens sometimes during ACM. The result was that the starboard side of the fuselage behind the wings was damaged and I had to divert to Kuwait. The landing was a little tricky but I had first made some practice landings at altitude so I was kind of prepared." According to Commander LaBranche it takes four guys one day to fix this flap lock problem

Parts

Commander LaBranche contends that there are no real maintenance surprises. "The secret is that we look ahead, try to avoid problems in the future instead of waiting for them to happen. For instance, when we have not had a certain engine problem in the last two months we say 'let's go check them'. We also communicate intensely with our maintainers to explain any problems." Spare parts are not a problem according to LaBranche. "Globalisation means a smaller world so we have our parts from the US in a few days. We also don't get surprised anymore. We have done this for so long, we know an awful lot about the plane."

As there are no more Tomcats available elsewhere it is not possible anymore to replace a broken or downed jet but to Commander LaBranche that is not really a problem: "We just

Hook down, VF-213's 'CAG-bird' enters the pattern for Roosevelt. The squadron modified its lion markings to have two tails when the squadron transitioned to the twin-tailed Tomcat in 1976.

A 'Black Lions' Tomcat wheels high over the northern Iraqi city of Mosul. Tomcat crew works closely with forward air controllers on the ground, making the two-seat Tomcat ideal for such missions.

bring in another Hornet instead."

Proudly, VF-31 Tomcats wear the symbol of the 2005 Commander, Naval Air Forces, Atlantic Fleet (CNAL) Phoenix maintenance award on the tail. This award is presented to the best performing maintenance department of all east coast US Navy and Marine Corps squadrons. Being rewarded with this award is a great accomplishment because of the Tomcat's very high maintenance demand, and is a big morale boost for the maintainers.

Nugget impressions

A number of young aviators had the pleasure to be on their first cruise. Among these so-called 'nuggets' are the pilots who graduated in spring 2005 in the last ever Tomcat class at NAS Oceana with VF-101.

LTJG Daniel 'Bunny' O'Hara, who made the graduation barely, is now a comfortable well-performing pilot in VF-31. He got assigned to VF-31 on 22 March and instantly found himself in a tense and busy work-up schedule leading to the 2005-2006 cruise. "When I arrived I immediately got back to the boat for a month. Sometime later we went to NAS Fallon for advanced carrier air wing strike training. I dropped real bombs for the first time and participated in big and complex strikes involving many planes. It was awesome to see the whole air wing working together and be part of it." At the Fallon work-ups he also fought the Navy aggressors and even bagged an F-16.

For every new pilot in a squadron he first has to prove his abilities in the air and 'Bunny' was no exception. A young pilot fresh from the RAG has only started to learn his skills but he has also to perform. "You feel like you're being observed under a microscope. Everybody is watching you. But I knew what to expect because I had the same experience in VF-101 when I arrived. Still, I was pretty nervous and initially my landings grades could have been better, but they have improved now. Getting confident took a while. A lot of guys are looking after me to make sure I do it safe."

LTJG Matthew Nieswand had similar experiences. "I had to make a name for myself in the squadron. I am always the newest guy," and, he counters with a sore grin when a fellow squadron member chimed in with some unwanted, and likely undeserved, comment on his performances "I have nobody to pick on." LTJGs Gordon, Nieswand and O'Hara are all performing well. LTJG Gordon even received the CVW-8 Top Nugget Hook award for a certain line period (two months). Flying from aircraft-carriers is in his genes. His father, Commander Roy 'Flash' Gordon, flew F-4s and F-14s and was the skipper of VF-31 during Desert Storm.

LTJGs Gordon and O'Hara made a significant contribution to the prestigious tailhook award VF-31 earned in the summer of 2005. Even the CAG was surprised the 'Tomcatters' won this award because the Tomcat is not known for its pretty handling characteristics in the landing pattern. In his career CAG Sizemore never saw a Tomcat squadron earn it. LTJGs O'Hara and Nieswand are now in LSO training. Only pilots with good landing performance are asked for this highly respected job.

'Rhino' transition

In late summer 2006 VF-31 transitions to the F/A-18E Super Hornet and becomes VFA-31. The original plan was a conversion to the two-seat F/A-18F but, according to Commander LaBranche, it is a matter of timing. "An important reason is logistics. If we had to transition to the F/A-18F we had to go to Lemoore, California. Now we stay in Oceana, Virginia, so that we do not have to move a lot of people to the West Coast."

VFA-22 will exchange its F/A-18Es for the F-models that were initially planned for VF-31. VFA-22 reports to Carrier Air Wing 14. The second Super Hornet squadron is VFA-115 that is also equipped with the E-model. The US Navy wants one E- and one F-squadron in every air wing so, with this swap, that problem is solved for

The aircraft assigned to the 'Tomcatters' commander wears the traditional red markings with black radome. The 'Felix' badge has been used by VF-31 since the unit was created by the renumbering of VF-3 in 1948.

CVW-14. After the transition VFA-31 stays in CVW-8 alongside VFA-213 that transitioned from the Tomcat immediately after this cruise.

Undoubtedly the change to the E-model and the consequential stay in Oceana was also decided because of the busy deployment schedule VF-31 had in the last three years. In May 2002 the 'Tomcatters' went on a cruise with CVW-14 in *Abraham Lincoln* (CVN 72) for a supposed regular six-month cruise. However, this cruise became the longest in 30 years as it lasted until July 2003 and covered all of the combat phase of Operation Iraqi Freedom. In May 2004 the squadron was back on the boat with CVW-14 but this time it was the USS *John C. Stennis* (CVN 74). It returned from this six-month cruise in late October 2004. This was the last WestPac Tomcat cruise.

Because of the transition schedule of the other Tomcat squadrons that flew the older A and B models, the US Navy ordered VF-31 to move to AIRLANT: from Pacific Fleet CVW-14 to Atlantic Fleet CVW-8. Almost immediately it started the busy 10-month work-up for this final Tomcat cruise. The schedule is burdensome for the crew and their families.

Return to sea

The high spirits and performances of the 'Tomcatters' is all the more astonishing when one realises that normally a squadron goes on a regular cruise about two years after their last. Commander LaBranche underlines the fact that it was very difficult for his people to go on a cruise again. "They are loyal to the squadron, to the Navy and to their country. They understand the importance of the mission. When you work five days, get home tired and see your neighbour's home is on fire you don't do nothing but go to help. They really do a great job." He also emphasises that the Navy leadership does a great job. "They provide great support to us and our families at home. Without that it would have been very difficult for us all."

Not as colourful as '213', VF-213's 'CAG' and 'boss' (illustrated) jets have high-visibility markings and an extended anti-glare panel forward of the cockpit. The LANTIRN pod is always carried on the starboard pylon.

Commander LaBranche made the transition from the Grumman A-6 Intruder to the F-14D in 1994. The D was just entering service at that time while the Intruder was being retired. "I was lucky

GBU-38 – the little JDAM

The weapons of choice for regular operations over Iraq are based on the 500-lb (227-kg) Mk 82 bomb. The GBU-12 laser-guided bomb has been part of the Tomcat's arsenal since the LANTIRN pod was added to the wing station. The GBU-38 500-lb version of the GPS-guided JDAM bomb is a different story, because it was only cleared for employment by the Tomcat a couple of days before the final cruise got under way.

The Tomcat put the JDAM in use for the first time in February 2002 in Afghanistan. This was the heavy 2,000-lb GBU-32 version of this weapon. However, the explosive size of this weapon limits flexibility against the kind of target encountered nowadays in Iraq. The 500-lb variant on the contrary minimises collateral damage. Tomcats carry both the laser and GPS-guided weapons on the same mission. The laser-guided weapon has certain advantages over the GPS-guided weapon, and vice versa. The latter, for instance, is an all-weather bomb that can be used in adverse weather and sandstorms, while the laser weapon is more accurate.

During their pre-cruise work-ups VF-31 and VF-213 knew what kind of weapons would be preferred over Iraq and realised that they needed the small JDAM bomb in order to remain a primary player. They approached the programme office in March 2005, asking whether it could clear the aircraft to use the 500-pounder.

The test communities at Naval Air Station Patuxent River and Naval Air Warfare Center Weapons Division (NAWCWD) China Lake retired their Tomcats in 2000 and 2004, respectively, but there were some test pilots with Tomcat experience who could do the tests. They were more than happy to get back in the cockpit of the 'Big Cat' again. They performed the initial tests that included behaviour of the weapon attached to the bomb rack under extreme conditions such as dives, high-speed manoeuvring and carrier landings, followed by weapon separation tests.

Crews from VF-101 'Grim Reapers' took over for the guided weapons release tests at Naval Air Station China Lake, California. VF-101, the Fleet Replenishment Squadron, was at that time finished with training new crews and had only a few instructor pilots and RIOs left as this squadron was preparing for decommissioning. From day one in the northern Arabian Gulf the F-14s of VF-31 and VF-213 had GBU-38s in the air. The standard payload in October 2005 comprised one AIM-7 Sparrow or AIM-9 Sidewinder air-to-air missile, and one GBU-38 and GBU-12 bomb between the engine nacelles.

A GBU-38 (left) is carried next to a GBU-12 (right) on this VF-31 F-14D, representing the standard air-to-ground load for Tomcats on Iraq policing duties. Bombs are carried under the pallets previously used for carriage of the AIM-54 Phoenix long-range AAM.

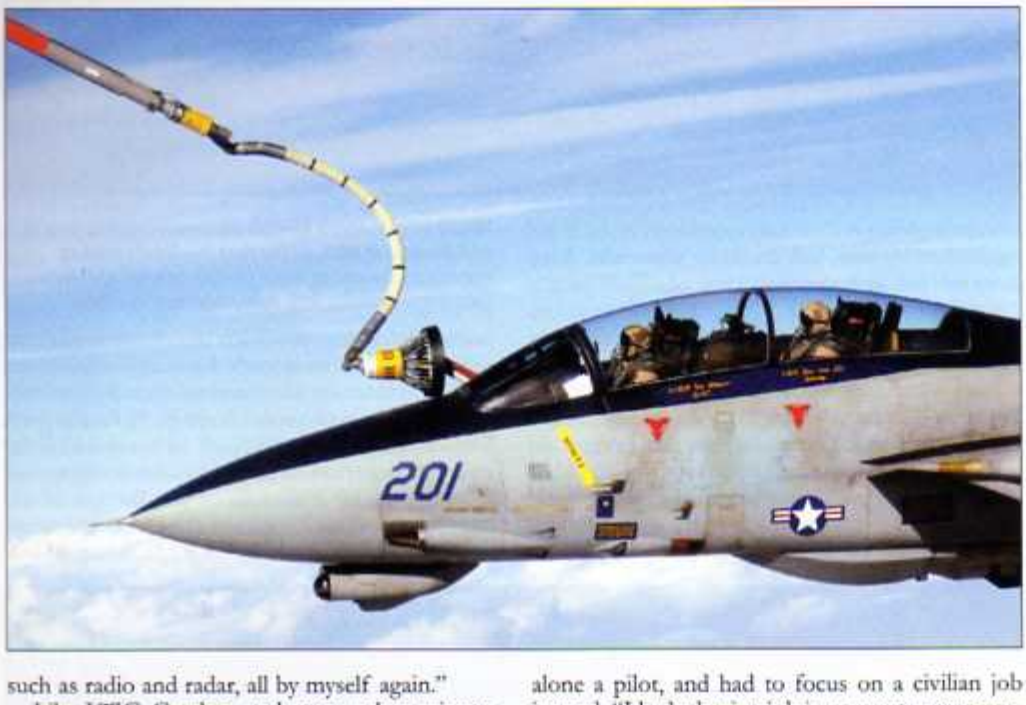
VF-213 commander's aircraft flies over western Iraq in mid-November 2005. At the time the Tomcats were supporting Operation Steel Curtain against al-Qaeda insurgents entering Iraq from neighbouring Syria.

In order to remain flying I had to make a transition to another aircraft. It was a great deal because the D was brand new then. The technology of the D is very good. It has a very strong radar, the strongest available. It is a very capable aircraft with 60,000 pounds of thrust." Though he loves the Tomcat he looks forward to the Super Hornet, nicknamed the 'Rhino', because of all the new technology involved. "I am confident Navy leadership is giving it all the next-generation technology. The 'Rhino' will become what the F-14 became: the best air-to-ground platform in the Navy."

As the cruise passes the transition to the Super Hornet is becoming more and more in the mind of the crews, especially for the three pilots that made up the last Tomcat class to qualify on the type in spring 2005. "It is strange learning a jet while it is getting away," reflects LTJG Matt Nieswand of VF-213, "and it is particularly strange to transition to a new plane again immediately after this cruise." Nieswand has the distinct honour of being the very last Tomcat pilot to qualify. LTJG O'Hara made the qualification in the Tomcat just barely. He is excited to make the transition though with mixed feelings. "I finally get a good idea of how to use the F-14 but it is only for a very short period. That is kind of frustrating, but at least I can say I have flown the Tomcat. It will be strange because I have not flown a single-seater in a very long time. I will have to do everything,

Although capable, the F-14D is labour-intensive compared to its Hornet deck-mates. The armament trolleys carry GBU-12s, GBU-38s and AIM-7 Sparrows, although this VF-31 aircraft is armed with an AIM-9.

Although the Tomcat has impressive range, inflight refuelling is an integral part of policing missions over Iraq to extend time on station. Here Air Wing Eight Tomcats refuel from a KC-135R (above and below) and an S-3B Viking (right). The Viking provides the air wing with its own refuelling capability, but as the S-3s are retired so the task is being entrusted to the Super Hornet.



such as radio and radar, all by myself again."

Like LTJG Gordon, and many other aviators, LTJG Scott 'Timmey' Timmester followed in the footsteps of his father, who flew three tours in F-4s (including Operation Linebacker II in Vietnam) and one in F-14s as a radar intercept officer (RIO). Before he entered training as a Naval Flight Officer, 'Timmey' encountered some setbacks on his way to a Tomcat cockpit. Initially, his eyes were not good enough to be a RIO, let alone a pilot, and had to focus on a civilian job instead. "I had a boring job in computer programming consulting when one day a friend told me that the physical limits for RIOs had been lowered. A dream came true. You know, I really wanted to be in Tomcats. In junior high school I used to draw F-14s all the time. I knew all the Navy squadrons and their tailcodes. So, within four days I quit my job and used six months to get in the shape for the tough physical examination."

By mid-October 'Timmey' had flown 230 hour in the Tomcat and he loves being a RIO. "As RIO you can be very busy doing a lot of 'admin talking to people on the ground, but there is als time for sightseeing. One day we showed up ju after an IED went off and I saw troops secure th area. It was awesome to look at it through ou LANTIRN pod."

His father did not really want to make the tran sition from his beloved Phantom to the F-14. Th is a common phenomenon when aviators trans tion from a well-performing platform to i unproven successor. Many F-14 aviators are prou of their plane and do not really want to make th transition to the Super Hornet.

For 'Timmey' the Rhino transition will b bittersweet. "I have wanted to fly the Tomcat m entire life, so I will be sad to see it g Nonetheless, it will be great to fly a jet that alway works, and that doesn't require an exorbitan amount of work by maintainers to keep it flyin Plus the new avionics such as AESA, Joint Helm Mounted Cueing System [JMHCS] and weapon such as AMRAAM should make up for the h we'll take in airspeed. From what I hear, the situ tional awareness will be massive for the aircrew o an AESA-equipped Super Hornet, and I'm def nitely looking forward to that."

3,000 hours

In the more than 10 years he flew the Tomc Commander Rick LaBranche logged more tha 2,000 Tomcat hours (in addition to 1,000 in th A-6). Commander Howe has been flying Tomca since he entered type conversion at the end of th 1980s and had in October 2005 some 2,550 hou on the counter. His goal is to make 3,000. "I hop to become the very last Tomcat aviator to mak 3,000 hours. It is going to be close. I have still 45 hours to go before we enter Super Hornet trans tion. If I make it, it will be in the very last month he calculates. "We have still 4 and a half months go on this cruise and I fly approximately 60-7 hours per month."

The high hours are partly caused by the lon missions flown over Iraq in support of Operatio Iraqi Freedom. "It hurts your rear end comments pilot LTJG Gordon on the six- eight-hour missions. LTJG Scott 'Timme Timmester adds that they can be very borin These missions take the Tomcat far into Iraq an require three aerial refuellings. Usually, the Tomc aviators fly these missions every three days.

Deck crew swarm over two Tomcats from VF-31 and a VF-213 machine to prepare them for the next mission. The F-14s are up to the heavy tasking schedule but onl through the application of many man-hours.

The USAF supplies much of the refuelling for Navy aircraft over Iraq, and here Air Wing Eight aircraft take on fuel from a Travis-based KC-10A Extender. US Navy fighters also occasionally refuel from RAF tankers.

LTJG Gordon and a number of other guys have now flown their first combat sorties, although they emphasise that, although the OIF missions are indicated as combat, there are hardly, if any, enemy air defences aimed at them.

In the beginning, especially, it was pretty exciting for them. "It was fascinating to go on my first combat mission," recalls LTJG Gordon. "I always watched it on television but now I saw it myself. First it was exciting but now it is benign."

For the RIO there is a lot more going on. While the pilot is flying the aircraft the RIO is doing the targeting and communications with the people on the ground. For them it is much more exciting as LTJG Timmester acknowledges. "We are in contact with the people on the ground and we talk about threats and 'possible' targets." 'Timmey' is not FAC-A qualified but that, he explains, is only required under certain conditions such as heavy close air support or when there is no FAC on the ground. CAS is the application of combat aircraft against ground targets in close proximity of people you don't want to hit.

The technology has advanced in such a way that target identification has become much less demanding. "The Joint Terminal Attack Controller (JTAC) on the ground has certain tools to give you precise target coordinates. Our targeting pod cues automatically towards it. We verify it with the JTAC to be sure we are looking at the same target. Then I talk the pilot to it. At night we see through our night vision goggles the infrared marker of the JTAC pointing at the target. We also see the infra-red markers of our own troops so the chance of friendly fire is reduced."

Verification with the JTAC was simplified in mid-December when the Remotely Operated Video Enhanced Receiver (ROVER) was introduced in the F-14. With ROVER no more time-consuming vocal verification is needed. This system allows transmission of real-time images acquired by the Tomcat's sensors to the laptop computer of the JTAC. It makes it a lot easier for him or her to determine if the target is real and allow it to be targeted. It is also a great reconnaissance asset for people on the ground as they see the area of operations from a bird's eye-view.

Combat ops

The level of aggression put into force by the Tomcats depends on the nature of the (possible) threat. According to Timmester, a 'show of force' by flying fast and low, sometimes at 500 ft (152 m), is part of the tactics, while dropping bombs is the other end of the spectrum. In the first months of OIF operations VF-31 and 213 Tomcats were involved in several such actions.

On 15 October 2005, two F-14s performed pre-planned strikes against an insurgent weapons cache in the vicinity of Ar Ramada. This attack came shortly after two CVW-8 F/A-18Cs provided close air support to coalition troops in the vicinity of Karabilah. The targets were buildings being used by anti-Iraqi forces as firing positions. On 19 October a F-14 of VF-31 destroyed an Improvised Explosive Device production weapons facility northeast of Baghdad.

Transformed from a sleek 'Cat' to an ungainly 'Turkey', an F-14D brings a GBU-38 back to Roosevelt after an Iraq mission. Note the open doors in the intakes that alter the capture area.

Carrier Air Wing Eight

The air wing embarked on the USS *Roosevelt* is CVW-8. Six squadrons escorted the two Tomcat squadrons on their last cruise. Two F/A-18C Hornet fighter-bomber squadrons (VFA-15 'Valions' and VFA-87 'Golden Warriors') provided air-to-ground capabilities. VS-24 'Scouts' made their last cruise before disestablishment in September 2006. They performed vital aerial refuelling for the air wing and conducted Maritime Security Operations with S-3B Vikings. VAQ-141 'Shadowhawks' employed its four EA-6B Prowlers from the *Roosevelt*, as well as shore bases. Prowlers are key players when it comes to jamming the radios, telephones and other communication channels – including those controlling IED devices – used by the insurgents. HS-3 'Tridents performed plane-guard duties as well as a host of support missions in the Gulf and Iraq with their HH-60H and SH-60F Seahawks. The E-2Cs of VAW-124 'Bear Aces', in NP2000 configuration, were the ears and eyes in the air.

Above: A sight never to be repeated: Tomcats cluster around the stern of Roosevelt as the carrier sails in the Arabian Gulf. Operations concentrate providing support to forces in Iraq, as well as maritime surveillance in the northern gulf. US Navy Middle East operations are supported by a headquarters in Bahrain.

Partnering the Tomcats in flying armed reconnaissance and support missi over Iraq were two squadrons of F/A-18Cs: VFA-15 (below left) and VFA-87 (CAG-bird below). The Hornets typically fly with a pair of GBU-38 JDAMs, plus a single AIM-9X on the wingtip to give a measure of self defence.

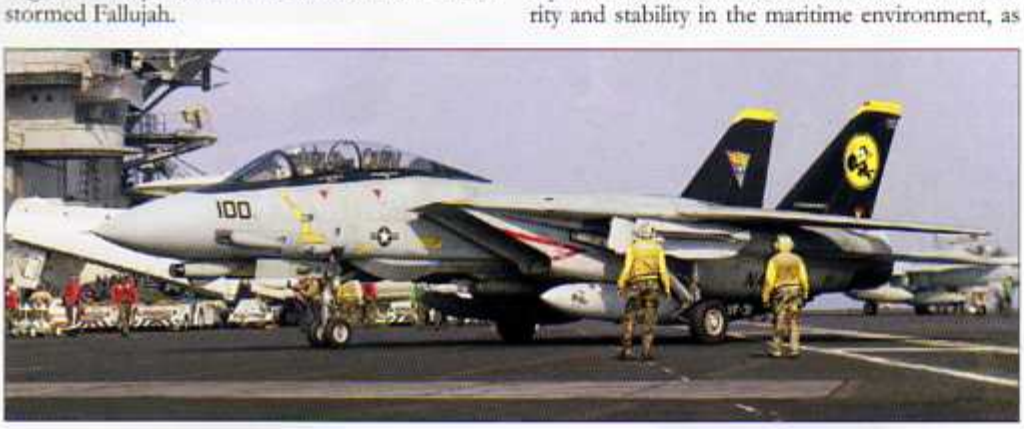
Operation Steel Curtain was an offensive that started on 4 November that was aimed at preventing cells of al-Qaeda from entering Iraq through the Syrian border and restoring Iraqi sovereign control along the Iraq-Syria border. It also aimed to destroy al-Qaeda terrorists operating throughout the Al Qa'im region. Involved were 1,000 Iraqi Army soldiers and 2,500 US Marines, who began the offensive near the town of Husaybah near the Iraq/Syria border. Military officials said Husaybah had become a haven for cells of al-Qaeda entering the country from Syria. At that time it was the largest military assault since American-led forces stormed Fallujah.

CVW-8 began providing air support for this operation on 6 November with both reconnaissance and strike missions in support of the ground troops. VF-213 and VF-31, along with Hornets, conducted several strikes on locations being used by Anti-Iraqi Force (AIF) personnel for strategic firing positions against US Marines and coalition ground forces.

In addition to flying missions over Iraq, *Theodore Roosevelt*-based aircraft have been flying missions in support of Maritime Security Operations in the Persian Gulf. US Navy sources say that these missions set the conditions for security and stability in the maritime environment, as well as complement the counter-terrorism a security efforts of regional nations by deny international terrorists use of the maritime en ronment as a route for attack or to transp personnel, weapons or other material. M missions usually take around 90 minutes, as north Arabian Gulf is not that big an area cover. Other missions flown from the carrier convoy escort, oil pipeline patrols and the prot tion of new construction.

The first Tomcat cruise took the swing-w jets into hostile action when they provided cover in 1975 over Saigon, Vietnam, during evacuation of the US Embassy. Now, more th 30 years later, the type bows out in combat too the spearhead of US diplomacy. It is sad, as Tomcat is not an old and ageing weapon platfo urgently in need of replacement. On the contr it is a jet still in excellent shape and still fit for most difficult missions.

Gert Krombo



Left: VF-31's 'CAG-bird' has black fins with the squadr badge worn large. On the inside of the fin is the Air Wing Eight badge.

Right: The Tomcat was originally scheduled to leave service around 2008, but the date was brought forwar considerably as Super Hornets flowed from the production line at St Louis.

Air Wing Eight support: above is an S-3B from VS-24. Like the Tomcat, the Viking is fast-disappearing from US Navy carrier decks. Right is an SH-60F from HS-3, while below is an E-2C of VAW-124. The Hawkeyes have been refitted with eight-bladed propellers with curved blades