NO ORDINARY JOB: A PERSONAL PERSPECTIVE

By Air Commodore Paddy Teakle (Retired)

Biography: Air Commodore Paddy Teakle (Retired) joined the RAF as a navigator in November 1978. He has flown the Vulcan, Victor and Tornado aircraft and has accumulated over 3,600 hours including 42 combat missions. An Air Command and Control expert, his experience stretches from the Falklands campaign through Iraq, Kosovo, Afghanistan, Libya and Syria. He retired in November 2017.

Air Commodore (then Wing Commander) Paddy Teakle and his pilot during Operation TELIC, 2003.

Disclaimer: The views expressed are those of the authors concerned, not necessarily the MOD.

INTRODUCTION

In its centenary year, the Royal Air Force has adopted the recruiting slogan 'No Ordinary Job'. Having had the privilege to have served for well over one-third of those one hundred years, I can certainly attest to its accuracy.

"I'm not as green as I'm cabbage looking!"

The date was 19 April 1982. It is not a particularly memorable date for the Royal Air Force, but for me personally it was special and remains so to this day. I remember sitting at home on leave having just completed my Operational Conversion onto the Victor K2 air-to-air refuelling aircraft. Suddenly the phone rang. It was the operations assistant from my new Squadron (Number 57 Squadron): 'Sorry to trouble you on leave, Sir, but do you think you could come in to fly this evening, there is a bit of a flap on.' So I jumped onto my bicycle and rode the 3 miles to work – yes, I was already a qualified Victor navigator, but I was still some way off from holding a driving licence! I arrived at the Squadron and met up with the rest of the crew for mission planning. The captain solemnly announced that: 'Tonight is Paddy's squadron acceptance flight and we will be refuelling a Vulcan on the tanker towline just east of the Wash.' Mmmm, I thought; this is obviously a wind-up for the new boy, as even a tyro such as myself knew that it had been over a decade since the Vulcan had been fitted with a refuelling probe. However, I fully understood that it was not the new boy's position to question the aircraft captain's authority (these were pre-CRM days, after all), so I played along with what I thought was a jolly jape at my expense. After all, I was not as green as I was cabbage looking.

We departed Marham just as the sun was beginning to set and headed east to establish ourselves on the refuelling towline. After a few minutes, the radio sparked into life and a single receiver aircraft checked-in on the refuelling frequency. This was my prompt to stream the centreline Hose Drum Unit refuelling hose and to begin scanning the rear approaches to the aircraft through the Nav Radar's periscope. I was still expecting our trade to be another Victor on the basis that other large aircraft types in the RAF were not fitted with refuelling probes and the fact that most fighters preferred the wing hoses to the centreline one. Soon, a distant speck appeared in the periscope viewfinder – our receiver was approaching. Gradually the speck took shape. 'No, it can't be!', I thought. But, sure enough, the unmistakable lines of the huge delta-winged Vulcan soon appeared and, what was more, sticking proudly out of the aircraft's nose was a refuelling probe! To compound my surprise, a familiar voice then spoke over the radio, for sitting in the Vulcan co-pilot's seat was not a Vulcan co-pilot at all, but an experienced Air Refuelling Instructor (ARI) from the Victor Operational Conversion Unit. These ARIs were not only critical in producing a cadre of air-refuelling competent Vulcan pilots, but were also to take part on a number of operational Vulcan sorties in the nascent Operation BLACK BUCK.

Further surprises were to appear through my periscope over the coming weeks.

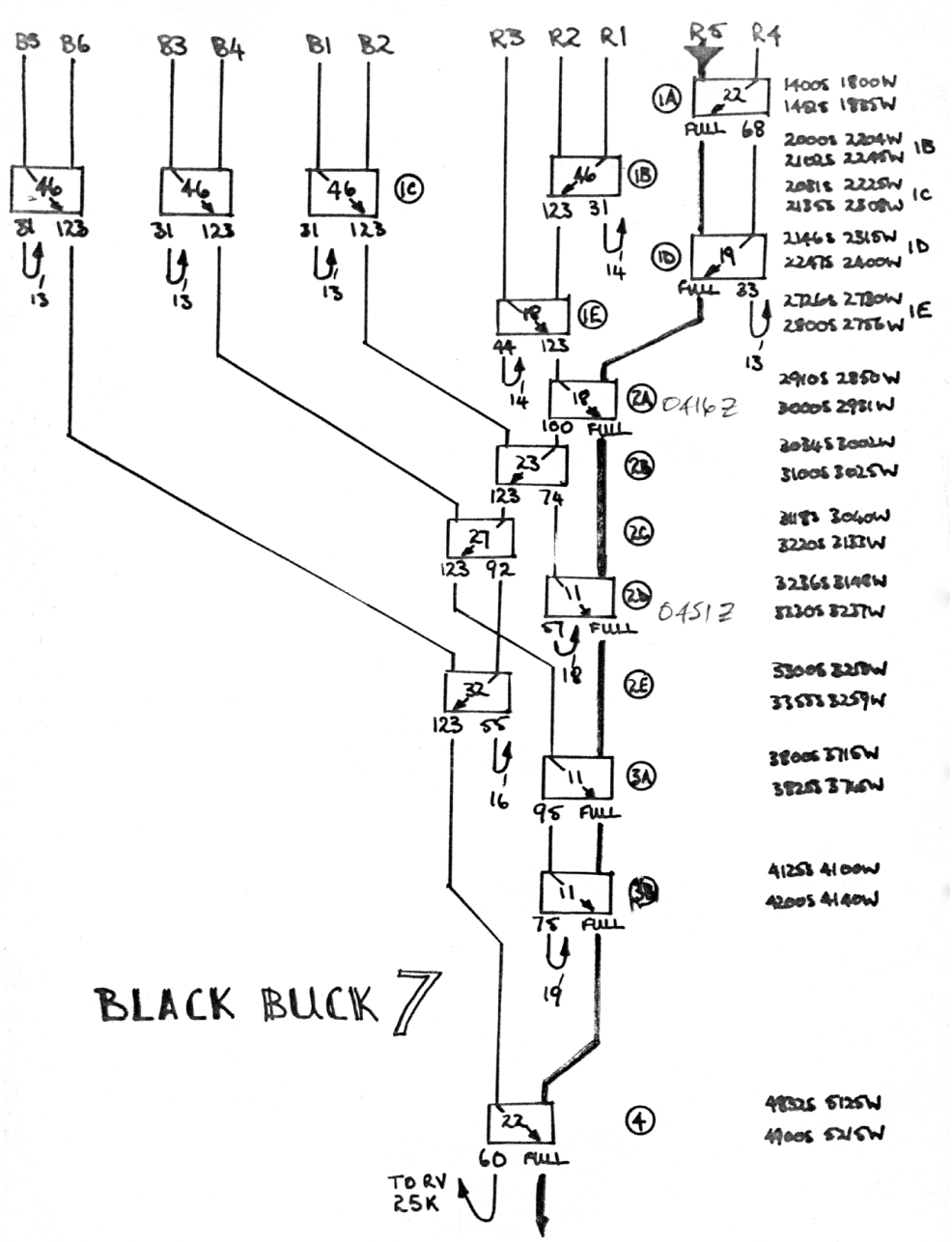
Vulcans soon appeared with underwing pylons, one of which carried a Westinghouse Electronic Countermeasures pod 'acquired' from the Buccaneer fleet. Within days, another Vulcan appeared with a strange missile attached to the other pylon. Frantic searching of Jane's soon provided the answer: it was an American AGM-45 Shrike anti-radiation (anti-radar) missile.

In late April and early May, we began to train with other large receivers, firstly Nimrod maritime patrol aircraft and then Hercules transports. The latter aircraft type caused quite a bit of head-scratching amongst the Victor fraternity, primarily due to the incompatibility in airspeed between the tanker and the receiver. Refuelling techniques therefore had to be rapidly adapted, resulting in lower-altitude refuelling brackets and the development of a new 'toboggan' manoeuvre. This manoeuvre put both aircraft in a shallow dive, which allowed the Hercules' Indicated Airspeed to increase to a safe margin above the Victor's stall speed, giving the overlap of performance required for safe in-flight refuelling.

These were hugely exciting days for the entire Victor Force and a truly remarkable baptism for a young first tourist. Even very experienced and well-established members of the Force were injected with a new sense of purpose and pride. For years, the Victor Force had been viewed as a useful support force, but here it was being thrown into the forefront of preparations for an expeditionary campaign where its existence would prove fundamental to success.

As the weeks progressed, more and more aircraft and crews from Marham were deployed to Ascension Island, yet the task of training additional large-aircraft crews, supporting the deployment of Harrier GR3 and manning the Victors which supported the Air Defence of the UK task kept those of us who remained at Marham extremely busy. I was in my element and learning fast, and my log book reflects an extraordinary total of 96 hours flown in May 1982. I was more than content with my lot, but on 6 June 1982 came the news that I had been longing for: our crew was to deploy to Ascension Island.

The narrative of the Black Buck raids needs no repetition here, and the masterful planning of the Air Refuelling Coordination Cell at HQ 1 Group remains one of the most incredible achievements of the entire Falklands campaign. The 6,750 nm round trip stretched the Victor Force to capacity. The Vulcan alone required no fewer than 17 air-to-air refuelling brackets and these were multiplied many times over by the numerous Victor to Victor refuelling brackets. Moreover, not only was weather forecasting in the region tenuous, but the navigation equipment of both aircraft pre-dated Inertial Navigation and Global Positioning and on many occasions it was only the glimpse of a tiny land mass at the edge of the radar screen that provided the assurance that Ascension Island was within reach. Although I personally played



The outbound refuelling plan for the Black Buck 7 mission flown on 12 June 1982 shows the complexity of the operation.

only a very small part in Operation BLACK BUCK, I feel extremely privileged to have flown two separate tanking sorties as part of the last Black Buck mission (Black Buck 7), but far greater than that was the palpable and justifiable sense of pride it imbued on both the Vulcan and Victor Forces.

I relate this early episode in my career not merely because the contribution of the Victor Force to Operation BLACK BUCK is still an under-estimated accomplishment but because, for me, the story captures the spirit of innovation and adaptability that has been a hallmark of the Royal Air Force throughout its first 100 years. The adaptation of legacy platforms in the build-up to and during the Falklands Conflict was quite remarkable and was only made possible through the strength of the relationship between the Royal Air Force and its industrial partners. In the years and campaigns that followed, such extensive platform modification became considerably more difficult. However, this did not subdue the spirit of innovation and adaptability: it just had to find alternative homes, such as in the development of new Tactics, Techniques and Procedures and revised Command and Control structures.

Victor K2 air-to-air refuelling tankers parked on the cramped dispersal at Wideawake airfield, Ascension Island.

"Weathering the Storm"

Conceived in the 1960s and developed throughout the 1970s, the Tornado GR1 entered operational service with the Royal Air Force in 1982. I began my long love affair with the aircraft in 1985 when I was selected for cross-over training from the Victor Force. I had learnt a great deal in my 3 years with 57 Squadron, flying in excess of 1,000 hours and maturing significantly as an aviator and officer, but I was now about to realise my lifelong dream to be a frontline fast-jet navigator.

I quickly developed a strong affinity with the aircraft, so much so, in fact, that within 18 months of arriving on Number XV Squadron at RAF Laarbruch, I had been selected for the Qualified Weapons Instructors (QWI) Course at RAF Honington. I recall the Course with great fondness, but I also realise in hindsight that, whilst it served a specific need at the time, the content of the course would do little to properly prepare us for what was to come. Clearly, such a bold statement deserves a fuller explanation...

In 1988, the Tornado GR1 QWI Course was very academic and the flying profiles were geared towards teaching squadron aircrew how to deliver bombs and cannon shells onto targets across the numerous UK Air-to-Ground ranges that existed at the time. Hours were spent calculating reversionary weapon settings which could be used should the aircraft's primary weapon system fail. But, in my view, too little time was given to experimentation and the development of alternative tactics. In 1991, this omission was to be thoroughly exposed on Operation GRANBY.

In 1990, Number XV Squadron was one of 3 Tornado squadrons at RAF Laarbruch, with the final corner of the airfield occupied by Number II (AC) Squadron who flew Jaguars in the tactical reconnaissance role at the time. My log book for the first seven months of the year reflects a very high exercise tempo, including: a period of 100ft Operational Low Level Flying (OLF) as a work-up for Exercise Red Flag; Exercise Red Flag itself; 100ft OLF and Instrument Meteorological Conditions (IMC) Terrain Following flying on Exercise WESTERN VORTEX in Goose Bay, Canada; and a Squadron Exchange with the USAF's 81st Tactical Fighter Squadron (a F-4G Wild Weasel squadron) at Spangdahlem in Germany. Although we did not know it at the time, this highly operationally focused seven months was to prove invaluable in the months to come, because on 2 August 1990, Saddam Hussein's Forces invaded Kuwait and the Tornado Force would change forever.

Number XV Squadron was not part of the initial build-up of air forces in the region, but our Squadron Commander was extremely confident that we would be there when the fighting started, as he knew that months of logistical preparation would be needed to support any offensive and also that diplomatic efforts would continue over many months to try to resolve the situation peacefully. In the remaining months of 1990, the Squadron was able to prepare for a possible offensive.

The first task was for the entire Squadron to become competent in air-to-air refuelling because until that time only certain individuals on Germany-based squadrons held that competency; our war plans had not included the need for in-flight refuelling. Due to my tanker background, I was one of the few navigator Air Refuelling Instructors at Laarbruch, so much of my time was spent teaching young, relatively inexperienced pilots the black art of tanking.

We also turned our thoughts to weaponry, and under the watchful eye of our Flight Commander Weapons, the Squadron QWI pilot and I instigated a programme of weaponry academics in the classroom, followed by rehearsal in the simulator and finally practice with live and simulated ordnance on UK ranges. By November the Squadron was more than ready to deploy to the Gulf region, but to where exactly? The question was soon answered: we were off to Muharraq in Bahrain.

There were many advantages to being in Bahrain, but there were also pitfalls. Clearly, comfort was one of the biggest advantages, but personally I found it extremely difficult to reconcile living in a 5-star hotel in Manama with the job we were about to do. There was a temptation, to which a number of the Squadron personnel succumbed, to adopt the view that this was just another detachment. One or two aircrew were quick to embrace the expat scene, and this became a major distraction for them. Despite a number of attempts, I found it extremely difficult, as their peer or subordinate, to positively influence their attitude. They would soon awake from their reverie once the shooting started.

Number XV Squadron was only one of a number of Tornado squadrons at Muharraq, but was the largest contingent. The approach adopted by the RAF was to nominate lead Tornado squadrons at each of the deployed bases and Number XV Squadron was given that status at Muharraq. This helps to explain why, in late December 1990, the Boss' designated pilot and I were taken aside. As the lead Squadron Commander, he had been read into the plans for the first three days of the air campaign. The tasking for this initial period had been deliberately and heavily scripted by General Horner (the Air Component Commander); thereafter tasking would follow the normal 24-hour Air Tasking Order process. The Boss wanted his pilot and me to plan every Tornado mission from Muharraq for this initial 3-day period. It goes without saying that the plans were incredibly sensitive and that the Boss was taking a calculated risk in briefing us in on every aspect of the plan. However, we had time at our disposal that he did not, and it was, in my view, absolutely necessary for him to delegate the responsibility. The task of planning every sortie for Number XV Squadron would have been daunting enough, but to plan for all of the other Muharraq-based Tornado units as well was a different challenge altogether. What exactly was our credibility with the other units? Would they understand our thought processes and the tactics we would employ? Had they undertaken the same extensive work-up training? What were their strengths and

weaknesses? Unfortunately, due to the classification of our work, these were questions that remained largely unanswered, yet they niggled away at me constantly.

For the Boss' pilot and me, our days took on a familiar pattern. We would plan, lead and debrief our respective four-ships on training missions during the day, then we would squirrel ourselves away in a locked office and plan each of the missions in minute detail long into the night. By the time the shooting war started on 16 January 1991, there was little more we could do in terms of planning. The die had been cast, and it would be up to the skill and bravery of the Tornado crews (with assistance or otherwise from Lady Luck) to determine how those first 3 days would pan out.

Bahrain's advantageous facilities and relatively liberal outlook made it a haven for the media. They could cover the air campaign in relative safety and without the deprivations of being in the field. They could also, if they were clever, achieve access to personnel without always going through the formalities. Thus, it came to pass that a floor of the hotel in which the Tornado crews were accommodated became occupied by the UK TV news companies. The graciousness of the reporters, the friendliness of the crews, and the genuine interest in our business was disarming and led to the situation where the aircrew and news crews were openly socialising together. This situation was not conducive to the maintenance of professional boundaries. On more than one occasion severe errors of judgement were brought about by over-fraternisation and familiarity. Don't get me wrong: I am fully behind media coverage of our operations, but it must be controlled, and this was not achieved effectively in this instance. At certain times during Operation GRANBY, I think media coverage became more than a necessary evil, and impacted negatively on some crews' operational performance. We have learned much in this regard since those early days of CNN and the 24-hour news cycle, but from a command perspective, it is worth remembering that appropriate control of the media keeps our people's focus on the operational tasks in hand and shares the burden among different crews and other personnel, whose different stories can make a huge impact on the credibility of the messages we seek to convey.

All of the Tornado sorties during the first 3 days of the air campaign were part of the Offensive Counter-Air phase and involved the targeting of airfields. For this role, the Tornado employed the bespoke JP233 runway cratering and denial weapon, which the aircraft either delivered across or along a runway. In the early hours of 17 January 1991, it was the weapon I delivered across the main runway at Tallil airfield in Iraq as part of an 8-ship of Tornados from Muharraq.

The delivery profile for JP233 involved a straight-and-level, 500kt pass at an ideal altitude of 180ft above the ground. In short, you had to fly directly overhead the target to deliver the weapon, making it a very high risk attack in anything other than a sanitised air defence environment and under the cover of darkness. When planning

Operation GRANBY: A Tornado GR1 returning to Muharraq after an attack against an Iraqi target.

the first 3 days' sorties, we had carefully considered the expected light conditions at the nominated time on target. Any attacks that fell in daylight hours or around dusk or dawn were considered far too high risk for JP233, so alternative attack profiles were chosen. Given the limited arsenal for the Tornado, it was agreed that the least risky profile which avoided overflight of the target area in daylight was a loft attack, where 8 x 1,000 lb general purpose bombs were effectively tossed at the target. In a typical loft profile, the Tornado would enter the target run at low level and, at a predetermined distance from the target, would pull up and climb to a point calculated by the aircraft weapons system at which the weapons would be released and, effectively, flung at the target. Once all 8 bombs were released, the aircraft would overbank and pull the nose down below the horizon. Bank and pitch would be reduced throughout the manoeuvre until the aircraft returned safely to low level. There were many critical elements to this delivery: firstly, pull-up had to occur at the predetermined point otherwise the aircraft's computer would fail to reach a release solution; secondly, the recovery had to be performed on instruments to avoid disorientation. Both the dynamic nature of the manoeuvre and the avoidance of target overflight were considered to complicate the enemy's targeting of the aircraft with ground-based air defence systems. It was during a loft attack on Ar Rumaylah airfield on the morning of 17 January 1991 that the first aircraft from Muharraq was lost.

That same night a second aircraft from Muharraq was lost post-target having successfully attacked Shaibah airfield in South Eastern Iraq with JP233. This was an audacious plan requiring skill and accuracy and was flown by crews from 27 Squadron. The attack was probably best suited to highly experienced Tornado aircrew, although I had no knowledge or influence over who would be chosen to fly it. Nevertheless, that now made it two aircraft lost on two of *my* plans, yet I didn't question my planning: I just cursed Lady Luck.

Despite not losing any aircraft during JP233 delivery (which is contrary to popular perception), it was apparent that the strength of the Iraqi airfield defences was causing consternation amongst the top brass and aircrew alike. It was unsurprising, therefore, that prior to a night 8-ship attack Al Jarrah airfield in West Iraq on 20 January 1991, the Boss called me aside and asked me to look at alternative tactics. On previous airfield attack sorties we had flown 8 aircraft with JP233 over an airfield on varying attack headings with the distinct intention of achieving maximum damage whilst at the same time complicating ground-to-air targeting. Flight Commander Weapons, the QWI pilot and I decided to plan the airburst of 1,000 lb bombs over the likely Anti-Aircraft Artillery positions to disable the guns. The plan was for 2 aircraft to deliver JP233 using tactical surprise, and for 4 aircraft to loft a total of 32 airburst 1,000 lb bombs over the gun emplacements and for the final two aircraft to follow up with JP233. Unfortunately, poor weather on the tanker towline resulted in only 4 aircraft arriving at the target. It is therefore impossible to fully evaluate the efficacy of these tactics, although they were used successfully on different occasions by the Dhahran Tornado detachment.

Eventually, mounting losses drove the Tornados into the unfamiliar medium-level regime. From the perspective of attrition, this was probably sensible, but weapon accuracy was to suffer considerably, because it had never been envisaged that the Tornado would employ ordnance from anything other than low level, so all the bombs initially dropped from medium level were effectively unguided. When delivered from higher altitude, bombs are subject to changing air density and wind speeds during their descent, so it is difficult to predict the amount of lateral drift for weapon aiming purposes. It was possible to enter a single value into the weapon system as compensation, but this relied on accurate weather forecasting and could never completely eliminate this inherent inaccuracy. The solution was to move to laser-guided munitions.

Until that moment, the laser-guided bombing role on Tornado was constrained to a few select crews on a couple of the squadrons who were trained specifically for the task. These crews worked alongside specific Blackburn Buccaneer crews who were skilled in the low-level designation role using the AN/AVQ-23E Pave Spike laser designation pod. Dropping from medium-level was pretty straightforward for the Tornado crews; they merely had to fly into a laser 'basket' on a prescribed heading and release their

weapons. It did, however, require remarkable skill from the Buccaneer crews; they had to maintain line of sight with the target to ensure that the laser energy was in the laser-guided bomb's field of view for the duration of its flight time. Failure to do so would mean that the weapon might fail to guide or expend all of its kinetic energy manoeuvring to acquire the laser energy resulting in its failure to reach the target. Although the Thermal Imaging Airborne Laser Designation Pod (TIALD) was rushed into service with the Dharhan Tornado detachment, it is no exaggeration to say that the success and accuracy of RAF laser-guided bombing during Op GRANBY was down to the professionalism and skill of a handful of Buccaneer pilots and navigators whose efforts have largely gone unsung, but whose effect on the success of Tornado medium-level bombing was disproportionate to their limited numbers.

Operation DESERT STORM officially ended on 28 February 1991. However, the Gulf Region – and Iraq in particular – continued to play an important part in my life until I retired in 2017, and never more so than in 2003 and Operation TELIC.

"Come all without, come all within, You'll not see nothing like the mighty fin"

In January 2003, I was entering what I was expecting to be my last 3 months in command of 31 Squadron 'The Goldstars'. The plan for my final 'hurrah' was to lead the Squadron on a 3-month operational tour in the Gulf on Operation RESINATE, the UK's contribution to the Coalition's Operation SOUTHERN WATCH, which had been initiated at the end of the First Gulf War to police a no-fly zone over Southern Iraq in order to limit Saddam Hussein's persecution of the Marsh Arabs. Tornado GR aircraft were the mainstay of the operation and in the years that had followed Operation GRANBY, the aircraft had gone through a number of major modification programmes which not only modernised the aircraft's avionics, but had also expanded its capacity to carry a vast range of different weapons and other stores. The aircraft had truly become the multi-role combat aircraft that it had originally been conceived to be.

Operation RESINATE was primarily a reconnaissance mission for the Tornado, and the aircraft carried either the RAPTOR (Reconnaissance Airborne Pod Tornado) long-range reconnaisance pod or the smaller, more tactical, Joint Reconnaissance Pod. Both sets of pods were in relatively short supply, so regularly the two-aircraft patrols carried TIALD pods and Paveway II laser-guided bombs. The rationale behind flying live-armed aircraft was to be able to respond to any Iraqi violation of the no-fly zone. If a violation took place, the Coalition Air Commander in the Combined Air Operations Centre in Saudi Arabia would decide how to respond; armed aircraft provided him with a rapid and proportionate kinetic response should he determine that to be the most appropriate course of action. Violations were relatively uncommon, and kinetic responses even more so, so I was not expecting the Squadron to drop very many weapons during our 3-month detachment. Nevertheless, we had conducted a comprehensive pre-

deployment work-up programme, including a live weaponry exercise in Arizona the previous September, so I was confident that we were well prepared for any eventuality. As I was expecting a fairly routine deployment, I had elected to fly with the Squadron's most junior pilot during the work-up and throughout the detachment itself. My pilot and I had therefore flown together frequently in the 4 months leading up to the deployment and I was delighted that we had gelled from the very beginning and had developed into an extremely competent and effective crew.

On 8 January 2003, we crewed-in as Number 2 of a pair of Tornados for what was to be my pilot's first experience of flying over Iraq. Both aircraft were carrying two Paveway II Laser-Guided Bombs, and both aircraft were equipped with TIALD pods. The sortie was planned as a theatre familiarisation for my pilot and a chance to practise various operational procedures. Take-off and departure from Ali Al Salem was uneventful and we checked in with the Tactical Director aboard the on-station AWACS. Moments later, whilst we were still in Kuwaiti Airspace, the Tactical Director came back up on the control frequency with urgent tasking for our formation. It was not a short-notice reconnaissance task that both aircraft were expecting, but instead a task to attack an Iraqi air defence facility in the vicinity of Tallil airfield as a response to an Iraqi infringement of the no-fly zone. So within minutes of crossing the Iraqi border for the very first operational sortie of his life, my young pilot found himself dropping two Laser Guided Bombs onto an Iraqi Air Defence Bunker, and I found myself attacking facilities at an airfield back where it had all begun for me in 1991.

On 3 February 2003, a dossier was placed before the UK Parliament, and efforts began to secure a new UN Security Council Resolution authorising the use of force in response to Saddam Hussein's defiance of the arms inspection regime. By the middle of February 2003, reinforcements began arriving at Ali Al Salem and by early March it became very clear that the UK would be a major contributor in any offensive action against Iraq. As the standing Operation RESINATE squadron, one might assume that our involvement would be a given, but Group and Station staff in the UK still favoured bringing us home at the end of March and replacing us with the next squadron on the rotation plan. Naturally, I arrived at the opposite conclusion and knew that any decision to pull us back would have a devastating impact on squadron morale. I also knew that I would probably have a very limited chance of success arguing with people in the UK and that my best chance of securing my Squadron's involvement would rest with persuading the in-theatre UK Air Component Commander that, with our currency in theatre and particularly with the RAPTOR pod, it made absolutely no sense to send us home. Thankfully, the argument struck home and all thoughts of the Squadron returning to Marham evaporated.

As March progressed, more aircraft and personnel arrived, and soon elements of five Tornado units were in place at Ali Al Salem. Alongside 31 Squadron were elements

of II(AC), IX(B), XIII and 617 Squadrons. Two other squadron commanders had deployed with their crews and I was very worried that this would create command and control confusion at a time when absolute clarity was required. Clearly, I had control of the Operation RESINATE mission, but no-one knew what command and control arrangements were foreseen for any follow-on operation. I raised my concerns with the UK Air Component Commander and he fully appreciated the necessity and sensitivity of the issue. I explained that I was not in favour of a 'lead squadron' construct because I had seen in 1991 how divisive it could become; rather, I favoured an approach whereby all elements were brought together as a wing under a single commander as *primus inter pares*. Once again, the UK Air Component Commander accepted my arguments and the Ali Al Salem Combat Air Wing was born.

My concept for the Combat Air Wing was to create a single warfighting unit with a strong team ethos and identity. But my major concern over having 5 different units under my command was that the intense competitiveness and rivalry that rightly exists between squadrons in peacetime could become very divisive in a warfighting situation. Effectively, my idea was to emulate the phenomenon that happens once every 4 years when the British and Irish Lions rugby team comes together! For a specific period of time, and for a specific purpose, national (read squadron) pride and rivalries can be put to one side and individual loyalty can be given to a larger all-inclusive team.

The 2003 Tornado Combat Air Wing emblem being applied to a Tornado GR4 at Ali Al Salem airbase in Kuwait.

I knew that the versatility of the Tornado would be exploited to its full extent by our tasking authority and that the Ali Al Salem Combat Air Wing would be asked to perform a multitude of different roles. I realised too that I needed to play to the strengths of the entire team, so I allocated specific tasks to specific elements within the Wing. Clearly, some tasks were more glamorous than others, and I think my own Squadron expected me to favour them when it came to role allocation. However, they were unaware that I had deployed the RAPTOR competence argument to secure our participation in the war and I was hardly going to renege on that promise. Number 617 Squadron were experts in the employment of the Stormshadow cruise missile, so it made perfect sense to exploit their expertise by allocating them the strategic targeting role. Number IX (B) Squadron was one of only two Air Launched Anti-Radiation Missile (ALARM) specialist squadrons, the other being my own; therefore, it made sense to me to allocate the Suppression of Enemy Air Defences role to their crews. In an echo of 1991, Numbers II(AC) and XIII Squadrons had undertaken an intensive period of mission-specific low-level SCUD hunting training prior to deployment and thus self-selected for that task. My own Squadron was to concentrate on strategic and tactical reconnaissance. Considered by many to be unglamorous, it was nevertheless vital to the Coalition's targeting and intelligence gathering process. Every element of the Wing was proficient in medium-level Air Interdiction and Close Air Support, and I was fairly confident that every crew on the Wing would get their 'moment in the sun' and deliver live weapons.

Part of the support package that I requested from the UK were two extremely experienced aircrew who I wanted to run the operations desk as totally impartial members of the team. Their impartiality was fundamental to the success of the Wing, as no-one could bring undue influence to bear in favour of one particular element or another. Shortly after their arrival, they suggested that I switch pilot so that I could lead four- and eight-ship formations into battle. I firmly rejected such overtures: firstly, I owed a loyalty to the young man I was currently flying with; secondly (and of equal importance) was that I saw my role not as a tactical leader, but as the man charged with leading the entire Wing. The time and effort saved by not leading individual missions was, in my opinion, far better invested in what really mattered to the operation as a whole.

Combat operations officially commenced at 0234Z on 20 March 2003. Personally, it all felt very different from 1991. The fear of the unknown which dominated the early sorties of Operation GRANBY was entirely missing: this was now familiar ground. Among the team, however, things were different, as for many this was their first taste of combat. I could feel their excitement and trepidation.

After a steady start, things began to ramp-up on 21 March when strategic targets were struck in central Baghdad. The Ali Al Salem Combat Air Wing was an integral part of this

phase. Stormshadow missiles were delivered on hardened targets in the city, ALARM missiles were fired to suppress Iraqi Air Defences, our low-level reconnaissance crews were SCUD hunting, and RAPTOR missions were flown to gather intelligence and conduct Battle Damage Assessment. The aircraft were holding up well and the crews were performing at the top of their game; the Combat Air Wing concept was working well.

It was not long, however, before its mettle was well and truly tested. On 23 March, in a tragic blue-on-blue, Flight Lieutenants Kev Main and Dave Williams were killed when their aircraft was shot down by a US Patriot surface-to-air missile on their recovery to Ali Al Salem. In the immediate aftermath, as I visited aircrew and groundcrew in their workplaces, I encountered a wide raft of emotions: shock, disbelief, anger even, but what shone through above everything was resilience, stoicism and resolve. The team had taken a heavy hit but it had come out fighting and more united and determined than ever before.

Coalition ground forces made swift progress towards Baghdad and the air targeting philosophy changed from Air Interdiction to 'Kill Box' interdiction. So instead of being given fixed targets to hit, the aircraft were sent to a particular grid box where on receipt of a 'friendlies clear' confirmation from the US Army Air Support Operations Centre or the US Marine Corps Direct Air Support Centre, the Tornado crews would seek out military targets of opportunity. This was not Close Air Support in the true sense of the phrase – there was no close control by a Joint Terminal Air Controller or Forward Air Controller – but it was still very different from anything that the Tornado had experienced in combat before. This move to Kill Box interdiction coincided with a decline in reconnaissance tasking. Therefore, as I had hoped and predicted, all of the Combat Air Wing crews were able to take the opportunity to deliver live weaponry. In an interesting departure from the delivery of explosive ordnance, on a couple of occasions the targets given to the Combat Air Wing had an associated high risk of extensive collateral damage should live ordnance be employed against them. The absence of a bespoke low-collateral weapon in our inventory led to an innovative solution: concrete-filled 1,000 lb bombs with no explosive content or fuze were fitted with laser guidance kits and dropped on the targets, meaning that the only damage caused was from the kinetic energy of the concrete itself.

I flew my last sortie of the war on 26 April. By then, the operational tempo had slowed to a dribble and the tasking was primarily a resurgence of reconnaissance, particularly in the north of the country. I was not to know at the time but that sortie was the penultimate time that I would fly the Tornado; the final time was when I handed the Squadron over to my successor some 4 weeks later.

Number 31 Squadron departed Kuwait on 28 April and the Combat Air Wing was disbanded the very same day. History will judge our collective success or otherwise,

but the way we innovated during Operation TELIC to tackle difficult targets and our adaptability in accomplishing roles for which we had not previously trained, reminded me again of the flexibility that the Royal Air Force had shown in the Falklands conflict twenty one years earlier, and which continues to be our Service's hallmark today. Reflecting on my experiences as aircrew in the Falklands and the two Gulf Wars, I am proud of what the Royal Air Force and all those involved in those operations achieved, and given my time again, I would approach each of the challenges I faced in exactly the same way.