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The Royal Air Force and UK Air Power over Iraq and Kosovo, 1997-2000: A Comparative Perspective

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Abstract: This paper considers the role of the Royal Air Force and the application of air power in Operation *Bolton* (Iraq, 1997-2000) and during the NATO operation *Allied Force* (Kosovo 1998-1999). Typically, historians have addressed *Bolton* and *Allied Force* independently, yet their similarities suggest there is a strong case for considering them in parallel. Both were independent air operations, both were initiated by the first Blair government, both were fought alongside alliance partners, and both were subject to the command and control of the newly created Permanent Joint Headquarters. Both involved the use of identical offensive capabilities by the RAF. Most of all, both witnessed efforts to combine diplomacy and air power and illustrate the scope and limitations of this approach to crisis management.

Introduction

This paper considers the role of the Royal Air Force and the broader application of air power in Operation *Bolton* (Iraq, 1997-2000) and during the NATO operation *Allied Force* – the Kosovo crisis of 1998-1999.[1] Operation *Bolton*, initiated in response to the so-called UNSCOM crisis, witnessed continuous efforts by the United States and the UK to use the threat of aerial bombardment to coerce Saddam Hussein's regime in Iraq into co-operation with the United Nations Special Commission (UNSCOM), which had been established after the Gulf War in 1991 to supervise the elimination of Iraqi weapons of mass destruction (WMD). Overt hostilities ultimately erupted in December 1998, when the coalition mounted a brief campaign of air strikes under the operation name *Desert Fox*, and then continued at a lower level of intensity over southern Iraq.

Operation *Allied Force* began on 24 March 1999 but was preceded by many months of diplomatic activity. It was mounted against the Federal Republic of Yugoslavia (FRY – which then comprised Serbia and Montenegro) in response to the actions of the FRY security forces in the southern Serbian province of Kosovo. Two and a half months later, on 10 June the campaign was suspended after the FRY's president, Slobodan Milosevic, agreed to withdraw his troops from Kosovo and satisfy a range of other requirements laid down by the international community for ending the conflict. By that time, many Kosovo Albanians had been subjected to appalling human rights violations in a process resembling the ethnic cleansing previously witnessed in Bosnia, and hundreds of thousands had fled to refugee camps in Albania and Macedonia to escape the Yugoslav army, military police and paramilitaries.

In the same period, NATO bombing inflicted extensive damage on the FRY's military and economic infrastructure. NATO aircraft flew some 38,004 sorties, of which 10,484 were offensive sorties. The UK contributed 1,618 sorties to NATO's total, 1,008 of which were offensive sorties – flown by Harrier GR7s based at Gioia del Colle in Italy and Tornado GR1s based at RAF Bruggen in Germany. Between 24 March and 10 June, NATO aircraft released 23,614 munitions against FRY targets. During the operation, the number of committed NATO aircraft almost doubled. The offensive sortie rate increased from between 50 and 100 per day in the first week of the campaign to an average of more than 280 per day in the week preceding the start of peace negotiations.

Typically, historians have addressed these two operations independently. Yet, from the RAF's perspective, the important similarities and continuities that extend across *Bolton* and *Allied Force* suggest that there is a strong case for considering them in parallel. Both were independent air operations, conducted without any accompanying intervention on the ground; both were initiated by Tony Blair's first Labour government and coincided with Labour's Strategic Defence Review (SDR). Theoretically, at least, we might expect operational activity to reflect the assumptions of SDR and of RAF doctrine, which was revived under the auspices of the Director of Defence Studies (RAF) and the Air Warfare Centre (AWC) in the 1990s. Both operations were fought alongside coalition partners or formal allies, and both were

also subject to the command and control of the newly created Permanent Joint Headquarters (PJHQ). Both also involved the employment of identical offensive capabilities by the RAF. Most of all, however, *Bolton* and *Allied Force* witnessed efforts to combine diplomacy and air power and serve to illustrate the scope and limitations of this approach to crisis management.

Strategic Background

Operation *Bolton* and Operation *Allied Force* occurred during Tony Blair's first Labour administration, which came to power in May 1997 after almost two decades of Conservative rule. International relations had seen several years of upheaval since the end of the Cold War. Despite confident expectations of a substantial peace dividend, conflict became more familiar – not less. The first Gulf War (the UK Operation *Granby*) erupted in 1990 and No-Fly Zones (NFZs) were subsequently established over northern and southern Iraq. Yugoslavia descended into a bloody civil war, leading to the creation of another NFZ over Bosnia and peacekeeping measures on the ground under combined UN and NATO leadership. Hostilities eventually broke out in August 1995, when Operation *Deliberate Force* was launched against the Bosnian Serbs. The question in 1997 was whether this trend would continue under a Labour government. In the event, if anything, it intensified.

Defence Policy

The Blair government had an election manifesto pledge to initiate SDR on coming to power. Launched in May 1997 and published in July 1998, SDR made several assumptions concerning the nature of future UK military commitments. Of note, it envisaged that 'most future operations will be conducted by joint forces composed of fighting units from individual services'.[2] In other words, they would involve the combined action of two or more Armed Services.

SDR sought to prepare the Armed Services to mount a single full-scale operation such as Operation *Granby*, or two smaller operations that would not both involve warfighting and would not be maintained simultaneously for longer than six months.[3] This latter scenario might have meant, for example, a warfighting operation of no more than six months' duration being sustained alongside a longer (or 'enduring') non-warfighting operation. The two operations considered here provided the first opportunities to compare the theory of SDR with the reality of the Blair government's foreign and defence policy.

Doctrinal Renaissance

While RAF perspectives had been incorporated into NATO doctrine in the 1970s and 1980s, the publication of AP 3000, *Royal Air Force Air Power Doctrine*, in 1990, represented the Service's first independent excursion into the doctrinal field for more than two decades. However, in considering the employment of combat air power, AP 3000 used a terminology substantially drawn from Cold War NATO publications that was not easily applicable to air operations in the post-Cold War era. Perhaps the most relevant statement appeared under the Strategic Air Offensive heading and concerned what was described as 'political signalling'.

> The threat, or the use of, conventional strategic air offensive action provides governments with a flexible and responsive instrument of crisis management. It can be used, as a means of signalling political intentions, either independently or in conjunction with other force elements … It could also be used to deter impending aggression, signal resolve, threaten escalation, demonstrate friendly capabilities or eliminate specific enemy capabilities.[4]

The AP also suggested that strategic air power could be employed in so-called 'punishment operations', for example, as a response to state-sponsored support for terrorism.

Beyond this, the NFZ concept was entirely absent from the AP, and anti-surface force operations were deemed to be part of a 'truly joint campaign' in which 'the different force elements operate together synergistically, offering each other mutual support to achieve objectives'.[5] It also stated that 'anti-surface force action works best when used in direct cooperation with friendly surface operations, where the enemy is forced to expose and attempt to manoeuvre his forces while under fire'.[6] RAF operational doctrine did not anticipate the possibility of an independent air operation against surface forces.

By the time the AWC published a doctrinal manual in 1996 entitled *Royal Air Force Air Operations*, the three NFZs had been maintained for several years. Nevertheless, although the manual discussed peace support operations at some length, its consideration of NFZs extended to just a single line on 'airspace control' measures that might include air exclusion zones, air policing and combat air patrols.[7] Anti-surface force operations were again expected to be joint. The manual declared that 'Air interdiction must be conducted in concert with the land force battle for optimum synergy'. Other concepts such as Battlefield Air Interdiction and Close Air Support were defined by 'the proximity of targets to friendly forces and the control arrangements which are therefore required'.[8] Like AP 3000, *Royal Air Force Air Operations* did not envisage a situation in which land forces were entirely absent.

Coalition, Alliance and National C2

The extremely close bond between the RAF and the United States Air Force (USAF), which dates back to the Second World War, was rejuvenated during the conflicts of the 1990s. While the first Gulf War provided the RAF with live operational experience of modern USAF doctrine and operating procedures, defined especially by such Command and Control (C2) provisions as the Combined Air Operations Centre (CAOC) and the Air Tasking Order (ATO), and the processes used to generate it, the RAF gained further experience of USAF C2 as the decade wore on. A direct result was the creation of the UK Air Operations Centre in the later 1990s, which led in turn to the establishment of the Joint Forces Air Component Headquarters (JFACHQ) in 1999.[9] By that time, no other American ally was so familiar with the USAF way of warfare.

Predictably, the UK exercised a more prominent role in the narrowly based Gulf coalition than in the NATO alliance, which, in 1999, numbered 19 member states. Equally, as the

main coalition contributor, the USAF exercised a considerable degree of independence and ran operations over Iraq along lines substantially determined by the Combined Forces Air Component Commander (CFACC), which were fully supported by the RAF. By contrast, over the former Yugoslav territories, campaign management was rendered infinitely more complicated by the scale of the NATO alliance, US security concerns, closer political supervision (linked to more prominent media reporting) and the air component's subordination to higher NATO command echelons. Against this background, the RAF had to contend with less visibility of (and influence within) planning processes than it was accustomed to in the Gulf.[10]

In the UK, joint command and control provisions were overhauled in the 1990s. At the beginning of the decade, UK C2 procedures for out-of-area operations were founded on principles that were both national and joint, with command in theatre assigned to a Joint Force Commander operating from a deployed headquarters. At home, the Chiefs of Staff would delegate command to a Joint Headquarters (JHQ) located either at Headquarters Strike Command (HQ STC – now Air Command) or CINCFLEET Headquarters, Northwood.[11]

The JHQ system was not immediately reviewed after Operation *Granby*. Nevertheless, a procedure that involved the periodic establishment of a Joint Headquarters to provide national C2 during a single major crisis was obviously unsuited to a situation characterised by multiple, simultaneous or enduring operations. For this reason, the MOD ultimately decided to establish the PJHQ at Northwood. At the same time, the Defence Crisis Management Organisation (DCMO) was formed in the MOD, and a number of responsibilities were transferred from the department to the new headquarters. In future, the MOD would concentrate on policy formulation and the provision of strategic guidance.[12] PJHQ was inaugurated in April 1996 and thus inherited the two Iraqi NFZ missions and the peace implementation task in Bosnia. However, the first two warfighting operations mounted under PJHQ command were *Bolton* and the UK contribution to *Allied Force*.

Capability

During the 1990s, UK defence spending was slashed from 3.9 per cent of GDP to 2.6 per cent. For the RAF, this was an era of base closures, squadron disbandment and redundancies. At the beginning of the decade, the RAF's trained strength exceeded 83,000 personnel; by 1997 this figure had been reduced to 54,000, and it fell to 51,000 during the *Bolton* and *Allied Force* period. The RAF had 28 fast jet squadrons in 1990 divided between the strike/attack, offensive support, air defence and reconnaissance roles. By 1997 there were 22. The offensive air element fell from 16 in 1990 to 11 in 1997.[13]

The rush to cut defence spending is understandable given the apparent disappearance of a strategic threat to Western Europe. Yet the reductions were implemented by politicians, officials and military chiefs who inevitably struggled to understand a global security environment in which there was no longer any challenge from the Warsaw Pact and the extent to which it would generate an increased operational demand for air power.

The tendency was to underestimate the resources that would be needed to confront emerging threats. Hence, the apparent contradiction between the continuous front-line reductions and the fact that the RAF was committed to operations throughout this period. It is a paradox that explains why the defence climate of the 1990s was one of stringency and why there was far less scope than might be imagined for using cuts in front-line strength to fund capability improvements and realise the 'smaller but better' aspirations expressed by defence ministers.[14]

The consequences become clear if we consider the lessons identified by the RAF from the first Gulf War and the extent to which they were exploited: funding cuts clearly reduced the scope to action key recommendations. Some lessons were not implemented before they were relearnt over Iraq and Kosovo at the end of the decade, some elicited only a slow or partial response, and others failed to secure the necessary funding or prioritisation. Post-*Granby* recommendations for improving the UK's capacity to provide logistical support for extended or concurrent overseas commitments had not been fully implemented by the time SDR was undertaken. Some aircraft enhancements introduced during *Granby* were made permanent in the mid-1990s, but capability initiatives concerning, for example, anti-armour munitions, electronic warfare equipment and secure communications had yet to deliver at the end of the decade. An identified dependence on the United States for the suppression of enemy air defences (SEAD) had not been addressed, nor had a range of interoperability issues that implied long-term capability investment to allow the RAF to continue fighting alongside the USAF.[15]

Most noteworthy of all, the 1990s transformation of offensive air tactics – the shift from lower to medium altitude flying and laser-guided bombing – had to be accomplished within rigid financial limits, with adverse consequences at squadron level. The RAF became entirely dependent on a single type of laser designator known as the Thermal Imaging Airborne Laser Designator (TIALD), and TIALD pods originally intended for the Tornado GR1 alone were then divided between the GR1, Harrier and Jaguar fleets as it became necessary to share the burden of operational deployments in the Gulf and the former Yugoslavia across all three forces. The supply of TIALD pods became a serious 'pinch-point' in the later years of the decade and the key factor (although not the only factor) impeding the development of precision bombing in the RAF.[16]

Diplomacy and Air Power (1): Operation *Bolton*

The UNSCOM crisis, which dates from the later months of 1997, originated in UN efforts after the first Gulf War to deny WMD to Saddam Hussein's regime in Iraq. After the war, UNSCOM and the International Atomic Energy Agency (IAEA) presided over the destruction of large quantities of weapons and their supporting industrial infrastructure. However, it was an uphill struggle, and verification often posed insuperable problems. In time, UNSCOM came to suspect that the Iraqis were operating an elaborate concealment system designed to hide documents, computer records and possibly WMD or related equipment; in 1995 this was confirmed by Saddam Hussein's son-in-law, Hussein Kamel, following his defection to Israel.[17]

Thereafter, UNSCOM had little option but to target the concealment mechanism, but this change of direction provoked strong Iraqi opposition. Moreover, as it threatened to extend the weapons inspection process into the indefinite future, it incurred the displeasure of countries like Russia and China, which were hoping to profit from the removal of economic sanctions against Iraq. Such international consensus as had formerly existed on Iraqi disarmament began to break down. These developments assumed crisis proportions in October 1997 when UNSCOM issued a hard-hitting report describing how their activities were being hampered by non-co-operation and concealment by the Iraqi authorities.

Deliberations within the coalition of countries maintaining the northern and southern Iraqi NFZs soon revealed a strong consensus in favour of using air power rather than ground forces in any prospective military operation against Iraq. For this there were three reasons. First, air power could be deployed quickly: a substantial coalition force was already present in the Gulf to sustain the NFZs and could be enlarged rapidly. By contrast, the deployment of a sufficiently capable ground force would have taken months and could only have been achieved at considerable expense. Second, a ground operation was likely to involve far heavier casualties. Third, there was a genuine belief that air power could be employed coercively to produce a quick, clean, resolution to the crisis. This outlook was based on perceptions of what air power had achieved earlier in the decade, partly in the Gulf but especially in Bosnia. In 1995, an independent air operation – *Deliberate Force* – had apparently brought the Bosnian Serbs to the negotiating table after only two weeks without western casualties or collateral damage.

Initially, PJHQ did not conclude that there was a clear requirement for more combat aircraft in theatre. Sufficient assets were already based there in support of the NFZs at Incirlik, Turkey (Operation *Northern Watch*) and Prince Sultan Air Base (PSAB), Al Kharj, Saudi Arabia (Operation *Southern Watch*). The view that reinforcements were needed reflected the government's position that Iraq was unlikely to succumb to diplomatic pressure unless it was backed by force. The visible deployment of additional air-to-ground firepower seemed the best way to emphasise this threat.

Equally, if offensive aircraft *were* to be dispatched, PJHQ's preferred option was that they should be land-based Tornado GR1s. However, this pre-supposed the availability of a base from which offensive missions could be mounted, and it seemed doubtful that the Saudi government would allow them to be flown from their soil. It was in this context that PJHQ suggested deploying an aircraft carrier with a mixed force of RAF Harrier GR7s and Royal Navy FA2s. Although the precision bombing capabilities of these aircraft were more limited (the GR7s were being fitted for laser self-designation but the FA2s had no self-designating capability), the presence of GR7s in the Gulf would at least present a credible threat to Iraq. Early in November, HMS Invincible was diverted to the Mediterranean and 1(F) Squadron was placed on reduced notice to move.

In the meantime, relations with Iraq continued to deteriorate, and UNSCOM ultimately withdrew their inspectors in mid-November. The UK formally initiated Operation *Bolton* on 14 November with the following objectives:

> Political objectives: resume effective UNSCOM operations, ensure the safety of remaining UNSCOM personnel, and keep unanimity within the UNSC and the Arab world sympathetic towards UN aims.
>
> Military objectives: support the political objectives by deploying and sustaining sufficient military forces, in concert with the US and other potential coalition partners, to coerce Iraq into compliance, or to respond with military action in the event of Iraqi attacks upon Coalition forces.
>
> Strategic End State: restore the authority of the UN in Iraq with the resumption of UN weapons inspections with no preconditions.

An approach was now made to the Kuwaitis to establish whether they could provide a base from which UK aircraft could fly offensive missions against Iraq. They were found to be very enthusiastic, but concessions from the Iraqis then defused the crisis, and the GR1 deployment was placed on hold. Nevertheless, the government decided that Invincible should set sail with the GR7s on board, both for training purposes and to keep UK options open if the UN weapons inspectors ran into further problems. By the start of December, UNSCOM was indeed reporting renewed difficulties.

Meanwhile, the RAF completed a base reconnaissance of Kuwait and firmly established that a GR1 detachment could deploy to Ali Al Salem. This now became the MOD's preferred option, and the Secretary of State for Defence therefore recommended that Invincible should return to the UK. Yet this proposal was not supported by the Foreign Office, where it was felt that the withdrawal of the carrier might suggest a lack of UK resolve to adversaries and allies alike. The deployment of land-based aircraft to an airfield so close to the Iraqi border might also be unduly escalatory. Initially, then, Invincible remained in the Mediterranean. This course of action also created scope to 'turn the coercive screw' subsequently – increasing pressure incrementally by sending Invincible to the Gulf first and the GR1s later.

In January 1998, with the UNSCOM crisis deepening again, the government shifted its stance and decided to adopt a harder line. The MOD therefore recommended moving Invincible through the Suez Canal and deploying the GR1s to Ali Al Salem. Invincible's transit was finally sanctioned on the 15th, she entered the canal on the 18th and reached the Straits of Hormuz on the 24th. A few days later, the GR7s mounted their first training sorties, and their initial Southern Watch missions were executed on the 29th.

On 6 February, the GR1 deployment to Ali Al Salem was approved, heralding an all-out expeditionary effort into what was, at that time, a very austere base environment. An operational capability was established there in less than a week. PJHQ then reviewed UK postures and recommended that the carrier-borne GR7s be withdrawn and that the Ali Al Salem GR1 detachment be increased to 12 aircraft.

Despite the build-up of forces in theatre, the aim was still to support the diplomatic process, but the possibility of live hostilities was inherent in this approach, and it appeared unlikely that, if Iraq were bombed, UNSCOM would afterwards be readmitted. The government therefore agreed that if armed force were used and Saddam Hussein still did not allow UNSCOM inspections, he would be held at risk of further military action if he attempted to recreate his WMD capability again. The Americans must have had to address the same issue at this time, but their position was somewhat different. There was in fact a growing frustration in Washington over the extent to which policy was being dictated by the cycle of confrontations between the weapons inspectors and the Iraqi authorities, and the Clinton administration was evidently less daunted than the British government by the prospect of developing a strategy in which Iraqi disarmament was important but no longer central.

Faced with the enlarged US and UK military presence and under intense diplomatic pressure, Iraq appeared to capitulate. On 23 February, the UN Secretary General and the Iraqi Foreign minister, Tariq Aziz, signed a memorandum of understanding that paved the way for the renewal of UNSCOM and IAEA activities. It therefore seemed that the strategy of diplomacy backed by the threat of force had been successful.

In May, the Americans began drawing down their forces in the Gulf, offering the UK scope to withdraw at least some of the GR1s. There were now 24 of these aircraft in Kuwait, Saudi Arabia and Turkey (for the northern NFZ), and the RAF were becoming concerned about the sustainability of this commitment on the eve of the GR1-GR4 upgrade. But while there was an operational requirement to maintain a GR1 detachment at Ali Al Salem, there remained a strategic need to keep at least some combat aircraft at PSAB. So, acting on advice from the RAF and PJHQ, the Ministry of Defence proposed that a consolidated force of six GR1s should operate from Ali Al Salem, while Tornado F3 fighters took over the PSAB commitment. This recommendation was first tabled in mid-June 1998, yet the F3s did not deploy to PSAB until February 1999 and the GR1 force at Ali Al Salem was not reduced until January 2000, and then to eight rather than six aircraft.

How can this be explained? Initially, the MOD's preferred course of action did not secure unanimous government support. There was concern about the fact that the reductions would take place in the second half of July, for the head of UNSCOM was due to visit Iraq early in August and a further dispute appeared likely. In the event, there was another confrontation even before the visit, therefore the GR1s remained in situ. So began the sequence of events that led inexorably to Operation *Desert Fox* in December. After an extended period of

argument, both within the UN and between the UN and Iraq, the Iraqis finally suspended all co-operation with the weapons inspectors on 31 October. However, well before that, the movement of American forces out of theatre had been halted. As the US build-up resumed, the UK deployed more RAF personnel to Ali Al Salem and moved reconnaissance operations there from PSAB.

Once again, the Anglo-US concept was diplomacy backed by the threat of force, but it now seemed more probable that hostilities would break out. Therefore, both governments examined the potential consequences of war more closely, including the likelihood that Iraq would not readmit UNSCOM. With this in mind, they agreed that air strikes should target Saddam Hussein's WMD capability and weaken his regime politically and militarily. Then, even if UNSCOM were not immediately reinstated, the position would be preferable to one in which Saddam was allowed progressively to curtail the Special Commission's activities. At the same time, the British government recognised that the US had a wider objective of maintaining credibility. The threat of force would lose much of its value as a diplomatic tool unless the Americans demonstrated that they were prepared to use it.

On 14 November, coalition forces were on the very point of commencing operations (under the name *Desert Viper*) when the Iraqis announced yet again that they would co-operate with UNSCOM. Once more, military action was placed on hold while further deliberations took place in the UN. UNSCOM returned to Iraq on the 18th, but the crisis was renewed almost immediately, and it is clear that the Americans concluded at this stage that military action was inevitable. The US government also believed strongly that air operations against Iraq should be concluded by the start of Ramadan on 20 December. A further series of intrusive UNSCOM inspections, which ran into forthright Iraqi opposition, ultimately allowed this timetable to be realised.

On 15 December, UNSCOM reported to the UN that Iraq had not provided full co-operation and had in fact imposed new restrictions on the weapons inspectors. The inspectors were withdrawn on the 16th, and Operation *Desert Fox* began that evening. In part, the operation targeted industrial sites linked to WMD or prohibited missiles, but stockpiles, suspected stockpiles, or dual-capability sites were not attacked. The other main targets were the security forces involved in regime security and the concealment mechanism, higher command and control, the Republican Guard, economic targets related to illegal oil exports, and Iraqi air defences. Over four days, approximately 300 combat and support aircraft flew more than 600 sorties; 90 air-launched cruise missiles and 600 other air-released munitions were employed along with 325 TLAMs. RAF GR1s flew 28 attack sorties during the operation, releasing 52 bombs. Two Bahrain-based VC10 tankers were also involved, along with a Nimrod R1, which operated out of Kuwait International Airport.

At first, it was difficult to assess the operation's achievements in relation to its objectives. Most selected targets were hit, and the campaign destroyed many of the industrial plants required

for Iraq's missile programme, as well as a variety of other locations associated with prohibited weapons production or concealment. However, it was only some years later, after Saddam Hussein's overthrow, that the Iraq Survey Group established that *Desert Fox* had effectively finished off what remained of his WMD programmes.[18]

At the same time, the targeting of the Iraqi regime, the military high command, and the security forces on which they relied reflects the fact that *Desert Fox* had as much to do with sending political signals as with degrading WMD-related facilities. Essentially, it issued a blunt warning to Iraq (and other pariah states) by demonstrating that a US-led coalition had the capacity to strike all the key pillars of the regime if it continued to pose a direct and tangible threat. On the 19th, President Clinton declared that UNSCOM would no longer be the focus of American policy towards Iraq; instead, the US and her allies would pursue a strategy of containment via the NFZs and other means.

In the immediate aftermath of *Desert Fox*, there was a sharp upsurge in Iraqi activity in the NFZs, including new SAM deployments, SAM launches and violations by Iraqi aircraft. London and Washington responded with a démarche threatening Iraq with a military response, and a so-called 'tit-for-tat' cycle began. By August 1999, there had been 200 violations of the NFZs since *Desert Fox*, along with 300 SAM launches; Iraqi AAA had also become very active and there had been numerous SAM radar illuminations. The coalition had responded on 92 days, attacking 300 targets with 1,070 bombs; RAF Tornados had hit 23 targets (with multiple aiming points) expending 85 bombs. In the UK the MOD was unhappy with this situation. Much of the initiative appeared to rest with Saddam Hussein, and it seemed probable that an aircraft would be lost sooner or later, or else that there would be a major collateral damage incident. Yet there was no obvious solution beyond seeking to maintain operations that were effective, but low in intensity and media profile.

There was at least now scope to replace the PSAB GR1s with F3s, and the swap finally took place in February 1999. Scaling down the GR1 detachment at Ali Al Salem proved to be harder. With the GR1-GR4 upgrade in progress, it was becoming increasingly difficult to maintain overseas commitments and meet aircrew training requirements in the UK. The Air Staff argued that too many aircraft were deployed and that too few were available at home; operational standards seemed certain to suffer as a result.

A proposal to draw down the detachment to eight aircraft was tabled in September but again fell afoul of political and diplomatic developments. By this time, negotiations were under way in the UN to create a new weapons inspection organisation to replace UNSCOM and produce an SCR linking weapons inspections to the termination of sanctions against Iraq. Once more, it was argued that the premature withdrawal of aircraft might suggest a lack of UK resolve to nations such as Russia and China, who were arguing for an unconditional end to sanctions. The draw-down proposal was resubmitted in November following the appointment of a new Secretary of State for Defence, but another month went by before the UN passed Resolution

1284, which created UNMOVIC, and only then was ministerial authorisation to withdraw four GR1s from Ali Al Salem finally granted. The scene was now set for the final three years of the RAF's contribution to operations over the southern NFZ.

Diplomacy and Air Power (2): Kosovo

While the international community was struggling to restore UNSCOM weapons inspections in Iraq in 1998, a second major crisis was unfolding in Kosovo. Its origins may be identified in many centuries of Balkan history and lie beyond the scope of this paper. The key development was Yugoslavia's progressive disintegration in the early 1990s, beginning with the cessation of Slovenia and Croatia and then descending into civil war in Bosnia. Kosovo was the next in line, and the potential for conflict there was recognised by the international community early in the decade. Previously an autonomous province of Serbia, Kosovo had been subject to sustained efforts from Belgrade to reassert direct Serbian government since the accession to power of Slobodan Milosevic in 1989.[19]

Belgrade's policies were deeply resented by the majority Albanian population. In the aftermath of the Bosnian war, the later 1990s witnessed a marked polarisation between the Albanian and Serb communities in Kosovo. This was characterised by the emergence of the Kosovo Liberation Army and its violent campaign against the FRY security forces, and by the employment of increasingly indiscriminate and disproportionate reprisals by FRY army and police units against the Kosovo Albanian population as a whole. By 1998, western governments believed that they were confronted by a second Bosnia and were deeply concerned over the potential for civil war in Kosovo to destabilise other Balkan countries. There was no support for Kosovo's independence, but stability in the province appeared unlikely without constitutional reforms offering a significant degree of devolution. The so-called Contact Group of nations (France, Germany, Italy, Russia, the UK and the US) therefore embarked on a diplomatic drive to resolve the crisis, and sponsored two UNSCRs, 1160 and 1199, calling for an end to violence and repression in Kosovo and the beginning of meaningful dialogue between the FRY and the Kosovo Albanians.

However, as in Iraq, and based on past experience in Yugoslavia, it seemed that diplomacy would be ineffective unless the threat of force lay behind it. And, just as the coalition had opted to employ air power in response to the UNSCOM crisis in Iraq, so too did NATO almost immediately opt for an air-based response to the deteriorating situation in Kosovo. Again, air could be deployed relatively cheaply and easily; forces were already in theatre supporting peace enforcement operations over Bosnia; air operations appeared to be all but 'casualty-free' and again, the lesson of Operation *Deliberate Force* was apparently that air power could achieve NATO's objectives independently and within limited timescales.

In the summer of 1998, Serb forces launched a series of ground offensives in Kosovo that resulted in civilian casualties and were accompanied by looting and the destruction of property, livestock and crops. Entire villages were left in ruins. In rapidly growing numbers,

the Kosovo Albanians fled their homes. In September, the UN reported more than 200,000 refugees in the province and warned of an impending humanitarian catastrophe. In October, while diplomatic efforts continued, the North Atlantic Council approved OPLAN 10601 – the phased air operation that became Operation *Allied Force*.

The prospect of outright hostilities over Kosovo diminished somewhat in the later months of 1998 after the US Special Envoy to the FRY, Richard Holbrooke, brokered an agreement with Milosovic under which an unarmed verification mission entered the province to monitor compliance with UNSCRs. To an extent, therefore, events mirrored the coalition's experience in the Gulf the previous February, when the combination of diplomacy backed by the threat of air strikes on Iraq had apparently been successful.

However, the situation deteriorated again in January 1999, and when 45 Kosovo Albanians were killed by FRY security forces at Racak there was general agreement within the Contact Group that a stronger line was essential. In so-called 'proximity talks' at Rambouillet, France, in February, the rival protagonists were issued with a series of demands, which were backed by the threat of force in the event of non-compliance. The Rambouillet Accords called for an immediate ceasefire, the withdrawal of nearly all Yugoslav security forces from Kosovo, the demilitarisation of the KLA, the insertion of a NATO-led peace-implementation force, KFOR, into the province, and effective autonomy for Kosovo within the FRY. The Kosovo Albanians eventually signed the Accords, but the FRY delegation refused even to discuss the deployment of an international peacekeeping force and rejected several other terms on the grounds that they violated the FRY's sovereignty and territorial integrity. The air campaign began on 24 March after the failure of last-ditch attempts to persuade Milosevic to reconsider his position.

The British documents suggest a certain lack of clarity at the top level of government over air strategy for Kosovo. There was general agreement on the desirability of a coercive air campaign if diplomacy failed but no precise understanding of what this might involve. The NATO force assembled for the task did not boast a very large offensive element, and its target list was confined to the FRY air defence system and military infrastructure targets in southern Serbia and Kosovo. Its capacity to coerce the FRY's political leadership in Belgrade was questionable.

Nevertheless, expectations of the campaign were very optimistic: it was apparently believed that Milosevic would capitulate after a few days of bombing, and no alternative or contingency strategy was ready for implementation if Operation *Allied Force* failed to accomplish this ambitious goal. Nor had much thought been given to the possibility that the FRY would respond to air strikes by launching an all-out assault into the disputed province. By mid-March 1999, a considerable volume of information had reached NATO suggesting that this was precisely how Milosevic would react. The British government did not entirely ignore this possibility but merely concluded that air power might, in such circumstances, be employed to reduce the FRY's capacity to repress the Kosovo Albanians. The practical implications of such a strategy were not considered in detail.

The initial *Allied Force* air strikes were heavily disrupted by poor weather, and NATO was immediately confronted by a full-scale Serbian offensive into Kosovo. Under strong political pressure to protect the Kosovo Albanians, the alliance therefore switched a substantial proportion of its limited combat air strength to operations against fielded FRY forces in the Kosovo Engagement Zone (KEZ). The campaign's orientation towards KEZ targets was then encouraged by three factors. First, the process for clearing other types of target proved long and convoluted because it involved at least formal consultation with the entire NATO alliance; second, KEZ operations were favoured by political leaders because they were thought to involve less risk of collateral damage than attacks against other target sets; third, SACEUR, General Wesley Clark, involved himself directly in the targeting process and insisted on attaching an overriding priority to KEZ strikes.

Unfortunately, KEZ operations proved very uneconomic. Operation *Allied Force* was largely conducted at medium altitude (at least 15,000 feet) to reduce the vulnerability of participating aircraft to Serbian ground-based air defences. However, it was often extremely difficult to locate small and mobile tactical targets from this height, and many of the participating aircraft were not optimised for strikes on tactical target arrays. Consistently poor weather complicated the task further and caused many missions to be cancelled or aborted in the air. FRY forces proved adept in the art of passive air defence, employed decoys and camouflage to good effect, and made maximum use of the protection afforded by the weather. In the absence of a threat from NATO on the ground, they dispersed and concealed both troops and equipment. Finally, they managed to secure ample intelligence on the timing and orientation of NATO attacks (including early warning from radars in Montenegro, which the coalition was reluctant to strike), and were able to tailor their dispersal and movement plans accordingly.

The air campaign's orientation towards KEZ operations unquestionably reduced its effectiveness during the first month of hostilities, but there were other problems too. At first, the committed NATO air forces were not large enough to mount sustained operations on a scale likely to coerce the FRY. Clearance for targets located outside the KEZ remained slow and was persistently hampered by the collateral damage concerns of alliance members. Equally, the campaign suffered under SACEUR's direction from a lack of strategic focus, random target selection and a failure to identify the FRY's centres of gravity. It also took time to expand command and control provisions, notably the Strategy and Guidance, Apportionment and Targeting (Strat/GAT) functions of the CFACC's headquarters and Combined Air Operations Centre (CAOC) at Vicenza, Italy.

Against this background, British strategists soon began to doubt the capacity of air power to achieve NATO's objectives independently. Fearful of the consequences for the alliance if the operation failed, they increasingly argued from a joint perspective that a ground intervention was essential and that the correct use of air power should be to prepare the battlespace for this ground campaign. Clear timelines were needed to govern the development of NATO strategy, from the existing air campaign to battlefield preparation, and to the insertion of a

ground force. These arguments found some sympathy within NATO's high command, but political leaders from other alliance nations proved far more cautious. They would only agree to the establishment of the peacekeeping force, KFOR.

On the other hand, London's view that NATO could not be seen to fail was more widely accepted by alliance partners, and this helped to remove some of the political barriers that had at first constrained the air campaign. Subsequently, a range of initiatives sought to increase the effectiveness of Operation *Allied Force*. The air component, which numbered fewer than 500 aircraft in March, was enlarged to reach 900 in May, and the proportion of ground-attack aircraft increased markedly within this total. In late April, the CFACC produced a Strategy and Mission Statement, which envisaged increasing the bombing effort against military infrastructure and strategic targets in Serbia, while continuing with KEZ attacks. Leading members of the alliance sought to accelerate the target clearance process and persuade SACEUR of the need to plan more methodically, and C2 improved under a fully functional CAOC.

The results were mixed. The CAOC continued to complain about SACEUR's frequent interventions, and General Clark went on micro-managing the air campaign but without a clear strategy, his focus remaining firmly on the KEZ. Equally, while the CFACC's Strategy and Mission Statement was implemented in theory, there was hardly any reduction in the campaign's emphasis on KEZ operations in the first half of the month. Poor weather also continued to restrict the sortie rate and hamper target identification, and, despite some streamlining in target clearance procedures, particular alliance members still blocked key targeting proposals.

Nevertheless, there were also some grounds for cautious optimism. The first clear indication that the air campaign was causing serious alarm at the highest governmental and military levels in the FRY was detected at the beginning of May, when there was a sudden and marked increase in ground-based air defence activity. Milosevic subsequently began offering limited concessions, such as a partial troop withdrawal, if NATO would halt the bombing. Anti-war and anti-conscription demonstrations in southern Serbia were soon followed by overt criticisms of the war from certain provincial and civic leaders.

Then, as the weather cleared during the final week of May, NATO was at last able to unleash all the offensive forces at its disposal. The result was an increase in the attack sortie rate of over 90 per cent compared with the average rate recorded in the preceding three weeks, and most of these sorties located and bombed FRY targets. By the end of May, intelligence was emerging to suggest the presence of a 'peace party' in Belgrade, although the 'war party' was thought to be stronger. Assessments of the air campaign's physical impact also became noticeably more upbeat, presenting evidence of widespread damage to the FRY's economic and military base, its communications network and its IADS. The picture was only less optimistic where KEZ targets were concerned.

In the last week of May, General Clark finally agreed to a major reorientation towards strategic bombing. Subsequently, with strong support from Washington, he approached the leading European powers but found them reluctant to accept his proposals. This was partly because they wished to confirm the legality of some of the targets independently, and partly because they feared that the proposed strikes would cause collateral damage and civilian casualties. Fortunately, as the threat of deadlock loomed, diplomatic efforts to resolve the crisis achieved a vital breakthrough.

After NATO launched *Allied Force* in March 1999, the scope for further diplomatic initiatives at first seemed extremely limited, but action to achieve a negotiated resolution to the crisis soon came to focus on Russia, the FRY's only major diplomatic ally. Calculating that Milosevic's regime would be impossibly isolated without Russian support, western diplomats sought to align Moscow more closely with their stance on Kosovo. Critically dependent on western financial aid in the later 1990s, the Yeltsin government proved susceptible to these overtures. Early in May, Russia accepted a G8 statement of principles for ending the Kosovo conflict, which was also broadly acceptable to NATO, and the Russian envoy to the FRY, Viktor Chernomyrdin, was subsequently instrumental in turning this statement into a draft peace settlement. Yet it was only possible to bridge the gulf between Russia and NATO by couching this document in somewhat vague terms – a lack of clarity that may have encouraged Milosevic to hope for concessions during detailed peace negotiations.

It is popularly supposed that the peace terms finally accepted by Milosevic resulted from a joint diplomatic initiative undertaken by the EU envoy, Maarti Ahtisaari, and Chernomyrdin, at the beginning of June. However, the documents show that Ahtisaari only decided to visit Belgrade *after* Milosevic signified his willingness to accept the G8's principles on 28 May. In fact, the FRY leader was looking for a way out. When Ahtisaari presented him with the draft peace document, Milosevic sought a range of concessions, which were refused, but his military representatives afterwards tried to insist on a halt to NATO bombing before they withdrew their forces from Kosovo; they also sought an extension of the timetable for implementing the agreement.

Negotiations eventually broke down, but many NATO members meanwhile requested the immediate suspension of *Allied Force*. Had the air campaign been stopped, there would have been far less pressure on Milosevic to accept an agreement, and it might subsequently have been very difficult to persuade all alliance members that offensive operations should be resumed. The Deputy SACEUR, General Rupert Smith, captured the very essence of NATO's dilemma at this time:

> The problem lies, from a military point of view, in arriving at the delivery of the agreement while maintaining pressure. If we don't keep pressure on the Serbs, we fear that we may arrive at a position where we cannot deliver the agreement … We need to maintain the pressure of bombing … until we have an agreement that can be delivered.

The air campaign was moderated for a few days while negotiations were in progress, but its intensity increased again when the FRY rejected the agreement.

Milosevic then signified his willingness to accept the peace terms on offer if they were supported by a UNSCR. The SCR had to accommodate Russian and FRY political sensitivities by papering over certain remaining areas of dispute regarding FRY sovereignty and territorial integrity and NATO's role in the peacekeeping force. Nevertheless, in practical terms, it created scope for revising Kosovo's constitutional status, relative to the remainder of the FRY, and for deploying a NATO-led peacekeeping force in the province. The SCR's passage was swiftly followed by the signature of a Military Technical Agreement between the FRY and the Commander of KFOR, and by the suspension of Operation *Allied Force*.

SDR Assumptions

The role of air power in Operation *Bolton* and Operation *Allied Force* raised important questions regarding two fundamental SDR assumptions. The first was that future operations would probably be joint. The essence of jointery is the deployment of the correct force mix – the combination of air, land and maritime forces most likely to deliver the operational objective quickly and effectively. The underlying principle is that joint effects are greater than the sum of the effects that can be brought to bear by each individual component.

Where national operations are concerned, this may not pose much difficulty. In coalition warfare it can prove significantly harder for the simple reason that key allies are almost certain to have different perspectives and priorities. In the case of Iraq, the UK and the US were agreed during the *Bolton* period that their objectives could be delivered by air power (including maritime air power) and diplomacy, without the deployment of ground forces, and this judgement on Iraqi operations was only changed by the events of 11 September 2001.

However, during *Allied Force*, UK arguments favouring a joint air and ground operation, which were backed by most senior Army and RAF officers, received no support from Washington or other alliance capitals, and this effectively dictated that the campaign against the FRY was fought in a single dimension.[20] The case for mounting or threatening a ground operation might have been a strong one, but it was not sufficiently persuasive to overcome the basic objections that confronted British statesmen in 1999: ground operations take longer to mount, are very expensive and may well involve heavy casualties. Again, this calculation was only changed by the emergence of strategic threats to the US and other western nations after the turn of the century.

Thus, for the UK, Operation *Bolton* only ranked as 'joint' for the brief period when the carrier-borne Harrier force was positioned in the Gulf, but the Harriers were never employed operationally against Iraq. Similarly, while carrier-borne FA2s were committed to the Kosovo conflict, they merely flew uneventful combat air patrols and did not make a significant contribution to the air campaign. It is likely that both deployments were partly promoted to

underline the case for SDR's key procurement recommendation – acquisition of the Queen Elizabeth class carriers. Otherwise, *Bolton* and Kosovo were assigned entirely to the RAF. They were not joint operations and they provided little or no opportunity for the Armed Services to develop joint operational doctrine or capabilities.

Secondly, the launch of Operation *Bolton* and Operation *Allied Force* in rapid succession challenged SDR's concurrency expectations. While *Allied Force* conformed to the concept of a medium-scale warfighting operation of less than six months' duration, *Bolton* had by 1999 developed into an enduring warfighting operation and was being maintained alongside the RAF's contribution to policing the northern Iraq NFZ. During the period when these three operations were being conducted simultaneously, and in the following years, when further operations were mounted in Sierra Leone (2000) and Afghanistan (2001), the strategic assumptions that underpinned SDR were clearly exceeded. This was fully acknowledged by the Defence White Paper published in 2003, although the subsequent expansion of commitments in Iraq (Operation *Telic*, from 2003) and Afghanistan (Operation *Herrick*, from 2004) meant that it would prove no easier to align strategic assumptions and defence activity thereafter.[21]

That the predictions proved less than accurate is not so much a criticism of SDR as an acknowledgement that the frequency, nature and duration of post-Cold War conflicts was extremely difficult to predict. The assumptions laid down in SDR were not set in stone, and many other considerations influenced British strategy in the period covered in this paper. Yet it is important to acknowledge that the assumptions were continuously exceeded and that, of the three Armed Services, only the RAF contributed to all the operations listed here and was subject throughout to the resource pressures and multiple risks involved.

Doctrinal Implications

If neither *Bolton* nor *Allied Force* supported SDR's assumptions of jointery, the tendency to employ the RAF independently of the other Armed Services in both operations also challenged key tenets of UK air power doctrine. This divergence between operational doctrine and practice could be viewed positively. In a sense, by moving into doctrinally uncharted territory, air power was demonstrating its inherent flexibility. Yet, as doctrine is founded on experience and accumulated wisdom, it should not be ignored. Moreover, if doctrine and practice are not broadly aligned, military practitioners may find themselves poorly prepared for the missions they are required to execute.

In the earlier era of RAF doctrinal activity, extending from the inter-war years to the 1960s, operational experience was often rapidly translated into doctrine. By contrast, the authors of more recent publications have struggled to keep pace with constantly changing military developments. Perhaps, then, it is not surprising that the doctrinal impact of *Bolton* and *Allied Force* was limited. Although the RAF produced an extensive lessons study of air operations over Kosovo, no equivalent air lessons report was ever prepared on *Bolton* or the broader

subject of the UK contribution to *Southern Watch* (or the other NFZs). In the third edition of AP 3000, which appeared in 1999, the experience of Operation *Bolton* undoubtedly influenced coverage of such topics as preventative diplomacy, peace enforcement and coercion.[22] AWC operations doctrine likewise continued to acknowledge the utility of air power as an instrument of crisis management.[23] Coverage of particular air roles such as surveillance and reconnaissance was also directly applicable to the *Bolton* task. Yet, although they accounted for so much of the RAF's operational activity in the 1990s, NFZ operations and associated subjects such as air policing and containment received hardly any attention.

In the sphere of jointery, it could be argued that there was more alignment. UK air doctrine did not change significantly after Kosovo, continuing to view anti-surface force operations in the context of joint campaigns executed in support of conventional western ground forces, but this position gained support from *Allied Force* in one important sense: a ground threat to Serbian security forces in Kosovo would have benefited the air campaign over the KEZ; in the absence of a NATO ground offensive, the Serbs could deploy in ways that reduced their vulnerability to air power.

The case for jointery would subsequently be reinforced by the greater emphasis on air-land integration that characterised the era of Operation *Telic* and Operation *Herrick*. However, it was not so easily applicable to Operation *Ellamy* (Libya, 2011) and Operation *Shader* (Iraq and Syria from 2014). The last 11 years have witnessed a renewed preference for air-based intervention without a significant western ground presence, which suggests that both *Bolton* and *Allied Force* may have had a longer-term significance that merited more detailed consideration in a doctrinal context. There is perhaps a need to improve the integration of doctrine with recent and longer-term historical experience.

Air C2

While RAF officers were evidently more comfortable with C2 arrangements in the Gulf during Operation *Bolton* than with the NATO command structures employed in *Allied Force*, they adapted quickly. In due course, it transpired that there was still scope to exert considerable influence by securing key positions in the CAOC or through informal engagement at higher command levels. Nevertheless, the experience might perhaps have served as a reminder – if not a warning – of the need for the RAF to maintain its investment in NATO C2.

As for the new UK C2 provisions, they apparently functioned well. The RAF's *Allied Force* lessons study praised the 'uncomplicated' national C2 structure extending from PJHQ to Commander British Forces Italy (Air) (CBFI(A)) to unit level, describing it as 'simple and effective'. A lack of interference from other headquarters was also noted. The only reservation expressed in the report was that, on occasion, more direct links between the CBFI(A) and HQ STC might have been beneficial – particularly where the delivery of air capability was concerned. It was suggested that PJHQ might 'consider how best to interface the NCC with the Supporting Command, without prejudice to the C2 chain'.[24]

The two operations nevertheless raised questions about how the RAF contributes to the application of UK air power that remain under discussion to this day. Prior to the restructuring of the MOD in the early 1980s, it was still possible for the Chief of the Air Staff to exercise a considerable influence on the employment of air power during operations. Subsequently, although the authority of the individual Chiefs of Staff waned, HQ STC's role as a joint operational headquarters preserved the RAF's influence when British forces were committed to the Gulf in 1990 at a time when CDS was himself an RAF officer.

The establishment of PJHQ in 1996 altered this situation decisively, dictating that operational C2 from CDS downwards would function on joint lines. Ironically, the RAF's role in the exercise of operational air C2 diminished considerably at a time when independent air operations were being conducted in the Gulf and over the former Yugoslavia. From then on, the likely effect of employing air power (or threatening to employ it) would be calculated by senior officers from all three services and by ministers and officials from more than one department of state. The flaws inherent in such a system are obvious. If air is to play a central role in military operations, as it did in *Bolton* and *Allied Force*, its employment should be guided by professional air expertise. The post-Kosovo RAF lessons report referred specifically to this issue when it stated that the C2 chain from theatre to PJHQ had worked well 'because ACOS J3 [the Head of Operations at PJHQ] was an airman and understood the inherent [air] problems'. The same degree of understanding appeared unlikely if the post was occupied by an officer from one of the other Armed Services.[25]

TIALD and Paveway

The RAF combat aircraft committed to *Bolton* and *Allied Force* were initially tasked to strike targets using laser guided Paveway II and III bombs designated by the TIALD pod. These were the only bombs released during *Bolton* but, as *Allied Force* developed, the GR7s were also authorised to release unguided weapons. This was partly because they included cluster munitions deemed suitable for tactical targets in Kosovo and partly because dense cloud cover often prevented the use of LGBs. The RAF had no alternative means of precision guidance at that time.

During the build-up to both operations, a lack of LGB training capacity emerged as a significant issue. In October 1998, the Tornado GR1s of 14 Squadron deployed on *Bolton* had their first opportunity to designate and deliver Paveway II bombs since 1995, using the Udairi range in Kuwait. As a direct result, they unearthed a serious pulse coding defect with the TIALD-Paveway combination that would have been spotted long before if there had been more training opportunities for front-line squadrons and closer scrutiny of the results. It was easily rectified, but if incorrect codes had been used two months later, in *Desert Fox* (or in the previous February, when hostilities were only narrowly averted), all the Paveway IIs dropped would have missed their targets.[26]

Another perspective on this problem is provided by a statement of the RAF's TIALD pod inventory dated 26 February 1999, less than a month before the *Allied Force* commitment

was substantially assigned to the Harrier GR7s. On that date, the RAF possessed 34 pods, 13 of which had been returned to industry for upgrade or development work and 6 of which were unserviceable. Front-line detachments committed to the Gulf or the former Yugoslavia accounted for 11 more, leaving just 4 for training, of which 2 could only be used by the Jaguar force. The remaining 2 were allocated to the Tornado GR1 squadrons at RAF Lossiemouth, leaving the Harrier force with no training pods at all.[27]

RAF investigations after *Bolton* and *Allied Force* revealed a hit rate with LGBs that matched but did not better the rate achieved in the first Gulf War (the first time the RAF employed LGBs and airborne designation operationally). This suggested an urgent need for improved training regimes, with more frequent opportunities for aircrew to practise with TIALD and Paveway and better recording and analysis of the results. In *Allied Force*, the prevailing shortage of TIALD pods and TIALD-qualified crews tied the committed Tornado GR1s to their home base at RAF Bruggen, in North-West Germany, even though ramp space was available far closer to the FRY. The extra distance increased their vulnerability to weather-related problems and other operational constraints that caused numerous missions to be cancelled or aborted in the air.[28]

Fortunately, both operations provided the RAF with an opportunity to learn from experience. Although the availability of TIALD pods and TIALD-capable aircraft remained a problem for at least one detachment in Operation *Telic* in 2003, by that time the standard of laser-guided bombing in the RAF had improved, and the squadrons were also equipped with Enhanced Paveway bombs that could be guided by GPS if poor weather prevented the use of laser designation.[29]

Diplomacy and Air Power: Scope and Limitations

Operation Bolton was originally mounted with the aim of coercing the Iraqi government into renewed cooperation with UNSCOM, the longer-term goal being verified Iraqi disarmament. The combination of diplomatic pressure and military threat was apparently successful in February 1998, when the Iraqis agreed to the resumption of UNSCOM activities but was subsequently abandoned by the US. *Desert Fox* sought to deny the Iraqis what remained of their WMD capability and punish Saddam Hussein's regime for persistently obstructing UNSCOM. It also heralded a strategic reorientation towards containment, which endured until the fall of Saddam's regime in 2003.

A diplomatic solution to the crisis proved impossible because there was not enough international backing for UNSCOM. The lack of a broad international consensus in support of Iraqi disarmament by the late 1990s emboldened Saddam Hussein and helps to explain his willingness to confront the weapons inspectors and the coalition. By the summer of 1998, the realities of this situation were clear to Washington, and the Clinton administration concluded that an UNSCOM-based strategy was no longer tenable. As there was equally no support in the US administration for military action against Iraq on a scale equivalent to the Gulf War, a strategy of containment based chiefly on the NFZs was the only realistic alternative.

Although *Desert Fox* had many critics and containment was often said to have failed, Iraq's residual WMD programmes withered and died after December 1998, and no weapons remained by the time coalition forces invaded just over four years later.

Operation *Allied Force* was launched to achieve the withdrawal of FRY security forces from Kosovo and the insertion of a NATO-led peace-keeping force into the province. Again, events at first suggested a possible resolution to the crisis via the threat – but not the use – of force and, even after the first air strikes in March 1999, the leading alliance governments confidently expected a rapid capitulation from Milosevic.

Once the realities of the Kosovo conflict had become clear, diplomatic efforts resumed alongside the air campaign. The critical difference between *Allied Force* and *Bolton* lay in the FRY's vulnerability to total diplomatic isolation. This was ultimately achieved via the exploitation of non-NATO international organisations such as the G8 and the EU. With the G8 principles for resolving the crisis agreed by Russia and NATO, and under intensifying pressure from *Allied Force*, Milosevic found himself in an impossible position by the end of May 1999. Nevertheless, the interaction between diplomacy and air power continued throughout the negotiations in early June, as the FRY repeatedly sought concessions that might have made NATO's objectives more difficult to realise. Ultimately, while the UNSCR that effectively ended the conflict was couched in face-saving terms that provided Milosevic with a degree of political protection, it delivered absolute victory to NATO.

It would be problematic to suggest hard and fast lessons about the relationship between air power and diplomacy on the evidence of just two operations spanning a brief period. History rarely repeats itself, and a multiplicity of variables may affect its course. Context is all-important and encompasses many different factors, including (but not limited to) the domestic and international political situation, basing and access, and geography. With such reservations in mind, there are perhaps just three very generalised points to consider by way of conclusion. First, the threat of force in support of diplomacy implies the use of force when all other options have been exhausted; a failure to take military action can only reduce the plausibility and effectiveness of the threat in future and may also create difficulties in the sphere of alliance cohesion and solidarity. Second, whether threatened or applied, air power cannot transform unrealistic diplomatic objectives into realisable goals, but its application may provide an alternative means of achieving broadly those same objectives. Third, air power can support realistic diplomatic activity through the actual or threatened use of force, but the desired outcomes may not be achieved without protracted and concerted diplomatic efforts and extended high-intensity operations.

Notes

[1] The operation name *Allied Force* is employed throughout as it will be most familiar to the reader. The overarching UK operation name was *Kingower*, while UK air operations over Kosovo were mounted under the name *Engadine*.

[2] Strategic Defence Review (July 1998), Chapter 5, para 79.
[3] Strategic Defence Review (July 1998), Chapter 5, para 89.
[4] Air Publication (AP) 3000, *Royal Air Force Air Power Doctrine* (MOD, 1990), p. 90.
[5] AP 3000, p. 73.
[6] AP 3000, p. 71.
[7] Air Warfare Centre, *Air Operations* (RAF, 1996), p. 6.V.5.
[8] Air Warfare Centre, *Air Operations*, p. 4.II.2.
[9] CAS 91/1 Pt A, Future Command and Control of Air Power – Final Report of the ACAS and ACDS OR (Air) Working Group, 6 October 1994; Wing Commander Redvers TN Thompson, 'Post-Cold War Development of United Kingdom Joint Air Command and Control Capability', *Royal Air Force Air Power Review*, Vol 7, No 4, Winter 2004, pp. 76-78.
[10] Air Historical Branch, *The Royal Air Force and UK Air Power over Iraq and Kosovo, 1997-2000*, pp. 121-122, 126-128, **https://www.raf.mod.uk/our-organisation/units/air-historical-branch/post-coldwar-studies/raf-over-iraq-and-kosovo-1997-2000/** (accessed 15 March 2022).
[11] Air Historical Branch, *The Royal Air Force in Operation Granby, The First Gulf War, 1990-1991: Command and Control*, p. 8, **https://www.raf.mod.uk/our-organisation/units/air-historical-branch/post-coldwar-studies/command-and-control/** (accessed 15 March 2022).
[12] Air Historical Branch, *Royal Air Force Command and Control*, 1982-2014 (official RAF narrative), p. 69.
[13] Air Historical Branch, *The Royal Air Force and UK Air Power over Iraq and Kosovo, 1997-2000*, pp. 7-8.
[14] CM 1981, *Statement on the Defence Estimates, 1992* (HMSO, London, 1992), p. 32.
[15] Sebastian Ritchie, 'The Royal Air Force and the First Gulf War, 1990-91: A Case Study in the Identification and Implementation of Air Power Lessons', *Royal Air Force Air Power Review*, Vol 17, No. 1, Spring 2014, pp. 36-52.
[16] Air Historical Branch, *The Royal Air Force and UK Air Power over Iraq and Kosovo, 1997-2000*, Annex I.
[17] This section is based on the account of Operation *Bolton* contained in Air Historical Branch, *The Royal Air Force and UK Air Power over Iraq and Kosovo, 1997-2000*.
[18] Air Force Historical Research Agency, *Airmen at War*, Perry D. Jamieson, 'Southern Iraq', pp. 8-9, **https://www.afhra.af.mil/Portals/16/documents/Airmen-at-War/Jamieson_SouthernIraq30Sep15.pdf?ver=2016-08-22-131406-023** (accessed 17 March 2022).
[19] This section is based on the account of Operation *Allied Force* contained in Air Historical Branch, *The Royal Air Force and UK Air Power over Iraq and Kosovo, 1997-2000*.
[20] Air Historical Branch, *The Royal Air Force and UK Air Power over Iraq and Kosovo, 1997-2000*, p. 194.
[21] CM 6041-I, *Delivering Security in a Changing World* (Defence White Paper, December 2003), p. 7, paras 3.2-3.3.
[22] AP 3000, *British Air Power Doctrine* (Directorate of Air Staff, MOD, 1999), pp. 1.1.7-1.1.11.
[23] Air Warfare Centre, *Air Operations* (RAF, 2000), p. 5.IV.3.
[24] Air Historical Branch, *The Royal Air Force and UK Air Power over Iraq and Kosovo, 1997-2000*, pp. 228-229; NCC – National Contingent Commander, in this case the CBFI(A).

[25] Air Historical Branch, *Royal Air Force Command and Control, 1982-2014*, p. 90; see also Colin S Gray, *Airpower for Strategic Effect* (Air University Press, Alabama, 2012), p. 272.
[26] Air Historical Branch, *The Royal Air Force and UK Air Power over Iraq and Kosovo, 1997-2000*, p. 60; see also Annex I.
[27] Air Historical Branch, *The Royal Air Force and Air-to-Ground Combat, 1990-2014* (official RAF narrative), p. 48.
[28] Air Historical Branch, *The Royal Air Force and UK Air Power over Iraq and Kosovo, 1997-2000*, p. 141.
[29] Air Historical Branch, *The Royal Air Force and Air-to-Ground Combat, 1990-2014*, p. 143.