The United States has led airstrikes against ISIS in Iraq and Syria

RAF Tornado GR4 aircraft from Cyprus have conducted airstrikes against ISIS in Iraq

France, the Netherlands, Belgium and Australia have all conducted air strikes in Iraq and Denmark and Canada have also committed combat aircraft

Bahrain, Qatar, Saudi Arabia, Jordan and the United Arab Emirates have all supported US strikes against ISIS in Syria

Combat troops have been explicitly ruled out by the UK and the other the countries involved, amid debate about the reliance on air power alone. However a small number of British soldiers are in Iraq training Peshmerga forces in northern Iraq
Contents

1 Summary
   1.1 Key dates in 2014

2 Military operations
   2.1 US assets
   2.2 Countries involved in military action
      Air strikes in Iraq
      Air strikes in Syria
   2.3 Duration of the mission

3 British military participation
   3.1 Details of RAF airstrikes
   3.2 Assets
      Royal Air Force
      Royal Navy
   3.3 Army
   3.4 Sustainability of UK mission
   3.5 Costs of the mission

4 ISIS military capabilities
   Risks to coalition forces?
   4.1 Impact of airstrikes on ISIS

5 Boots on the ground?
   5.1 UK position
   5.2 Views of Parliamentarians and former defence chiefs
   5.3 Views of defence experts and commentators
   5.4 Views of US and other nations involved


1 Summary

The United States has led airstrikes against ISIS in both Iraq and Syria, beginning in Iraq in August and in Syria in September.

So far only the US and its Arab partners - Bahrain, Qatar, Saudi Arabia, Jordan and the United Arab Emirates - have participated in airstrikes in Syria.

The United Kingdom, France, the Netherlands, Belgium and Australia have all conducted air strikes in Iraq. Canada and Denmark have also committed combat aircraft to operations in Iraq. All are reluctant to intervene militarily in Syria.

The Turkish Parliament has approved a motion allowing its military to join the campaign in both Syria and Iraq. Turkey borders both countries.

Military action has so far been restricted to air operations in support of local forces, providing reconnaissance, surveillance and attack capabilities. RAF Tornado GR4 aircraft, based in Cyprus, have conducted a number of airstrikes and reconnaissance missions in Iraq, with support aircraft including the new Voyager tanker/transport aircraft. Other countries have deployed F-16, F-18, Tornado and Rafale combat aircraft, plus support aircraft in the form of tankers, surveillance and transport aircraft.

There is widespread resistance from North America, European nations and Australia to deploying ground combat troops (excluding Special Forces). The reliance on air power has prompted a debate about the need for 'boots on the ground', or land forces, among former defence chiefs and Parliamentarians. The US, UK, Canada, Australia and France have all explicitly ruled out deploying ground combat forces in Iraq. The UK has deployed “non-combat Army trainers” to northern Iraq.

The US is reporting seeing a change of behaviour by ISIS in response to the airstrikes and air reconnaissance missions, suggesting they have having to change tactics to avoid detection, thus disrupting their movements. Airstrikes so far have targeted heavy weapons, armed vehicles (e.g. armed pick-up trucks, also called 'technicals') and ISIS fighters engaged in combat fire with local ground forces.

This note complements House of Commons Library Note Iraq, Syria and ISIS – recent developments which provides a broader political and humanitarian context.

1.1 Key dates in 2014

- 8 August: first US airstrikes on ISIS targets in Iraq
- 19 September: France carries out its first air strike in Iraq
- 23 September: first US airstrikes on ISIS targets in Syria supported by Arab states
- 26 September: UK Parliament approves military action in Iraq only, not in Syria
- 29 September: RAF Tornado GR4 conduct first armed reconnaissance missions over Iraq, but do not carry out any airstrikes
- 30 September: first UK airstrikes on ISIS targets in Iraq

1 ISIS, ISIS and the Islamic State are different names for the same group
2 Military operations

This section looks at the military operations involving the US and partner nations, including pledges made by other governments to participate and what military equipment they are contributing. The UK contribution is assessed separately, in section 3, while the debate about the deployment of combat troops is discussed in section 5.

2.1 US assets

US Air Force and Navy aircraft, including F-15, F/A-18 aircraft and MQ-1 Predator drones have been conducting air strikes in Iraq since early August 2014.

Operations were expanded into Syria towards the end of September. US aircraft participating in those sorties have included F-15, F-16, F/A-18, F-22 fighter aircraft and B-1 bombers. Tomahawk missiles deployed aboard US naval vessels deployed in the Red Sea and North Arabian Gulf were also utilised in the initial stage of offensive operations in Syria. The USS George H W Bush Carrier Strike Group is currently deployed in the Gulf. The Secretary of the Navy has ruled out adding a second carrier.²

Significantly the F-22 conducted its first ever combat flight during the attacks on ISIS forces in Syria on 22 September.

Intelligence, surveillance and reconnaissance missions have continued using a mixture of manned and unmanned systems.

US Central Command provides updates on operations.

2.2 Countries involved in military action

In terms of offensive military operations, the US is currently being assisted by a broad coalition of partners deploying a range of assets, including F-16, F-18, Tornado and Rafale combat aircraft, plus support aircraft in the form of tankers, surveillance and transport aircraft.

So far only Arab nations have supported the US in conducting airstrikes and air operations in Syria.

Combat aircraft from the United Kingdom, France, Australia, Belgium and the Netherlands have all carried out airstrikes on ISIS targets in Iraq. Canada has approved the deployment of combat aircraft but they may not be ready to participate until the end of October. Denmark has also committed fighter aircraft.

Air strikes in Iraq

France was the first country to join the US in air conducting airstrikes against ISIS targets in Iraq.⁴ At present the French Government does not envisage expanding those operations into Syria.⁵ France initially deployed six fighter jets, an Atlantique 2 maritime patrol aircraft and a refueling plane at its base in the United Arab Emirates as part of operation Chammal. On 1 October the French Defence Ministry said three further Rafale jets and an anti-aircraft warship will be sent to the Gulf. A defence ministry source said this would strengthen

² MOD press release, 1 October 2014
³ “One carrier in the Gulf sufficient for now, USN’s top civilian says”, Jane’s Defence Weekly, 8 October 2014
⁴ http://www.defense.gouv.fr/operations/irak/actualites
capacity to “increase the rhythm of missions”.\textsuperscript{6} France has ruled out providing combat troops.\textsuperscript{7}

The UK joined the coalition on 26 September, following a vote in Parliament (see separate section below). It conducted its first airstrikes on 30 September.

F-16s from the Netherlands conducted their first active bombing on ISIS targets on 7 October.\textsuperscript{8} Parliament approved on 2 October 2014 plans raised by the Government in September to deploy six F-16 aircraft, plus 2 reserve aircraft, 250 support staff and 130 officials to train local soldiers. The deployment is for one year.

On 26 September Belgium’s Parliament approved the deployment of six F-16 fighter aircraft, 120 personnel and a number of C-130 transport aircraft. Belgium aircraft conducted their first airstrikes on 6 October.\textsuperscript{9} They are based in Jordan.

Australia carried out its first airstrike on 8 October on an ISIS facility in Iraq. The Government approved airstrikes in Iraq and the deployment of Special Forces to ‘advise and assist’ Iraqi security forces on 3 October 2014. Australia had already pre-deployed F-18 Super Hornet fighter aircraft, KC-30A Multi Role Tanker Transport and airborne early warning aircraft (E-7A Wedgetail) to the region. Australian aircraft undertook their first operational flight over Iraq on 1 October, with the first airstrikes carried out on 8 October.\textsuperscript{10} Australia has deployed 600 soldiers, 400 air force personnel and 200 Special Forces, to the United Arab Emirates in support of operations, but has ruled out sending combat soldiers to Iraq.\textsuperscript{11} Prime Minister Tony Abbott has refused to rule out potential involvement in Syria, cautioning against trying to predict future missions.\textsuperscript{12} The Australian mission is known as operation Okra.

Denmark committed seven (four operational, three reserve) F-16 combat aircraft, 12 soldiers and 40 support staff to support the effort against ISIS in Iraq for a 12 month period. Troops will be based in Kuwait. Parliament approved the Government contribution, first announced on 26 September, on 2 October 2014.\textsuperscript{13}

Canada is sending six CF-18 Hornets (fighter-bombers), two CP-140 surveillance aircraft, one aerial tanker and 600 personnel. 26 Special Forces have also been deployed in northern Iraq. Parliament approved a Government motion on 7 October 2014 to contribute Canadian military assets for a period of up to six months. The motion also rules out deploying combat troops on the ground. The parliamentary motion does not limit Canada’s involvement to Iraq. The Prime Minister had previously announced plans for a combat mission on 3 October.\textsuperscript{14} Canadian media suggest Canadian aircraft will not be in the region for another 3 weeks (as of 8 October) and may be based in Kuwait.\textsuperscript{15}

The Turkish Parliament approved a motion on 2 October to allow its military to enter Iraq and Syria, and to allow foreign troops to use its territory for the operation. This is a shift in

\textsuperscript{6}“France boosts military response to Islamic State, eyes next phase”, Reuters, 1 October 2014
\textsuperscript{7}French Government press release, 28 September 2014
\textsuperscript{8}“Dutch F-16s in action for first time”, Dutch News, 9 October 2014
\textsuperscript{9}“Belgium F-16 launches first strike in Iraq”, AFP, 6 October 2014
\textsuperscript{10}Australian Department of Defence
\textsuperscript{11}“Who supports the US's airstrikes in Syria?”, Daily Telegraph, 25 September 2014
\textsuperscript{12}“Cabinet approves Australian airstrikes in Iraq”, The Australian, 3 October 2014
\textsuperscript{13}“Denmark votes to join IS airstrikes”, DW, 2 October 2014
\textsuperscript{14}“Canada vs ISIS: ten things to know about the combat mission in Iraq”, National Post, 3 October 2014
\textsuperscript{15}“CF-18 jets won't join anti-ISIS fight for 3 weeks”, CBC news, 8 October 2014
position from Turkey, which was initially reluctant to join the US, in part because ISIS was holding 46 Turkish nationals' hostage. The US has a major airbase in Turkey at Incirlik but at the time of writing Turkey has not approved its use for combat operations in Syria and Iraq. The Turkish Government has denied reports in the American press over the weekend of 11/12 October that it had given the go ahead for the base to be used.\textsuperscript{16}

A number of other countries have also offered other forms of military assistance, including military equipment and/or aid to the Iraqi army and Kurdish forces, including the Czech Republic, Germany, Albania, Italy, Poland and Estonia.\textsuperscript{17}

\textit{Ruled out involvement}

\textbf{Germany} has ruled out participating in air strikes against ISIS in either Iraq or Syria. The German Foreign Minister also ruled out any ground deployments. Germany will provide arms Kurdish fighters, along with 40 soldiers to train them.\textsuperscript{18}

\textbf{Air strikes in Syria}

The first airstrikes in Syria were assisted by aircraft from five Arab countries: \textit{Jordan}, the \textit{United Arab Emirates}, \textit{Bahrain} and \textit{Saudi Arabia}, with \textit{Qatar} in a supporting role.

Details on the exact nature of their participation has been minimal, however, with many analysts describing it as 'largely symbolic'. Among the partner nations Saudi and UAE F-16 fast jet aircraft are understood to have undertaken the majority of strike missions on overnight missions on 24-25 September.\textsuperscript{19} The UAE's first female air force pilot took part in air strikes in Syria, it was widely reported on 25 September. The UAE participated in airstrikes in Syria on 7/8 October, according to US Central Command.\textsuperscript{20}

US Central Command provides regular updates of airstrikes, including identifying partner nations when relevant, on its website.

\subsection*{2.3 Duration of the mission}

David Cameron warned Members of Parliament during the debate in September “we should not expect this to happen quickly. The hallmarks of this campaign will be patience and persistence, not shock and awe.”\textsuperscript{21}

The US chairman of the Joint Chiefs of Staff, General Martin Dempsey, told Senators in mid-September “this won't look like a shock-and-awe campaign, because that's simply not how ISIS is organized, but it will be a persistent and sustainable campaign.”\textsuperscript{22}

The Australian Prime Minister Tony Abbott warned “this deployment in Iraq could be quite lengthy”, when he announced cabinet approval for airstrikes against ISIS in Iraq on 3 October 2014. He added “certainly months rather than weeks. I want to reassure the

\textsuperscript{16}“Turkey denies reaching accord with U.S. on use of air base against Islamic State”, \textit{Washington Post}, 13 October 2014
\textsuperscript{17}“Who supports the US's airstrikes in Syria?”, \textit{Daily Telegraph}, 25 September 2014
\textsuperscript{18}“Steinmeier: ‘no question’ of airstrikes against IS”, \textit{DW}, 22 September 2014
\textsuperscript{19}“US, Arab allies take out IS oil refineries”, \textit{Jane’s Defence weekly}, 26 September 2014
\textsuperscript{20}US Department of Defence press release, 8 October 2014
\textsuperscript{21}HC Deb 26 September 2014 c1264
\textsuperscript{22}“U.S. says won’t unleash ‘shock and awe’ air campaign in Syria”, \textit{Reuters}, 16 September 2014
Australian people that it will be as long as it needs to be but as short as it possibly can be.” He added the measure of success would be “when ISIS are in retreat, not in advance. We will know that we are succeeding when the Iraqi government is restoring a modicum of control over its own cities and towns.”

Some countries have put time limits to their missions. Canada’s deployment is for an initial six months while the Danish and Dutch missions have a 12 month limit.

3 British military participation

Parliament voted in favour of a substantive motion on participating in air strikes against ISIS targets in Iraq. The motion recognises the request from the Government of Iraq for military support and specific request to the UK Government, notes the broad coalition contributing to military support including countries throughout the Middle East, notes the legal basis for action in Iraq and endorses UK air strikes against ISIS in Iraq. The motion explicitly rules out deploying UK troops in ground combat operations and does not endorse UK air strikes in Syria, which would be subject to a separate vote in Parliament. The House of Commons voted 524 to 43 in favour of the Government’s motion.

The Prime Minister told the House “we want to see ISIS degraded and then destroyed as a serious terrorist force.”

The Ministry of Defence has confirmed it has sent what it describes as a “training team” to northern Iraq to instruct Peshmerga soldiers on the operation of 40 UK-gifted heavy machine guns. Other training teams will also be sent to provide soldiering skills, medical and counter-explosive devise knowledge, the MOD said in a written statement on 13 October. The MOD said there were a “small specialist team of non-combat Army trainers.”

The Sunday Times had reported that the soldiers were from the 2nd Battalion the Yorkshire Regiment, which is currently based in Cyprus.

The operation in Iraq has had one immediate effect on the RAF’s current fast-jet fleet. The Prime Minister announced on 2 October that 2 (Army Cooperation) Squadron, which is providing the Tornado GR4 aircraft deployed over Iraq, will now not be disbanded as planned in March but will have its life as a Tornado squadron extended until April 2016.

Oral questions on defence is on Monday 20 October 2014 when further information about the UK’s military involvement may be discussed.

3.1 Details of RAF airstrikes

The UK contribution to US-led military action against ISIS has so far been limited to air strikes against ISIS in Iraq.

RAF Tornado GR4 aircraft, operating out of Cyprus, initially flew reconnaissance missions over Iraq from mid-August. Parliament’s vote on 26 September triggered the deployment of Tornado aircraft on armed reconnaissance operations. On 30 September Tornado aircraft

23 “Cabinet approves Australian airstrikes in Iraq”, The Australian, 3 October 2014
24 House of Commons Order of Business, 26 September 2014
25 HC Deb 26 September 2014 c1264
26 HC Deb 13 October 2014 c10WS
27 “MOD confirms that British troops are in Iraq”, BFBS, 13 October 2014
carried out their first airstrikes on ISIS targets and have since carried out a number of airstrikes using Paveway IV bombs and Brimstone missiles. Targets include armed pick-up trucks, a transport vehicle and heavy weapon positions. Tornado aircraft also carry Storm Shadow cruise missiles but at the time of writing there have been no reports of their use.

Tornado aircraft are flying in pairs and conducting two sorties a day (according to the Daily Telegraph on 2 October). The Tornado aircraft are refuelled in the air by the new Voyager aircraft. Reconnaissance aircraft, including the new Rivet Joint aircraft, have also been sent to the region to gather intelligence on ISIS. Royal Navy vessels are deployed in the Gulf but there have been no reports of weapons fired from submarines. The mission is known as Operation Shader.

Michael Fallon updated the House on UK operations against ISIS in a written statement on 14 October 2014. He said Tornado GR4 strike missions began flying on 27 September. As of 10 October they have flown 20 missions over Iraq. Six Tornado missions have resulted in weapons being released, hitting eight separate targets.28

The following information is taken from RAF operational updates:

- 27 September: armed reconnaissance missions begin, no airstrikes
- 1 October (first airstrike): 2 Tornado GR4s assisted Kurdish troops under attack from ISIS fighters. The Tornado identifying the ISIS heavy weapon position and bombed it with a Paveway IV. A Brimstone missile was separately used on an ISIS armed pick-up truck in the same area.
- 1 October (second airstrike): 2 Tornado GR4s examined a location suspected of being used as an ISIL command and control position. They used Brimstone missiles to destroy two vehicles, one of which was an armed pick-up truck.
- 2 October: 2 Tornado GR4s assisted Kurdish ground forces engaged in combat with ISIS in north-west Iraq, by using Paveway IV bombs on ISIS fighters.
- 6 October: 2 Tornado GR4s used Paveway IV bombs on ISIS fighters who were firing on Iraqi troops in a building near Ramadi.
- 8 October: 2 Tornado GR4s used Brimstone missiles and Paveway IV on ISIS fighters who were firing on Iraqi troops from a stronghold near Ramadi.

3.2 Assets

The UK has a range of assets deployed in support of the US-led mission in Iraq. This includes Tornado GR4s, Rivet Joint surveillance aircraft, Voyager air-to-air refuelling aircraft, and C130s.

Royal Air Force

The RAF is the primary service in this operation and has deployed a mix of combat, surveillance, reconnaissance, and refuelling/transport aircraft. Two of the RAF’s newest acquisitions – Rivet Joint and Voyager aircraft – have been in service over Iraq. And as a result of the operation, 2 (AC) squadron will continue as Tornado squadron until April 2016. It

28 HC Deb 13 October 2014 c9-10WS
had been expected to disband as a Tornado squadron in March 2015 and reform as a Typhoon squadron the following month.

**Tornado GR4**
Tornado GR4 aircraft and Voyager refuelling aircraft have already been operating out of RAF Akrotiri in Cyprus. Tornado aircraft can carry a range of air-to-surface weapons, including:

- Brimstone (Dual Mode Brimstone and Brimstone 2): precision close air support weapons, useful against armour and battlefield vehicles
- Paveway II, Paveway III and Paveway IV: precision-guided bomb
- Storm Shadow: long-range air-to-surface cruise missile designed to strike large compounds, key command centres, airfield facilities and bridges

In addition, it can also carry ASRAAM air-to-air missiles (advanced short-range air-to-air missile) and has a Mauser 27mm Cannon.

Tornados can also carry out surveillance when it is fitted with the Litening III targeting and reconnaissance pod, which provides the ability to laser-designate ground targets for attack, and ground reconnaissance and scanning ability.

The RAF can draw on 3 frontline squadrons: 31 Squadron has just deployed to Afghanistan and IX(B) squadron has just returned from Afghanistan, as of mid-September 2014. The Tornado GR4 deployed in Cyprus are understood to be from 2 (Army Cooperation) Squadron, which specialises in low-level reconnaissance. The Prime Minister announced on 2 October 2014 that it will no longer be disbanded in March 2015 as planned but will continue until April 2016.

Six Tornado aircraft were initially deployed to RAF Akrotiri on 12 August 2014. They are to be supplemented by two further Tornados, the Prime Minister announced during a visit to the station on 2 October, bringing the total number of aircraft to eight.

**Reaper MQ9A remotely piloted aircraft**
Reaper MQ9A is a medium altitude long endurance (MALE) remotely piloted aircraft (also known as a drone), conducts both surveillance and reconnaissance and is the only remotely piloted aircraft that can be armed. It can carry 500lb laser guided bombs and Hellfire missiles. They have been used in an armed capacity in Afghanistan. The Government announced on 16 October that Reaper aircraft are to be redeployed from Afghanistan to the Middle East for use against ISIS. They will provide both surveillance support and situational awareness, and add to the strike capability provided by Tornado aircraft.

Reaper pilots are bound by the same UK rules of engagement as apply to manned aircraft. Defence Secretary Michael Fallon noted the deployment will be the first operational use of UK Reaper outside of support to operations in Afghanistan. He added that as numbers in Afghanistan reduce, more will be moved to the Middle East. The UK has a fleet of 10 Reaper aircraft which are operated by 39 Squadron, at Creech Air Force Base, USA, and 13 Squadron, at RAF Waddington.

**Voyager tanker and transport aircraft**

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29 MOD press release, 12 August 2014
30 “RAF Tornado squadron saved from the scrap heap to bomb ISIS”, Daily Telegraph, 2 October 2014
The new A330 tanker/transport aircraft carried out its first combat air-to-air refuelling mission in August 2014 for Tornados. It can carry passengers, freight and refuel aircraft.

**Rivet Joint reconnaissance aircraft**
The first of three RC-135 Rivet Joint reconnaissance aircraft entered service in 2014 and has been in operation above Iraq since August. It is an electronic surveillance aircraft equipped with a wide array of sensors.

**C130J Hercules and C-17 Globemaster transport aircraft**
Air Transport aircraft, for moving personnel and freight. The C-17 is a long-range strategic heavy-lift transport aircraft while the Hercules is a tactical air transport. Both aircraft have delivered supplies to Erbil for Kurdish peshmerga units, including 100 tonnes of UK-gifted weapons and equipment and over 200 tonnes of weapons and ammunition from supportive countries. C-130 transport aircraft are in pre-positioned in Cyprus to deliver humanitarian aid.

**Air bases**
Tornado and Voyager aircraft are currently operating out of Cyprus, but the RAF also has Al-Minhad airbase in the United Arab Emirates (south of Dubai) which is the home base of 906 Expeditionary Air Wing. It primarily provides support to air transport links between the UK and operations in Afghanistan, and logistic support to deployed forces, but also supports RAF aircraft conducting joint exercises in the region. Coalition personnel, including the RAF, also have access to al-Udeid air base in Qatar.

**Not deployed**
The RAF’s other fast-jet aircraft are Typhoon aircraft. They are primarily air defence aircraft, although they were used in Operation Ellamy in Libya in 2011 in an air-to-ground role, carrying Enhanced Paveway II guided bombs. It carries the Advanced Medium Range Air-to-Air Missile (AMRAAM) and the Advanced Short Range Air-to-Air Missile (ASRAAM). It does not as yet carry Brimstone 2 or Storm Shadow. No Typhoon has yet been deployed to participate in current operations.

**Royal Navy**
Both the Trafalgar and the new Astute-class of submarines carry the Tomahawk missile which has a range in excess of 1,000 miles. Tomahawk cruise missiles were launched from HMS Triumph, a Trafalgar class submarine, in 2011 for Operation Ellamy in Libya. The Ministry of Defence does not routinely discuss submarine operations. As of 9 October 2014, there has been no reports of Tomahawk cruise missiles being fired (The US Navy has launched Tomahawk missiles from it surface fleet into Syria from the Gulf).

Typically, the Royal Navy keep two frigates or destroyers on patrol in the Gulf and the Indian Ocean, plus four mine-hunters that are permanently based in Bahrain, plus a Royal Fleet

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31 Voyager reportedly carried out its first ‘combat’ air-to-air refuelling mission in August 2014 as part of the humanitarian air drop mission: "RAF RC-135 operations over Iraq revealed", Jane’s Defence Weekly, 19 August 2014

32 HC Deb 13 October 2014 c10WS

33 Typhoon is being progressively upgraded to provide a ground attack capability under the Typhoon Future Capability Programme. A main gate decision on integrating Brimstone 2 will be made in early 2015 [PQ 207687, 8 September 2014], however Jane’s Defence Weekly reports work is underway to accelerate the integration of Brimstone 2 onto Typhoon ["UK reverses Tornado fleet cuts", Jane’s Defence Weekly, 8 October 2014]

34 "One carrier in the Gulf sufficient for now, USN’s top civilian says", Jane’s Navy International, 30 September 2014
Auxiliary tanker. Currently HMS Defender, a Type 45 Destroyer, and HMS Northumberland, a Type 23 frigate, are deployed in the Gulf region and Indian Ocean.

3.3 Army
The Ministry of Defence has confirmed it has sent a training team to northern Iraq to instruct Peshmerga soldiers on the operation of 40 UK-gifted heavy machine guns. Other training teams will also be sent to provide soldiering skills, medical and counter-explosive devise knowledge, the MOD said in a written statement on 13 October.\(^{35}\) In a statement, the MOD said there were a “small specialist team of non-combat Army trainers” in northern Iraq.\(^{36}\) The Sunday Times had reported that the soldiers were from the 2nd Battalion the Yorkshire Regiment, which is currently based in Cyprus, but this has not been confirmed by the Ministry of Defence. They are not expected to provide any training or advice on the frontline.

3.4 Sustainability of UK mission
There has been some concern about the sustainability of mission. The emphasis on air strikes will place the onus of this operation on the Royal Air Force.

One former head of the RAF has said the RAF is at “rock bottom” after years of cuts and sustaining this operation would be “quite a stretch.” Air Chief Marshall Sir Michael Graydon added “the lack of combat air craft is a major weakness in our make-up. This has been raised time and time again and basically ignored. We really are at rock bottom.” The Daily Telegraph also quoted Air Andrew Lambert “I think it’s doable, but we are really scraping the bottom of the barrel. There’s nothing more there, so let’s hope Ukraine doesn’t bubble up into something nasty.. Weapons stocks are parlous and when you chuck this all together, it’s a pretty poor position. We have too few aircraft, too few pilots and too much tasking.”\(^{37}\) General Lord Richards, the former Chief of the Defence Staff, has expressed concern about the impacts of cuts to the RAF, asking “I’m not sure how long we can sustain this.”\(^{38}\)

A sign of the Government’s concern is evident in the announcement by the Prime Minister that one of the three front-line Tornado GR4 squadrons will not now be disbanded, as planned, in March 2014, but will be extended for a year.

Altogether there are currently seven frontline fast-jet squadrons: three Tornado GR4 squadrons and four Typhoon squadrons. Tornado is a ground-attack aircraft while Typhoon is an air attack aircraft and patrols UK airspace. The Tornado GR4 fleet is being progressively drawn down ahead of leaving service in 2019. Two squadrons were disbanded in 2014. Of the three frontline squadrons, 31 Squadron deployed to Afghanistan in mid-September, taking over from IX(B) Squadron which has returned to its base at RAF Marham. 2 (Army Cooperation) squadron, which specialises in low-level reconnaissance, was to disband in March 2015 and reform immediately as a Typhoon squadron, moving to RAF Lossiemouth. The Prime Minister’s announcement on 2 October now extends the life of 2 (AC) Squadron as a Tornado squadron until April 2016. Typhoon aircraft are being upgraded to provide a ground-attack capability (some were used in that capacity during Operation Ellamy in Libya in 2011). Typhoon is expected to remain in service until 2030. Typhoon will be partnered by the F-35 Lightning II Joint Strike Fighter from 2018 onwards.

\(^{35}\) HC Deb 13 October 2014 c10WS
\(^{36}\) “MOD confirms that British troops are in Iraq”, BFBS, 13 October 2014
\(^{37}\) “Bare bones’ RAF will struggle to mount Iraq operation”, Daily Telegraph, 25 September 2014
\(^{38}\) “We won’t beat them with airstrikes”, Sunday Times, 28 September 2014
The UK does not have an aircraft carrier from which to launch combat aircraft and will not have a carrier strike capability until 2020.

3.5 Costs of the mission

The Government has not given an estimate of the potential cost of the mission. Malcolm Chalmers, a defence economist at RUSI, has suggested the cost could be in the ballpark of the 2011 Libyan operation, assuming only air power is used and the campaign lasts for a couple of years. The net additional cost of the seven month Operation Ellamy in Libya in 2011 was £199 million.39

The net additional costs of military operations are funded through the Treasury Special Reserve. Additional costs include the costs of additional fuel and munitions; extra maintenance requirements; spares; the deployment and recovery of equipment and personnel from theatre including accommodation; operational allowances (if applicable) and theatre-specific training. It does not include the costs of the base salaries of the service personnel involved or the base level of equipment usage.40

The UK military effort is currently centred on Tornado GR4 fighter aircraft, currently based in Cyprus, plus support aircraft.

The Ministry of Defence has in the past provided the costs of operating a Tornado GR4. Two different figures are cited: the marginal costs and the full costs. For 2010-11 the MOD gave the following figure for the Tornado GR4:

- £35,000: average full cost per funded flying hour. This includes forward and depth servicing, fuel costs, crew costs, training costs, cost of capital charge, depreciation and amortisation.

- £5,000: average marginal cost per funded flying hour. The marginal costs include only direct running costs, which are principally made up of consumables like fuel costs.41

Tornado GR4 aircraft were deployed in Operation Ellamy in Libya in 2011, initially from RAF Marham and later from Gioia del Colle in Italy. The MOD used the marginal costs as the basis on which to form the cost of a Tornado sortie in Libya: £37,000 for the seven and half hour Tornado sortie from RAF Marham to Libya, and £27,000 for a five and half hour Tornado sortie from Gioia Del Colle to Libya. The MOD said at the time it gave these figures that they were calculated using standard marginal flying hour costs and rounded to the nearest thousand.42

Tornado aircraft have fired Brimstone missiles and Paveway bombs at ISIS targets in Iraq. They were also used in operations in Libya. In 2011 the MOD gave the gross book value of DMS Brimstone as £175,000. At the time the MOD also said it was withholding the current gross book values of Paveway II and Paveway IV guided bombs “as this information is commercially sensitive and its disclosure would prejudice the commercial interests of the

39 HC Deb 26 November 2012 cc12; previously, the MOD had reported in December 2011 the estimated cost to £212 million. This constituted £145m of operating costs and a £67m on the cost of replenishing munitions [HC Deb 8 December 2011 c41WS]
40 HC Deb 13 December 2012 c419W
41 HC Deb 26 April 2011 c75W
42 HC Deb 30 October 2012 c165W
contractor.” More recently, Sky News estimates Paveway bombs to be £22,000 each and Brimstone missiles to cost £105,000 each.

Further information about funding international military operations is available in House of Commons Library Standard Note The Cost of international military operations, SN03139.

4 ISIS military capabilities

There is no definitive estimate of the military forces at Islamic State’s disposal. It is believed to have captured a wide-range of equipment in Syria and Iraq from Iraqi and Syrian arms depots and bases, including tanks, towed field-guns and rocket launchers.

A senior US officer, Lt General Mayville, described ISIS as a “very well-organized and very well-resourced force that is an adaptive and learning force.” Chuck Hagel, the US Defence Secretary, told Congress that ISIS has acquired significant resources and advanced weapons as it has seized territory across Iraq and Syria.

Jane’s Defence Weekly lists the equipment believed to be have been captured by IS when it over-ran a number of Syrian Arab Army bases in Al-Raqqah provinces, includes the bases of the 17th Division, 121st Regiment and 93rd Brigade. Jane’s Defence Weekly reported:

The IS also acquired considerable quantities of weapons and equipment when it overran these military facilities. For example, solely from the 121st Regiment base it captured at least 12 130 mm M-46 towed field guns and dozens of crates of associated ammunition; at least seven BM-21 multiple rocket launchers (MRLs) with 400-500 122 mm Grad rockets; several T-55 main battle tanks; dozens of military vehicles; hundreds of rocket-propelled grenades (RPGs); tens of thousands of rounds of small arms ammunition; several anti-tank guided missiles; and large quantities of assault rifles and hand grenades. At the 93rd Brigade, at least 20 T-55 tanks and five 122 mm D-30 howitzers were captured, along with considerable quantities of other weaponry.

Jane’s Defence Weekly adds “the Islamic State has already proved that it can use such assets effectively to pave the way for ground assaults.” Breaking Defence analysed data provided by the US military about ISIS targets and concluded that although ISIS has captured Iraqi and Syrian military equipment, it “relies overwhelmingly on civilian pick-up trucks jury-rigged to carry machine guns.”

43 HC Deb 17 May 2011 c111W
44 “How much will it cost airstrikes on IS cost taxpayers?”, Sky News, 26 September 2014
46 “Statement on Iraq, Syria, and ISIS Before the House Armed Services Committee”, US Department of Defense, 18 September 2014
47 “Islamic State seeks to link its conquered territories”, Jane’s Defence Weekly, 29 August 2014; Business Insider also provides a list of likely capabilities, including descriptions: “As ISIS Routs The Iraqi Army, Here’s A Look At What The Jihadists Have In Their Arsenal”, Business Insider, 8 July 2014
48 “Islamic State seeks to link its conquered territories”, Jane’s Defence Weekly, 29 August 2014
49 “ISIS Force remains low-tech: DOD data”, Breaking Defense, 10 September 2014
There is evidence of weaponry acquired in one country being used in another. HIS Jane’s Intelligence Weekly reports “the Islamic State used M198 howitzers seized in Iraq against the Syrian Army in Raqqa as early as 23 June.”

The UK Government was asked to estimate the amount of military supplied to Iraq by NATO states that has been appropriated by ISIS in 2014. Defence Minister Mark Francois said:

Iraqi security force losses of military equipment since January 2014 cannot be accurately quantified. Known losses of equipment supplied by NATO members include howitzers and their tractors, an armoured personnel carrier and numerous vehicles, small arms and munitions. We continue to monitor the situation closely.

**Risks to coalition forces?**

Australian Prime Minister Tony Abbott said a risk assessment for Australia’s forces included small arms fire, anti-aircraft fire and so-called man-portable surface-to-air missiles attack against aircraft. The risk to Special Forces included roadside bombs and infantry attack.

ISIS has reportedly shot down several Iraqi army helicopters using MANPADS (man portable air defence system).

### 4.1 Impact of airstrikes on ISIS

Initially RAF Tornado aircraft had conducted a number of sorties but returned with a full payload. It had been suggested that ISIS have been quick to adapt to the air campaign, therefore making it more difficult for coalition aircraft to find suitable targets. One article on the BBC reported that there had been a drop in the number of militant checkpoints, they had stopped using mobile phones, and conspicuous convoys of armoured vehicles had been abandoned in favour of motorcycles and that they had been planting their black flags on civilian homes and facilities in order to confuse target spotters. Former Chief of Defence Staff, General Richards, observed “the fact is, even with modern radars, planes can’t be everywhere over every potential Isis position. Those aircraft have come back having not dropped anything because they can’t find decent targets yet we know they’re there.”

An MOD spokesman said on the occasion of the first armed reconnaissance flights:

We know that the very presence of coalition airpower over Iraq has a significant impact on ISIL’s efforts to attack the Iraqi people. With no effective defence against air strikes, and knowing the precision with which coalition aircraft can hit them, the terrorists are forced to be much more cautious, keeping their forces dispersed and movement inhibited. They also know that should they concentrate to deliver an attack against Iraqi or Kurdish troops, aircraft are likely to arrive overhead very soon afterwards.

Foreign Secretary, Philip Hammond, defended the UK’s lack of engagement arguing that “there is a process going on of surveillance, gathering intelligence data, synthesising that, establishing the pattern of life”. He went on to state that “weapons would not be fired unless

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50 “Islamic State’s move to consolidate control over Raqqa province will lead to broader confrontations with Syrian forces”, Jane’s Intelligence Weekly, 28 July 2014
51 PQ 207376 [Defence equipment], 11 September 2014
52 “Cabinet approves Australian airstrikes in Iraq”, The Australian, 3 October 2014
53 “Islamic state uses MANPADS to shoot down helicopter near Baiji”, Threat Matrix blog, 8 October 2014
54 “Islamic State adapting to US-led air strikes”, BBC News Online, 30 September 2014
55 “Build an army of 100,000 or war ‘could last forever’”, The Times, 29 September 2014
56 RAF press release, 29 September 2014
British forces were absolutely sure they had identified IS targets and not civilians", arguing that “otherwise we are having the opposite of the effect we are intending to have".57

Department of Defense Spokesman, Rear Admiral Kirby pointed out:

one of the ways we know we're having an effect is precisely because the terrorists have had to change their tactics and their communications and their command and control.

Yes, they're blending in more. Yes, they're dispersing, and yes they aren't communicating quite as openly or as boldly as they once were. That's a good thing, because if they aren't operating as freely, then they aren't as free to achieve their goals.58

The commander of US Carrier strike group 2 (USS George HW Bush), Rear Admiral Dewolf H. Miller III, acknowledged ISIS targets could become harder to find “they are a learning organization, so we know that they will adapt and that may make our job more difficult.”59

News media are already reporting ISIS are doing just that – adapting to the airstrikes. The Wall Street Journal notes that according to residents and rebels in the areas militants control in Syria, they have moved out of captured military bases and government buildings, relocated weapons and hostages and abandoned training camps. It also notes that US officials have observed a shift in tactics, with fighters operating in smaller groups than before the strikes began. They have also taken to camouflaging vehicles and moving convoys at night.

5 Boots on the ground?

The US-led military operation against ISIS in both Iraq and Syria has so far been confined to airstrikes and there appears to be no appetite by America or any of the countries currently contributing to the air strikes to place combat troops in either country. President Obama has repeatedly ruled out ‘boots on the ground’, telling soldiers “I will not commit you and the rest of our armed forces to fighting another ground war in Iraq.”60

The UK, France and Australia have all similarly ruled out sending combat troops, although Australia has approved the deployment of Special Forces to advise and assist local forces in Iraq. The Iraqi Prime Minister has also ruled out any interest in foreign troops to return to Iraq, telling reporters “the only contribution the American forces or the international coalition is going to help us with is from the sky.”61

But there is also widespread acknowledgement that airstrikes alone cannot defeat ISIS. Air power is being used in support of local forces, to whom a number of countries beyond those participating in the air strikes are providing military and non-lethal support. Former Prime Minister Tony Blair has argued against completely ruling out the possible future use of deploying combat troops.

57 “RAF Iraq missions: ‘no panic’ to start bombing”, BBC News Online, 30 September 2014
58 Department of Defense Press Briefing, 30 September 2014
59 ABC News This Week transcript, 28 September 2014
60 “Obama, Kerry: No U.S. troops will be sent into combat against ISIS in Iraq, Syria”, CNN, 17 September 2014
61 “Obama, Kerry: No U.S. troops will be sent into combat against ISIS in Iraq, Syria”, CNN, 17 September 2014
5.1 UK position
The Government is not contemplating putting combat troops on the ground in Iraq, the Prime Minister said during the debate on Iraq and Islamic State on 26 September 2014. The motion that Parliament voted for in favour against Islamic State in Iraq specifically stated “Her Majesty’s Government will not deploy UK troops in ground combat operations”. David Cameron added “we are not deploying British combat troops, but we are providing air power in support of local forces on the ground. No British or western troops will occupy Iraq.” The Prime Minister reiterated this point throughout the debate, telling John Baron that “we, rightly, are not prepared to put our own combat troops on the ground” but instead should be working the Iraqis and Kurds so that they become more effective.

The Prime Minister later elaborated, when pressed, on the wording of the motion and the phrase “ground combat operations” in the motion. He made it clear he was ruling out combat troops but not necessarily any member of the UK Armed Forces:

The reason for choosing the words “combat troops” is very important. Of course, when we, for instance, contemplated putting in Chinook helicopters to evacuate the Yazidi people from Mount Sinjar, that would have involved British forces being in an area of Iraq. The servicing, efforts and helping of those helicopters would have involved British personnel. That is why we talk about British combat troops. Again, we should be very clear about that.

He made this point again during the debate:

I am not contemplating the use of British combat forces because I think it would be the wrong thing to do. The lesson to learn from previous conflicts is that we should play the most appropriate role for us. It is for the Iraqi Government and for the Iraqi army to defeat ISIS in Iraq.

The Defence Secretary, Michael Fallon, has suggested Britain should extend airstrikes into Syria, but acknowledged Parliament would not approve of such action.

But can the UK’s contribution to the military operation against Islamic State be sustained by the RAF alone? Might there be in the future some need for UK combat soldiers in Iraq?

5.2 Views of Parliamentarians and former defence chiefs
The limited nature of the UK’s participation in the campaign has been widely criticised by analysts, former Defence Chiefs and other commentators.

General Lord Richards, the former Chief of the Defence Staff, argues air power alone won’t achieve the strategic goal, and ultimately a land army is required: “the only way to defeat Isis is to take back land they are occupying which means a conventional military operation. The only way to do it effectively is to use western armies but I understand the political resistance.”

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62 HC Deb 26 September 2014 c1256
63 HC Deb 26 September 2014 c1264
64 HC Deb 26 September 2014 c1260
65 HC Deb 26 September 2014 c1265
66 HC Deb 26 September 2014 c1266
67 “Extend air strikes to Syria to halt ISIS march on Kobane, Defence Secretary says”, The Telegraph, 9 October 2014
68 “Boehner says US might ‘have no choice’ but to send combat troops to fight against ISIS”, Daily Mail, 29 September 2014
Former Chief of the General Staff, Lord Dannatt, while backing military action against ISIS, has also made the point that “attacking ISIS from the air solely above Iraq is dealing with half a problem not all of it” and applauded the American decision to attack ISIS in Syria. He likewise said ISIS must be defeated on the ground. Without British or US ground combat units, he suggests fully supporting those who are already fighting on the ground – the Iraqi Army, the Peshmerga and the Free Syrian Army.69

The outgoing Chief of the General Staff, General Sir Peter Wall, warned in early September against “rushing into a war against ISIS”, suggesting that the Government “must be cautious because it has little idea of the capabilities and strengths of the terrorist organisation”. However, he went on to comment that Britain could not ignore the threat posed by the group.70

A number of Parliamentarians raised concerns about the limits of air power along during the debate in both Houses on 26 September 2014. John Baron raised the risk that air strikes could become counter-productive “if civilian casualties mount and ISIS spins the story that it has withstood the might of the west and held its ground, which it has so far managed to do.”71 Former Defence Secretary Dr Liam Fox suggested “close air support will be required if there is to be a successful counter-offensive by any ground forces in the conflict. We need to understand the risks that that will pose to our forces.”72

Lord Jay of Ewelme questioned whether airstrikes will be enough and whether the Iraqi and Kurdish fighters will be able to defeat ISIS on the ground. He wondered if military trainers “may edge ever closer to a combat role.”73

5.3 Views of defence experts and commentators

Former Prime Minister Tony Blair has spoken out against ruling out the future use of combat troops “if absolutely necessary.” He argued “you cannot uproot this extremism unless you go to where it originates and fight it.”74

Afzal Ashraf, a former RAF officer, argued in favour of deploying airmobile forces – including 6 Air Assault Brigade – could be deployed for specific tasks and handover to Iraqi forces as soon as they’ve achieved their objective. He argues foreign airmobile forces could be a “battle-winning combination”, suggesting that “if used to quickly seize ISIS held objectives, for the Iraqis to hold and then surge, airmobile forces could dramatically cut the time required to reduce ISIS territorial control and degrade its capabilities.”75

Professor Gareth Stansfield, an expert in Iraq, explores the question of “who would be wearing these boots, and where they will be” in analysis for RUSI. He notes that Syria is the key theatre for ISIS but engaging ISIS in Syria on the ground is “currently a fool’s errand.” He suggests that Iraq is important to ISIS and is where the “process of unravelling ISIS can begin.” He argues that if there are to be combat troops in Iraq “they almost certainly need to be worn by Sunni Arabs.” He warns the involvement of Kurdish Peshmerga and Shia militias

69 “Hitting ISIS solely from above Iraq is dealing with only half the problem”, Daily Telegraph, 27 September 2014
70 “Army chief: don’t rush into war against ISIS”, The Daily Telegraph, 8 September 2014
71 HC Deb 26 September 2014 c1259
72 HC Deb 26 September 2014 c1288
73 HL Deb 26 September 2014 c1689
74 “The way ahead”, Tony Blair Faith Foundation, 22 September 2014
75 “Dealing With ISIS Through ‘Boots with Wings’”, RUSI analysis, 30 September 2014
(including the Iraqi Security Forces) will “general further legitimacy for ISIS the more they push south and north respectively.”

Writing in *The Daily Telegraph* RUSI Director General, Michael Clarke, also questioned the limits that have been posed on British operations. The use of caveats is something which the UK have, in the past, been highly critical of, no more so than in Afghanistan. He commented:

It is the first time that Britain has not joined a relevant US-led coalition from the beginning. Being there for combat, “on day one” has been an implicit principle of British military planning for a very long time. Worse, from a military point of view, we go into this with a big political caveat that operations cannot extend to Syria.

In truth, there are not so many meaningful ISIS targets to attack in northern Iraq. Warfare is ultimately about attacking an enemy at its centre of gravity and in the case of ISIS that definitely resides in Syria.

The British military was always privately contemptuous of those allies whose forces went to Afghanistan beset with “national caveats” that limited what their troops could and could not do. But now British forces join this US-led coalition more than a month after the operation began, behind France, Australia, Saudi Arabia, Jordan, the Emirates, Bahrain and Qatar and with a caveat that limits their operations to the periphery of the campaign. The Americans well understand the vicissitudes of democracy and are not making too much of this, but it comes as an unwelcome novelty for British military chiefs.

Further analysis is available on the [RUSI website](http://www.rusi.org).

Reg Henning, the brother of Alan Henning, who was killed by ISIS in Syria, has called on the Government to deploy combat troops.

### 5.4 Views of US and other nations involved

In the United States, the Speaker of the House of Representatives, John Boehner, suggested America may need to send combat troops: “At the end of the day, I think it's gonna take more than air strikes to drive them outta there. At some point somebody's boots have to be on the ground” and when asked whether he would recommend putting American boots on the ground if no one else steps up, he said “we have no choice. These are barbarians. They intend to kill us. And if we don’t destroy them first, we’re gonna pay the price.”

Australia committed Special Forces to operations in Iraq to advise and assist local forces on the ground, but will not take part in combat operations, the Prime Minister announced on 2 October 2014.

France has ruled out providing combat troops. Foreign Minister Laurent Fabius has said “our role is airstrikes and supplying weaponry”, saying “fighting must be carried out by local people.”

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76 “What it Will Take to Degrade ISIS?”, RUSI analysis,
77 “Cameron failed to take the lead against ISIS”, *The Daily Telegraph*, 26 September 2014
78 “Alan Henning murder: Aid worker's brother calls for 'troops on ground'”, *BBC News*, 6 October 2014
79 ABC This Week transcript, 28 September 2014
80 French Government press release, 28 September 2014
81 French Government press release, 28 September 2014