## News story: RAF continue to strike a retreating Daesh

Already in November UK aircraft have struck Daesh command posts in Al Qaim, supporting the Iraqi Security Forces liberating the city, and eliminated mortar teams and destroyed parts of the terrorist's tunnel network in eastern Syria. As the Defence Secretary joins counterparts in Brussels today for a meeting of the Counter-Daesh Coalition, the UK remains steadfast in its commitment to destroy Daesh militarily and to counter its poisonous propaganda.

Defence Secretary, Gavin Williamson, said:

Our forces are working tirelessly to defeat the evil of our time. Daesh is weakened and in retreat having now lost its last remaining major strongholds in Iraq and Syria.

The battle is not yet over. We will continue to hit the terrorists hard in both Syria and Iraq while supporting efforts to rebuild — only by defeating Daesh for good will we reduce the threat to both our nations at home.

In the fight for the last remaining major strongholds, the UK continued to support coalition partners fighting on the ground. Having received intelligence from a coalition surveillance aircraft on Wednesday 1 November, RAF Tornados launched two Paveways at a command post near Al Qaim destroying the building, the terrorists and their vehicles.

Tornados continued to support Iraqi Security Forces in the battle for Al Qaim the following day, and successfully bombed a Daesh observation post, which was attempting to direct mortar fire against the rapidly advancing Iraqi ground forces.

On Saturday 4 November, two Tornados patrolled the far east of Syria, destroying a mortar team north-east of al Mayadin. The aircraft also bombed the entrance to a Daesh tunnel network nearby. Typhoons flew missions over eastern Syria on Sunday 5 November, eliminating a mortar team near Abu Kamal, as well as striking another tunnel complex near Al Mayadin.

British aircraft have struck Daesh 1348 times in Iraq and 262 times in Syria. In that time the group has lost territory, finances, leaders and fighters as the 73-member coalition liberate its last remaining strongholds in both countries.

But despite military progress in Syria and Iraq, the threat posed by Daesh and their poisonous narrative remains substantial. Their continued ability to

inspire attacks means that we must remain resolute in our work to defeat them in their branches worldwide and counter their propaganda.

### News story: DCDC hosts Northern Group working group

Hosted by the Development, Concepts and Doctrine Centre (DCDC), the event was attended by ten of the Northern Group member nations, including Denmark, Estonia, Finland, Germany, Latvia, Norway, Poland, Sweden and The Netherlands.

A think tank within the Northern Group, the Northern Group Centre for Conceptual Thinking (NGCCT) provides a forum for collaborative discussion, idea exchange and mutual understanding of issues and opportunities. This event aimed to highlight security issues of interest to all NGCCT members, such as the High North and Modern Deterrence.

Led by the DCDC Futures team, the High North discussion examined the strategic significance of melting Arctic sea ice. Members then divided into syndicates, to present national perspectives on potential scenarios arising from this discussion.

To provide a context for discussion of the common challenges associated with deterrence in 21st century Europe, the DCDC Doctrine team introduced 'Joint Doctrine Note (JDN) 06, modern deterrence: the military contribution', currently being drafted.

Further NGCCT events, hosted by other Northern Group member states, are being planned for 2018.

# News story: First Secretary salutes RAF Lossiemouth contribution to UK Defence

In 1941, Lady MacRobert lost two sons who flew with the RAF within six weeks of each other: Roderic (25) was killed when leading a Hurricane aircraft attack on German positons in Iraq; Ian (24) was declared missing in action after his Blenheim aircraft failed to return from a search and rescue mission flown from Shetland — his body was never found. Their older brother Alasdair

had also been killed in a civil aviation accident in 1938.

The indomitable response of Lady MacRobert's to these tragedies was to buy a £25,000 Stirling bomber aircraft for the RAF that same year, stipulating that it be called MacRobert's Reply, and which flew 12 operational missions.

In 1942, Lady MacRobert donated a further £20,000 to purchase four Hurricane fighters, which were sent to RAF operations in the Middle East, with three named after her sons and the fourth after her.

A succession of RAF aircraft have carried the MacRobert's name ever since. The MacRobert Trust has donated millions of pounds to charitable organisations, created a variety of prizes, awards, traineeships and endowments, and paid for building works across the country.

#### First Secretary of State Damien Green MP said:

In this season of remembrance, the MacRobert's legacy epitomises the contribution made by Scotland and the Scots to the defence and national security of the United Kingdom, both historically and today.

The new Sir Roderic belongs to 6 Squadron which maintains the Quick Reaction Alert (Interceptor) mission, alongside sister aircraft from RAF Coningsby in Lincolnshire. Together they protect UK airspace from rogue aircraft and other threats by providing crews and aircraft at high states of readiness 24 hours a day, 365 days a year.

#### Chris Hockley, Chief Executive, MacRobert Trust added:

It is fantastic that 6 Squadron are taking on the mantle as our affiliated Squadron, strengthening the bond that we are lucky enough to have with the RAF and RAF Lossiemouth.

We look forward with huge enthusiasm to getting to know the new members of the MacRobert 'family' — the men and women of 6 Squadron and to seeing Sir Roderic in the skies above Douneside.

As one of three RAF fast jet bases, RAF Lossiemouth's three frontline Typhoon squadrons make a significant operational contribution to UK Defence. In addition to QRA, these Typhoons have regularly deployed on operations over Iraq and Syria, and on training and defence engagement activity in Oman and the Far East.

RAF Lossiemouth is home to 5 Force Protection Wing, which has deployed regularly to deliver Airfield Force Protection Training to Nigerian Forces. Moray-based personnel and aircraft have also deployed on training and defence engagement activity in Oman and the Far East over the past year.

From 2020 RAF Lossiemouth will begin to be the home of the new £3bn fleet of Poseidon P8-A Maritime Patrol Aircraft, which will add to the UK's surveillance capabilities and are designed to conduct anti-submarine and anti-surface warfare, search and rescue and intelligence gathering. They can carry torpedoes and anti-shipping missiles and will be used to protect the two new UK aircraft carriers and the nuclear deterrent.

Poseidon will increase the Lossiemouth workforce to over 2,000 personnel bring wider economic benefits, with £400m being invested in new support infrastructure for the nine Poseidon aircraft. Full Operating Capability is expected by 2024, and will include nine aircraft and 18 crews.

As a leading members of NATO, the UK Ministry of Defence has already signed agreements with the US and Norwegian militaries to cooperate closely on operating their P-8A aircraft across the North Atlantic.

## News story: Armed Forces Minister reinforces UK support to Gibraltar

He will meet Gibraltar Chief Minister, Fabian Picardo, Deputy Governor, Nick Pyle OBE, as well as service personnel stationed in the UK overseas territory as part of a visit to discuss Brexit and the role of the UK's military in Gibraltar.

Minister for the Armed Forces, Mark Lancaster, said:

Gibraltar is of great importance to the UK, our Armed Forces and our allies. It has provided vital assistance to operations and exercises over the years, perhaps best demonstrated by the recent support to the UK's hurricane relief effort in the Caribbean.

We are absolutely steadfast in our support of Gibraltar, its people and its economy and will fully involve Gibraltar as we prepare to exit the European Union.

In meetings with the Deputy Governor and The Chief Minister, Mark Lancaster will stress the UK's commitment to upholding Gibraltar's sovereignty as well as ensuring that their priorities are taken properly into account as the UK prepares to leave the EU.

Whilst in Gibraltar, Mr Lancaster will also attend an event recognising the important role that personnel stationed there played as part of the UK military response to Hurricane Irma. They delivered vital assistance to HMS Ocean as she docked to load humanitarian aid and disaster relief before

sailing to the Caribbean Islands to assist those devastated by the hurricane.

He will also meet with Royal Navy Gibraltar Squadron who support British military activity in the region, providing force protection for visiting allied warships as well as upholding the sovereignty of British Gibraltar territorial waters.

## Speech: Global MilSatCom conference 2017

Let me begin by saying what a great privilege it is to speak at this conference. I am sure Harriet Baldwin would have expressed a similar sentiment if she not been obliged to attend to pressing business overseas, for which I apologise on her behalf.

As an arts graduate, I cannot profess to be a leading expert on orbital mechanics. But I am an enthusiast for space, and have been so since, as a 10 year old, I was taken by my parents to a mountain top in Fiji, where we then lived, to watch the re-entry of an Apollo mission. This was a magical experience for me. Not only was this a shooting star with men in it, as it appeared to me, but I realised that it was a very significant moment because my parents awoke my sister and I at one am to begin the journey to the mountain, an hour of the day I had never seen before!

And later in my life, as a tank soldier prone to getting lost at night, trying to read a map with a red torch and red contour lines, I marvelled and thanked the Lord for the arrival of GPS navigation. Still later, as a Brigade Commander in Iraq, I was hugely grateful for what satellite communications could do for us.

So I'm pleased to now find myself as the commander of the UK's Joint Forces Command, responsible, amongst other things, for C4ISR, including cyber, special forces, and joint warfighting, because I am in a position to put my enthusiasm and belief in space to good use.

The UK has been a space faring nation for decades. We launched the first Skynet satellite in 1969. Since then, you and your colleagues have built a thriving space industry, generating a turnover of £14 billion a year and employing about 40,000 people in the UK.

The UK is a world leader in certain technologies: 40% of the world's small satellites are built in the UK, and a quarter of the world's telecommunication satellites. And the space systems and services generated by the UK space sector support a wide range of applications across wider society: more than £250 billion of our gross domestic product is supported by satellite services.

Satellites are the reason we can make mobile phone calls, take money from cash machines, ensure our emergency services get to where they need to, and a whole range of activities vital to our daily lives.

Defence is just as dependent. More than 90% of the platforms and systems that constitute the UK military equipment programme are dependent on space to some degree. It is space based capability, much of it benefitting from US investment, that has enabled modern information warfare and precision attack. It is this dependence, combined with our appreciation of the growing threats and hazards, which has led us to increase the attention we are giving to space.

How are the risks increasing? From both natural and manmade sources. There are the dangers of 'space debris', remains of previous spacecraft orbiting the Earth that travel at speeds of up to 17,500 miles per hour, and environmental hazards like geomagnetic storms, which can damage Earth orbiting satellites.

We also have to recognise that potential adversaries see the reliance on space by the UK and our allies as an important vulnerability, and are developing weapons that can exploit that vulnerability. Russia and China have both admitted to developing direct ascent anti-satellite missiles.

This should concern all of us: the testing of such weapons in 2007 by the Chinese government created at least 2,000 pieces of space debris, threatening the sustainability of this shared domain.

But there are positive changes taking place as well, principally around commercial investment in space related R&D. As in the field of microelectronics, it is no longer governments and defence departments who are driving innovation, and this is leading to greater accessibility and lower costs. Which is good, because our demand for space services continues to increase.

Be it new launch capabilities, mega-constellations, or satellites that provide on orbit repair and refuelling, the space market is evolving in a way that opens up new opportunities for the further exploitation of space.

As this market continues to develop, we will work together to ensure the continued security of the space domain. We cannot take this for granted: our dependence is great and growing, and the space environment becomes progressively congested and competitive. Gone are the days when we could launch satellites into space and expect them to operate unchallenged.

Our government recognises the vital importance of working closely with industry on these matters. That is why it published a National Space Policy and acknowledged the importance of space to our prosperity and security in the 2015 Strategic Defence and Security Review.

This included a number of commitments. One was to invest in space surveillance capability, enabling us to further assess space threats, risks and events, both natural and man made. Another was to invest in multi-signal

satellite navigation receivers, which will enhance the resilience of the armed forces and emergency services to the loss or disruption of GPS service. And a third was the commitment to enhance our Space Operations Centre and invest in a ballistic missile defence radar that would also enhance our space situational awareness.

As we develop our strategy and capabilities in response to these changes, we will look to secure our freedom of action in, to and from space, fully exploiting its military and civil potential. The emerging themes of our space strategy are as follows:

- optimising space support to the front line, making sure our forces can absolutely depend on getting the services they need
- enhancing the protection and resilience of space based assets, keeping safe the space assets that underpin our military and civil national security, and
- complementing cross-government space activity, to maximise the opportunities that arise from coordinating matters of security and prosperity

Nick Ayling will elaborate on these points in the next session, and Air Commodore Nick Hay will discuss in more detail how this applies to our future military satellite communications capability. So let me finish by highlighting the overarching importance of strong relationships to the delivery of our ambitions.

We must work closely with our industrial partners in the space sector to exploit innovative emerging technologies.

We must work closely with our allies, following the principles of "international by design" to deliver joint force advantage in space, much like we do in every other domain.

As with every other aspect of Britain's safety and security, it depends not just on our own efforts, but on working with our allies to manage common threats and hazards that face us all. And this is at least as true in space as anywhere else.

Our relationship with the US on space has traditionally been close: the radar at Fylingdales has long contributed to US led networks. And as we develop the next generation of Skynet we will ensure it is as interoperable as possible with US and allied systems. This will be made possible by the framework provided by the Combined Space Operations initiative, through which we are seeking a safe, secure and resilient space environment.

And the UK's departure from the European Union will not prevent us from working with our European neighbours on matter of space security. As well as working bilaterally with member states, the UK will seek the closest possible participation in EU space programmes such as Galileo, commensurate with the contribution that UK government and industry has made to date, and where we can continue to add real value.

In conclusion, space offers great opportunities. But the strategic context is much like it is here on Earth: becoming less certain, with increasing threats that will take skill and commitment to manage successfully. And that is what we must do. You must judge us by our actions rather than our words as we pursue these goals, but I very much hope you will work closely with us, and our allies as we seek to protect our interests and enhance our capabilities.

I look forward to our continued close working between defence and industry on military programmes, particularly Skynet 6.