

News story: Streets ahead: British AI eyes scan future frontline in multinational urban experiment

The game-changing technology developed by the Defence Science and Technology Laboratory (Dstl) and UK industry partners, known as SAPIENT, saw British sensors making autonomous decisions, like what and how to monitor activities, as they searched a mock urban battlefield in the Canadian city and flagged dangers to soldiers taking part in the experiment.

With current in-service technology, troops have to man live feeds from systems similar to CCTV cameras to monitor enemy movement during urban operations on complex city streets. The SAPIENT tech takes that load off the soldier and reduces the risk of human error, as well as reducing troops in the operations room – freeing them up for other military activity.

The British system was featured alongside a whole host of experimental tech from a range of nations, including robotic exoskeleton suits to help soldiers with the burden of heavy loads, night vision and surveillance systems. British troops are also expected to test the tech in the UK in the future.

Defence Minister Stuart Andrew said:

This British system can act as autonomous eyes in the urban battlefield. This technology can scan streets for enemy movements so troops can be ready for combat with quicker, more reliable information on attackers hiding around the corner.

Investing millions in advanced technology like this will give us the edge in future battles. It also puts us in a really strong position to benefit from similar projects run by our allies as we all strive for a more secure world.

The tech was put to the test in the Contested Urban Environment experiment (or CUE 18) – the biggest experiment of its kind in recent years, which is also set to come to the streets of Britain. It brings together Five Eyes allied nations of the Australia, Canada, New Zealand, the UK and USA to put the very latest cutting-edge technology in the hands of soldiers on the ground.

Over 150 government and industry scientists and over 80 Canadian troops have been working in the city for three weeks, culminating in a complex exercise on the streets and other locations around the city, including an industrial location known as Silo 5, a huge abandoned grain store close to the historic Old Town area.



The Contested Urban Environment experiment took place this month over three weeks in Montreal, Canada. Crown copyright.

In addition to SAPIENT, a range of unmanned aerial and ground vehicles and soldier technologies were also used to relay information to an operations centre for analysis by the scientists and military personnel. Planes above the city sent autonomously refined information back to human operators down below. Combining all of these technologies from across the different nations, it was possible to generate information that could be fed to soldiers and military commanders – significantly enhancing their situational awareness.

The UK's SAPIENT technology is the result of multi-million-pound research which has taken just five years to develop. It was jointly funded initially with Dstl and InnovateUK, and from 2016, exclusively by Dstl. Standing for Sensors for Asset Protection using Integrated Electronic Network Technology, SAPIENT uses automation and artificial intelligence to ensure that the military user is presented with the information they need at the time they need it, including unusual activity – like people near a checkpoint or changes in behaviour.

Some of the sensors were actually carried by the soldiers, whilst others were placed on the ground.

Lt Col Nat Haden, SO1 Intelligence, Surveillance, Target Acquisition and Reconnaissance (ISTAR) Capability, Army Headquarters, said:

We need to develop the practical solutions to a lot of the aspirations that we want. It brings together our requirements as a

user and Dstl as scientific advisers for the expert view. The strength of CUE is that we're developing things with our key allies in the five-eyes community.

Dstl's Chief Executive Gary Aitkenhead, said:

This is a fantastic example of our world-leading expertise at its best; our scientists working with our partner nations to develop the very best technology for our military personal now and in the future.

The first Contested Urban Environment experiment took place in November 2017 in Adelaide, Australia. Two additional experiments are being planned for 2019 in the US and again 2020 in the UK. Technology tested during this time could mean availability to military personnel by 2025.

[News story: A visual guide to Exercise Saif Sareea logistics](#)

Updated: This article has been reformatted to fit with the GOV.UK style guide

The UK's lead exercise of 2018, Exercise Saif Sareea 3 (SS3), is taking place this autumn in Oman. It has been years in the making, with Joint Forces Command at the very centre of the planning and organisational work. Delivering an expeditionary exercise on this scale brings a host of complex challenges for Joint Forces Command and the wider Ministry of Defence, from ensuring 24/7 medical cover to making sure drinking water never runs out.

These videos help to explain this monumental effort, outlining who is responsible for these kind of military exercises abroad, and how they are delivered safely and effectively.

'Saif Sareea 3' means 'Swift Sword' in Arabic. It is the name for the UK-Omani military exercise taking place in Oman from October to November 2018. The previous Saif Sareea exercises took place in 1986 and 2001.

[What is Exercise Saif Sareea 3?](#)

The Joint Force Logistics Component oversee and deliver the logistics for SS3. They are responsible for setting up the exercise, delivering support during it, and also responsible for returning equipment to the UK after the exercise has finished.

[Who runs the logistics for Exercise Saif Sareea 3?](#)

The Joint Force Logistics Component is made up of resources across the Royal Navy, British Army and Royal Air Force. Using these combined resources the Joint Force Logistics Component are able to deliver the UK's logistics capability for SS3 in Oman.

[What do Exercise Saif Sareea 3 logistics look like on the ground?](#)

SS3 will test the UK and Oman's ability to deploy a 'Coalition Joint Task Force' to the Gulf region and operate in austere and challenging conditions together. Throughout the exercise there is a need to ensure the health and safety of the 5,000 deployed personnel. To achieve this the Joint Force Logistics Component coordinate the deployment of Defence Medical Service units during the exercise.

[How do you keep 5,500 UK troops safe whilst on exercise in Oman?](#)

For more SS3 news, search:

ComdJFC_UK, @DefenceOps, @DefenceHQ, @UKinOman

[News story: Commendations awarded to outstanding JFC staff](#)

The awards were presented to the recipients by Commander Joint Forces Command (JFC), General Sir Chris Deverell, who also took time to meet with the recipients and their families. Offering his congratulations, he said:

Joint Forces Command is a major enterprise which strives to harness the talent and energy of all its people. The commitment of the workforce is a fundamental element of JFC success and I am delighted to be able to recognise people and celebrate their achievements.

The individuals and teams I have met today, and those who were unable to attend the ceremony due to operational commitments are an inspiration and have gone above and beyond their normal role to provide great support to defence, and we thank them for this

Teams and individuals from a number of different areas received awards in recognition for their work. This included work supporting ongoing operations at home and abroad, working in the local community and also recognition for individual acts of courage in the line of duty.

Commander Kearsley, who received a commendation for his work in J9 Maritime, said:

It is one of the proudest moments of my career to date and it was an honour to be presented the award at Admiralty House by General Deverell

Flight Lieutenant Lindsay was recognised for his work with Information Systems and Services, had the following to say:

It is a proud day and realising that someone has put a lot of effort into recognising his work and nominating him, and receiving the award was a shock

The Commander JFC Commendations can be awarded to service personnel, civil servants and contracted staff from across the organisation. Those awarded the Commander Joint Forces Command Commendations are:

- Major Martin Ness, Standing Joint Force Headquarters
- Mrs Mandy Diane Childs, Civil Servant
- Major Alexander Daniel Whitaker, Joint Force Development
- Major Paul Morris, Corps of Royal Electrical and Mechanical Engineers, Joint Force Command C4ISR
- Corporal Michael Andrew Jenkins, Royal Air Force. Royal Air Force Wyton
- Corporal Mark David Latimer-Jenkins, Royal Air Force, Joint Service Signal Unit (Digby)
- Corporal Thomas Routledge, Royal Air Force, Royal Air Force Waddington
- Major Robert Leasing John Monger, Corps of Royal Engineers, Permanent Joint Headquarters, Northwood
- Squadron Leader Graeme Richard Watkin Jones, Royal Air Force, Chairman of the Royal Air Force Martial Arts
- Team Award Op CARBRIT Team, Permanent Joint Headquarters, Northwood Headquarters
- Flight Lieutenant George Jack Lindsay, Royal Air Force, ISS Blandford
- Mr Paul Turton, Civil Servant, Senior Trainer at Training Delivery Division
- Commander David Christopher Moody, Royal Navy, Strategic Command and Control Networks
- Mr Alexander Jacques part of the CROSSBOW Team, Royal Air Force Wyton
- Lieutenant Commander Iain Peter Kearsley, Royal Navy, J4 Maritime
- Lieutenant Commander Charles Richard Keith, Royal Navy, Permanent Joint Headquarters
- Corporal Brendon Grant Bale, Royal Air Force, Supreme Headquarters Allied Powers Europe
- Lieutenant Colonel Mark Edward Johnson-Ferguson, Corps of Royal Engineers, Headquarters British Forces Cyprus

News story: UK boosts cyber links after tri-nation visit to Central America

As the cyber threats we face evolve and intensify, it is vital we deepen our international partnerships to stay one step ahead of those who would wish to do us harm, a Defence Minister has stated.

Armed Forces Minister Mark Lancaster signed a letter of intent between the UK and Chile on cyber co-operation ensuring closer links in that sphere, during a visit that also took in Mexico and Belize.

He also attended a British-led cyber defence workshop that was jointly supported by the Ministry of Defence, Department for International Trade, National Cyber Security Centre and Government Communication Headquarters. He also visited a Chilean Peacekeeping School.

Armed Forces Minister Mark Lancaster said:

Information technology provides a new and unconventional battlefield, with cyber-attacks increasing as modern warfare evolves and adapts. The UK will play a leading role in countering these threats, but I am delighted to see like-minded partners across the globe sharing this belief and taking steps to keep our people safe.

In Mexico, Mr Lancaster was a special guest at the country's independence celebrations, before meeting Mexico's Defence Minister and Navy Secretariat, Admiral Vidal Francisco Soberon Sanz, reinforcing our strong defence relations and discussing the role of Latin American nations working alongside NATO and the UN.

He also met Commander of the North American Aerospace Defense Command and United States Northern Command, General Terrence J. O'Shaughnessy, reaffirming the special relationship and exploring how the UK and US can collaborate further in these fields.

In Belize, Mr Lancaster spent the day visiting the 2nd Battalion of the Duke of Lancaster's Regiment, to understand the benefits to the Army from training in a jungle environment as well as touring the British Army Training and Support Unit Belize.

Mr Lancaster also signed a treaty and memorandum of understanding concerning the status of UK forces in Belize, deepening the longstanding defence co-

operation between the two nations.

Mr Lancaster met the Minister of Foreign Affairs, Wilfred Elrington; Minister of National Security, John Saldivar, and Commander of the Belize Defence Force, Brigadier General Steven Ortega.

[News story: Defence Secretary announces extension of support to Ukraine's Armed Forces](#)

In his first visit as Defence Secretary to Ukraine, Gavin Williamson announced that the UK will be extending its military training operation there for a further two years until 2020.

Mr Williamson met with Defence Minister Stepan Poltorak and General of the Army, Victor Muzhenko, to discuss the threats faced by Ukrainian Armed Forces. He also announced the expansion of the UK Defence Section in Kyiv and introduction of a permanent Naval Attaché to help build Ukrainian naval capability.

The Defence Secretary also met President Poroshenko reaffirming the UK's commitment to their country. He also discussed the Russian security forces continuing to disrupt merchant vessels trying to access Ukrainian ports in the Sea of Azov, posing negative effects on Ukraine's economy.

He also travelled to Marinka in the east of Ukraine to see the effects of the four-year conflict in the Donbas region, and received an operational update from the Joint Force Operation Commander Lt Gen Serhiy Nayev. The visit to Marinka highlighted the severity of the ongoing conflict, including its humanitarian and environmental impacts, driven by Russian aggression.

Defence Secretary Gavin Williamson said:

I witnessed first-hand the suffering caused by the brutal conflict in eastern Ukraine – a conflict that is being prolonged by the Russian-backed separatists.

By extending and expanding our training programmes, we are sending a clear message – we support the people of Ukraine and are firmly committed to its sovereignty as it faces down blatant Russian aggression.



In his first visit as Defence Secretary to Ukraine, Gavin Williamson announced the UK will extend its military training operation for a further two years. Crown copyright.

The training, delivered through Operation Orbital, has been expanded in 2018 to include anti-armour, infantry skills, counter-sniping and mortar planning. This is in addition to the defensive skills programmes such as the identification of mines and improvised explosive devices (IEDs), medical care and logistics that UK personnel have been delivering since early 2015.

British personnel have trained over 9,500 of the Ukrainian Armed Forces since the start of Operation Orbital in 2015. The coming year will see a continuing growth in joint training activity with our Canadian allies as well as initiatives between UK personnel and other nations who have also committed themselves to supporting Ukraine.