World-class autonomous minehunters to protect Royal Navy

Speaking at the Franco-British Council Defence Conference, the Defence Secretary announced a £184 million investment in the joint Maritime Mine Counter Measure (MMCM) programme, which will create new systems to combat sea mines and keep ships and personnel away from danger.

The contract will support 215 jobs across the UK at Thales sites in Somerset and Plymouth, as well as in the wider supply chain, including L3 Harris in Portsmouth, Stonehaven in Aberdeenshire and Alba Ultrasound in Glasgow.

This investment follows the substantial £16.5 billion settlement in the Spending Review for Defence over four years that will modernise the armed forces, reinvigorate the shipbuilding industry and bring jobs and prosperity to every part of the UK.

Defence Secretary Ben Wallace said:

> This £184 million contract offers a huge leap forward for the Royal Navy's autonomous capabilities in the detection and defeat of sea mines. As the Armed Forces puts modernisation at the heart of its future strategy, these systems will protect vital shipping lanes, commercial traffic and our brave personnel from these deadly devices.
>
> The programme also underpins a deep and ever-strengthening relationship with France and marks the tenth anniversary of the Lancaster House treaties between our two nations.

UK-France defence cooperation

The Defence Secretary was speaking at this year's virtual Franco-British Council Defence Conference, which also featured French defence minister Florence Parly, Chief of the Defence Staff General Sir Nick Carter and his French counterpart Ched d'État-Major des Armées François Lecointre.

This month marks the 10th anniversary of the historic Lancaster House treaties on defence, security and nuclear cooperation between the UK and France. The historic commitment has established a long-term partnership between the two countries and includes the fully operational Combined Joint Expeditionary Force (CJEF) – a force able to rapidly deploy over 10,000 personnel in response to a crisis.

Both nations are deployed around the world together in places such as the Middle East combating Daesh and in Estonia as part of NATO's Enhanced Forward Presence. In Mali, three RAF Chinooks and 100 UK personnel are deployed in a non-combat role in support of French counter-extremist operations.

Royal Navy minehunting

The Royal Navy is world leader in mine countermeasures, having been regularly called upon to deal with mines and other historic ordnance, left over from the Second World War, around the United Kingdom. In recent times, the UK has been involved in minehunting operations across the world, including the Gulf and off Libya.

Following a successful demonstration phase and trials completed in October 2020, the new contract will produce three sets of minehunting equipment, consisting of:

Autonomous vessel – a boat controlled and operated from a "mother ship/base." Towed sonar – a sonar which is towed/dragged behind the vessel to locate ordnance. Mine neutralisation system – a remotely operated underwater vehicle which is used once the mine is located to neutralise the device and prevent its detonation.

When used together, these three elements are known as the Primary System. This next-generation mine hunting capability is designed to potentially replace conventional crewed mine hunting vessels, such as the Royal Navy's Hunt and Sandown class ships, with autonomous systems.

First Sea Lord Admiral Tony Radakin said:

> I am enormously excited by the potential of the future minehunting capability. This will allow us to deliver minehunting more effectively, more efficiently and more safely, and to integrate even more closely with our French counterparts in this important area.

The UK element of the MMCM programme was negotiated by Defence Equipment and Support (DE&S), the procurement arm of the UK Ministry of Defence.

DE&S CEO Sir Simon Bollom said:

> This ground-breaking technology brings with it a step-change in capability for the Royal Navy which is a bold step into the digital and autonomous world. I'm incredibly proud of DE&S and the Royal Navy team who have worked tirelessly with our French colleagues to deliver on this contract.

Alex Cresswell, CEO of Thales in the UK, said:

> Technologies such as autonomy and AI are transforming societies and warfare at an exponential rate. This contract represents the next generation for Anglo-French minehunting, delivering a world leading capability that will keep our armed forces safe and create and

> secure vital jobs across the UK and our supply chain. We look forward to delivering the next stage in this exciting hi-tech programme.

The first equipment sets are due to be delivered in late 2022. It will commence operational evaluation prior to entering service with the Royal Navy.

Appointments and reappointments of Youth Justice Board members

The Secretary of State for Justice has announced appointments to the Youth Justice Board (YJB) of Susannah Hancock, Jacob Sakil and Louise Shorter for a period of 3 years who will commence their tenures on 1 December 2020.

The Secretary of State for Justice has also announced the reappointments of Ben Byrne, Sharon Gray, Neal Hazel and Keith Towler who will commence their tenures on 1 January 2021 for a period of 3 years.

YJB is a non-departmental public body, responsible for overseeing the youth justice system in England and Wales. As a non-departmental public body, its primary function is to monitor the operation of the youth justice system and the provision of youth justice services.

Appointments and reappointments to YJB are made by the Secretary of State for Justice and are regulated by the Commissioner for Public Appointments. These appointments have been made in line with the Governance Code on Public Appointments.

Biographies

Appointments

Susannah Hancock

Susannah has been, since 2018, Chief Executive of the Association of Police and Crime Commissioners which represents PCCs and wider policing governance bodies across England and Wales. She was previously Assistant Chief Executive of the national charity Victim Support, and Chief Executive for the Office of the Police, Fire and Crime Commissioner in Essex. Between 2004-2008, she served as Head of London for the YJB.

Jacob Sakil

Jacob has been, since 2019, Strategic Development Lead for Connecting Conversations Collective where he currently leads on coordinating the Lambeth

Youth Council to ensure children and young people have an accessible and transparent avenue to engage in local democracy. He is also a Youth Worker, School Governor, Youth Offending Service representative and a Advisor to the Young Mayor at Lewisham Council.

Louise Shorter

Louise is founder and investigator of Inside Justice, a registered charity which investigates alleged miscarriages of justice on behalf of prisoners who maintain their innocence; a Board Member of Inside Time, a not-for-profit newspaper for prisoners and an Associate Tutor at the School of Law, University of East Anglia.

Reappointments

Ben Byrne

Ben was first appointed as a YJB Member on 1 January 2018. He is strategic lead for improvement and innovation for the London Directors of Children's Services. He was formerly responsible for Early Help, Family Services and Youth Justice at Surrey County Council. He is a qualified social worker who has been a youth justice practitioner. Ben is a trustee of the National Association for Youth Justice.

Sharon Gray

Sharon was first appointed as a YJB Member on 1 January 2018. She is an Education Consultant at Wholehearted Learning. She has worked with the SEND London Leadership Strategy and 'engage in their future' representing special schools (young people experiencing severe SEMH – social, emotional and mental health difficulties) across the country. She has been a member of the MoJ Medway Improvement Board, Ofsted inspector and a successful Head Teacher in special (SEMH) and mainstream schools for 21 years.

Neal Hazel

Neal was first appointed as a YJB Member on 1 January 2018. He is the Chair of Criminology and Criminal Justice at the University of Salford, following posts as Director of the Salford Institute for Public Policy and Director of the Centre for Social Research at the University. Neal is also former HM Deputy Chief Inspector of Probation for England and Wales.

Keith Towler

Keith was first appointed as a YJB Member on 1 January 2018. He was previously the Children's Commissioner for Wales and has acted as an independent consultant for children and young people's rights. Keith is the Chair of the Interim Youth Work Board for Wales which is tasked with developing a sustainable delivery model for youth work services in Wales. He was a member of the International Play Association Working Group which assisted the UN Committee on the Rights of the Child, as well as the Family Justice Review.

New flood warnings for Etwall help communities be better prepared

- New flood warnings now available for communities in Etwall, Derbyshire
- Helping people to be better prepared
- The risk of flooding to these areas has not increased and will not affect insurance

The Environment Agency will be writing this week inviting people in Etwall to take advantage of this free service, which is available by text message, telephone or email.

We are always looking for ways to help communities impacted by flooding be better prepared.

During the last winter we saw some of the highest river levels ever recorded across the West Midlands, and as part of the continuous improvement of our flood warning service, we have been able to expand the service.

Data from recent years has shown that additional warnings, along with the existing ones, would help those living and working in Etwall.

These new warnings do not show a change in flood risk, they mean we can give people better, more targeted information about when flooding may happen.

It is important that everyone knows if their property or business is at risk of flooding and it is a simple and quick process to find out.

To check if your property is now within the new warning area visit https://gov.uk/check-flood-risk or call Floodline on 0345 988 1188.

Fully register now to receive the following:

- Flood Alerts, when flooding to low lying land and roads is possible
- Flood Warnings, when flooding to residential property is expected
- You can register for more than one location

If residents decide not to fully register, your mobile phone service provider may automatically register you to receive a free text alert flood warning for your home area as an opt out service.

However you will not receive all the available information, so we still recommend full sign up.

If residents have any problems accessing the service, or any other questions, please contact us at floodresilience@environment-agency.gov.uk where someone will be happy to assist.

Notes to editors

The government recently unveiled its long-term plan to tackle the risks of flooding and coastal erosion, ensuring 336,000 properties in England are better protected from flooding by 2027 with a record £5.2 billion investment.

The Environment Agency also published its Flood and Coast Erosion Risk Management Strategy, a blueprint setting out how it will work with communities to deliver the government's plan.

More information can be found on GOV UK or call our Floodline on 0345 988 11 88.

UK-built rover landing on Martian surface moves one giant fall closer

Once the European Space Agency (ESA) ExoMars Rosalind Franklin rover reaches Mars, a dramatic 6-minute sequence will see a 'descent module' – carrying the rover – deploy two parachutes to rapidly slow it down ahead of its landing on the Martian surface.

Atmospheric drag will slow the module from around 21,000 kmph to 1,700 kmph at which point the first parachute will be deployed. Some 20 seconds later, at about 400 kmph, the second parachute will open. When the module is 1 kilometre above ground, the braking engines will kick into gear and safely deliver it to Mars' surface.

The complete parachute descent system needs testing and verifying on Earth, which can only be done through high-altitude drop tests that replicate conditions of low atmospheric pressure on Mars. The test – which had been delayed since March due to COVID, wind and forest fires – took place over Oregon, U.S. on 9 November, with a drop test vehicle lofted to a height of 29 km in a stratospheric balloon.

The parachute extraction and deceleration proceeded as scientists in the mission had expected, with the test vehicle landing safely and parachutes recovered. There was minor 'canopy damage' on the two parachutes, occurring at the onset of inflation.

Rosalind Franklin – a joint Europe and Russia mission – will try to detect life, past or present, on the Red Planet and is due for launch in 2022. Completion of the parachute test marks a critical milestone for the rover,

which has been built in Stevenage by Airbus, and the team will now analyse test data to determine further improvements for the next tests.

Sue Horne, Head of Space Exploration, said:

> Mars has been an object of our fascination and speculation for all recorded history, but we know that missions to the Red Planet are no easy ride.
>
> A total of 20 probes, from countries and agencies around the world, have all had their share of crashing on their way to the Red Planet. They've crashed on take-off, crashed on landing, conked out of power.
>
> Parachute tests are vital in helping us get the technology exactly right and making sure that the Rosalind Franklin rover lifts off with the most advanced and reliable equipment possible.

The pilot chute for the first main chute deployment (ESA)

Following failed tests of the parachute last year, the first main parachute had an upgraded parachute bag and a Kevlar reinforcement around the vent hem, aka the natural vent hole in the middle of the parachute. The second main parachute had several reinforcement rings and an upgraded parachute bag, but not reinforced parachute lines, which are also planned.

Once safely in the Oxia Planum region of Mars in June 2023, the Rosalind Franklin rover will drive off the platform and begin its science mission. It will seek out geologically interesting sites to drill below the surface, to determine if life ever existed on our neighbour planet.

UK company, Vorticity Ltd is technical consultant for the parachute system and is responsible for the high altitude drop tests of the parachutes. Vorticity designed and manufactured the parachute test vehicles and then performed the test along with their US subcontractor, Near Space Corporation.

John Underwood, Principal Engineer at Vorticity, said:

> This is an enormously challenging programme involving the development of the largest parachute ever sent to Mars. Huge improvements have been made to the system since the tests last year and we are confident that the last issues will be ironed out before the mission launch in 2022.

Vorticity is a privately owned UK SME which operates as a centre of excellence for aerospace systems engineering consultancy and space systems development.

ExoMars Programme Team Leader Francois Spoto, said:

> Landing on Mars is extremely difficult, with no room for error. The latest test was a good step forward but is not yet the perfect outcome we are seeking. Therefore, we will use the extensive test data we have acquired to refine our approach, plan further tests and keep on track for our launch in September 2022.

In July this year, NASA launched its Perseverance mission, blazing a trail ahead of the launch of the UK-built Rosalind Franklin rover. Perseverance has several science goals for its mission, and is carrying instruments geared to search for the carbon building blocks of life and other microbes and to reconstruct the geological history of the Red Planet.

The idea is that by investigating the presence and history of water on Mars we can begin to consider the question of whether or not life existed there; which in turn would provide powerful evidence of the probability that life exists elsewhere in the Universe.

No better time than now to step up climate action

The Philippines has once again suffered the brunt of climate change impacts. Less than a week after the devastating Super Typhoon Goni (Rolly), Typhoon Vamco (Ulysses) struck, leading to the declaration of a state of calamity for the entire island of Luzon. These extreme events in the Philippines derail economic gains and only exacerbate existing pressures brought about by the COVID-19 pandemic.

Tomorrow, the UK will be hosting the first virtual Climate Change and Environment Dialogue with the Philippines led by Environment Secretary Roy Cimatu as chairperson of the Cabinet Cluster working on Climate Change. We will agree on a Partnership to further strengthen our cooperation to tackle climate change. We will set-out the climate and environment priorities including for the 26th Conference of Parties (COP26), which the UK will host in partnership with Italy in November 2021, and reach agreement on energy transition and nature-based solutions.

As we start the conversation, we want to recognise the growing momentum in the Philippines towards an inclusive, resilient, and green recovery.

In the energy sector, we welcome the announcement of the Department of Energy (DOE) to no longer accept proposals for new coal power projects. Such effort provides a positive signal for businesses to shift their investments to

renewable energy sources. We are also delighted for Masbate City to join the Powering Past Coal Alliance, along with Negros Oriental and Ilocos Norte; it shows commitment to advance the transition from unabated coal power generation to clean energy. We are optimistic that more and more local government units will follow suit. Next week, we look forward to the Philippines' participation in the first meeting of the COP26 Energy Transition Council and the Asian Clean Power Dialogue. These platforms will facilitate genuine conversation with leaders in the international power sector to accelerate the global energy transition.

We are also delighted that the Department of Transport is supporting the "Driving Change Together" Declaration. This signifies strong leadership to transform the transport sector and industry from conventional and polluting to cleaner, more economical and sustainable alternatives.

The UK-Philippine cooperation on climate and environment continues to grow covering a wide range of sectors including energy, green infrastructure, health, hydrometeorology, agriculture and biodiversity supported by the Darwin Fund Initiative, Newton Agham Programme, and the UK's multilateral funding to the Urban Climate Change Resilience Trust Fund.

The UK's ASEAN Low Carbon Energy Programme supports the development of the Sustainable Finance Roadmap and has already provided recommendations to the Department of Energy on the administration, classification and certification of energy service companies, and voluntary renewable energy market development. Our study on Scenarios for Energy Transition confirmed the Bloomberg finding that coal power plant additions beyond 2023/24 are not expected to be economical in the Philippines. We are also enthusiastic to launch our green recovery project with the United Nations Development Programme and sign the Memorandum of Understanding with Energy Secretary Alfonso Cusi to develop the 2050 Calculator Pathway, a tool to plan the Philippines' low-carbon transition.

Domestically, the UK remains committed to doing our share. Prime Minister Boris Johnson recently announced the Ten Point Plan for a UK Green Industrial Revolution to allow the UK to forge ahead with eradicating its contribution to climate change by 2050. It also serves as the blueprint to support up to 250,000 "new" green collar jobs. It comes as the UK prepares to host the Climate Ambition Summit, with the UN and France, and in partnership with Chile and Italy, on December 12 – a pivotal moment for world leaders to share ambitious new commitments to tackle climate change.

Countries in the region are beginning to rally behind the goal of reaching net zero emissions, including China, Japan and South Korea. We hope, too, that the Philippines will join the majority of countries around the world in announcing commitments to go above and beyond what was announced in 2015 when parties to the Paris Agreement committed to tackling the climate crisis.

Five years later, there is much more to be done. Climate Change is a shared global challenge – every country in the world needs to take action to secure the future of the planet for our children, grandchildren and generations to come. It is our responsibility to stop this. There is no time to waste.