

# £265 million missile upgrade for UK submarines

- UK to make upgrades to current stock of Tomahawk Land Attack Missiles
- Enhanced long-range strike capability of up to 1,000 miles

The UK's stock of Tomahawk Land Attack Missiles (TLAM) will be upgraded on Royal Navy submarines to ensure the weapon is even more effective against future threats.

In a £265 million contract with the US Government, with maintenance and technical support at the UK sites of BAE Systems, Babcock International and Lockheed Martin, the Royal Navy's Astute-Class submarines will be armed with an enhanced Block V standard missile, capable of striking severe threats at a range of up to 1,000 miles.

The upgraded missile will be able to travel further than the previous Block IV iteration, maintaining a precision-strike capability that is unmatched in range and accuracy. The upgrade will also make the weapon less vulnerable to external threats, with modernised in-flight communication and target selection.

At approximately 5.6m long and weighing 2200kg – a similar weight to a 4x4 car – the high sub-sonic Tomahawk was first introduced into UK service in 1998 and can hit in-land targets from the sea within minutes. A weapon of choice since then, it has been successfully deployed during operations in Afghanistan, Libya and Iraq.

## **Minister for Defence Procurement, Jeremy Quin, said:**

This upgrade will equip our Astute-Class attack submarines with the one of the most lethal and precise long-range strike weapons.

Enhancing this cutting-edge missile system will ensure the UK can strike severe threats up to 1,000 miles away.

The Tomahawk missiles will be upgraded as part of a Foreign Military Sale with the US Government, which was negotiated by the MOD's procurement arm, Defence Equipment and Support and will be active from July.

Making use of existing US research and expertise on the upgraded missile, the contract will mean the UK continues to receive full access to the US Tomahawk programme, support package and upgrades.

## **DE&S Director Weapons, Ed Cutts, said:**

Not only will this FMS sustain and improve a proven, crucial

operational capability for any future conflicts, it will continue to ensure interoperability with our US allies and the follow-on support arrangements will sustain jobs for UK industry.

As Block IV is upgraded to Block V from 2024, it will modernise and improve in-flight communications and navigation, making the missile more effective against future threats around the globe.

The Foreign Military Sale also includes missile maintenance, recertification of existing missiles, spares, operational flight testing, software, hardware and training provisions.

**Director Submarines, Rear Admiral Simon Asquith said:**

The Tomahawk Land Attack Cruise Missile is a cutting-edge system which provides the UK with real strategic and operational choice. Able to be fired from a stealthy UK nuclear attack submarine, the system's exceptional range, accuracy and survivability provides the UK, alongside our US Allies, with a world beating precision strike capability.

The announcement builds on commitments made in the [Defence Command Paper](#) and [Integrated Review](#), in addition to Royal Navy mission planning and weapon control system upgrades that will improve the performance of legacy Block IV missiles.

Due to be operational in the mid-2020s, the upgraded Tomahawk will align with the delivery of the latest Astute submarines.

---

## **[Skanska awarded contract to deliver modern British Army vehicle storage facility](#)**

Contracted via the Defence Infrastructure Organisation (DIO), Skanska together with the Technical Services Provider, MACE, will provide modern, sustainable and effective storage and maintenance solutions for the British Army's land equipment fleet.

Belinda Lunn, Senior Responsible Owner for VSSP said:

We are very excited to be working with Skanska to deliver this project which will bring the Ashchurch site back up to full

operating capability.

Whilst the majority of the Army's vehicle fleet is either on, or training for operations, a sizeable fleet is centrally stored to ensure that they are ready to deploy when required. VSSP will redevelop this centralised facility and deliver a modern, sustainable storage solution that ensures operational readiness of the Army's vehicles by minimising the need for maintenance.

Warren Webster, DIO's Programme Director for Army Major Projects and Programmes, said:

It's great to see this project take a major step forward as we award the contract. This important work will future-proof the Army's vehicle storage and maintenance facilities at Ashchurch for years to come and we look forward to continuing to work with our partners in the Army, Skanska and Mace to support this significant capability improvement.

Demolitions will begin this September enabling regeneration of the site by providing brand new infrastructure and updates to existing buildings. Once complete the Ashchurch site will provide Controlled Humidity Environment (CHE) storage for 4100 vehicles.

Katy Dowding, Executive Vice President, Skanska UK, said:

We're delighted to continue supporting modernisation of the Defence estate following completion of Worthy Down in 2021, so we're excited to help transform this site to protect and maintain this vital asset for the Army.

Steve Holbrook, Managing Director for Skanska UK's construction arm, added:

We're also proud to continue to help drive greener solutions as part of this complex project and plan to make significant use of modern methods of construction to drive down carbon emissions.

The project will employ up to 400 people, a number of whom are expected to be employed from the Tewkesbury area. There will be a range of employment opportunities available including demolition, groundworks, structural steelwork and scaffolding. In addition, the project will also support 10 apprenticeships.

All construction activity is expected to complete by 2027.

---

# Tamar salmon tagged to provide vital data on health of fish stocks

Press release

The Environment Agency has completed the mammoth task of tagging more than 4,000 juvenile salmon smolts (juveniles) before they leave the River Tamar and head out to sea.



Salmon are key indicators of climate change

Fisheries experts have also fin clipped nearly 900 sea trout smolts, so they can be identified when they return to the Tamar.

Salmon and sea trout are monitored intensively on the River Tamar to provide information on the biology and status of stocks. The Tamar is one of 3 index rivers in England and Wales, but the only index river reporting on the marine survival rates of salmon and sea trout.

Some 4,093 salmon smolts, heading out to sea as part of their migration to their adult feeding grounds at sea, were trapped using the Environment Agency's rotary smolt trap on the River Tamar.

Fisheries experts then carefully injected a tiny tag (size of an iron filing) into their nose cartilage. This tag can be detected in any adult fish that return to the Tamar and are caught in the fish trap at Gunnislake. The information can then be used to calculate marine survival rates.

A tiny tag is carefully injected into the nose cartilage

Sea trout smolts are tagged or fin-clipped on alternate years to distinguish between the different age classes and calculate marine survival rates. Although it is interesting to get reports of tagged or fin-clipped fish from

anglers, only data collected from the adult trap at Gunnislake is used to calculate marine survival rates and it's preferable that any fish caught are returned to the water as soon as possible.

Paul Elsmere, Environmental Monitoring Officer for the Environment Agency, said:

This information is vitally important and provides vital data on the health of our salmon stocks, and is used to inform both national and international salmon management and conservation measures.

Salmon are key indicators of climate change and are considered by many to be the perfect barometer for measuring the health of our oceans and rivers as they have life stages in both environments.

Climate change, including extreme weather events, pollution, increasing sea temperatures, and a range of other man-made problems have all had a major – negative – impact on salmon populations.

Since the Tamar index river programme started in 2004 we have recorded significant changes in run timing, stock structure, body size and condition, juvenile recruitment and the emergence of new diseases and conditions, all of which can be linked to climate change.

Published 31 May 2022

---

## **Greater transparency and value for money for council finance system**

- Consultation response published on plans to strengthen local audit framework in response to Redmond Review.
- New regulator, ARGA, will act as system leader for local audit, with shadow arrangements to start at the Financial Reporting Council in September.
- Proposals also include plans to make audit committees compulsory for all local councils, with an independent member required.
- Plans will support councils to level up communities across England.

Plans to ensure councils and local bodies are delivering value for money for taxpayers, strengthening council finances and reducing risk to public funds have been published by the government today (31 May 2022).

The [government consultation response](#) confirms plans to establish a new regulator, the Audit Reporting and Governance Authority (ARGA), as the system leader for local audit within a new, simplified local audit framework.

Ahead of ARGA's establishment, a shadow system leader arrangement will start at the Financial Reporting Council (FRC) from September 2022. This will be led by Neil Harris, who joins as the FRC's first Director of Local Audit to start up a dedicated local audit unit.

Local Government Minister Kemi Badenoch MP said:

Over the last two years, councils have acted as a lifeline, providing vital support to businesses and communities.

A robust system of local audit is key to maintaining public confidence in local government through assuring transparency and accountability.

Today's publication sees us take the first steps towards a more coordinated local audit system, as we get on with the job of spreading opportunity and prosperity to all parts of the country.

The Department for Levelling Up, Housing and Communities has been acting as interim system leader since July 2021, when it established and took the chair of the [Liaison Committee](#) of senior local audit stakeholders.

Work has already begun to address the challenges facing local audit with the government announcing a series of [measures to improve local audit delays](#) in December 2021.

The consultation response also announces plans to make audit committees compulsory for all councils, with each audit committee required to include at least one independent member. This will create greater transparency and consistency across local bodies.

The announcement comes as government today set out its [wider plans](#) to revamp the UK's corporate reporting and audit regime through a new regulator, greater accountability for big business and by addressing the dominance of the Big Four audit firms.

The government continues to work closely with stakeholders, including local bodies and audit firms, to refine proposals for implementing our commitments around system leadership, as well the range of other commitments we have made in response to the Redmond Review.

- Sir Tony Redmond was commissioned by this department in July 2019 to undertake an independent review into the arrangements in place to support the transparency and quality of local authority financial reporting and external audit.
- This was in response to the mounting delays in the local audit system.
- Local Authority financial Reporting and financial auditing made

recommendations relating to the quality, transparency, timeliness and sustainability of local audit. A key recommendation was for clear system leadership to be established across the local audit system.

- The Department's initial response to the Redmond Review was published in December 2020.
- Our spring report published in May 2021 set out our plan to establish ARGA as system leader for local audit.
- In July 2021 we published [Local audit framework: a technical consultation](#), to which the government response is published today.
- In July 2021 the department established the Liaison Committee of key stakeholders and started acting as interim system leader.
- In December 2021 we set out a series of measures to support the improved timeliness of local audit and address the delays experienced by many organisations across the sector.
- ARGA's system leader work will be funded directly by government and DLUHC will retain Accounting Office responsibility for local audit.
- ARGA will also act as system leader for health audit.

### **About Neil Harris:**

Neil has over 20 years' experience in local public audit. He is currently a Key Audit Partner for EY with responsibility for a range of local public sector audits across local government, central government, police and the fire sector. Neil contributed to EY's response to a range of consultations on the future of financial reporting and external audit in the public sector. Prior to joining EY, Neil was a District Auditor for the Audit Commission where he spent 14 years. Neil is passionate about securing a sustainable future for high quality financial reporting, governance and audit in the public sector.

---

## **Government invests over £31 million to help industry slash emissions and energy costs**

- New funding will support British industries to reduce their reliance on fossil fuels
- reducing fossil fuel use will help industry to cut both emissions and energy costs
- funding will support development of innovative carbon capture and green energy technologies in the UK, supporting green jobs and encouraging investment

Over £31 million in new government funding will support industry to reduce its reliance on fossil fuels and slash carbon emissions, helping it to become

greener and cutting energy bills.

The funding announced today (Tuesday 31 May) includes over £6.6 million to help industry move away from using red diesel, also known as gas oil – a type of fossil fuel commonly used for off-road vehicles and machinery, specifically in the quarrying, mining, and construction sectors.

It will see the development of red diesel alternatives, such as e-fuels and green hydrogen, as well as technologies which capture and store energy that would ordinarily be wasted from a vehicle or machine so it can be used instead. The funding forms part of the [Red Diesel Replacement competition](#) with winners from Phase 1 published today.

Over £5.5 million is also being invested to develop technologies that support industry to cut back use of high carbon fuels and switch to cleaner power sources, such as hydrogen, electrification or fuel from biomass and waste products. The funding will be awarded to winners of Phase 1 of the [Industrial Fuel Switching competition](#) with the cash supporting projects that will replace natural gas with hydrogen in industrial processes, and design heat pumps for use in manufacturing sites.

In addition, winners from the first stage of the [Carbon Capture Usage and Storage \(CCUS\) Innovation 2.0 competition](#) will receive a share of over £12 million for trailblazing projects aiming to advance next-generation CCUS technology to deploy at-scale by 2030, putting the UK at the forefront of the growing carbon capture market. Also launched today is the second call of the competition, with up to £7.3 million available for this next round. CCUS is a key developing technology that involves capturing and storing carbon emissions from industrial processes, from sectors such as power, cement, chemicals and refining. Establishing a CCUS industry in the UK will help unlock tens of thousands of jobs across the UK by 2030, while supporting the economic transformation of our industrial regions.

Energy and Climate Change Minister Greg Hands said:

As we accelerate the UK's energy independence by boosting clean, home-grown, affordable energy, it's crucial that our industries reduce their reliance on fossil fuels.

This investment will help them to not only cut emissions, but also save money on energy bills, on top of supporting jobs by encouraging green innovation across the UK.

Today's funding builds on previous government support to help industry become greener, such as the £505 million [BEIS Energy Innovation Programme](#), which included £100 million for industrial decarbonisation and CCUS, as well as the £315m [Industrial Energy Transformation Fund](#), which supports the development of technologies to help industry with high energy use to transition to a low carbon future. Alongside the [government's plans to boost the UK's long-term energy independence](#), this investment will help industry in the shift to a lower-carbon economy.



Some of the innovative projects receiving today include:

- **PUNCH Flybrid**, based at Silverstone in Northamptonshire, will receive £460,000 to deliver a high power electrically driven flywheel energy storage system, to store energy that would ordinarily be wasted from a vehicle or machine so the energy can be used instead
- **British Steel** in Scunthorpe will receive £161,050 for a study into switching its manufacturing processes from natural gas to green hydrogen
- **Ingenza** in Edinburgh will receive £443,632 to develop a new type of CO2 conversion technology, capturing carbon from industry and turning it into a versatile chemical that can be used across a variety of chemical, pharmaceutical, agricultural and household product sectors

Sam Cockerill, Chief Executive of Libertine said:

We are delighted to have been awarded further funding to continue to build on our work with MAHLE Powertrain. We believe Libertine's technology will play an essential role on the path to Net Zero for heavy duty powertrains, complementing battery electrification with clean power from renewable fuels. We are grateful to the UK government for their support and look forward to delivering this exciting project.

Lee Juby, NanoSUN Commercial Director said:

NanoSUN being selected as the recipient of this vital funding, is yet another demonstration of the UK's commitment to a zero carbon future. We are delighted to once again collaborate with BEIS in the mission to deliver the missing piece of the puzzle that will bring the hydrogen refuelling infrastructure up to speed for the decarbonisation of another sector.

Nick Owen, Dolphin N2 Technical Director said:

The grant from BEIS will enable a very promising area of Hydrogen research to be greatly accelerated, creating an opportunity for faster market uptake of our innovative but pragmatic Recuperated Split Cycle solution. Without this grant and the collaboration that it enables, Dolphin N2 would not have had the budget to increase the technological capability of our engine or to engage with end users to ensure that the project is providing viable solutions for the sector. We look forward to working with BEIS to maximise the benefits of our project and the wider Red Diesel Replacement programme.

Pete Rowe, Chief Executive of Deep Branch Biotechnology said:

This grant builds on our Innovate UK funded project, which has enabled us to develop strong commercial partnerships at both ends of the value chain. These include Drax Power Group at its biomass power station and leading sustainable aquafeed producer BioMar. Deep Blue C will result in a significant increase in the production efficiencies of Proton™. By reducing production costs as we scale, Proton™ will ensure a highly significant saving in carbon footprint for feed producers that switch from concentrated soybean meal or fishmeal, without an unjustifiable price premium.

James Bowers, Project Director, SSE Thermal said:

Flexible generation will continue to be essential as we transition towards a net zero future, providing vital back-up to a renewables-led system. It must, however, be low-carbon in its own right and alongside Equinor we are developing new power stations at Keadby and Peterhead equipped with carbon capture technology. Our engineering teams have already made great strides in ensuring optimum operational flexibility, whilst achieving high capture rates and the FOCUSS project will help us to go even further. This collaboration brings together various partners to develop new concepts which will benefit not only our projects but the wider Power-CCS industry and the funding from BEIS will be instrumental in pushing the project forward.

The Red Diesel Replacement, Industrial Fuel Switching and CCUS Innovation 2.0 competitions are all funded through the BEIS £1 billion [Net Zero Innovation Portfolio](#).

## **Red Diesel Replacement**

The Red Diesel Replacement competition is a £40m scheme supporting the development and demonstration of low-carbon technologies, infrastructure and fuels to help industry move away from using red diesel. 'Red diesel' is the term used for gas oil that is intended for non-road vehicles and dyed red to distinguish it from diesel for road use. Red diesel use accounts for 15% of total diesel for the UK.

At Budget 2020, the government announced that it would remove the entitlement to use red diesel from most sectors from April 2022 to help meet its climate change and air quality targets. BEIS launched the Red Diesel Replacement competition to provide grant funding to support the development and demonstration of innovative technologies to help decarbonise the construction, mining and quarrying sectors that will be most impacted by the removal of the red diesel rebate.

Read a [list of the Phase 1 winners of the Red Diesel Replacement competition](#). This announcement comes ahead of the launch of Phase 2 of the competition early next year.

## **Industrial Fuel Switching**

The £55 million Industrial Fuel Switching competition supports innovation to develop fuel switch enabling technology for the industrial sector, to help industry switch from high to lower carbon fuels. Read a [list of the Phase 1 winners of the Industrial Fuel Switching competition](#).

## **CCUS Innovation 2.0**

Through the CCUS Innovation 2.0 competition, up to £19.5 million in grant funding will be available for projects developing novel CCUS technology and processes that reduce the cost of deployment. Read a [list of winners for CCUS Call 1](#). Projects can [apply for funding under Call 2](#).

Also published today is a report with the [findings of a review carried out by AECOM and the University of Sheffield analysing next generation carbon capture technology](#). A particular focus of the review was the opportunity to deploy next generation carbon capture technology on UK industrial, waste and power sites between 2030 and 2035.

The outputs and learnings from the predecessor programme, [CCUS Innovation 1.0, 'Key Knowledge Deliverables'](#) are also published today, demonstrating the UK government's commitment to sharing lessons learnt from previous CCUS projects, to help accelerate the development of carbon capture internationally.