Military technology

US, UK and Australia move to track ‘emerging threats’ in space

Aukus security pact formed to counter advances by China will also boost autonomous naval systems

The leaders of Australia, the US and the UK met in March to unveil the next phase of the Aukus nuclear submarine programme © Bloomberg

Demetri Sevastopulo in Washington, **Felicia Schwartz** in Simi Valley and **Lucy Fisher** in London DECEMBER 1 2023

The US, UK and Australia have agreed to boost their ability to monitor "emerging threats" in space, in one of several new initiatives linked to the trilateral security pact they signed in 2021 as part of their efforts to counter China.

The allies will build three ground-based radars — one in each country — to enhance "space domain awareness" and increase their ability to detect, track and identify objects in deep space. The first radar, to be built in Western Australia, will be operational by 2026 and the others will be completed by 2030.

The plan was unveiled on Friday by US defence secretary Lloyd Austin, Australian defence minister Richard Marles and British defence secretary Grant Shapps. The ministers were in California for an annual meeting aimed at boosting co-operation on Aukus, a landmark agreement focused on enabling Australia to procure nuclear-propelled submarines.

The radar system would protect the three countries' communications and navigation satellites "from the deadly threats of tomorrow", Shapps said, allowing them to detect, identify and track threats in space up to 36,000km away.

"[It will be] more sensitive, more accurate, more powerful and agile than anything

that has gone before, giving us the ability to see beyond the clouds," he said.

Aukus also includes a second pillar that is focused on other technologies, ranging from cyber capabilities, artificial intelligence and quantum technologies to research and development efforts for hypersonic and counter-hypersonic weapons.

In a statement, the allies said they would also conduct experiments and exercises to boost the sophistication and scale of autonomous systems at sea. They said that would refine their ability to jointly operate uncrewed maritime systems and provide real-time maritime domain awareness.

The US State Department also approved a $2bn sale of Aukus-related training equipment to Australia, which will have to be approved by Congress.

"These exercises and experiments will demonstrate the tangible impact of Aukus," said a US defence official. "We're using Aukus to rapidly accelerate the sophistication and scale of autonomous systems in the maritime domain."

The allies also plan to use advanced AI algorithms on P-8 surveillance aircraft to increase their anti-submarine warfare capabilities. The algorithms will help improve the processing of data that the aircraft obtain from tiny "sonobuoys" that are dropped into the ocean and are important as China builds up its submarine fleets.

The Aukus partners will also accelerate the development of quantum technologies to improve navigation for situations when GPS could be degraded. They will also launch an Aukus "innovation challenge" inviting companies to compete for prizes in areas including electronic warfare development.

In a move that will be welcomed by defence contractors, the three allies will create an "industry forum" to bring government and business executives together in an effort to make it easier to work on advanced technologies.

Some companies have complained that it has become difficult to work out how they can contribute to Aukus because of the secrecy involved with many efforts and the lack of information provided by governments.

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