

Countdown to launch: British-built satellite completes line-up for first launch from Spaceport Cornwall

- Named 'DOVER', RHEA Group's first satellite will fly into space on Virgin Orbit's maiden UK launch, sharing a ride with five additional satellite missions, including the first ever satellite to be built in Wales.
- Today's announcement confirms the UK is on track to become the first country in Europe to launch satellites into space from home soil this year, a key ambition of the Government's National Space Strategy.

A new research satellite from international engineering firm Rhea Group, built in Oxfordshire by space company Open Cosmos, will be launched from the UK later this year.

Virgin Orbit will launch the 'DOVER' pathfinder satellite from Spaceport Cornwall. The satellite will transmit an innovative new signal, specially designed by engineers at RHEA, to provide data from space that can be used on the ground to obtain a position or an accurate time. It will broadcast these new signals so that their performance can be tested as part of the research project.

This new satellite completes the line-up for the UK's first launch, which also includes satellites from organisations such as Space Forge, the Satellite Applications Catapult and Horizon Technologies, as well as the Prometheus-2 research demonstration satellites. Prometheus-2 was co-funded and designed with Airbus Defence and Space and assembled by In-Space Missions, as part of a collaboration between the UK's Defence Science and Technology Laboratory (Dstl) and international partners, including the US National Reconnaissance Office.

The UK is poised to become the first country in Europe to launch satellites into orbit this year from home soil, a key ambition of the UK Government's National Space Strategy. Spaceport Cornwall is at the heart of a growing aerospace and space cluster and will create 150 jobs in the local area.

The development of a commercial launch capability will give the UK access to the growing global launch market, delivering a further boost to the thriving space and satellite sector, which is already home to more than 47,000 jobs across the country and supports billions of pounds of wider economic activity.

From left, Rebecca Evernden, Director of Space at BEIS, Dr Paul Bate, CEO of the UK Space Agency, Prime Minister Boris Johnson, British ESA astronaut Tim Peake, and Lord Willetts, Chair of the UK Space Agency on the UK Space Pavillion at the Farnborough International Airshow today (18 July 2022)

Dr Paul Bate, CEO of the UK Space Agency, said:

The countdown is on to the first satellite launch from Spaceport Cornwall, with a full complement of satellites confirmed by Virgin Orbit for what promises to be a landmark moment for our thriving space sector.

It's fantastic that RHEA Group's DOVER satellite is joining the launch, which showcases both our domestic satellite manufacturing expertise and the international interest in the UK as a launch destination.

The ability to launch satellites from UK soil will support our work to catalyse investment into the space sector, deliver new capabilities and champion the incredible role of space to benefit life on Earth.

The 'DOVER' pathfinder satellite

RHEA Group's Dover satellite, the company's first, was co-funded by the UK Space Agency's investment in the European Space Agency's Navigation Innovation and Support Programme (NAVISP). It's named after the Dover Strait, where the English Channel is narrowest and shipping lanes are busiest, as this is a key location for testing new techniques and technologies for Positioning, Navigation and Timing (PNT).

The satellite is a strong example of UK expertise in PNT technology, which underpins vast swathes of economic activity, as well as small satellite manufacturing, with Open Cosmos building the satellite at the Harwell Space Cluster, Oxfordshire.

Emma Jones, RHEA's UK Business Director, said:

This is a momentous event for RHEA. This year we are celebrating our 30th anniversary and it is a great milestone to launch our first ever satellite in the same year. The UK is in the very desirable position of establishing a number of spaceports, and it is thrilling to have a RHEA satellite on board the first launch to take off from UK soil.

Florian Deconinck, Vice President of Institutional Partnerships & Future Missions at Open Cosmos, said:

DOVER is a great example of Open Cosmos' ability to design, manufacture, launch and operate satellites in a responsive manner. The timescales for this future mission are impressively aggressive: 8 months from the moment of first contact with RHEA to getting an operating satellite in orbit. This is the result of a close

partnership between Open Cosmos and RHEA, the very reactive support from UK Space Agency and ESA-NAVISP teams, and the possibility of delivering all the phases from a single location, the UK.

The Launch

During the launch mission, a Virgin Orbit 747 will take off from the runway at Spaceport Cornwall, carrying a rocket beneath its wing. The plane will fly out over the ocean before blasting the rocket into space, delivering satellites into orbit around the Earth. In the cockpit will be Squadron Leader Mathew 'Stanny' Stannard, an RAF Test Pilot serving on industrial placement as one of Virgin Orbit's pilots.

This will be the first satellite launch from UK soil and Virgin Orbit's first mission outside the US. It follows the successful 'Straight Up' mission, that delivered seven satellites into space from Mojave in California on Saturday 2nd July.

Dan Hart, CEO of Virgin Orbit, said:

We're very pleased to have been selected by RHEA Group to launch its first satellite. The DOVER satellite, which was designed in Belgium, built in the UK, funded by the European Space Agency, and now will be launched from Cornwall, is a great example of the power that comes with the infusion of space collaboration taking place across the globe.

The work RHEA will do with their DOVER satellite will help to assure reliable navigation, which touches all of us and can be vital for everything from environmentally-efficient shipping to national security.

Melissa Thorpe, Head of Spaceport Cornwall, said:

We're thrilled to have 'DOVER' complete the line-up of satellites onboard Virgin Orbit's first launch from Cornwall. Each payload highlights the innovation happening within the small satellite industry, and how it can benefit life on earth, while showcasing the growing collaboration between UK Space and international partners.

This is another great moment in the countdown to launch from Cornwall.

UK spaceflight programme

With funding first announced at the Farnborough International Airshow in

2018, the UK Space Agency is supporting the development of commercial and sustainable satellite launch operations across the UK, working with a range of partners including Spaceport Cornwall and Virgin Orbit, Space Hub Sutherland and Orbex, and SaxaVord Spaceport, Lockheed Martin and ABL Space Systems.

The space sector has shown remarkable resilience in the face of global challenges such as the pandemic, with more than 1,700 satellites launched worldwide in 2021 alone. These provide vital technologies used every day by people and businesses, including communications, Earth observation and navigation services.

The UK has world-leading expertise in satellite design, manufacturing, data and applications but, until now, has not been able to launch them from home soil.