

ODIN SPACE ON COURSE TO MAP SUB-CM DEBRIS

A successful demo marks the next generation of space situational awareness data

LONDON, UK 27th JUNE 2023: [ODIN Space](#), has successfully demonstrated the operation of its space debris sensor technology in orbit, as part of the recent SpaceX Transporter 8 mission. The company's demo sensor was integrated into the D-Orbit ION satellite and has successfully started to capture data from its surroundings.

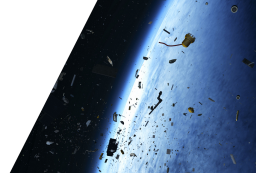
By 2030, space debris is forecast to cost the space sector billions of dollars per year. Pieces bigger than 10cm are already tracked and can be avoided, but over 99 per cent of debris is so small that it is invisible to existing tracking technology and is extremely destructive. Even a 1 mm-sized piece of debris carries the energy of a bullet, making sub-centimetre (sub-cm) debris the single greatest threat to space-based infrastructure. Currently, no technology exists to address the growing threat of sub-cm debris. ODIN Space was founded to fill that critical gap in the space sector.

Over the last year, the company has accelerated its technology readiness level (TRL) by enhancing its sensor and electronics development, conducting space qualification testing and third-party-satellite integration testing. The next step on the company's journey, as for any company developing space-based technology, has been to test the hardware on orbit and prove that what was developed and tested in the lab, works in space.

The demo sensor had been calibrated to start testing at an ultra-high sensitivity so that even the smallest vibrations from the host satellite would be picked up. After over a week since the launch, the ODIN Space team, alongside D-Orbit, confirmed that acoustic data has been recorded.

The data captured by the demo sensor marks an important step in creating vital information about sub-cm space debris. It brings the company a step closer to producing its fully commercial sensor, capable of mapping debris between 0.1mm and 1cm, measuring its size and location. It will also record data that's never been captured before: the speed and trajectory of the debris. This information will enable ODIN Space to build dynamic models of how even the smallest pieces of debris are behaving and provide anyone operating in space with critical space situational awareness insights.

With as many as 100,000 satellites and hundreds of billions of dollars worth of space-based infrastructure expected to be on orbit by 2030, understanding how debris is behaving is the missing piece of the space situational awareness puzzle for satellite operators, on-orbit service providers and insurance companies.



Providing stakeholders across the sector with this next generation of space data enables them to make better business decisions and ensure assets can operate safely for longer, minimise costs, and generate more revenue.

James New, CEO and Co-founder ODIN Space:

"It was great to watch the launch of our demo sensor onboard the SpaceX Transporter-8 mission last week. We're excited to announce that our sensor has successfully powered up and is transmitting data. It's an amazing achievement for our team and an important milestone for ODIN Space and I'd like to thank the UK Space Agency, ESA BIC, Innovate UK and our investors for their support in helping us get this far. We'll now focus on providing our customers with the next generation of space data and sending many more sensors to every orbit. By understanding how lethal, sub-centimetre debris behaves, we can protect space assets, maximise growth and drive sustainability in space."

Chris McQuire, Head of Local Growth at the UK Space Agency:

"As our dependence on satellites continues to grow, we must address the risk caused by space debris of all shapes and sizes. That's why it's so promising to see this new technology from ODIN Space flying with D-Orbit and capturing data."

"Both companies graduated from the UK Space Agency's LEO accelerator programme, and we will continue to support innovative new businesses working towards a more sustainable future in space."

Rob Desborough, Managing Partner, Seraphim Space:

"We're delighted that ODIN Space has successfully demonstrated its technology in orbit. A great example of a working partnership with SSIT portfolio company D-Orbit. The data that the team now has access to and the insight it can provide to other operators in space will be invaluable to the continued growth of the NewSpace economy and help save billions of dollars a year."

Headquartered in London, ODIN Space was co-founded in 2020 by Dr. James New (CEO) and Dan Terrett (COO). The company is built on a decade of research and development in small-scale orbital debris tracking technology and analysis algorithms. The team has over a century of sector experience, across more than 30 space missions and has collected seven NASA awards.

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