

£20 million to accelerate British research into forecasting space weather

British satellites will be better protected through a £20m boost to predict severe space weather events, the PM has announced whilst at the UN General Assembly today (Tuesday 24 September).

Space weather, such as flares or winds from the Sun's surface or geomagnetic storms, can damage our satellites and cause power disruptions, issues to air transportation, and problems across communications systems, such as GPS and mobile phone networks.

The £20m announced today nearly quadruples investment from government into research that can improve systems at the Met Office Space Weather Operations Centre. This will build the UK's knowledge on how to forecast and better prepare for these space weather events.

This new fund will be used to look closely at space weather innovation, measurement, modelling and risk assessment. By predicting when and where space weather events take place, the Met Office can issue warnings and advice that will allow operators to take necessary action, such as manoeuvring satellites and isolating parts of the power network to ensure the least amount of disruption possible.

The UK will also be able to share forecasts with other space weather centres around the world, including the US Space Weather Prediction Centre.

Prime Minister Boris Johnson said:

From solar flares to magnetic storms, space weather can have a massive impact on mobile phones, transport, GPS signals and the electricity networks we rely on every day at home.

The funding announced today will help turn Britain's pioneering research into practical solutions that will protect against any adverse disruption caused by cosmic chaos.

This comes as the Science Minister Chris Skidmore and UK Space Agency confirms at the UK Space Conference in Wales a further £1.3 million towards developing spaceport plans in England, Scotland and Wales, as part of the government's spaceflight programme, LaunchUK. This funding is on top of the up to £7.85 million the government intends to invest in developing facilities and operational capabilities at Spaceport Cornwall with Virgin Orbit. The UK Space Agency has also committed £31.5 million in grants for the proposed vertical launch spaceport project in Sutherland, Scotland, and for Lockheed Martin and British company Orbex to provide launch services from that site.

Once operational, spaceports have the potential to create commercial space launch services in the UK, giving our world-leading satellite industry access to space from UK soil for the first time and creating high-skilled jobs in the surrounding areas.

The new funding will be shared between sites around the country:

- £499,811 to Snowdonia Aerospace for the Snowdonia Spaceport Development Plan, which aims to create a centre for space R&D, training and satellite launch
- £488,000 to Machrihanish Airbase Community Company for the spaceport cluster plan in Argyle, Scotland, centred on an aerodrome with the longest runway in Scotland
- £306,480 to Cornwall Council for an Accelerated Business Development and Research Project at Spaceport Cornwall, supporting its ambition to be a centre for future flight technologies

Science Minister Chris Skidmore said:

Our space sector is incredibly strong and productive, with innovative firms and the UK's world-class university researchers playing a leading role in the new space age.

A truly strategic approach to space is needed now more than ever and we must develop our national space capabilities, while strengthening our international partnerships, to take full advantage of opportunities like satellite launch from the UK and defend against serious threats such as space weather.

Later today, the UK Space Agency and Australian Space Agency will set out their intention to develop a 'Space Bridge' agreement to unlock greater collaboration on space between the two countries' governments, regulators and industry.

The UK and Australia already have a shared space history, with the first British rockets lifting off from Woomera, South Australia in the 1950s. The Australian Space Agency was established last year following close consultation with the UK Space Agency. This new agreement will maximise opportunities even further for trade links and sharing best expertise.

Minister for Investment Graham Stuart said:

Our UK space sector holds some of the most future-focused and exciting businesses in the country. It's great to see so many of them represented at the conference today, alongside trade delegations from around the world.

The internationalisation of space exploration will be transformational and the UK-Australia Space Bridge is the perfect example of how we can facilitate further collaboration between

countries as we all strive for the same goals in research and investigation.

DIT's dedicated space team and its global network of trade advisors are part of a government-wide push to grow investment and exports in the sector.