

**Press Release**

8 July 2014

**SSTL announces the successful launch of UK in-orbit demonstrator satellite, TechDemoSat-1**

Surrey Satellite Technology Ltd (SSTL) today announced the successful launch of TechDemoSat-1, an in-orbit technology demonstration mission for innovative UK spacecraft equipment and software. The spacecraft was launched into 635km sun-synchronous orbit on board a Soyuz-2 launch vehicle with a Fregat upper stage from the Baikonur Cosmodrome in Kazakhstan at 15:58:28 UTC today, 8 July 2014.

Following confirmation of separation from the launch vehicle, the ground station at the Satellite Applications Catapult Operations Centre at Harwell established contact with TechDemoSat-1 on its first pass and commissioning of the platform has begun, undertaken by the Operations team from SSTL. TechDemoSat-1 is the first satellite to be operated from the new facility at Harwell.

Universities and Science Minister David Willetts said “The successful launch of TechDemoSat-1 has given UK space companies a unique opportunity to test their cutting-edge technologies in orbit. These innovators can now show investors and potential customers how their products perform in the harsh environment of space.

“TechDemoSat-1 is also the first satellite to be controlled by the Satellite Applications Catapult. This was established by the Government to harness the success of the UK space sector and its world-leading companies like SSTL.”

Luis Gomes, Director of Earth Exploration and Science at SSTL, commented “The successful launch of the TechDemoSat-1 satellite marks the end of an exciting spacecraft build challenge for SSTL, with no less than eight payloads and more than 25 of our own engineering developments on-board. We can now look forward to the mission phase, where data is returned from the satellite in orbit and we, alongside our payload providers, can prove new concepts in space.”

Iain Gray, Chief Executive of the Technology Strategy Board, said: “The TechDemoSat-1 project is an excellent example of how our space programme is supporting business innovation in new applications using satellite data and space-based systems. This significant project is the first in-orbit satellite project directly funded by the Technology Strategy Board. It allows us to provide UK businesses with an in orbit demonstration platform to test several new satellite-based products and services - a fantastic way to support innovation in the space sector and help businesses take advantage of the growing space market.”

TechDemoSat-1 is based on the SSTL-150 platform and is part-funded by a grant from the UK’s Technology Strategy Board, and SEEDA (South East England Development Agency). The spacecraft carries eight separate payloads from UK academia and industry, providing valuable in-orbit validation for new technologies.

The payloads flying on TechDemoSat-1 are:

- **MuREM**, a flexible miniature radiation and effects monitor from **Surrey Space Centre**
- **ChaPS**, a prototype compact instrument to detect electrons and ions from the **Mullard Space Science Laboratory**
- **HMRM**, a lightweight, ultra-compact radiation monitor designed to measure total radiation dose, particle flux rate and identify electrons, protons and ions from **Rutherford Appleton Laboratory and Imperial College**
- **LUCID**, a device to measure characterisation of the energy, type, intensity and directionality of high energy particles from the **Langton Star Centre**
- **Compact Modular Sounder** system, a modular infrared remote sensing radiometer unit from **Oxford University's Planetary Group and Rutherford Appleton Laboratory**
- **De-orbit sail** from **Cranfield University**
- **Cubesat ADCS**, a 3-axes attitude determination and control subsystem from **SSBV**
- **Sea State Payload**, a device using an enhanced GPS receiver from **SSTL** and components from a Synthetic Aperture Radar from **Airbus Defence and Space** to monitor reflected signals to determine ocean roughness

Commissioning of the payloads on board the satellite will be performed by SSTL via its own Mission Control Centre in Guildford, before handing over day-to-day operation of the payloads back to the Catapult. SSTL will continue to manage spacecraft level monitoring and operations for TechDemoSat-1 in Guildford.

**Notes to editor:**

This press release and accompanying images can be downloaded as a Word or Pdf document at the following url: <http://www.sstl.co.uk/news-and-events>

Video of the TechDemoSat-1 satellite is available at:

<https://www.youtube.com/watch?v=dsUP1NJAqEA>

A high resolution copy of the video can be requested from Joelle Sykes, PR Manager at SSTL.

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**About SSTL**



Surrey Satellite Technology Limited (SSTL) is the world's leading small satellite company, delivering operational space missions for a range of applications including Earth observation, science and communications. The Company designs, manufactures and operates high performance satellites and ground systems for a fraction of the price normally associated with space missions, with 600 staff working on turnkey satellite platforms, space-proven satellite subsystems and optical instruments.

Since 1981 SSTL has built and launched 43 satellites– as well as providing training and development programmes, consultancy services, and mission studies for ESA, NASA , international governments and commercial customers, with its innovative approach that is changing the economics of space.

In 2006 SSTL formed a UK subsidiary company, DMCii, to exploit the applications of its small Earth Observation satellites and in 2008 the Company set up a US subsidiary, Surrey Satellite Technology US LLC (SST-US) with facilities in Denver, Colorado to address the United States market and its customers for the provision of small satellite solutions, applications and services. [www.sst-us.com](http://www.sst-us.com)

Headquartered in Guildford, UK, SSTL is part of the Airbus Group. [www.sstl.co.uk](http://www.sstl.co.uk)

### **About the Technology Strategy Board**

The Technology Strategy Board is the UK's innovation agency. Its goal is to accelerate economic growth by stimulating and supporting business-led innovation. Sponsored by the Department for Business, Innovation and Skills (BIS), the Technology Strategy Board brings together business, research and the public sector, supporting and accelerating the development of innovative products and services to meet market needs, tackle major societal challenges and help build the future economy. For more information please visit [www.innovateuk.org](http://www.innovateuk.org)