



Press Release

12 January 2018

SSTL confirms the successful launch of CARBONITE-2 and Telesat LEO Phase 1 satellite

Surrey Satellite Technology Ltd (SSTL) has confirmed the successful launch of CARBONITE-2, an Earth Observation technology demonstration mission owned and operated by SSTL, and of the Telesat LEO Phase 1 communications satellite, an important milestone in Telesat's plans to deploy a global low earth orbit (LEO) constellation that will revolutionise broadband communications services around the world. These two small SSTL satellites were launched into a 505km sun-synchronous orbit on board the PSLV launch vehicle from the Satash Dhawan Space Centre in Sriharikota, India on 12 January 2018 at UTC/GMT 03:59.

Following separation from the launch vehicle, SSTL is pleased to confirm that successful contact was made with both satellites and all initial system checks for both spacecraft are nominal.

Sir Martin Sweeting, Executive Chairman of SSTL, said "This launch marks the start of two new pioneering missions: a technology demonstration for CARBONITE-2 and the initial deployment of Telesat's global LEO constellation with their Phase 1 LEO satellite. I am particularly pleased that SSTL's space technology expertise will be advancing NewSpace applications in both high throughput broadband and low cost video-from-orbit. I would like to congratulate Telesat, and also thank the Indian Space Research Organisation for another successful launch."

CARBONITE-2 is a technology demonstration mission that will demonstrate a low cost video-from-orbit solution using Commercial-Off-The-Shelf (COTS) technologies. The 100kg spacecraft flies a COTS telescope and HD video, both of which have been adapted for a space environment and integrated into a custom built framework. The



imaging system is designed to deliver 1m resolution images and colour HD video clips with a swath width of 5km.

Under a contract announced in November 2017, SSTL will supply British company Earth-i with CARBONITE-2 data for proving tasking, downlinking and image processing in preparation for a constellation of five CARBONITE series satellites.

CARBONITE-2 is the second technology demonstration satellite in the series to be launched by SSTL; the first, CARBONITE-1, was launched in 2015 and achieved full mission success by demonstrating the concept of a low-cost COTS video-from-orbit solution. The CARBONITE-2 satellite flies enhanced avionics to provide increased data storage, faster data downlink, improved pointing accuracy, and a full colour HD video camera.

SSTL's CARBONITE series of spacecraft have been specifically designed for large constellations. The simplified, rapid-build platform design incorporates SSTL's flight-proven avionics and a large payload accommodation area to fly a variety of Earth observation sensors.

The Telesat LEO Phase 1 satellite, which will allow Telesat to test key performance parameters of its next generation global LEO constellation, has a mass of 168kg and was manufactured by SSTL in the UK. SSTL's spacecraft operators will complete commissioning and orbit-raising manoeuvres for the satellite from SSTL's Spacecraft Operations Centre in Guildford. Once the Telesat LEO Phase 1 satellite has reached its final planned orbit, command will be handed over to Telesat for in-orbit operation using the Ka band payload from Telesat's ground station at Allan Park in Canada.

Notes to editor:

Telesat LEO Phase 1 has been previously referred to as LEO-1.

The full size images for this press release, can be downloaded at

<http://www.sstl.co.uk/Press/SSTL-confirms-the-successful-launch-of-CARBONITE-2>



Image 1: CARBONITE-2 with SSTL's core team engineers. Credit SSTL/Beaucroft Photography



Image 2: CARBONITE-2 flight-ready at SSTL. Credit SSTL/Beaucroft Photography

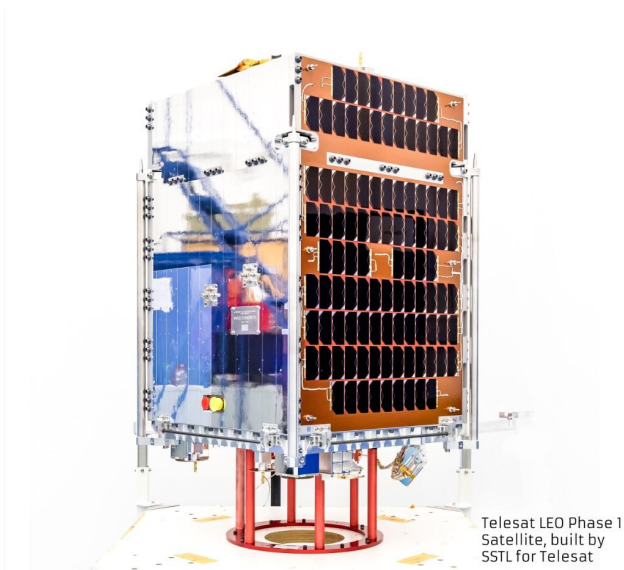


Image 3: Telesat LEO Phase 1 satellite. Credit SSTL/Kathryn Graham

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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, communications, navigation, in-orbit servicing and beyond Earth infrastructure. The Company designs, manufactures and operates high performance satellites and ground systems for a fraction of the price normally associated with space missions, with 500 staff working on turnkey satellite platforms, space-proven satellite subsystems and optical instruments.

Since 1981, SSTL has built and launched more than 50 satellites for 20 international customers – as well as providing training and development programmes, consultancy services, and mission studies for ESA, NASA, international governments and commercial customers, with an innovative approach that is changing the economics of space.

Headquartered in Guildford, UK, SSTL is part of Airbus.

www.sstl.co.uk

About Telesat

Telesat is a leading global satellite operator, providing reliable and secure satellite-delivered communications solutions worldwide to broadcast, telecom, corporate and government customers. Headquartered in Ottawa, Canada, with offices and facilities around the world, the company's state-of-the-art fleet consists of 15 GEO satellites, the Canadian payload on ViaSat-1 and one Phase 1 LEO satellite which is the start of Telesat's planned global LEO satellite constellation that will offer low latency, high throughput broadband services. An additional two GEO satellites are under construction with launches planned for mid-2018. Telesat is also a leading technical consultant providing high value expertise and support to satellite operators, insurers and other industry participants on a global basis. Privately held, Telesat's principal shareholders are Canada's Public Sector Pension Investment Board and Loral Space & Communications Inc. (NASDAQ: LORL).

www.Telesat.com