

Press Release

# ESA selects SSTL to design Exoplanet satellite mission

Surrey Satellite Technology Ltd (SSTL) has been selected by the European Space Agency (ESA) for the competitive design phase of CHEOPS science satellite, which will improve mankind's understanding of exoplanets - planets orbiting distant stars outside our solar system. The contractor selection for the implementation phase is planned by mid-2014 and the launch is scheduled late 2017.

The CHaracterising ExOPlanets Satellite (CHEOPS) will finely characterise known exoplanets and their parent stars with an unprecedented accuracy. The satellite will measure the orbit and radius of those exoplanets, enabling the scientists to assess their potential habitability. The mission will also act as a "scout" performing preliminary observations on targets for the future European Extremely Large Telescope and James Webb Space Telescope that will be capable of more detailed analysis.

CHEOPS was selected from 25 missions proposed in response to ESA Call for Small Missions in 2012, which was targeting innovative small science missions that offer high value at low cost. CHEOPS is jointly developed by ESA and a consortium of Member States led by Switzerland: The Swiss-built instrument using a Ritchey– Chrétien optical telescope will observe the stars and their orbiting planets, while ESA is responsible for the provision of the satellite platform and the launch.

Over the next 10 months SSTL will design the satellite platform, which will host the telescope payload. To provide the mission within a short schedule and at low cost, ESA asked that any solution be based on an existing, flight-proven, satellite platform. SSTL's solution is based on a variant of the highly successful SSTL-150 platform, which has seen recent service in Canada's Sapphire space surveillance mission and the 5-satellite RapidEye Earth observation constellation.

In awarding the contract to SSTL, Frederic Safa, Head of Future Missions Office in ESA's Science and Robotic Exploration Directorate stated: "We chose SSTL for this



study for a combination of reasons such as their proven ability to build reliable lowcost missions and their past experience with satellites carrying high-performance optical telescopes."

SSTL's Head of Science, Doug Liddle, commented: "We are delighted that ESA selected SSTL to design the CHEOPS mission. We will draw on our experience to design a low cost, but high value solution that will demonstrate that ambitious science missions can be launched both quickly and economically."

CHEOPS is envisaged as the first in a series of missions in the ESA Science Programme that will utilise small satellites for low cost and rapid development, in order to offer greater flexibility in response to new ideas from the scientific community and complement to the larger missions of ESA's Science Programme.

# 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 580 staff working on turnkey satellite platforms, space-proven satellite subsystems and optical instruments.

Since 1981 SSTL has built and launched 41 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 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. <u>www.sst-us.com</u>

Headquartered in Guildford, UK, SSTL is owned by Astrium BV.



#### www.sstl.co.uk

### Notes to editor:

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

The CHEOPS team members include:

Austria: Institut für Weltraumforshung - Graz

Belgium: Centre Spatial de Liège, University of Liège

France: Laboratoire d'astrophysique de Marseille

Germany: DLR Institute of Planetary Research, DLR Institute for Optical Sensor Systems

Hungary: Konkoly Observatory

Italy: Osservatorio Astrofisico di Catania - INAF, Osservatorio Astronomico di Padova - INAF, Università di Padova

Portugal: Centro de Astrofisica da Universidade do Porto, Deimos Engenharia

Sweden: Onsala Space Observatory, Chalmers Univ. of Technology, Stockholm University

Switzerland: ETH Zürich, Swiss Space Center - EPFL, Universität Bern, Observatory of the University of Geneva

United Kingdom: University of Warwick

For more information about CHEOPS visit http://cheops.unibe.ch/index.php/executive-summary

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