SPACE SYSTEMS SYMPOSIUM (D1)
Training, Achievements, and Lessons Learned in Space Systems (5)

Author: Mr. Doug Liddle
Surrey Satellite Technology Ltd (SSTL), United Kingdom

Ms. Victoria O'Donovan
Surrey Satellite Technology Ltd (SSTL), United Kingdom
Ms. Emily Brownbill
Surrey Satellite Technology Ltd (SSTL), United Kingdom
Mr. Alex da Silva Curiel
Surrey Satellite Technology Ltd (SSTL), United Kingdom
Mr. Tim Just
UK Technology Strategy Board, United Kingdom
Mr. David Garton
Satellite Applications Catapult, United Kingdom
Prof. Martin Sweeting
Surrey Satellite Technology Ltd (SSTL), United Kingdom

TECHDEMOSAT-1 – 'ONE YEAR ON' – IN-ORBIT RESULTS, LESSONS LEARNT AND THE FUTURE

Abstract

On 8th July 2014, TechDemoSat-1 (TDS-1) was launched into orbit. This mission was co-funded by UK government, industry and academia to provide a responsive opportunity to gain flight heritage and in-orbit operational experience for novel UK technology. The payload complement on TDS-1 is comprised of four distinct payload suites – Maritime, Land Observation, Space Environment and Platform Technology. With in-excess of thirty payloads on the spacecraft, there is a challenge to ensure all payloads are adequately exercised to meet their demonstration and exploitation requirements.

This paper will provide the in-orbit results from the first year of operations – providing not only data and performance information from a number of the payloads but also feedback on the experience of operating a multi-stakeholder in-orbit demonstration mission. Additional lessons learnt from the build, launch and operation of a low cost, short schedule demonstration mission will also be provided.

Finally, the paper will discuss potential models for future collaborative in-orbit demonstration activities including the possibility of these missions becoming self-funding.