Geophysical Research Abstracts, Vol. 7, 09113, 2005 SRef-ID: 1607-7962/gra/EGU05-A-09113 © European Geosciences Union 2005



## 1 Development and flight qualification of instrumentation for robotic planetary exploration.

## B. J. Kent, M. Grande, J. Delderfield, D. Parker, R. Browning

Space Science and Technology Department, Rutherford Appleton Laboratory, Chilton, Didcot, Oxfordshire, U.K. (b.j.kent@rl.ac.uk / Fax: +44 1235 445848 / Phone +44 1235 446364)

The Space Science and Technology Department of the Rutherford Appleton Laboratory has been involved in designing, building and testing space instrumentation since the late 1960s and has contributed to more than 160 space instruments. In the field of Planetary Sciences, four instruments built in collaboration with RAL–SSTD have been launched in the past decade and two are currently in operation; the surface science package on Huygens, the evolved gas analyser on the Rosetta lander, the D-CIXS instrument on SMART-1 and the Beagle 2 lander for Mars Express. These four packages cover a wide range of technologies and sensor types; from direct contact physical properties measurements, through mass spectrometry and chromatography to in orbit observation of the x-ray fluorescence signature of planet forming rocks.

This paper shows that in spite of the differences in science aims and sensor technology, several common features, related to space technology, can be highlighted for the benefit of others involved in space instrumentation for planetary studies.