



European Space Agency

ESA Science & Technology

07-Mar-2006 10:21:58

No. 47 - Ongoing Lunar Operations

24 Jan 2006

Report for period 19 December 2005 to 15 January 2006

SMART-1 operation has been nominal during the Christmas period. The push-broom operations were terminated just before Christmas giving the pace for resuming routine payload operations. The only noticeable event was a glitch in the star tracker software that did not have any impact on operations.

The Integral/XMM transponder has been used to carry out tone ranging radio frequency compatibility tests aiming at two SMART-1 tracking campaigns for the cross support with the Chinese CLTC and the Indian ISRO during 2006.

Future Activities

Future activities are focused on the following:

- End of mission preparation and impact on the Moon selection
- Finalisation of the tone ranging compatibility tests and validation using ESA stations

Orbital Information

SMART-1 OD396 Close to Apolune 1790
Epoch (UTC) 2006/01/16 10:49:26.1

Elements WRT Moon and its equator of date

Pericentre Distance (km)	2380.022541
Apocentre Distance (km)	4456.635279
Semi Major Axis (km)	3418.328910
Eccentricity	0.303747
Inclination (°)	90.116350
Ascending Node (°)	238.470099
Argument of Pericentre (°)	261.884063
True Anomaly (°)	179.999996
Osculating Orbital Period (h)	4.981682

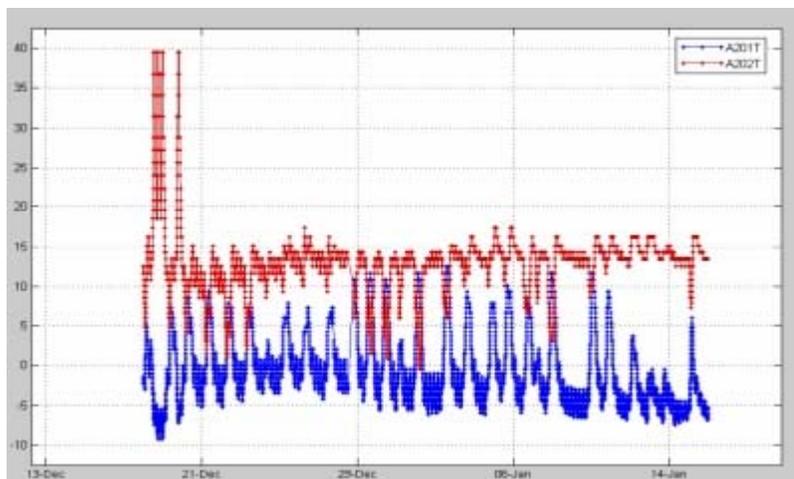
The changes since apolune 1756 are as follows:

- semi-major axis +0.5 km
- perilune height +2.8 km
- apolune height -1.8 km
- orbital period +0.1 min

AOCS

Startracker Performance

The plot below shows the startracker CCD temperatures for the period covered by this report. As expected CHU2 has suffered from high temperatures during the push-broom operations that ended on 20 December 2005.



Temperature drop in startracker unit 2 as push-broom operations finish

Electric Propulsion, Power and Thermal

Power

The Power Subsystem has performed very well during the reporting period. The last eclipse was a moon penumbra from 11:48:28 to 11:46:16 UTC on 24 December 2005, with the batteries performing nominally.

The eclipse season is scheduled to start again on 15 March 2006 at 00:15:15 UTC, with an earth penumbra of a duration of 01:17:41 hours.

Electric Propulsion

EP remained off after ending the re-boost phase.

Thermal

The Thermal Subsystem has performed very well during the reporting period. The last Push-Broom manoeuvre was on 19 December 2005 from 17:41:07 to 18:27:07, with the thermal mode High to behave as Low to keep the temperatures of the +Y/-Y panels lower to avoid as much as possible start tracker invalidations.

The next Push-Broom period is scheduled to start again around April 2006, when the sun incidence on the +Y/-Y panels during Push-Broom is below 30 degrees. This Push-Broom period is planned to be about 3 months long, as was the last one.

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