

INTEGRAL Operations Coordination Group Meeting 2 - Feb. 2009

INTEGRAL Operations Coordination Group Meeting
#02
IASF, Rome
11 February 2009

Spacecraft and MOC Status

Presented by: R. Southworth (ESOC – OPS/OAI)



R. Southworth OPS-OAI
02/2009 Page 1/10

INTEGRAL Operations Coordination Group Meeting 2 - Feb. 2009

Changes in FCT

New Spacecraft Operations Manager:

- Richard Southworth
- ESOC ext 3827 (Richard.southworth@esa.int)

SOE position will not be replaced.

Flight Control Team:

- Salma Fahmy: Deputy SOM, SPI, IBIS
- Federico do Marco: AOCS
- Mike Walker: JEM-X / OMC / IREM / Planning
- Stefano de Padova: Database / MCS
- Frederic Schmidt (50%) : Database / MCS

Merging with XMM Team

- SPACONS merged, 1 SPACON controlling both missions.
- Engineering on-call service merged, 1 engineer on call for both missions
- Familiarisation continuing.



R. Southworth OPS-OAI
02/2009 Page 2/10

INTEGRAL Operations Coordination Group Meeting 2 - Feb. 2009

Status of MOC:

Interface to Stations is stable – no major changes foreseen,

Available Stations:

- Prime: REDU, DSS24 / 27
- Back-up: VIL2, Weilheim, Perth

Bear lakes option has been abandoned.

Interface to ISOC is stable – no changes foreseen, no significant problems.

- Data Transfer for SOC Archive is being set-up.



R. Southworth OPS-OAI
02/2009 Page 3/10

INTEGRAL Operations Coordination Group Meeting 2 - Feb. 2009

Status of MOC – Continued.

Interface to ISDC is stable – no changes foreseen, no significant problems.

- Occasional interruptions in NRT reduced following detailed investigation into usage of firewall at ESOC.

Interface to PIs is good.

- PI workstations still in use in ESOC.
- SPI Data Transfer has been automated.
- IBIS Software maintenance Contract is being set up.

Upgrade of DCA – planned for late 2009 / 2010.

- Space identified for PI WS

Testing of LINUX based Control System.

- Solaris servers EoSL in 2012
- Solaris clients EoSL in 2011



R. Southworth OPS-OAI
02/2009 Page 4/10

INTEGRAL Operations Coordination Group Meeting 2 - Feb. 2009

Summary of Satellite Health

Recent platform anomalies

INT_SC-239: SPDU-A TM Invalid due to Busy Status.

- One off Event.
- Impact: Invalid TM for one cycle

INT_SC-233: AOCS:STR 1750 Fault

- Occurs occasionally when Bright Object in STR FoV.
- Impact: Loss of slew, manual slew to next attitude necessary.

INT_SC-224 AOCS: FCE spurious LCL B (PDU-B) switch OFF

- One of Event.
- Impact: none, the FCE is powered via 2 separate LCLs.

INT_SC-223 CDMU S/W OBM Task Malfunction.

- One off event.
- Impact: None, 8s. Delay in eclipse exit detection by CDMU.



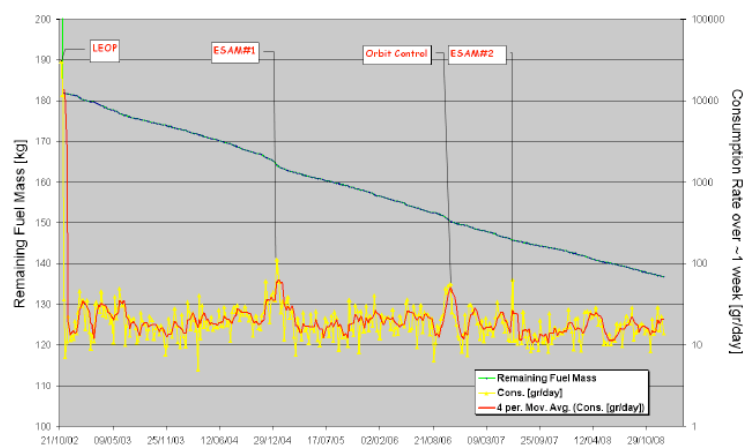
R. Southworth OPS-OAI

02/2009 Page 5/10

INTEGRAL Operations Coordination Group Meeting 2 - Feb. 2009

Fuel Consumption

INTEGRAL FUEL CONSUMPTION HISTORY

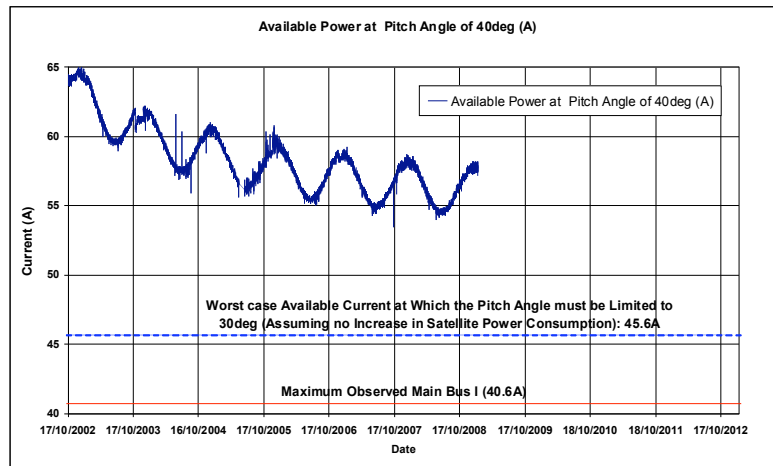


R. Southworth OPS-OAI

02/2009 Page 6/10

INTEGRAL Operations Coordination Group Meeting 2 - Feb. 2009

Solar Arrays

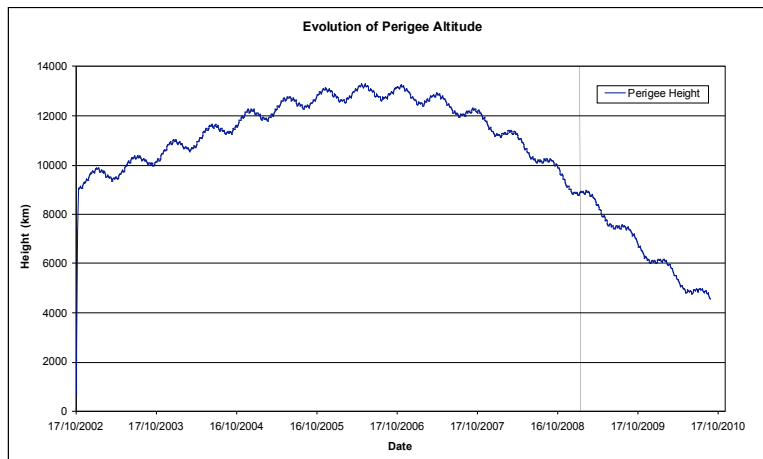


R. Southworth OPS-OAI

02/2009 Page 7/10

INTEGRAL Operations Coordination Group Meeting 2 - Feb. 2009

Perigee Altitude Evolution



R. Southworth OPS-OAI

02/2009 Page 8/10

INTEGRAL Operations Coordination Group Meeting 2 - Feb. 2009

Seasonal Reduction in Belts Entry Altitude.

- Monitoring of Belts Entry Altitude in TM shows clearly seasonal variation.
- CRIT_INST_ALT_DESC reduced from 56000km to 46000km from revolution 769 to 776 - trial.
- Further Reduction to 43000km from 777 to 825.
- Gain of about 76 hours observing time.
- First 2 Revolutions completed – no problems observed.
- Effects to be monitored over next 6 months.
- If successful, to be repeated annually.
- Effects of perigee reduction may influence this.



R. Southworth OPS-OAI

02/2009 Page 9/10

INTEGRAL Operations Coordination Group Meeting 2 - Feb. 2009

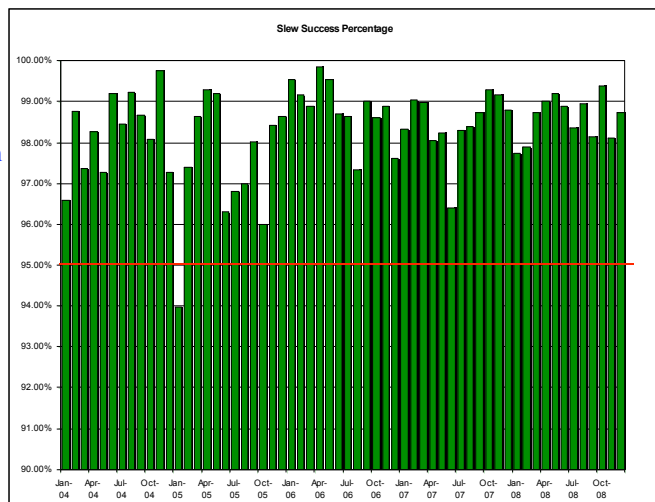
Performance:
- Slews completed.

FCT Reductions
offset by automation
and experience.

Standard Operations
OK.

Anomaly Recovery
Times slower.

Change
implementation
slower.



R. Southworth OPS-OAI

02/2009 Page 10/10