

INTEGRAL Mission Status

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European Space Agency



- > Platform (AOCS, Power, Thermal, OBDH) generally working smoothly.
- Instruments nominal most of the time, no urgent issues.
- ESAM on 6 May (~1 revolution lost) triggered by unlucky sequence of events. MRB meeting at ESOC today, will consider procedure changes.
- Strong solar flares led to (partial) loss of observing time in January and February.
- 22nd SPI annealing was successful. Next annealing shifted to later in year, due to concern about health of detector #12 and general impact unavoidable through annealing. Exact date to be set – will try to align this with Kiruna maintenance.
- JEM-X team plans update of on-board particle rejection parameters. Probably implemented in September/October (MOC manpower).

Ground Segment / MEOR



- Ground Segment generally working well, handling TOOs and EO in December 2013 smoothly.
- Kiruna generally working well, but end 2013 several problems were encountered, which could have been avoided. Sentinel-1 launch led to loss of time for INTEGRAL, as Redu was declared unavailable on short notice and thus alternatives could no longer be implemented.
- > Use of public internet between MOC and ISDC still to be completed.
- MEOR preparations ongoing. Probably very similar to last one. Review on 3 June, presentations due 26 May. Waiting for outcome of CNES review.

Solar Array evolution



Solar array power margin has been re-evaluated by MOC together with members of project team. Conclusion: Margin in documentation based

on quick & not fully correct estimate. Significantly more margin available, allowing safe operations >2018 (might get critical ~2020).

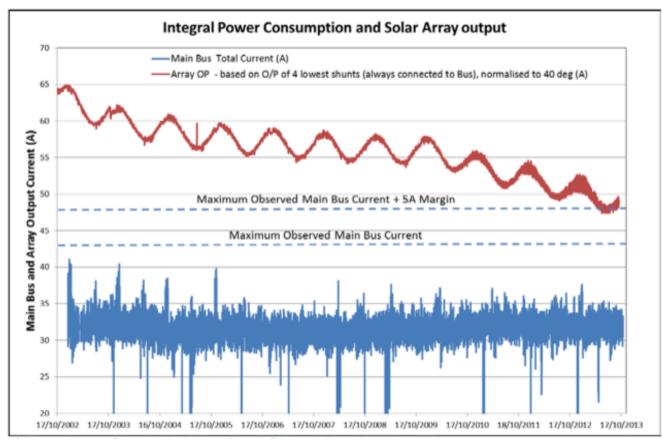


Figure 5: Integral Power Consumption and Worst Case Array Output

Disposal options



Possible disposal options for INTEGRAL have been studied. A TN for SRE management is being written. Briefly: a safe disposal with deorbit in 2029 seems possible, while leaving fuel for operations beyond 2020. Lifting orbit sufficiently to stay out of protected zones forever seems not feasible. Will be discussed in MEOR. Manoeuvre possibly already in 2015, would change orbit (shape and revolution duration).

