

*Cost Savings of the INTEGRAL Science Operations:  
Recommendation from the INTEGRAL Users Group*

The INTEGRAL Users Group discussed possibilities to further reduce the costs to ESA of the science operations of the INTEGRAL mission. Cost savings were already achieved in the Ground Segment when the operation teams for INTEGRAL and XMM-Newton in the MOC in Darmstadt were reduced in size and merged. Further reduction of personnel for INTEGRAL and XMM-Newton in the MOC is considered by the IUG to challenge the safety of the two satellites' operations, and is therefore not acceptable.

Sizable cost savings up to ~20% with minor, if any, impact on the science return can be realized if the REDU ground station can be replaced by the Russian Bear Lakes station, as already investigated in 2007. The IUG encourages ESA management to reinvestigate this option.

The IUG also considered whether cost savings can be achieved in the INTEGRAL Science Operations Centre in ESAC. It was noted that the small ISOC team does not include instrument specialists responsible for scientific monitoring and in-flight calibrations. In the case of INTEGRAL, these tasks are delegated to the hardware teams and the INTEGRAL Science Data Centre, so, not an ESA cost item. A significant reduction of the personnel in ISOC to achieve a major cost reduction would therefore have major implications. Certainly, Announcement of Opportunities for submitting observation proposals could not be supported anymore. Even a smaller reduction of the ISOC team will severely limit Target of Opportunity observations, which address a most important aspect of the gamma-ray sky. Moreover, the scientific interest in these ToO observations has increased significantly with the operations of the high-energy gamma-ray missions Fermi and Agile. The IUG does not recommend such a solution, because of the disproportionate decrease in the science performance of the mission compared to the cost savings.

On behalf of the INTEGRAL Users Group,

Prof. dr. W. Hermsen, Chair  
24 April 2009

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