



ESTEC, 16+17 June 2010

Minutes from 8 July 2009

Attendants

Angela Bazzano	INAF Roma	AB
Tomaso Belloni	INAF Brera	TB
Søren Brandt	DTU Space	SB
Eugene Churazov	IKI Moscow	EC
Roland Diehl	MPE Garching	RD
Neil Gehrels	GSFC	NG
Andrea Goldwurm	CEA Saclay	AG
Sergei Grebenev	IKI Moscow	SG
Wim Hermsen	SRON	WH
Peter Kretschmar	ESA, ESAC	PK
Miguel Mas Hesse	INTA Madrid	MM
Fabio Mattana ¹	CEA Saclay	FM
Giorgo Palumbo	Univ. Bologna	GP
Jacques Paul	APC Paris	JP
Konstantin Postnov	Moscow State University	KP
Jean-Pierre Roques	CESR Toulouse	JPR
Norbert Schartel	ESA, ESAC	NS
Pietro Ubertini	INAF Roma	PU
Ed van den Heuvel	Univ. Amsterdam	EvdH
Roland Walter	ISDC	RW
Jörn Wilms	University of Erlangen-Nuremberg	JW
Christoph Winkler	ESA, ESTEC	CW

¹ on behalf of F. Lebrun

1 Welcome, Agenda, Actions

The agenda was accepted with one item added on AO results and the possible lack of Large Programmes on the Galactic Centre added on request of AG.

IUG actions 08-1, 08-3, 08-4, 08-5 are all closed. Action 08-2 will be settled by visit of A. Bird (Southampton) to ISOC

For Action 05-02 (Contact Valencia on IBIS mask) no further progress has been achieved, despite some efforts.

2 Mission Status

PK briefly presented the mission, MOC and ISOC status (see [viewgraphs](#)). The instrument PIs felt that the concerns raised by MOC about possible radiation damage to electronics were too pessimistic. There was some discussion about the coverage by Goldstone and the agreement with NASA.

3 Project Scientist Status

CW presented the status (see [viewgraphs](#)).

The science case for mission extension is effectively required to be finished end July. To be submitted to different ESA management levels in mid/end August.

JW asked if there will be sufficient coverage of the Galactic Centre in accepted AO-8 proposals. The full table was not shown, but between Galactic Bulge, scans and inner disk the planned exposure of observations covering the region at least partially is ~ 8.5 Ms.

There was some discussion on the lack of an accepted proposal for deep Galactic Centre observations.

4 Payload Status

4.1 IBIS

FM presented recent work on mask calibration on behalf of F. Lebrun (see [viewgraphs](#)). Between Crab calibration observations and use of the Cygnus field in upcoming observations some of the mask corners have rather good exposure now, others still lack further measurements. EC noted that most of the subtle mask effects appear very symmetric. Could one create an improved model assuming symmetry before measuring everything?

One should look at AO-8 proposals for observations potentially useful for further mask calibrations.

Action 09-1 on CEA Saclay, ISOC
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Due: 1 Sep

<i>Analyze which AO-8 observations might be used to help with mask calibration.</i>

CW proposed that the IBIS team and the ISDC publish a paper on the efforts of mask calibration.

RW discussed the work done between ISDC and the IBIS team for ghost suppression in OSA 9 (see [viewgraphs](#)). The current method has been done with data known so far so could already be improved with the latest mask calibration data. RW believes that the main improvements have been done by now and pointed out that for OSA 10 ISDC are paying special attention to legacy aspects.

The work done for IBIS response tuning was presented by PU (see [viewgraphs](#)). Correcting for the evolving ARFs leads to a reasonably flat long-term Crab lightcurve. Energy calibration efforts at CEA have started again from scratch.

4.2 SPI

JPR presented a summary of the SPI status (see [viewgraphs](#)) and explained the reasoning behind the proposed high voltage reduction in some detail. EC voiced concerns about varying detector properties for long-term studies, but JPR assured that the aim is to make only changes not affecting the properties significantly.

S. Sturmer (GSFC) should still be able to work on an updated SPI response as in the past years.

5 Mission Extension

CW explained the requirements for the science case: a 5-page text, including the IUG recommendation. Appendices can be any length and will contain images, references, publication lists, etc. The AWG & SSAC will get the science case and appendix, the SPC only the basic text.

A general discussion on the global structure of the document ensued.

NG reported on the results of the Senior Review (see [viewgraphs](#)). INTEGRAL came second-last, actually the same ranking as in the last such review, but this time the requested small funding was cut, due to the tight funding situation. For Chandra the budget was recommended to be reduced and RXTE is threatened with imminent shut down.

The INTEGRAL archive usage at HEASARC is comparable with that of Swift. Most ATels on Galactic sources come from INTEGRAL.

The proposal was raised to make all data public beyond 2012 leading to an extended discussion. Besides creating an issue in countries where funding of research is tied to successful proposals, some members felt this would lower the number of proposals.

For the rest of the afternoon the IUG split into three subgroups (galactic sources, AGN, nucleosynthesis and others) to work in detail on the draft text for the scientific case for the Mission Extension. All groups presented their updated draft texts.

Reconvening on 17 June, JW presented a merged draft text with a more unified style. This text was discussed in some depth, including specific additions.

The question was raised how the oversubscription for Integral should be calculated, given that many fields are shared by various observers due to data right proposals. The ISOC was requested to determine the statistics for shared fields¹.

<p>Action 09–2 on ISOC, IKI, HEASARC</p>	<p>Due: 14 July</p>
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<p><i>Provide archive usage statistics in the same vein as those provided by ISDC.</i></p>
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A draft text for the technical and operational aspects of the mission extension request was presented by PK, discussed in detail and partially updated.

<p>Recommendation 29: INTEGRAL Mission Extension</p>

<p><i>The INTEGRAL Users Group unanimously and strongly recommends the continued operation of the INTEGRAL mission as detailed in the extension request. The IUG emphasizes the strong potential of discoveries from future observations, the continued interest by the scientific community in the INTEGRAL mission, the success of the INTEGRAL Key Programmes, and the synergies with existing and future space missions and ground based observatories. The Users Group also stresses that with the successful transition to merged operations between XMM-Newton and INTEGRAL, cost savings have been maximized while retaining full scientific performance.</i></p>

The proposed recommendation by IUG for extension of the INTEGRAL was unanimously approved.

¹Done on 17 June

6 CXB observation via Earth occultation

A proposal for Earth Observations has been received in AO-8 which has been rejected due to technical reasons but otherwise evaluated positively. CW emphasized that no time could now be taken out of the AO-8 timeline.

The question was raised if such observations would indeed be useful, given, e.g., the Swift Survey and if they should be mentioned in the science case for mission extension.

Action 09-3 on E. Churazov <i>Obtain scientific justification text for submitted proposal from PI. (NOTE: Action closed at time of writing)</i>	Due: 1 July
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Action 09-4 on P. Kretschmar <i>Provide technical and cost evaluation on the basis of the proposal submitted in AO-8</i>	Due: Next IUG Meeting
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The submitted proposal will be discussed at the next IUG meeting together with the technical evaluation.

7 AOB

At the last IUG meeting AG proposed to have the 2012 INTEGRAL Workshop in Paris during the week of the 10th launch anniversary. No other proposition has been received and Paris was generally approved as meeting location.

PU proposed to create a brochure to be handed out the Dublin workshop. Inputs would be required by end August.

Action 09-5 on J. Wilms, P. Ubertini, C. Winkler <i>Coordinate contents of brochure</i>	Due: end August
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JW thanked T. Belloni, A. Goldwurm and M. Leising for their efforts in the IUG.

8 Next Meeting

The next meeting will be scheduled after the SPC meeting. JW will set up a Doodle poll for end November, early December.