

meeting date	13 th May 2003	ref./réf.	page/page	1 / 8
meeting place	ISDC	chairman	D. Texier	
minute's date	15 th February 2003	participants	A. Parmar, M. Schmidt, L. Hansson, R. Walter, D. Texier, G. la Rosa, E. de Miguel, S. Brandt	
subject/objet	Co-ordination meeting # 5	copy/copie	All participants + PIs + M. Kessler	

description

1. Approval of agenda

The agenda sent before the meeting was approved.

2. Review of actions

All the actions from the previous meetings are closed.
 Status of the actions of the last co-ordination meeting (06/02/2003) :

CO/04_01, *G. la Rosa, C. Larigauderie & E. de Miguel to provide to R. Much the criteria how to resume science operations for their instrument after a solar flare* : Closed

CO/04_02, *C. Larigauderie to contact R. Much to discuss the details of the telemetry bandwidth needed for the Crab observation* : Closed in time for the observation.

CO/04_03, *All the Instruments Operations Managers to confirm that the configuration of their instruments during the Crab calibration is the correct one* : Closed, the configuration was correct for all the instruments.

CO/04_04, *M. Schmidt to check is the PSF ICD needs to be updated and if so to have it issued* : Closed, Frank Dreger confirmed on 26/03/2003 that there is no change outstanding on the PSF ICD.

CO/04_05, *All the attendants of the co-ordination meeting to review the "Instrument Teams to Ground Segment Interface Document (IT-GS ID)" and provide inputs to D. Texier* : Closed

CO/04_06, *D. Texier to re-issue the IT-GS ID document including all the received updates* : Closed, v2 of the document issued on 21/03/2003.

description

The actions from the POS Review Board meeting (31/03/2003) were also reviewed :

POS_Review_Board/01_01, *FD to start to provide PSF 8 weeks in advance* : Closed, PSF for ~ one month have been provided and the remaining will follow soon.

POS_Review_Board/01_02, *S. Fahmy to look at the executed revolutions to compute the time used in slews that was not needed, due to the operational slew accuracy better than the predicted one* : Closed.

Action CO/05_01 : M. Schmidt to distribute the result of this analysis (Due date 23/05/2003)

POS_Review_Board/01_03, *FD to check with Alenia & Astrium if they need more inputs for the on-going studies* : Closed, they do not need more information.

POS_Review_Board/01_04, *P. Barr to update the ISOC Mission Planner procedures to provide MOC the details of high priority/critical observations* : Still open.

3. Status of operations

3.1. Dual line between Goldstone and MOC : VC0 “timely” and VC7 “complete”

The dual line (with Goldstone and Redu) was implemented on 06/05/2003 and works fine. Two passes have been checked since the update and only one small gap was found.

No significant delay in the reception of the science telemetry has been observed. This is being analysed in details by ISDC.

In the last two weeks there has not been any big gaps with Goldstone due to interferences (but there was an equipment failure).

3.2. TM consolidation

There are still some problems with the telemetry consolidation at MOC. A lot of time is spent to manually consolidate the archive and check the contents of the CD-ROMs to be sent to ISDC, leading to an increase of the time required to send the CD ROMs to ISDC (now in the order of ~ 14 days).

Some improvements are expected in the summer (more disk space, improvement of the ESOC tape storage infrastructure ...).

The problem with some NRT data not being in the consolidated CD-ROMs is understood : it is coming from a machine that handles the real-time activities with a higher priority than the archiving. When it is overloaded it may miss some packets in the archive.

The simulated data received from Goldstone during revolution 56 are not cleaned in the consolidated data. They have been cleaned by hand in ISDC.

description

3.3. Time synchronization between the various ground stations

The big offset between Goldstone DSS-24 and Redu (78 ms) was due to an error in the time processing at Goldstone. It has been fixed on 15/04/2003. The offset is now $\sim 70 \mu\text{s}$.

A small correction at Goldstone DSS-16 was also performed second half of February (the offset with Redu went down from 140 μs to 40 μs).

MOC is investigating the reason for these remaining offsets.

Action CO/05_02 : M. Schmidt to distribute details on the change made in Goldstone DSS-16 in the second half of February. (Due date : 23/05/2003)

An error in the time correlation function was found. Its consequence is a 1 ms error in the INTEGRAL absolute timing (and a 1.5 ms for XMM-Newton). This will be corrected at the same time as the change of the clock for the TM bandwidth increase.

Action CO/05_03 : ISDC to provide a warning for these offsets in the Data User Manuals or in the ISDC-Newsletter. (Due date : 09/09/2003).

Action CO/05_04 : M. Schmidt to provide the algorithm to reprocess the data at ISDC to correct for these offsets. (Due date : 23/05/2003)

3.3. OCS generation at ISOC

A teleconference between ISDC & ISOC took place on Friday 09/05/2003 to look at the information contained in the OCS (e.g. which observations can be distributed). A new OCS was sent by ISOC after the telecon (the previous OCS was sent in mid-march). From now on ISOC is expected to send an OCS to ISDC every week.

4. Telemetry bandwidth increase

The test performed at ESOC last week was successful. The PST used was the one generated by Project (P. Strada).

Schedule for implementation :

- MOC-ISDC link : Upgrade scheduled on 16/05/2003. The test plan was sent to ISDC.
- Ground Stations : Redu has been upgraded and Goldstone will be on 21/05/2003.
- CDMU patch : Upload scheduled on 21/05/2003.
- Polling Sequence Table (PST) : The current PST will be used for the patch and the one defined by Project will be tried after. The final PST is being worked-out by MOC.

The allocation of packets for normal science operation (after the increase of the TM bandwidth) decided by the ISWT has been sent out.

description

For the building up of the PST, MOC was still missing the inputs of IBIS, SPI & JEM-X. The status is :

- JEM-X : The only constraint is that there shall not be two consecutive slots assigned to the same JEM-X instrument.
- SPI : There are no SPI specific constraints known by the SPI team on top of the currently specified ones.
- *Action CO/05_05 : G. la Rosa to provide the IBIS constraints for the PST. (Due date : 23/05/2003)*

Note that the increase of the Telemetry bandwidth will imply a change of the IBIS instrument configuration (An OCR will be submitted).

The impact on the MOC/ISOC interface will be investigated when the PST will be defined.

5. Following of instruments configuration

A list of ~ 200 parameters to be monitored has been provided by the IBIS team. ISDC has built a table (ASCII & FITS file) containing most of them for all the science windows since the beginning of the mission.

Having all these parameters monitored during the complete mission would make the file too big, so IBIS should look at the file generated up to now and select the parameters that are really necessary to be monitored.

6. Preparation for the MPVR

Some discrepancies in the statistics made for the MPVR were discussed. They seem to be due to the fact that different revolutions have been taken into account.

7. Electron belts

The patch to change the IREM scaling factor was uploaded on 01/05/2003. JEM-X has requested a tuning of the thresholds used (OCR accepted).

Note that the mechanism is disabled for SPI, waiting for the confirmation that the thresholds are adequate. ISDC is looking at the IREM data to help SPI.

In recent revolutions, the entry in the radiation belts has decreased and is now around 60000 km. JEM-X is still switched-off at 70000 km waiting for the confirmation of this trend.

description

8. Instruments On-Board Software updates

The SPI on-board software update was presented, describing the timeline for the implementation leading to a planned delivery beginning of July 2003.

IBIS has finished the test of the on-board software patch to fix the spurious On-Event Messages (OEM). It will be delivered in the near future.

9. Documentation

9.1. Instrument User Manuals

The status of the Instruments User Manuals is :

- OMC : The version 3.2 was issued on 09/05/2003
- SPI : The new version is planned for the end of May 2003.
- JEM-X & IBIS : New version to be expected in mid-summer 2003.

9.2. Pending updates of the ICDs

Pending ICD updates :

- ISOC ICP ICD : A draft update is being reviewed. It will be released soon.
- ISOC-ISDC ICD : There are only a few small editorial changes to be made. Low priority.
- IFTS ICD and Appendix L (MOUT) : Has not been updated yet because of higher priority tasks at MOC.
- ISOC-OMC ICD : Will be updated soon.

10. Anomaly reports

10.1. MOC anomaly reports

INT-2055 (IBIS VETO anomalous count rate) : Has disappeared after the last voltage setting. To be closed.

INT-2121 (ISGRI count rates increase up to 8000 counts/sec in one module) : Has disappeared after the configuration tuning. To be closed.

INT-2122 (IBIS VDM4 HV broke down) : The reason is believed to be outgassing and it has not been observed recently. To be closed.

INT-2219 (IBIS : PICsIT PDMs counters set to 0 (twice) during nominal operation) : Under investigation. Still open

description

INT-2221 (IBIS : SCI submode table loaded only if forcing the submode) : Under investigation. Still open.

INT-2258 (IBIS : stop downloading HIST during GCDE) : Under investigation at Tuebingen. Still open.

INT-2169 (IREM sw local resets due to SEU (twice) : Use as is. To be closed.

INT-2275 (Constraint error exception in the OMCAS on DOY081) : Use as is. To be closed.

INT-2276 (Crash of OMCAS on DOY083) : Reason for the failure still unknown. Its handling could be improved within the OBSW. Still open.

INT-2303 (Loss of packets during OMC FF calibration with 90 pkts/cycle TM bandwidth) : Known failure of the CSSW. Will disappear with the PST used after the TM bandwidth increase. To be closed.

INT-2024 (OEM : SPI fixed print overflow) : CSSW to be investigated. Still open.

INT-2083 (SPI DPE crash) : Recovery action defined. To be closed.

INT-2082 (TM packet production lower than allocation) : Under investigation. Still open.

10.2. ISDC anomaly reports

IA-004 (Faulty pixels not automatically switched off) : A procedure is available to detect it. To be closed.

IA-005 (Incorrect partial box header in OMC science packets) : Still open, will be closed after the update of the User Manual.

IA-006 (IBIS UM context description for PICsIT) : Still open, will be closed after the update of the User Manual.

IA-008 (Occasional time shift of 250ms in SPI ACS_RATE data) & 009 (ACS_RATE out of order) : Under investigation. Still open.

IA-012 (Packets with header time zero on startup) : Problem understood. ISDC will see if it is possible to correct on ground using the information provided by JEM-X. Still open.

IA-014 (Corrupted packet when IBIS reSync) : Fix implemented to reject wrong packets. To be closed.

IA-015 (PICsIT SPTI packets don't correspond to documentation) : Under investigation. Still open.

IA-016 (Count rate burst in SPI camera – instrumental effect or real ?) : Under investigation. Still open.

description

IA-017 (Time of first event (s1) not increasing) : First explanation received from IBIS, but investigation not complete. Still open.

IA-018 (Stop accumulation of PICsIT histograms) : Under investigation. Still open.

IA-019 (Drop of the PICsIT count rate during one pointing) : New IA report. Data to be sent to Tuebingen for investigation. Still open.

11. New interface for JEM-X high voltage updates

ISOC (J. Nolan) issued a Technical Note proposing some changes to the JEM-X HVON1 & HVON2 windows. It includes a proposal for handling the JEM-X High Voltage updates by ISOC. This would avoid the release of a new ODB to implement these updates, expected to be needed every ~ 2 months.

The re-shuffling of the activities at the beginning of the revolution would allow a start of IBIS, SPI & OMC scientific operations 15 min earlier.

The proposal still has to be looked in details by JEM-X & MOC.

Note that this update would also allow the scheduling by ISOC of the stop of JEM-X operations at 70000 km.

12. OMC Delta Catalogue

The current OMC catalogue was delivered in Oct 2002. In order to be able to add new sources easily it was decided to update the OMC window selection software at ISOC to handle a second catalogue (the delta catalogue). This update was done as part of the implementation of soft ToOs.

Since ISDC uses the OMC catalogue, ISDC needs to have a description of these changes to see if they can use this delta catalogue.

Action CO/05_06 : L. Hansson to provide a description of the change made to ISDC. (Due date : 23/05/2003)

ISDC maintains a web page with the IAU circulars, but the maintenance of the OMC catalogue is the responsibility of OMC.

Action CO/05_07 : OMC to look at the ISDC web page to see if they can update the OMC catalogue with it. (Due date : 30/05/2003)

13. Status of the slews study with Alenia/Astrium

Astrium sent out a document, but it does not bring substantial improvements. In parallel MOC will look at the slews performed up to now to see their accuracy.

meeting date

ref./réf.

page/page 8

date de la réunion

8

description

14. Operational Change Requests

The web-based tool to submit and track the Operational Change Requests (OCR) is almost ready. A test performed last week was quite successful.

Some tuning of the distribution lists is needed and an e-mail will be sent out when the tool will be operational.

The OCRs raised in the Commissioning phase will be scanned and put in the database.

15. A.O.B.

The next meeting is planned for Tuesday 09/09/2003 at VILSPA.
