XMM-Newton and INTEGRAL weekly Mission Operations Report

XMM-INT-WOPS-22_06-07

Issue 1

Date: 24 February 2022

Marcus Kirsch
OPS-OAX

ESA UNCLASSIFIED – For Official Use

Distribution List

ESOC	Rolf Densing		Danielle Heinzer
	Dhivya Kishore	Frank Dreger	Andrzej Olchawa
	Andreas Rudolph	xmmintfd@esa.int	Federico Cordero
	XMMINTFCT	Alastair McDonald	Diana Dragostinova
	Marcus Kirsch		Gianluca Gaudenzi
	Jim Martin		
	Marko Butkovic	Martin Unal	
	Stefano Scaglioni		
	EILSservices@esa.int		
		Duncan Warren	
	Richard Southworth	Muhammad Shoaib Malik	
	Jutta Huebner	Elena Garcia Tomas	
	Simon Plum		
ESAC	Günther Hasinger	Peter Kretschmar	Matthias Ehle
	Markus Kissler-Patig	Maria Santos Lleo	Erik Kuulkers
	Rune Floberghagen	Eva Verdugo	isocsci@sciops.esa.int
		Pedro Calderon	
		Ricardo Perez	
		Anthony Marston	
ESTEC			
			Guiseppe Sarri
Airbus		Tommy Strandberg	
		Susanne Fugger	
Alenia			
	Franco Ravera	Mario Montagna	
Logica			
	COMCS_Helpdesk.de@logicacmg.com		
ISDC			
	Roland Walter		Carlo Ferrigno
NASA			
	DSN.Mission_XMM		
INT-PI			
	Philippe Laurent	J.P. Roques	Giovanni Larosa
	Pietro Ubertini	Wojte Hajdas	Miguel Mas Hesse
	Søren Brandt	Jochen Greiner	
	A. Bazzano		

1. Weekly report

	XMM	**Integral**
Main activities	▪ Nominal Operations ▪ MOIS automation migration ▪ MUST to ARES migration ▪ MCS migration ▪ DCR reconfiguration to welcome Euclid after its launch ▪ DABYS D/B prototype ▪ Tolhuin station consolidation ▪ Webserver migration	▪ Routine science operations ▪ Dry run #1 and #2 of Fast ToO procedure ▪ Kourou validation
Status and performance of S/C	▪ Nominal for platform and all instruments	▪ Manual transponder swaps following RF switch anomaly
Status and performance of Ground segment	▪ Nominal	▪ Nominal apart from increased rate of TM drops – under investigation
S/C Anomalies	▪ None	▪ None
G/S Anomalies	▪ XMM-1477: 2022-02-16POS/PSF files getting stuck in GFTS intray	▪ INT-3835 IBIS VETO Deactivation - last command missed of proc. FCP_IBIS1_0355 ▪ INT-3836 E3500 for more than 5 hours OOL after Perigee
Future activities planned	▪ G/S ops automation (part2/ NIS) ▪ Lela final migration to MCS, pending mini SOC at ESOC ▪ DCR reconfiguration to welcome Euclid after its launch ▪ Migration of voice loop system and monitors in DCR ▪ Cebreros check out	▪ Design and deployment of an alternative wheel based safe mode on ground and on-board ▪ Automation of Transponder swap ▪ operations ▪ SPI annealing #38: 21/02 - 12/03

2. Detailed weekly operational events

note: all times are Zulu (in brackets DOY)

2.1. XMM

- 21/02/2022 (052) 07:35:00: PDSserTM error messages since 06:00. "Error in writing TM record"/ , "Store of packet failed"PDSTM restarted on XMCA.

2.2. INTEGRAL

- 07/02/2022 (DoY 38)
  - 01:08:53 KIR IFMS2 in drop, no operational impact. Informed ESTRACK
    - 01:16:11 KR12 VC0 & VC7 links dropped & re-bound → remain in DROP
    - 01:20:04 IFMS re-pulsed by ESTRACK, links dropped and re-bound → remain in DROP
    - 01:39:40 VC0 and VC7 on KR12 have returned to service. ESTRACK see alarms indicating station software problems → no operational impact since only affecting IFMS2
  - 06:00:20 Spacon observed that MOIS is connected to IMCB-NEW instead of IMCA-NEW (current prime chain). Stopped MOIS automation, reconnected to prime chain and executed I_REP_RES_OBM and I_FCP_AOC_0540, which were missed for a couple of days.
  - 07:39:23 KIR: ESTRACK re-booted IFMS2 due to some errors
  - 18:08:33 CSL #0042 missed from timeline due to TM Drop VC7 KIR
    - 18:20:05 Manual slew 2466_0500_M.CSL from PID #0041 to #0042
    - 18:38:02 TPF 2466_0501_A.OSL applied on A/S to update slew #0043

- 09/02/2022 (DoY 40)
  - 08:15:06 OI #2162 - Dry-run of Fast TOO Operations
  - 23:25:24 TPF update failed for SlewID #0034 due to not enough stars available
    - 23:42:15 FD authorized to let the slew go from the T/L without the update

- 10/02/2022 (DoY 41)
  - 10:38:44 Bright/extended object in FOV: OOLs during OSL #0053: A5091 "1750 FAULT" Value = "FAULT", A5089 "H/C 1 FLAG" Value = "INVALID"
  - 12:00:41 high pointing angle: H/H OOL T0050 "TCS TH RMU1", 30.55 deg (limit 30), TM AU5204 = -29.89 deg, On-call informed
    - 12:37:13 OOL on T0103, TCP-4A, Low, 128.5 (limit 130)

- 11/02/2022 (DoY 42)

- 01:50:26 High radiation environment before belt entry put JEM-X into safe: OOL KD5020D EQ DFEE STATE False, OOL LD5020D EQ DFEE STATE False, OOL KD0033D JEM1_SAFEOUTBELT 1, OOL LD0033D JEM2_SAFEOUTBELT, FCP_JEM1&2_0040 as per Xref.
- 03:21:54 After belt entry (nearly every revolution in the reporting period): IBIS VETO OEM (Evid184: IBIS VETO +28V VDM/CMD VOLTAGE IS OUT OF RANG) & H/H OOLs (G6107 V1E H4 MOD28V & G8015 S1E-A2- PMT V)
  - OI#2157 FCP_IBIS1_0355 (IBIS VETO DEACTIVATION)
  - 10:12:32 VETO Re-activation was delayed and timeline recovery necessary due to investigation following operator error
  - 13:21:33 IBIS back in science standard - lost ~1 hour of science for IBIS
- 21:03:36 OOL H/H on E0392 "T CR COLDPLT L2" = 81.0175 degK, executed FCP_SPI1_2504 - SPICO: STROKE INCREASE from 41 to 42

- 14/02/2022 (DoY 45)
  - 17:20:30 Slew failure of PID#0017: Command AU3129 failed release due to PTV
    - 17:33:14 Manual slew 2469_0500_M.OSL from PID #0016 to #0017
    - 17:49:14 TPF 2469_0501_A.OSL applied on A/S to update slew 0018

- 15/02/2022 (DoY 46)
  - 18:16:25 Possibly MCS problem on imca, OOL DD0003D TCO PKT loss, H/H
    - 18:16:33 KIR VC0+7 Nis-A intermittently dropping (6mins). Nis-B ok
    - Impact: Slew update after OSL #0042 fails FD code 3
    - 18:22:27 TM returns
    - 18:37:13 TPF 2469_0502_A.OSL applied on A/S to update slew #0043

- 16/02/2022 (DoY 47)
  - 11:56:08 Evid 184: IBIS VETO +28V VDM/CMD VOLTAGE IS OUT OF RANG
    - Execution of OI#2157 delayed to after AOS since not enough time before scheduled end of track at 12.06

- 17/02/2022 (DoY 48)
  - 01:50:27 Spacon uplinked OI #2134 "BCPKT_ACQ_ESAM_A9331_OPS.INT" since it was missed.
  - 08:22:35 OI #2165 - Dry-run of Fast TOO Operations
  - 22:49:28 TPF update failed for SlewID #0033.
    - 22:56:34 TPF 2470_0500_A.OSL applied on A/S to update slew #0033

- 18/02/2022 (DoY 49)
  - 10:24:44 Testing in KOUROU: As per RF SOE dropped carrier in KIR. Brought it up in KOU for testing purposes & remain on KOU until 11.15Z
    - 11:16:10 Testing in KOU completed. Returning to KIR

- 02:39:51 Evid 184: IBIS VETO +28V VDM/CMD VOLTAGE IS OUT OF RANG
  - 02:40:00 Execution of OI#2166
- 11:57:38 OOL H/H on E3500, P_DF_Cnvt-Bw_L,1 (belt exit was at 23:03Z)