

Science Support Status

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EPIC calibration meeting, ESAC

9 April 2015

- XMM-Newton Mission **extension approved** for 2 more years
- **Team moves** are now frequent, thank you to those who left (excellent contribution appreciated!) and welcome to new, very motivated people!
- **Science Programme continues in good shape (next call in October)**
- We keep on:
 - calibrating (EPIC and) the other instruments, i.e. RGS and OM**
 - delivering data, improving the SAS, pipeline processing and archiving**
 - and organizing workshops**

“During its meeting at the European Space Astronomy Centre, near Madrid, on 19 November, the ESA’ Science Programme Committee (SPC) gave the green light for the flotilla of spacecraft to continue their key scientific endeavours for at least another two years.

(...)

Decisions to extend ESA space science missions are made on a rolling two-year schedule. The next two-year mission extension cycle will begin in mid-2016.”

**XMM-Newton funded until end 2016 and
extension approved until end 2018, subject to review late 2016**

Leaves:

- **Anna Lia Longinotti:** 15 Aug 2014
- **Matteo Guainazzi:** 1 Sep 2014

New:

→ **Michael Smith** EPIC Calibration Scientist

→ Arrivals:

- **Jacobo Ebrero,** 21 April 2014
- **Simone Migliari,** 2 Feb 2015

→ **Jose Vicente Perea,** pipeline software engineer, 7 April 2014

Community Support and Mission Planning: science programme



- AO 13: Soon to be finished (end April)
 - 95% of A+B time performed
 - 50% of C time performed

- AO 14: to start in May
 - Deadline was 10 October 2014 → 5.7 oversubscription
 - Results, 10 December. Two Very Large Programmes:
 - 1.6 Ms: $z=0.4$ blazar for WHIM
 - 1.4Ms: Draco dwarf galaxy: dark matter line?

- AO 15
 - Call for proposals 25 August – 9 October (12:00 UT) 2015
 - OTAC results mid Dec 2015
 - Phase II: 12 Jan – 5 Feb 2016

- **Smooth operations for all instruments, no instrument anomalies**
(see Pedro Calderon's talk)

- **RGS meeting 7-8 April**
 - Summary by Rosario González (RGS Calibration Scientist)

- **OM fast mode improvements and upgrades used in catalogue processing**

- *Resolution 2014-04-11/04: The UG noted with satisfaction the enormous progress in the calibration areas that were identified in 2013 as highest priorities, in particular*
 - a) *The on-going EPIC MOS-pn cross-calibration and multi-mission effective area calibration*
 - b) *The Timing Mode energy scale calibration which is now accurate to ~ 20 eV*
 - c) *The start of the Burst Mode calibration activities*
 - d) *The updated PSF calibration based on EPIC-pn Timing Mode data*
 - e) *The RGS absolute wavelength calibration scale, now accurate to 5-7 mÅ.*

Recommendation 2014-04-11/01: The UG establishes the following priorities for the calibration activities:

1. Continue progress on non-finished issues should be the top priority:
 - a. **Finalise cross-calibration among EPIC cameras**, with a proper scientific validation, within the next months and **continue monitoring EPIC-RGS cross-calibration**.
 - b. EPIC-pn issues to be fixed within SAS 14: fix the different calibration between **single and double events**, **re-engineering of the long-term CTI** and **correct for the time-evolution of energy resolution**.
 - c. Continue the **Burst Mode calibration** activity, leading to a new calibration in ~ 1 year timeframe.
2. Understanding the background for low-surface brightness observations
 - a. Recognise Dr. David Lumb's contributions and encourage him to continue with the on-going progress on **stray-light** in-orbit calibration activities
 - b. Make progress on the characterisation of the **particle-generated background** (either through protons or reflected X-rays) in the EPIC cameras

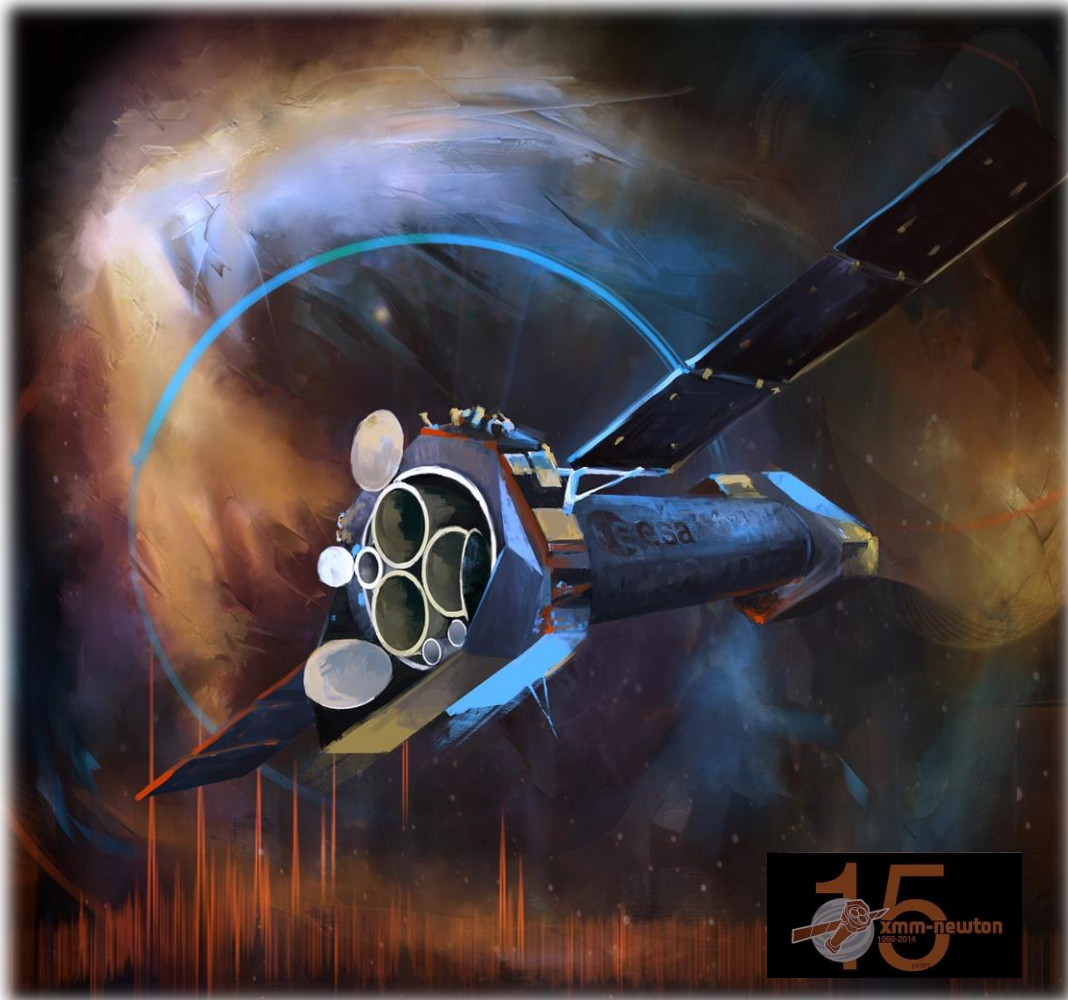
- **SAS** (see Carlos Gabriel's talk)
 - SAS 14.0 released 10 Nov 2014
 - SAS 15 planned for Autumn 2015
- **PPS** (see Pedro Rodriguez's talk)
 - full responsibility for dev and ops, changes agreed with SSC (CCB)
 - PPS-sas14-based released Feb 2015
- **Catalogues**
 - 3XMM-DR5, incremental EPIC source catalogue to be released **next week (TBC)**
 - OM catalogue: new incremental update ready, includes all 2013 data
- **XSA**
 - XSA v8.3 released 4 Dec 2014
 - Next release linked to 3XMM-DR5 release (i.e. next week TBC)
 - 'old' XSA discontinued

- SAS Workshop 2014, 2 – 6 June at ESAC
No SAS workshop planned for 2015 (lack of resources)

- Symposium: “The X-ray Universe 2014”
16 – 19 June in Dublin
 - Participation: 335 scientists
 - Presentations are on the XMM SOC web, and indexed in ADS

- Science workshop 2015:
The Extremes of Black Hole Accretion, 8-10 June, ESAC

Thank you



Design: Ignacio de la Calle

15 years of XMM-Newton 10 December 2014

Thank you for continuous contribution and support

Questions?

