

Mission Status Report

INTEGRAL User's Group meeting #23, November 26-27, 2019

Matthias Ehle

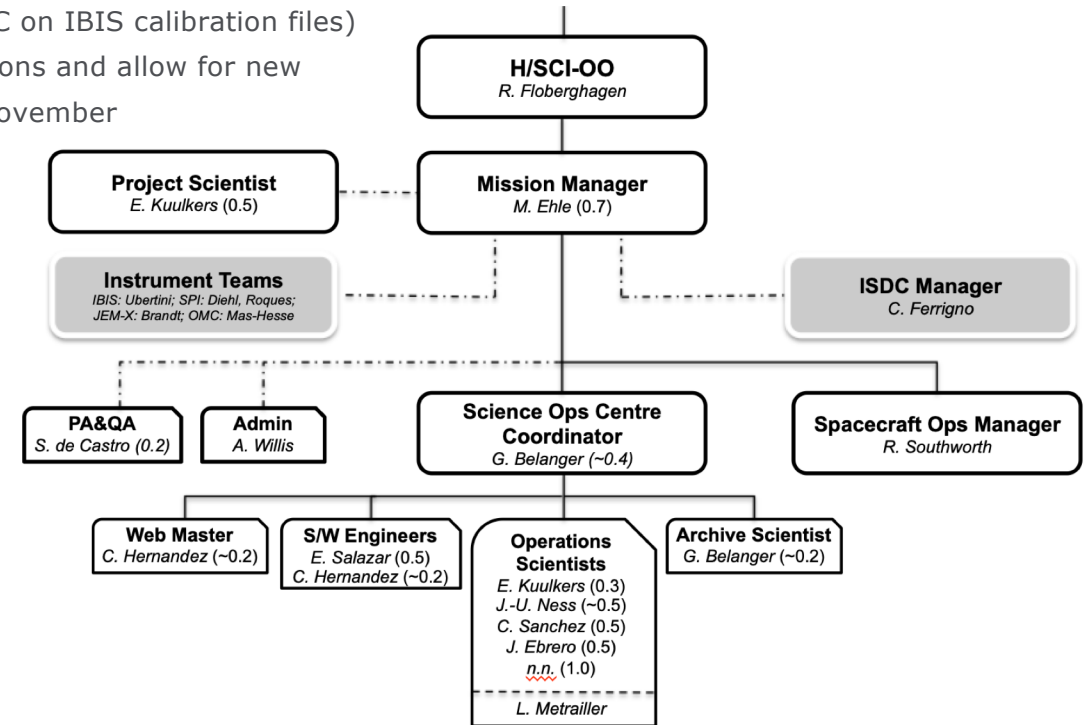
INTEGRAL Mission Manager [SCI-OOG]

People Matter(s)



Staff Changes:

- Guillaume Belanger → Division-wide study on AI/ML in Science Operations (0.4 FTE at least for a few months, started October)
- Jan-Uwe Ness → ESA Research Fellowship Coordinator (0.1 FTE until mid 2022)
- Lionel Metrailler → Swiss National Trainee (ends 2019): radiation model, interest in Ops & Cal (collaborating with ISDC on IBIS calibration files)
- New Service Contract Request to Tender, to compensate for reductions and allow for new activities (Archive, Cal. Support); deadline for companies was 11 November



*INTEGRAL/XMM-Newton:
Sharing/moving people to foster synergies
between missions, and to allow for more
flexibility and better backup coverage.*



INTEGRAL MOC



→ Dedicated talk by Timothy Finn,
deputizing for Richard Southworth, Spacecraft Operations Manager

MM Summary:

- Satellite health remains good, Very smooth operation, Fuel consumption low
- CDMU anomaly due to radiation damage causing slower reaction time & subsequent programme overrun → workaround in place
- RW4 bearing assembly heater failure (permanent, T ~8° cooler, still within limits)
- Again: No impact on efficiency and science since SPACON merger (since Apr 2018)
(Close-out Review & Lessons Learned Meeting November 28)
- Low Perigee passages: Impact on Power Budget remains much lesser than expected.
(Study on-going with TEC-EPG, indicative results in time for MEOR)



INTEGRAL SOC



→ Dedicated talk by ME,

On behalf of Guillaume Belanger, ISOC Coordinator

MM Summary:

- Smooth & stable operations; New more distributed & agile working approach
- AO-17 TAC & PS support (incl. new tools): all done, Long-term plan for 2020 in place
- AO-18 preparations on-going
- Literature Study: backlog removed (contract), continued as standard task
- Legacy Archive: development progressing well
- ISDC Contracts:
 - continued main support contract, until end 2020
 - new contract (Kicked off Sep): ISGRI Cal files, Cal. & OSA Documentation, Jupyter Notebooks for OSA, Burst-Alert System, Legacy Archive support
- DTU Contract (in prep., TBC):
 - JEM-X calibration, All-sky mosaics, REST (restricted imaging) mode data



OSAv11 (and beyond)

→ Dedicated talk(s) by Carlo Ferrigno, ISDC, + PIs



Reminder from last meeting:

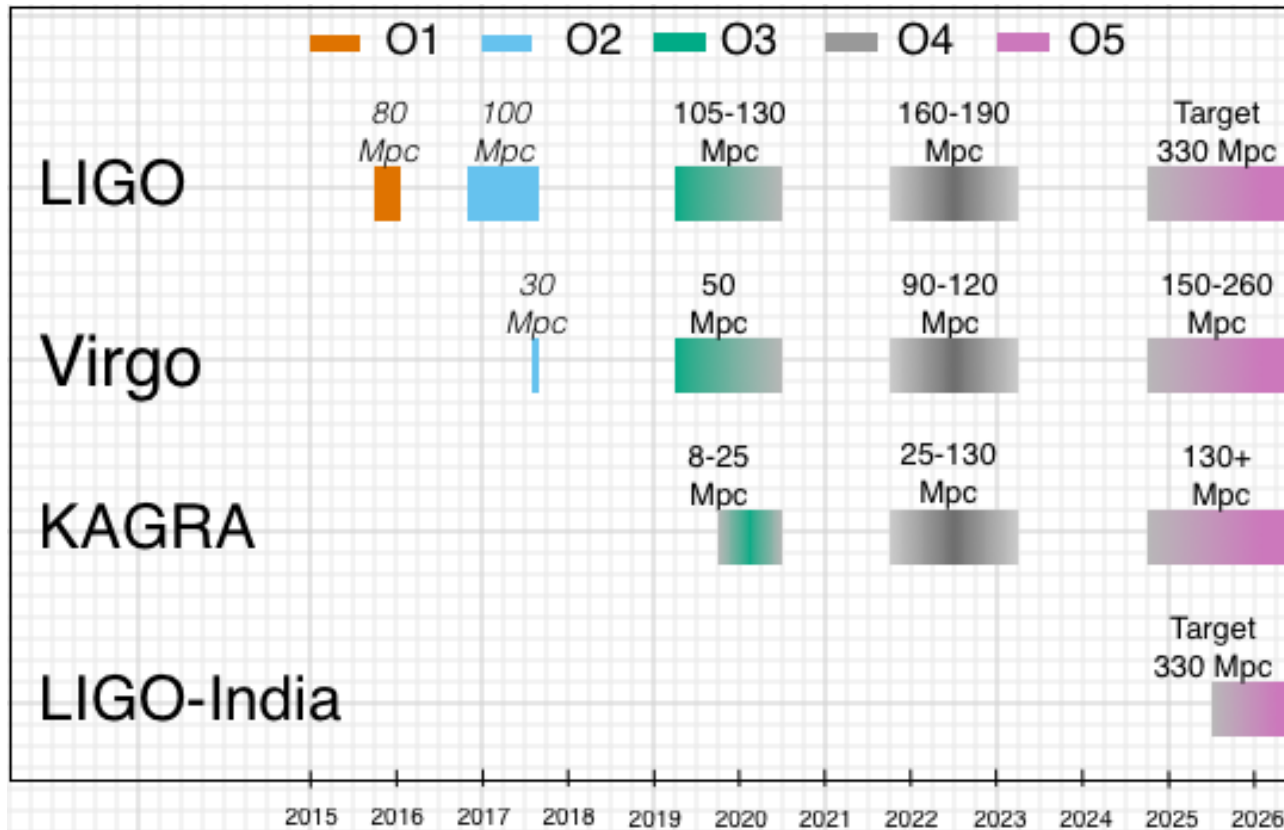
- Statistics on downloads?
- How to promote the usage of OSA, i.e.
 - Leaflet? Hands-on during conferences? Labs?
 - Jupyter Notebooks (cf. new contract)
 - ...



Future Science Case



→ Note the LIGO, Virgo and KAGRA Observing Run Plans (and gaps in between):



Significant uncertainty in start and end dates of future observing runs (represented by shading) and in actual sensitivities (BNS ranges given here) which will be achieved.



Further Mission Extension



Current Status: Nov 2018 SPC#158:

... extension for **2019-20 confirmed** & extension **2021-22 indicatively** approved.

New approach for Extensions "moving windows": 4 yrs (old standard) → 5 (in 2020) → 6 (as of 2022)

In 2020: need to ask for **confirmation for 2021-22** & **indicative extension for 2023-24-25**

Key Dates (TBC):

- Mission Extensions Operations Review (MEOR): 26-27 February 2020 @ESOC; Presentation by Spacecraft Ops. Manager, Mission Manager, Project Scientist → inputs to board ready by 11 February
Note: Instrument & Centre PIs need to provide info on future funding (FTEs, agreed with their National Funding Agencies)
 - AWG/SSEWG: 12-13 May 2020
 - SSAC: 19-20 May 2020
- inputs for these two boards needed by mid April, i.e. Science Case (PS+IUG+..) ready by end March
- SPC#163: 9-10 June 2020 (*not the usual Nov SPC: better timing to prepare start of new service contracts*)

We need to keep/have

- **Healthy Spacecraft and Payload, Efficient & Stable Science Ground Segment**
- **Science Highlights & Future Science, possible in years to come**
- **Healthy Publication Rate and Good Interest in AOs**



Numbers

