NASA/GSFC Status Update

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NASA/GSFC

INTEGRAL @ the HEASARC

Current INTEGRAL Activities at the HEASARC

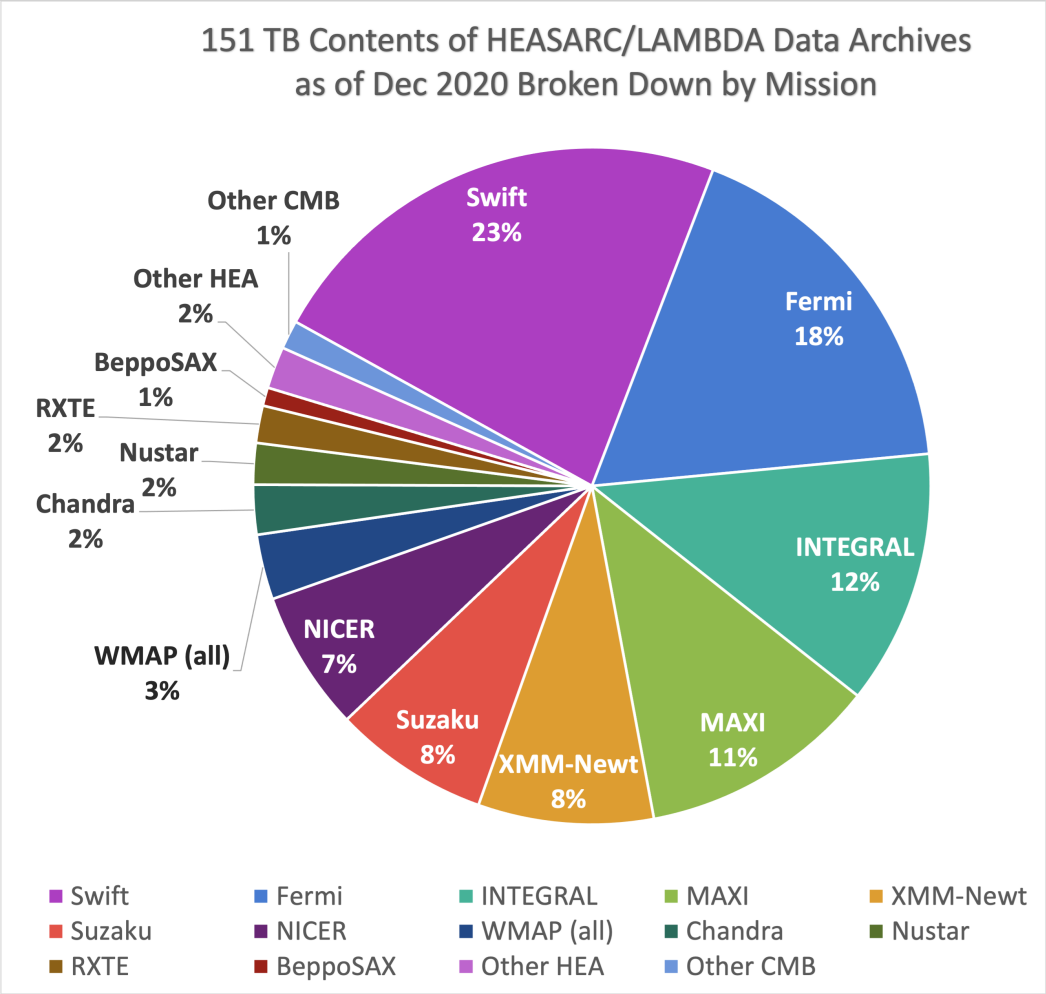
- The HEASARC maintains 19 searchable INTEGRAL catalogs including catalogs published in the literature.

- It contains an up-to-date mirror to the INTEGRAL data archive containing all public data (downloaded from the ISDC).
  - The HEASARC archive includes all public data as it becomes available as well as up-to-date housekeeping data.
  - The HEASARC does not support the download of proprietary GO data.

- The HEASARC maintains the INTEGRAL GOF webpages including links to INTEGRAL news (including RSS feeds) and an INTEGRAL help desk.

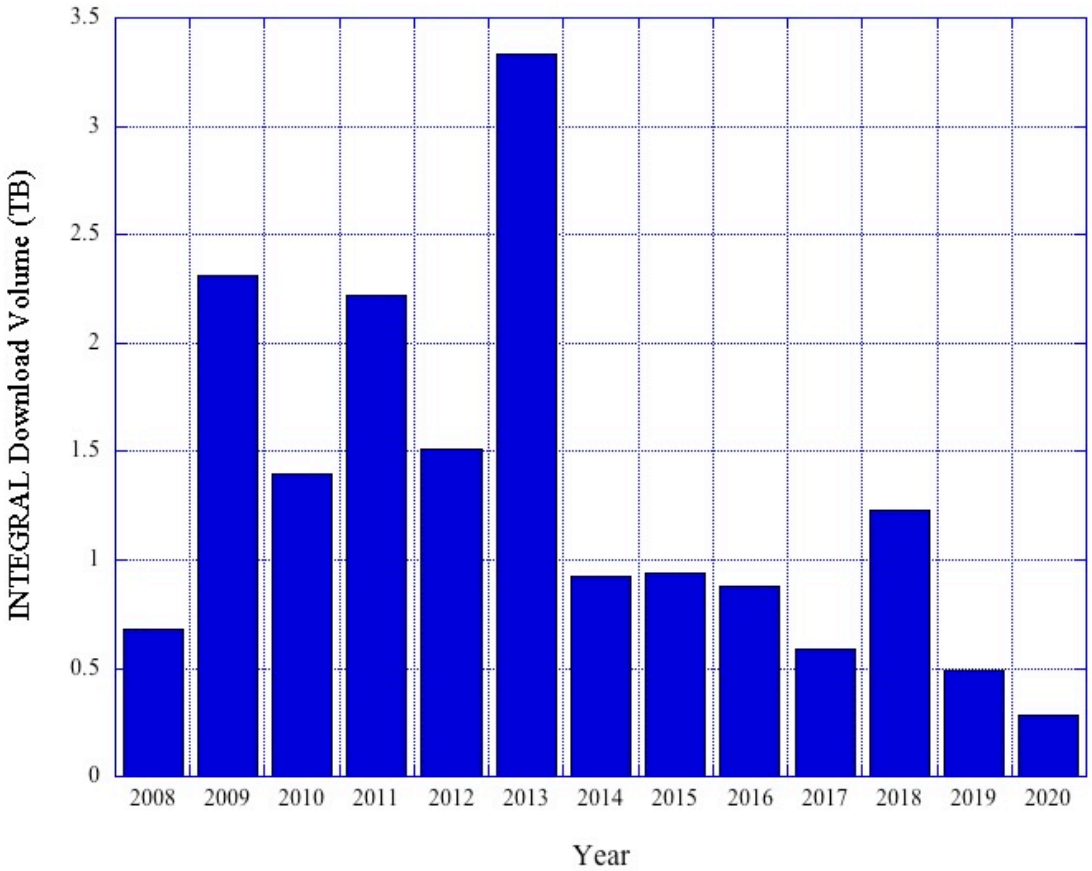
- HEASARC personnel remain a point of contact between ESA and NASA.

HEASARC Archive Holdings



- The INTEGRAL archive at the HEASARC is the third largest mission archive behind Swift and Fermi.

HEASARC Data Download Volumes



- Keep in mind that the HEASARC does not support the download of proprietary data.

INTEGRAL Research in the US

- The ESA-INTEGRAL webpage lists 92 INTEGRAL-related refereed publications thus far in 2021.
- 46% of these papers have US authors and 20% have a US first author.
- Many of these papers represent collaborative multi-wavelength and multi-messenger science utilizing data from other observatories such as LIGO, NICER, Fermi, Swift, NuStar, Chandra, and XMM-Newton.

NASA Updates

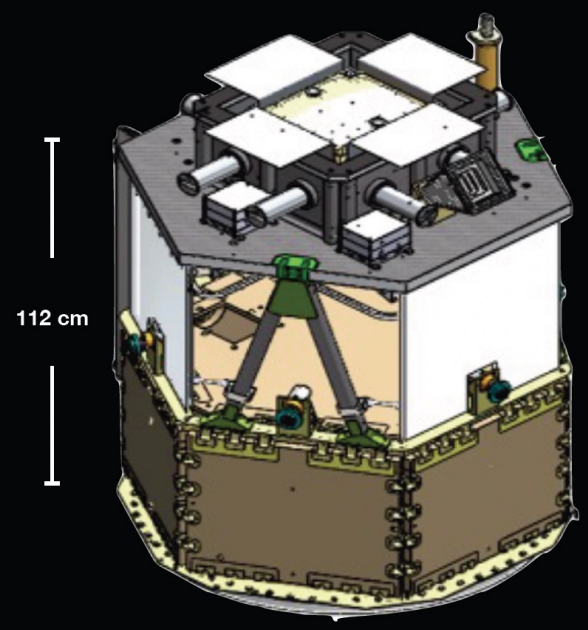
COSI Selected as next NASA SMEX!

The Compton Spectrometer and Imager

COSI is **optimized for line sensitivity** to enable full-Galaxy and all-sky images at 511 keV and nucleosynthesis lines

COSI also provides significant improvements in continuum sensitivity while covering the whole sky **enabling exciting serendipitous discoveries**

Parameter	Requirements
Energy Range	0.2-5 MeV
Sky Coverage	100% per day
Energy Resolution	0.4% FWHM @ 1.8 MeV
Angular Resolution	2.0° FWHM @ 1.8 MeV
Localization	<1.0° for GRBs



COSI payload and spacecraft

Instrument Operations

IBIS delayed activation at the start of the rev:

- Activation by the proton belts at perigee results in excess flux for IBIS/VETO and IBIS/ISGRI post perigee. PIs requested to delay activation by 40 minutes. Test mission planning products will be circulated soon for verification and validation of the new approach.

Superfast TOOs with initial staring observation at ToO attitude already 1-2 hours after ToO approval

- It has been agreed between FCT, FD and ISOC how to best implement superfast ToOs. Test mission planning products will be circulated soon for verification and validation as well as review of the current RPOS process.

OMC EU A Power Supply Failure

- After the loss of attitude on 22nd September OMC power supply could not be restarted
- Routine operations since then using power supply B.

Estimate of the next annealing & effect due to the cryo-cooler switch-off for recovery of the attitude anomaly:

- Irradiation of detectors not impacted by attitude anomaly => next annealing about 04/03/2022, with outgassing of the cold box to get rid of additional pollution due to the heating up during recovery of the attitude anomaly
- Current MOC tentative planning, pending possible further input from PI.