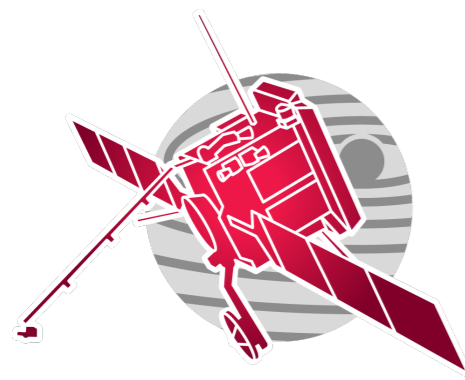


# Tests and Validation

## IGST 4\_2, 0th E2E and perspectives



**solar orbiter**



- IGST 4\_2 tests took place on May 15th, 2018 at MOC (Darmstadt) by S. Lodirot (MOC), D. Bérard (ROC), A. Vecchio (ROC).
- The **purpose** was to test:
  - Switch on/off procedures,
  - Ping,
  - Different modes and every possible transition between them,
  - Dump with S6 of one of the instrument memories,
  - Configurations of the analyzers for each science sub-mode.
- Test on MEB EM2 with IDB 4.3.3 → no ANT, SCM, HV Bias activation.
- **Related datapack :**
  - Needed procedures/sequences
  - Instrument State Model containing possible modes, transitions between them, power consumption of each mode.

- **Results :**
  - **No major issue** except the sequence of configuration of TNR-HFR calibration parameters (AIWF037C) not accepted → To be investigate by ROC team.
  - 3 minor issues highlighted :
    - Time synchronisation sent too early which creates troubles add switch on and swotch off → MOC will investigate
    - The whole configuration for all analyzers and sub mode have to bee loaded before entering science mode.
    - S6 dumps are not routed to the common packet store → update of corresponding procedure

# 0th End-to-End Test

- **Purpose** : to check the set of flight procedures/sequences to run the IOR related to two STP extracted of the LTP SOWG10 exercise timeline.
- E2E test was supposed to be run in April-May 2018—> probably in June 2018.
- Test on MEB PFM with IDB 4.3.3.
- **Related datapack** :
  - Two IORs —> done
  - Procedures/sequences related (same as for IGST 4\_2) —> done
  - Instrument State Model updated with data rate budget —> to be done

- **Typical STP** :
  - 10 min of Burst mode per day
  - Bias calibration and sweeping every Monday
  - THR calibration each Tuesday
  - LFR calibration each Wednesday
- **Intrument state model** contains:
  - Same as for IGST 4\_2
  - Data rate budget for each given state (mode + configuration) —> 3 given configurations : default, low rate, galaxy

- **To do:**

- IGST 4\_2 :

- Investigate the calibration parameters loading failure;
- Update procedures/sequences in consequence.

- 0th E2E :

- Calculate the data rate for each given configuration;
- Update the ISM with data rate;
- Wait for test results.

- **Next test :**

- Test SVT1 in April 2019 —> work on commissioning phase