Bright Object Handling

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Bright Object Handling

- **Proposal from TN:**
  - **SPI: No special strategy. Configuration changes would mean different calibration. TM saturation -> random losses**
  - **IBIS:**
    - **ISGRI**
    - **Sources < ~5-10 Crab: ISGRI low threshold to 62 for all modules except MCE1**
    - **If TM still saturated: switch off successive modules, first MCE3+MCE7 then MCE0+MCE4**
    - **Last resort: Only MCE1 on (normal threshold setting)**
    - **PICsIT: No action required**

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- **Proposal from TN:**
  - **JEM-X:**
    - **Grey filter will work up to ~19 Crab, although risk of switch-off due to count rate thresholds**
    - **Otherwise: disable one or more anode segments**
  - **OMC: No action required. 1 TM packet could be re-allocated to another instrument.**

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- **Required EDs (TC sequences):**

1) IBIS ISGRI low threshold to 62 for all modules except MCE1

- **4 new EDs required (set configuration, restore old configuration for IBIS1/2)**
- **No formal parameters**
- **Procedure as executed Crab cal March 08**
- **N.B. Configuration will be restored automatically at start of next rev by ED GEISCL03 (*scheduled by FD*)**

Open points:

- **In test, NPHS paras also changed (LTM to 62 raw and Switch-on period to 12800 sec)**

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- **Required EDs (TC sequences):**
  - **2)IBIS ISGRI switch off modules**
    - **10 new EDs required (5 for each IBIS1/2)**
      - **MCE3+MCE7 OFF**
      - **MCE0+MCE4 OFF**
      - **MCE?+MCE? OFF**
      - **MCE? OFF**
      - **All MCEs ON**
    - **No formal parameters**

    Open points:
    - **Order of MCE de-activation after MCE4**
    - **Procedure not clear: a) in Standby with biases OFF (*assumed*) or b) MCEs powered OFF? (N.B. If a), config restored at start of next rev. If b), config MUST be restored manually at end of rev else TL commanding at start of next rev will fail.)**
    - **IF MCEs powered OFF, what about heater config?**

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- **Required EDs (TC sequences):**

3)JEM-X disable anodes

- **2 new EDs required (1 for each JEM-X) IF anode configuration via formal parameters (to be specified in OCR by ISOC)**
- **Procedure clear (Setup mode; change anode config, back to Data Taking)**
- **N.B. Configuration will be restored automatically at start of next rev by ED K/LEACAL01 (*sched. by FD*)**

Open points:

- **Order of anode segment deactivation**
- **Okay for formal parameters to be specified by ISOC?**

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Procedure:

1. ISDC detect bright source/TM saturation
2. ISDC contact ISOC/PS for checking and approval of configuration change
3. ISOC raise OR via webpage to MOC to uplink required ED (s) stating:
   - ED name
   - Formal parameter values if applicable
   - Uplink time
   - Time at which configuration should be restored (or confirm that restored at start of next revolution)

Open points:

- Procedure if configuration should be maintained for > 1 rev. New OR for each rev?
- Approval cycle and recording TBD.
- Count rate thresholds are not yet clearly defined?