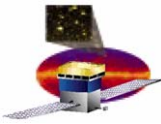**Gamma-ray Large Area Space Telescope**

GLAST Large Area Telescope

WBS 4.1.B
Instrument Science Operations Center
Monthly Status Review
2 Dec 2004

Rob Cameron
rac@slac.stanford.edu
650-926-2989

November Activity

- **Management**
  - **Supported project rebaseline: little project cost growth due to ISOC**
  - **Working with FSW management to coordinate future use of software developers for FSW maintenance and other ISOC software development tasks**
  - **DC2 planning: ISOC is participating in DC2 coordination group. ISOC participation is possible in DC2, currently scheduled for July 2005. Details of involvement are TBD, but might be e.g. LAT anomaly checking/detection in simulated data**
  - **Received inputs from NRL for post-launch operations support tasks**
- **CDR RFAs**
  - **RFA1, on ISOC Documentation Tree, submitted for closure**
  - **Iterated and resubmitted responses to RFAs 3,4,5**
- **Requirements and Documentation**
  - **Updated ISOC Level3 requirements: sent out for comment**
  - **Comments prepared on Operations Data Products ICD**
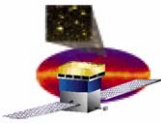
November Activity (cont.)

- ❑ **ISOC architecture**
  - – **ISOC development schedule being refined: key milestones are ISOC software releases, tied to GRTs**
  - – **ITOS: met with Manfred Bester of Berkeley SSL to review ITOS usage for SSL missions**
  - – **Discussion with Greg Greer about severity of ITOS "memory leaks", and if these are an issue for ISOC**
  - – **ISOC working with Online software group to gain knowledge of LATTE**
  - – **Investigation of ITOS-LATTE interoperability: dataserver within ITOS can relay CCSDS telemetry packets to LATTE**
  - – **Split of tasks between ITOS and LATTE still in work.**
- ❑ **GOWGs**
  - – **8 week delay expected for Ground Readiness Tests**
    - • **GRT1: 14 April 2005, GRT2: 15 June 2005, GRT7: 17 July 2006**
    - • **Other milestones: MOR, expected to also slip**
  - – **Requested Fastcopy license for early testing with GINO pipeline. ISOC will need 2 licenses for redundant Linux servers.**
  - – **Reviewed responsibilities of MOC and ISOC for SAA data**
- ❑ **I&T Support**
  - – **Continued development of LAT housekeeping trending database**
  - – **Web interface and query response speed improvements**
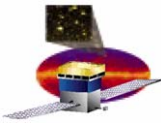
November Activity (cont.)

- ❑ **ISOC/SAS coordination**
  - **ISOC status now presented at weekly ground software VRVS meeting**
  - **Pipeline/J2EE: ISOC participated in review of SAS pipeline architecture, and migration to J2EE architecture. ISOC will support this migration, for future maintainability**
- ❑ **SVAC coordination meetings**
  - **Weekly ISOC-SVAC coordination meetings started**
  - **Coordination of database development**
  - **Calibration activities**
- ❑ **ISOC/Project/Science/GSSC coordination**
  - **Reviewed scope of implementation of backup LAT pipeline at GSSC**
  - **Discussed 104Gb/day LAT data limit with Project Scientist, relative to 300Hz Earth limb albedo and pointed observation scheduling by GSSC**
  - **Discussed plans and methods for distributing LAT results for GRBs and selected celestial objects**

November Activity (cont.)

- ❑ **Flight Software coordination**
  - – **Reviewed FSW file structure and management section of FSW User Guide**
    - • Further understanding needed for use of diagnostic tlm to show details of file load success/failure
  - – **Currently defined T&C dbx files from FSW only carry single set of telemetry limits, for on-board limits**
    - • need separately identified on-board limits and ground limits
- ❑ **Mission Planning and Command Generation**
  - – **MP&CG Level 3 requirements defined**
  - – **Initial mission planning and commanding testing in GRT2 being scoped: how much MP& CG tool development will be needed to support building of representative data products to be transmitted in GRT2.**
- ❑ **ITAR meetings**
  - – **Reviewed ISOC operations from ITAR perspective with SLAC legal counsel**
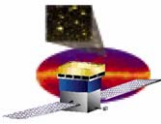
December/Early 2005 Activities

- ❑ **Ground Operations TIM at GSFC in January 2005**
    - – **Ground system test schedule review and planning**
    - – **Data flow to IOCs**
    - – **Procedure and PROC development**
- ❑ **Purchase of 2 ISOC workstations, for development**
- ❑ **Continue to work on Kavli building usage for ISOC**
    - – **Still working on details of build-out of light lab area in Kavli, to obtain estimate of build-out cost**
    - – **Short term solution: new trailers not possible**
    - – **Offices in Building 210 being emptied, cleaned for ISOC office space and workstation area**
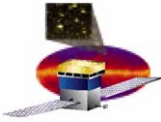
Issues and Concerns

❑ **ISOC architecture: use of ITOS and LATTE**

- **Details of ISOC software design are currently being defined, to clarify roles for ITOS and LATTE. Capabilities are somewhat complementary**

- **Design drivers:**
  - **Provide needed LAT monitoring and control functions**
  - **Minimize risk to ISOC schedule**