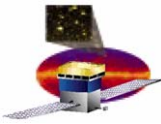


GLAST Large Area Telescope

WBS 4.1.B

**Instrument Science Operations Center
Monthly Status Review
5 January 2005**

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



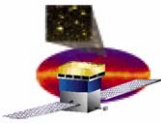
December Activity

❑ Management

- ISOC development schedule being tracked in MS project
- Offices in Building 210 ready for ISOC occupancy
- Continuing to support DC2 planning: definition of SAA boundary for incorporating SAA data gaps in DC2

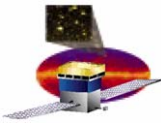
❑ Requirements

- ISOC mission planning requirements revised and internally reviewed
 - will coordinate with GSSC for use of common mission planning tools where appropriate, e.g. target visibility prediction
- Refining new requirements on TKR and CAL calibration products (moved from FSW to ISOC)



December Activity (cont.)

- ❑ **ISOC architecture**
 - Completed more detailed data flow diagrams for ISOC elements, to coordinate with other ground software development by SAS, SVAC etc.
 - already reviewed with ISOC team, will be reviewed with other ground elements in January
- ❑ **GOWGs**
 - ISOC staff will support GOWG TIM at GSFC in the first week of February
- ❑ **Fastcopy**
 - Received 2 Fastcopy licenses for ISOC. Checking with vendor about portability of licences and needed privileges before installing them on servers
 - ISOC development and testing is using temporary Fastcopy licences



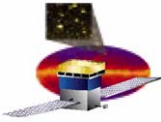
December Activity (cont.)

- **SAA boundary definition study**
 - **First work on realistic SAA boundary definition performed, to support DC2 planning**
 - **Uses AP8MIN trapped radiation model from NSSDC**
 - **SAA boundary defined by 12-segment polygon hand fit to proton flux = 1 p/cm²/s for protons with $E > 10\text{MeV}$. This roughly corresponds to ~doubled LAT background rate of 10kHz, for $A_{\text{eff}} = 10,000\text{cm}^2$**
 - **Although realistic, there are planned updates:**
 - **update IGRF from 2005 epoch to 2007/8 epoch**
 - **investigate higher fidelity radiation models, e.g. TPM from MSFC**
 - **study details at <http://www.slac.stanford.edu/~rac/SAA>**
 - **Next step: confirm LAT tracker data to be used for in-flight refinement of SAA boundary**



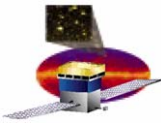
December Activity (cont.)

- ❑ **SVAC coordination meetings**
 - **ISOC supports SVAC-driven move to incorporate sub-system config data in UDF elements in LDF data files**
- ❑ **Database development**
 - **improved web interfaces to databases**
 - **static trending web pages generated from Perl replaced with dynamic ColdFusion pages**
 - **working with SLAC Java experts on using JAS3/AIDA tags in ColdFusion pages, to include better graphics capability (ColdFusion graphics are too primitive for LAT needs)**
 - **debugging ITOS dbx database file compatibility problems for loading into SCS Oracle**
 - **some early work on display of TKR ToT, dead/noisy channel information**
 - **still awaiting real data from Flight Cal tests**



December Activity (cont.)

- ❑ **Flight Software coordination**
 - **Web-based documentation system for FSW C&T handbook is largely finished**
 - **More details of use of FSW diagnostic data being gathered. Need to clarify typical and atypical uses of diag telemetry, for future discussion with MOC reps at GOWG**
- TIM**



Early 2005 Activities

- ❑ **Ground Operations TIM at GSFC delayed to February 2005**
- ❑ **Installation of 2 ISOC development workstations**
- ❑ **Continue work on Kavli building usage for ISOC**
 - **Cost estimate for build-out of light lab area in Kavli for ISOC operations area: working with KIPAC and Stanford Department of Capital Planning which will produce cost estimate**
 - **Move ISOC staff and computers into offices in Building 210 as short-term ISOC office space and operations workstation area**
- ❑ **Key milestones for ISOC:**
 - **ISOC s/w release 1: 28 April 2005**
 - **GRT#2: 15 June 2005**