



# **GLAST Large Area Telescope**

WBS 4.1.B ISOC GSFC Monthly Review

**April 27, 2004** 

David Lung
Deputy Subsystem Manager



## March and April Accomplishments

- □ New Subsystem Manager Bill Craig
- □ Established a detailed ISOC headcount forecast
  - Projected positions in LOF, SOG, and SAS
  - Identified the approximate time period for transition of personnel from other subsystems
  - Reviewed the forecast with SLAC management and Project PI
  - Job posting in place for hiring software engineer(s) to support LOF development



## March and April Accomplishments, cont'd

#### Performed an update to the LAT Operation Plan

- Added SOG to the ISOC organization and redefined responsibilities
- Incorporated change from X-band to Ku-band
- Incorporated use of TDRSS as primary command and telemetry path and Ground Network as backup
- Incorporated operations concepts that have been developed over the last year
- Updated calibration section



#### **Review Status**

#### □ Completed ISOC Peer Review March 2, 2004

RFA Summary	Requestor	Actionee	Status
Need ISOC Management Plan & Approach	R. Schweiss	D. Lung/L. Bator	In work
Need overall functional block diagram illustrating the	R. Schweiss	L. Bator	
functional capabilities and data flow during various phases			
Risk Analysis	R. Schweiss	D. Lung	
Reschedule ISOC CDR	M. Rackley/C. Young	D. Lung	Planned August 4, 2004
Level III requirements for the LOF and SOG are not complete	M. Rackley	L. Bator	In work
Staffing plan and profile	M. Rackley/C. Young	W. Craig/D. Lung	First draft completed
Define the ISOC reports for internal use and external use	M. Rackley	L. Bator	Identified in Ground
			Systems TIM
The ISOC does not yet know what system it is using to	M. Rackley	L. Bator	
process Observatory HSK data or perform the commanding	•		
Describe lesson learned & approach	M. Rackley	D. Lung	
ISOC verification does not involve early opportunities to	M. Rackley/N. Johnson	L. Bator	
validate/test using LAT instrument			
Verify LAT modes	M. Davis	L. Bator	Identified in Ground
			Systems TIM
Understand the number of writes to EEPROM	C. Young	L. Bator	Submitted
ISOC detailed development schedule	K. Lehtonen	D. Lung	In work
Enter a more formal agreement with SLAC management on	N. Johnson	Michelson (R. Dubois)	
required data storage and processing requirements			
ISOC organization structure & communications	N. Johnson	W. Craig/D. Lung	First draft completed
Define mechanism for ISOC requirements being placed on	N. Johnson	D. Lung	
I&T and SAS			
Define LOF/SOG tools	R. Corbert	L. Bator/J. Panetta	
Specify plans and requirements for automation of Ops	R. Corbert/M. Rackley	L. Bator/J. Panetta	
Specify plans and requirements for Ops SW to be of sufficient	R. Corbert	L. Bator/J. Panetta	
robustness			
Specify what other ground system elements will be involved in	R. Corbert	L. Bator/D. Lung	
LAT operations		1	

□ Completed DOE Review, no action items or significant recommendations



## **Key Milestones**

□ Key FY 04/05 dates for ISOC Subsystem (revised)

ISOC Detail Design Review	August 4, 2004
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•	<b>Ground System</b>	<b>Detailed Review</b>	<b>August 18-19</b> ,	2004
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•	LOF SW Release 1	March 15, 2005
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**Support GRT #2** 

**Support GRT #5** 

•	LOF SW Release 2	October 14, 2005
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Mission Operations Review October 18, 2005



### **Open Issues/Concerns**

#### Concerns

- Staffing (identified in the Peer Review)
  - Concern: Need plan and contingency for transferring
     Physicist/Engineers currently supporting other subsystems, i.e., I&T and Electronics, into ISOC.
  - Closure Plan: Continue weekly planning meeting with SLAC management to identify the ISOC staffing requirements and establish a transition plan.
- Database development
  - Concern: The LAT database development is fragmented, as it is being developed by multiple subsystems.
  - Closure Plan: ISOC has established a weekly working group meeting to define and develop the LAT database; ISOC is hiring software engineer(s) to participate in this effort.



## **Concerns (continued)**

#### ISOC Ground Operations System

- Concern: Need a detailed design of the hardware and software that will be used for on-orbit operations.
- Closure Plan: ISOC is hiring a software engineer to work with I&T to define and develop the ISOC Ground Operations System.



#### **Cost & Schedule Status**

- □ Schedule & Cost threat
  - There are no schedule and cost threats in ISOC's critical path
- □ Cost & Schedule Variances (March 2004)
  - No significant schedule or cost variance since rebaseline