

# GLAST Large Area Telescope

**WBS 4.1.B**

**Instrument Science Operations Center  
Monthly Status Review  
24 May 2005**

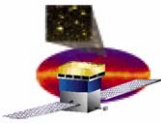
**Rob Cameron  
rac@slac.stanford.edu  
650-926-2989**



# ISOC Software Development

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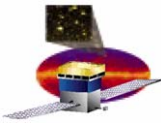
- ❑ **ISOC software development**
  - **Software release 1 being readied to support GRT2**
  - **Candidate ISOCv1r0p0 committed to CVS**
  - **Expected final release in late May (but will be delayed by SLAC power outage)**
    - **Major functions**
      - **Mission planning data product exchange with GSFC**
      - **Receive RT HK, Diag, Alert data from MOC (ITOS)**
      - **Ingest Level 0 data from MOC**
      - **Data trending**
    - **Supports operations data product tracking**
  - **ISOCv1r1p0 expected release in July 2005, to support GRT3**



# GOWG/GIMGOM Activity

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- ❑ **Ops Data Products ICD**
  - ICD was approved for baseline in CCB on 11 May, ready to support GRT 2
- ❑ **Science Data Products ICD**
  - Being reviewed through Science Tools telecons
  - Discussions in progress on scope and format of some LAT data elements
    - LS-003: Low level calibration data
    - LS-006: Configuration history
  - Meeting underway at SLAC on LAT deliverable products: source catalog and diffuse emission model
- ❑ **Planning for next face-to-face GOWG TIM at SLAC in late September. Exact dates TBD.**
- ❑ **New Ground System schedule distributed on 23 May**
  - Tests and reviews pushed to later dates
  - GRT2 27-28 June 2005; GRT7 12 July 2006
  - ETE1 29 Aug 2006; ETE 6: 27 July 2007
  - 3 Mission Simulations: Mar, Apr, July 2007
  - MOR 31 March 2006



# ISOC Database Activities

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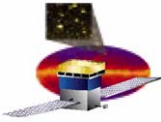
- ❑ **ISOC trending database development**
  - **Some redesign of Oracle table schemas**
  - **Move DBs and development to Oracle 10g on SLACDEV**
- ❑ **Database interface development**
  - **ColdFusion support will be limited to maintenance of existing install, no further updates expected**
  - **Look at migrating existing ColdFusion pages to Java, JSP**
- ❑ **GLAST PDB delivery received for GRT2**
  - **Spacecraft, GBM, LAT dbx files, in tar file**
  - **Ingested into ITOS with minimal problems**
- ❑ **LAT Config and Calib DB information gathering proceeding**
  - **Initial step in LAT configuration management task**



# LAT Configuration

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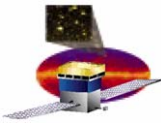
- **ISOC is working with project elements on LAT instrument configuration management and tracking**
  - **Flight-like method should be in place for LAT system testing in late 2005**
    - **Define structure of config data in FSW file system**
    - **Should use ISOC-compatible tools for LAT config control**
  - **Then should plan to use this flight-like method for LAT testing at NRL, and then at SASS**
    - **Need to reconcile LAT config change management with expected NRL and SASS test methods and flows**
    - **Establish timeline for having final LAT launch configs in EEPROM at L-60**
  - **LATC in FSW is key software element**
  - **Look at planning in LATTE 5 for instrument config management**



# ISOC Staffing

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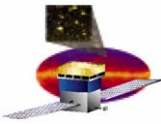
- ❑ **ISOC staff hiring**
  - **Interviews are continuing for two positions**
    - **Test Engineer, to support ISOC software releases and lead ISOC participation in GLAST ground system tests**
    - **Software Developer, to support ISOC software releases and database development and maintenance**
  - **SVAC/PVO Engineering Physicist: employment requisition in signature process. Instrument analysis support; replacement for Xin Chen**



# ISOC Facilities

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- ❑ **SLAC giving go-ahead for some FY2005 build-out of extra space in Kavli**
  - **Basic utilities to be installed**
    - **HVAC**
    - **Power and signal**
    - **Lighting**
    - **Drop ceiling**
  - **Further build out costs deferred to FY2006**
- ❑ **Working with KIPAC on GLAST/ISOC needs in Kavli building at SLAC**
  - **Scientist office space**
- ❑ **Looking at GLAST needs in Varian 2 building on SU campus**
  - **Scientists + some backup ISOC accommodation**

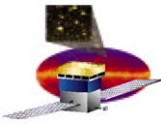


# Backup Operations Support in the ISOC

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- ❑ **ISOC is currently considering some limited backup operations capability, to support continued GLAST operations in the event of SLAC outages**
- ❑ **Space allocated in Varian 2 building being constructed at Stanford (to be completed in summer 2006)**
- ❑ **Backup facility functions**
  - **LAT health and safety monitoring**
  - **Support for continued LAT data taking:**
    - **Support GLAST mission planning**
    - **LAT timeline preparation and delivery**
  - **No support for science event data processing**
- ❑ **Derived requirements**
  - **Oracle provides backup database server capability**
  - **backup ISOC web server**
  - **backup ISOC real-time data receipt, decom, display**
  - **Extra FastCopy license**

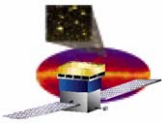




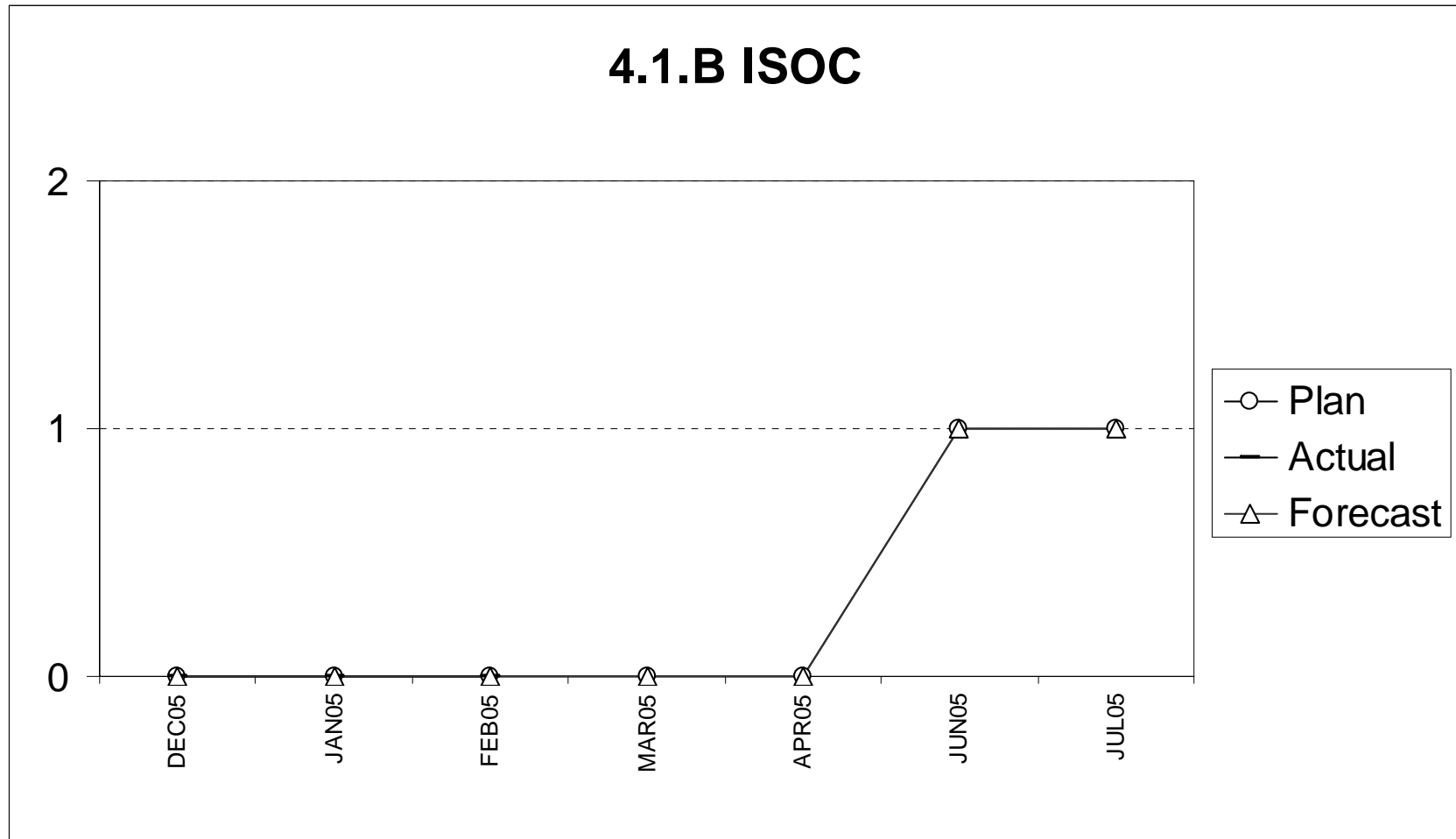
## Near Future Activities

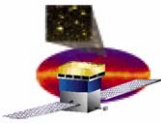
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- ❑ **3 June 2005: ISOC-MOC rehearsal engineering test**
- ❑ **28 June 2005 GRT2 (ISOC not involved in day 1 of GRT2)**
- ❑ **27-29 June 2005: DC2 coordination meeting at GSFC**
- ❑ **27 Sept 2005: GRT #3**



# Level 3 Milestone Count





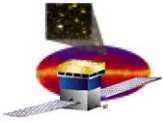
# Level 3 Milestone List

Activity Description	Baseline Finish	-2m Var	-1m Var	Bsln Var	Early Finish	2005												
						FE	MA	AP	MA	JU	JU	AU	SE	OC	NO	DE	JA	
<b>4.1.B ISOC</b>																		
Ground System Interface Test start	06/15/05*	0	0	0	06/15/05*					▽								
Mission Operations Review	01/17/06*	0	0	0	01/17/06*													▽

Run Date 05/23/05 10:45  
 Data Date 05/01/05  
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**GLAST LAT PROJECT**  
**Level 3 Milestones**  
**Baseline Variance (Organized by Subsystem)**

LT-DZ: Baseline Variance  
 FL-D4: AV: Level 3 Milestones  
 Report #10  
 Sheet 12



# Milestone Variance Explanation

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- ❑ **Schedule Impact**
- ❑ **Cost Impact**
- ❑ **Corrective Action**
  - **None required**



# Cost Report

Reporting Category	Cost Incurred/Hours Worked				Estimated Cost/Hours to Complete			Estimated Final Cost/Hours		Unfilled Orders Outstanding
	During Month		Cum. to Date		Detail		Balance of Contract	Contractor Estimate	Contract Value	
	Actual	Planned	Actual	Planned	MAR05	APR05				
<b>4.1.B LAT INSTRUMENT SCIENCE OPERATIONS CENTER</b>										
4.1.B.1 PROJECT MANAGEMENT	1	-7	156	155	5	5	22	188	188	0
4.1.B.2 PERFORMANCE ASSURANCE	0	0	6	6	0	0	0	6	6	0
4.1.B.3 MISSION & OPERATIONS PLANNING	0	0	101	101	0	0	0	101	101	0
4.1.B.4 LAT OPERATIONS FACILITY	0	0	16	16	0	0	0	16	16	0
4.1.B.5 IOC TEST	0	0	0	0	0	0	0	0	0	0
4.1.B.6 LAT PERFORMANCE VERIFICATION	0	0	24	24	0	0	0	24	24	0
<b>CAPW[3]Totals:</b>	<b>1</b>	<b>-7</b>	<b>302</b>	<b>302</b>	<b>5</b>	<b>5</b>	<b>22</b>	<b>334</b>	<b>334</b>	<b>0</b>