

GLAST LAT Instrument

*GLAST Monthly
Mission Review
February 8, 2007*



Monthly Mission Review

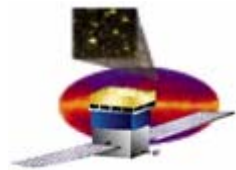
Project Status Overview

February 8, 2007

Ken Fouts

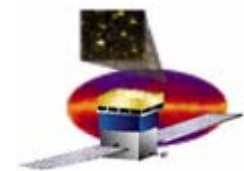
SLAC

kfouts@slac.stanford.edu



LAT Project Status

-
- | | |
|-------------|---|
| 1/18 | FSE B0-8-0 Available |
| 1/22 | Functional Test Complete |
| 1/25 | Successful Config 1 B0-8-0 Installation |
| 1/26 | Muon testing begins. Two reboots |
| 1/27 | Muon testing continues. One reboot. |
| 1/31 | Radiator Installation preparations complete. |
| 2/2 | FSW B0-8-1 installed. |
| 2/7 | Begin 32 hours tests. One reboot.
Completed Functional Test data taking. |



GLAST LAT Instrument

LAT Planned Milestones

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Activity

ECD

LAT FSW 0.9.0

2/20/07

LAT/SC Signal Characterization

2/19/07

Observatory CPT Completion

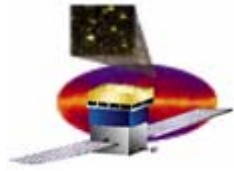
3/6/07

LAT Radiator Integration

3/14/07

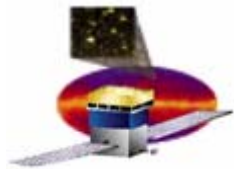
LAT FSW 1.0.0

5/1/07



I&T/Online Progress

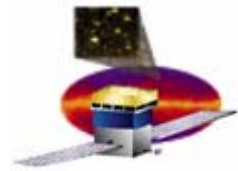
- ❑ **Tools, configuration files, DAQ and analysis scripts updates and maintenance**
- ❑ **Fixed incorrectly decommed spacecraft telemetry**
- ❑ **LICOS to Astro-RT interface can now reconnect when PTP is rebooted**
- ❑ **Added a logging feature to the processing of LAT SSR-dump of VCDU science data to assist I&T operators in monitoring data completeness**
- ❑ **Addressed testing/V&V environment “versionitis”**
- ❑ **Supported I&T at GD**
 - **Functional tests**
 - **Upload FSW B0-8-0 1/25/07**
 - **Upload FSW B0-8-1 2/2/07**
- ❑ **Diagnosed science data problems that showed up with FSW B0-8-0**
- ❑ **MOOT-based Register & Software Configuration Tools development (Panetta, Charles, Decotigny)**
 - **Used to populate the configuration database**
 - **Alpha release made**
- ❑ **DFI “plug-in” development**
 - **Supports science data types in addition to LPA and LCI**
- ❑ **Various JIRAed bug fixes**



JIRA issues (as of 2/6)

Package	Issues opened since 1/9	Issues closed since 1/9	Total # of issues currently open
LICOS	8	6	21
LICOS_Config	6	8	8
LICOS_ETC	16	12	23
LICOS_Scripts	30	59	24
INT	5	10	20
LDF	0	0	1
LSF	0	0	0
E-Logbook	2	0	22
Totals	67	95	119

- **Note that some issues were moved between packages since last month**



Top I&T Online JIRA issues

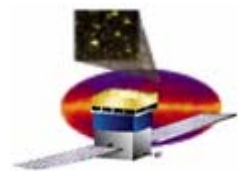
- ❑ **LCS-247: FMX file resolution is broken as of FMX V3-2-0**
- ❑ **LCS-240: Verify the FSW modules used against the current FSW build**
- ❑ **LS-195: LatPowerOn calculating power consumption incorrectly**
- ❑ **Register & Software Configuration Tools**
- ❑ **DFI integration into analyses (LS-88, LCS-72, LE-40, LE-38, LE-37, LE-36, LS-214)**



MECH January Accomplishments

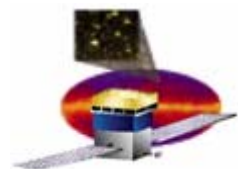
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- ❑ Released procedures for Radiator installation and LAT Final Close-Out
- ❑ Completed minor rework of Radiators in preparation of Radiator installation
 - Patched FOSR (reflector) cut-outs on outboard surface from LAT thermal vacuum testing
 - Re-install thermocouples and accelerometers required for OBS testing
 - Calibrated above accelerometers
- ❑ Updated LAT venting analysis to include MLI venting
- ❑ Supported SC – LAT MLI blanket mock-up efforts on OBS at GD
- ❑ Supported Thermal Working Group meetings at GD
 - Presented details of LAT leveling techniques used at NRL




LAT Issues and Concerns

- ❑ **LAT Reboots**
 - LAT team looking at test stand upgrades to incorporate flight spares for additional reboot test capability.
- ❑ **Spacecraft Schedule**
 - 32 hours continuous testing this week is helpful.
- ❑ **Dropped telemetry packets**
 - Causes DAQ script instability
- ❑ **SSR capture issues**
 - Delays data transfer/test completion


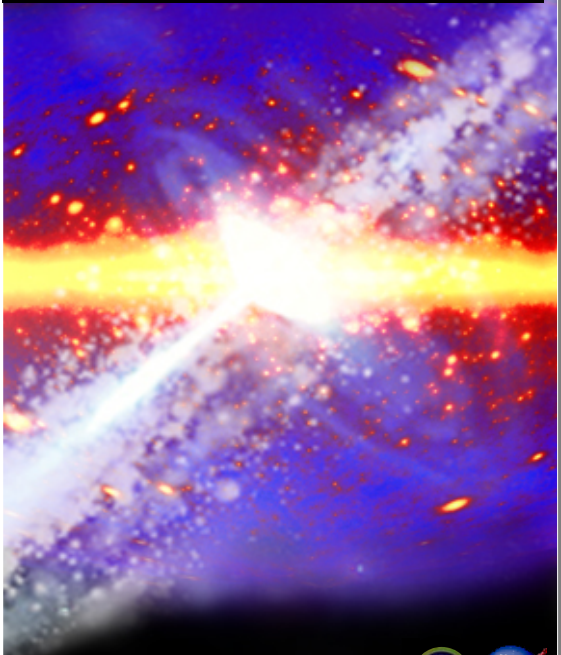


GLAST / LAT Instrument

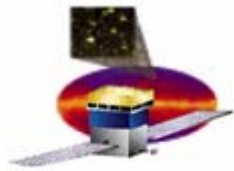
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**Gamma-ray Large
Area Space
Telescope**

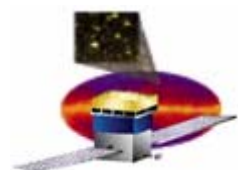


**Cost/Schedule Reports for
4.1 LAT
Presentation
November 2006 Month End**



CPR Level 3

DEC 2006 MONTH-END By WBS Level 3 (1)	Current Period			Cumulative to Date			At Completion		
	Budgeted Cost (2)	Actual Cost (4)	Cost Variance (6)	Budgeted Cost (7)	Actual Cost (9)	Cost Variance (11)	Budgeted (12)	Latest Estimate (13)	Variance (14)
4.1.1 INSTRUMENT MANAGEMENT	186	316	-130	22,970	22,119	851	25,533	25,533	0
4.1.2 SYSTEM ENGINEERING	91	108	-18	10,977	10,993	-17	12,165	12,165	0
4.1.4 TRACKER	0	171	-171	21,486	21,443	43	21,486	21,486	0
4.1.5 CALORIMETER	0	1	-1	21,554	21,552	2	21,554	21,554	0
4.1.6 ANTICOINCIDENCE DETECTOR	0	1	-1	18,164	18,164	0	18,164	18,164	0
4.1.7 ELECTRONICS	57	851	-794	31,705	32,091	-387	32,455	32,455	0
4.1.8 MECHANICAL SYSTEMS	0	758	-758	17,463	17,438	25	17,463	17,463	0
4.1.9 INTEGRATION & TEST	142	232	-90	14,626	16,092	-1,467	16,130	16,130	0
4.1.A PERFORMANCE AND SAFETY ASSURANCE	36	195	-159	5,624	5,467	156	6,028	6,028	0
4.1.B LAT INSTRUMENT SCIENCE OPERATIONS CENTER	0	0	0	317	316	0	317	317	0
4.1.C EDUCATION AND PUBLIC OUTREACH	40	64	-24	3,463	3,223	241	3,988	3,988	0
4.1.D SCIENCE ANALYSIS SOFTWARE	71	21	49	4,178	3,841	337	5,114	5,114	0
4.1.E SUBORBITAL FLIGHT TEST	0	0	0	1,325	1,325	0	1,325	1,325	0
Gen. and Admin.	0	0	0	0	0	0	0	0	0
Undist. Budget							0	0	0
Sub Total	622	2,718	-2,096	173,851	174,065	-214	181,722	181,722	0
Contingency							6,333	6,333	0
Total	622	2,718	-2,096	173,851	174,065	-214	188,055	188,055	0



Cost by Organization

DEC 2006 MONTH-END By Institution (1)	Current Period			Cumulative to Date			At Completion		
	Budgeted Cost (2)	Actual Cost (4)	Cost Variance (6)	Budgeted Cost (7)	Actual Cost (9)	Cost Variance (11)	Budgeted (12)	Latest Estimate (13)	Variance (14)
DG *** GSFC	43	79	-36	20,884	20,360	524	21,489	21,489	0
DH *** HEPL	110	83	26	10,625	10,187	439	12,029	12,029	0
DL *** SLAC	313	2,247	-1,934	103,512	103,621	-110	107,311	107,311	0
DN *** NRL	88	216	-129	32,159	33,642	-1,483	33,311	33,311	0
DO *** Financial Plan Transfer/Sub Out	0	0	0	59	59	0	59	59	0
DS *** SSU	40	63	-23	3,421	3,186	235	3,937	3,937	0
DT *** Texas A&M	0	0	0	15	15	0	15	15	0
DU *** UCSC	21	24	-3	2,746	2,650	96	3,034	3,034	0
DW *** UW	8	5	3	429	344	85	538	538	0
Gen. and Admin.	0	0	0	0	0	0	0	0	0
Undist. Budget							0	0	0
Sub Total	622	2,718	-2,096	173,851	174,065	-214	181,722	181,722	0
Management Resrv.							6,333	6,333	0
Total	622	2,718	-2,096	173,851	174,065	-214	188,055	188,055	0

FTE Report (DOE/NASA-funded only)

