

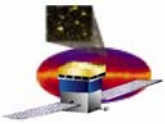


GLAST Large Area Telescope:

Electronics, Data Acquisition & Flight Software W.B.S 4.1.7

Sept 27 Monthly Review

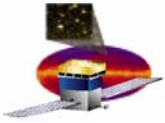
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TEM/TPS Status

- **Status**
 - Qual unit review still to occur
 - 19 flight units delivered to I&T
 - 2 TPS units removed from Twr A and Twr B being modified

- **To do**
 - Finish modification of 2 TPS's taken off TwrA and B
 - Mating with TEM's
 - Vibration
 - End data package review



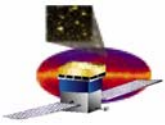
PDU Status and Schedule

- 1st unit (flight)
 - Review
- 2nd unit (spare)
 - Pre-coat stage box tested at SLAC
 - Returned to vendor for conformal coating
 - On hold to assemble SIU modules



GASU Status and Schedule

- **First Unit**
 - Expect delivery of final assembly this week to SLAC
 - Followed by test/mass/TC/test/vib/test/TV: 23 days
 - Followed by EMI (10 days)
 - Estimated delivery to I&T: second week of November
- **Schedule for 2nd unit**
 - Estimated delivery to I&T: 6 weeks after delivery of first unit



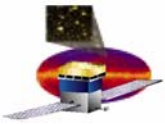
SIU/EPU (1)

- **SLAC Qual testing of boards assembled at Aeroflex**
 - Testing was all completed without failures
 - Received spread-sheets: correlation of pins tested to results of X-rays from GSFC, needs evaluation at SLAC
- **Backplanes**
 - 7 backplanes with cCPI connectors at vendor for conformal coat and harness assembly
 - Expect to receive 1 fully assembled backplane end of this week (for proto-flight testing of SIU)
 - Additional ones with 5 days lag each.
- **Plug-In Boards (SIB, LCB, CPS)**
 - Some issues with connector alignment. Needed to replace one cCPI connector since board could not be plugged into backplane



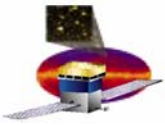
SIU/EPU (2)

- **1st SIB, LCB, CPS (for proto-flight testing of SIU)**
 - One each final assembly (conformal coated) are at SLAC, tested
 - Note that the SIB contains chlorine-contaminated EEPROM, other modules could be flight
 - Waiting for backplane assembly later this week
 - Then start of proto-flight testing, end expected Nov 10.
- **2nd and 3rd SIB/LCB/CPS (for 1st and 2nd flight SIU/EPU)**
 - Pre-conformal coat boards tested at SLAC, returned to AF
 - Expected at SLAC end of next week
 - By then at least one backplane should also be delivered
 - Integration in 1st and 2nd SIU (or EPU)
 - Environmental testing
 - Expected delivery to I&T 2nd week of November
- **Remainder of crates follow**
 - Remainder of 3 flight crates to I&T expected 2nd week of December
 - http://www-glast.slac.stanford.edu/Elec_DAQ/Flight-Production/AF-Schedules/schedule.htm
 - Individual sheets for SIB's, LCB's, CPS, CBP, and complete SIU
- **EEPROM for SIB:**
 - EEPROM were not received at SLAC
 - Issue with external visual at Austin after PIND (apparently there are scratches etc from handling).
 - Trying to get 19 good pieces out of Austin (plus 1 for DPA for GSFC)



Harness & Heater Control Box & Interconnect Box

- **Harness in assembly, almost complete (some spare cables in rework)**
- **HCB**
 - **Boards assembled**
 - **Enclosures received**
 - **Await harnesses (expected end of next week)**
 - **Assembly lower priority compared to GASU/SIU**
- **HIB (Interconnect box)**
 - **Parts kitted at SLAC**
 - **To be assembled at SLAC**
 - **Waiting for release of latest rev of assembly drawing**

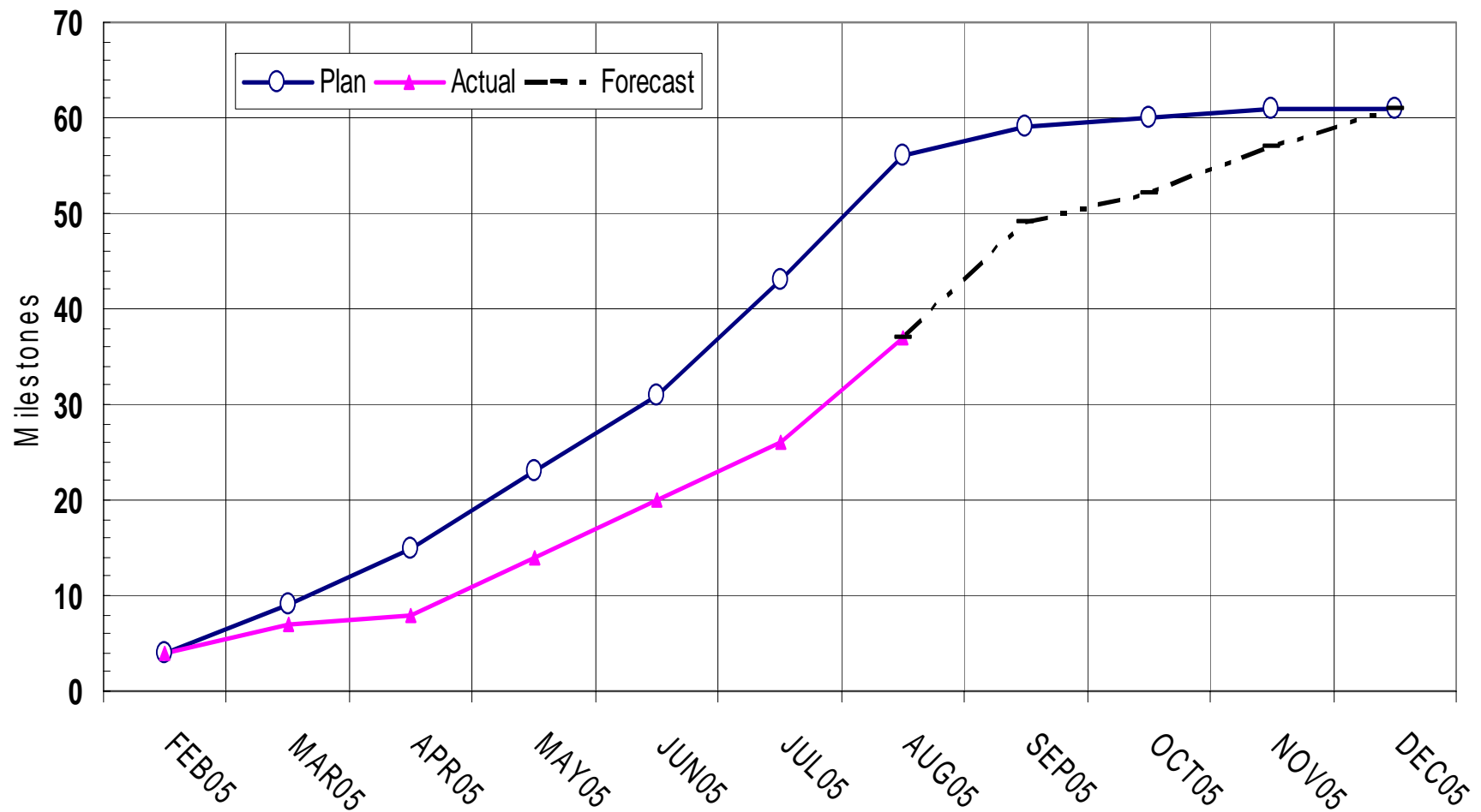


Thermo-testing support/ VSC

- **EGSE used for thermal-test at Lockheed back at SLAC, use parts for other test setups (e.g. SIU)**
- **VSC**
 - **Voltage and temperature monitoring:**
 - **code is written.**
 - **Some boards need to be loaded and tested.**
 - **Science data part of the VSC is progressing.**
 - **Hardware is done**
 - **software estimated to be complete by mid October**



Level 3 Milestone Count





Level 3 Milestone List

Activity Description	Baseline Finish	-2m Var	-1m Var	Bsln Var	Early Finish	2005												2006				
						F	E	M	A	M	J	J	A	S	O	N	D	D	E	J	F	M
4.1.7 Electronics																						
Elex Ground Support Equipment																						
Final EGSE incl S/C Sim, FSW-Elec	04/01/05	-105	-128	-128	10/03/05																	
TEM/PS A																						
Flight TEM Assy A: Elec to I&T	02/17/05	0	0	0	02/17/05A	▼																
Flight TEM PS Assy A: Elec to I&T	02/17/05	0	0	0	02/17/05A	▼																
TEM/PS B																						
Flight TEM Assy B: Elec to I&T	03/07/05*	-2	-2	-2	03/09/05A	▼																
Flight TEM PS Assy B: Elec to I&T	03/07/05*	-2	-2	-2	03/09/05A	▼																
TEM/PS 1																						
Flight TEM Assy 1: Elec to I&T	04/22/05	-19	-19	-19	05/19/05A		▼	▼														
Flight TEM PS Assy 1: Elec to I&T	04/22/05	-19	-19	-19	05/19/05A		▼	▼														
TEM/PS 2																						
Flight TEM Assy 2: Elec to I&T	04/29/05	-14	-14	-14	05/19/05A		▼	▼														
Flight TEM PS Assy 2: Elec to I&T	04/29/05	-14	-14	-14	05/19/05A		▼	▼														
TEM/PS 3																						
Flight TEM Assy 3: Elec to I&T	05/06/05	-18	-18	-18	06/02/05A		▼	▼														
Flight TEM PS Assy 3: Elec to I&T	05/06/05	-18	-18	-18	06/02/05A		▼	▼														
TEM/PS 4																						
Flight TEM Assy 4: Elec to I&T	05/13/05	-15	-15	-15	06/06/05A		▼	▼														
Flight TEM PS Assy 4: Elec to I&T	05/13/05	-15	-15	-15	06/06/05A		▼	▼														
Run Date	09/21/05 15:25	GLAST LAT PROJECT				LT-DZ: Baseline Variance												Report #10				
Data Date	09/01/05	Level 3 Milestones				FL-D4: AV: Level 3 Milestones												Sheet 6				
© Primavera Systems, Inc.		Baseline Variance (Organized by Subsystem)																				



Level 3 Milestone List

Activity Description	Baseline Finish	-2m Var	-1m Var	Bsln Var	Early Finish	2005												2006					
						F	M	A	M	J	J	A	S	O	N	D	E	J	A	F	M	A	M
TEM/PS 5																							
Flight TEM Assy 5: Elec to I&T	05/20/05	-10	-10	-10	06/06/05A																		
Flight TEM PS Assy 5: Elec to I&T	05/20/05	-10	-10	-10	06/06/05A																		
TEM/PS 6																							
Flight TEM Assy 6: Elec to I&T	05/27/05	-38	-38	-38	07/22/05A																		
Flight TEM PS Assy 6: Elec to I&T	05/27/05	-38	-38	-38	07/22/05A																		
TEM/PS 7																							
Flight TEM Assy 7: Elec to I&T	06/06/05	-33	-33	-33	07/22/05A																		
Flight TEM PS Assy 7: Elec to I&T	06/06/05	-33	-33	-33	07/22/05A																		
TEM/PS 8																							
Flight TEM Assy 8: Elec to I&T	06/13/05	-28	-28	-28	07/22/05A																		
Flight TEM PS Assy 8: Elec to I&T	06/13/05	-28	-28	-28	07/22/05A																		
TEM/PS 9																							
Flight TEM Assy 9: Elec to I&T	06/20/05	-33	-33	-33	08/05/05A																		
Flight TEM PS Assy 9: Elec to I&T	06/20/05	-33	-33	-33	08/05/05A																		
TEM/PS 10																							
Flight TEM Assy 10: Elec to I&T	06/27/05	-28	-28	-28	08/05/05A																		
Flight TEM PS Assy 10: Elec to I&T	06/27/05	-28	-28	-28	08/05/05A																		
TEM/PS 11																							
Flight TEM Assy 11: Elec to I&T	07/05/05	-23	-23	-23	08/05/05A																		
Flight TEM PS Assy 11: Elec to I&T	07/05/05	-23	-23	-23	08/05/05A																		

Run Date 09/21/05 15:25
 Data Date 09/01/05
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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 7



Level 3 Milestone List

Activity Description	Baseline Finish	-2m Var	-1m Var	Bsln Var	Early Finish	Gantt Chart																			
						2005						2006													
						F	E	M	A	M	J	J	A	S	O	N	D	E	J	A	F	M	A	M	J
TEM/PS 12																									
Flight TEM Assy 12: Elec to I&T	07/12/05	-18	-33	-33	08/26/05A																				
Flight TEM PS Assy 12: Elec to I&T	07/12/05	-18	-33	-33	08/26/05A																				
TEM/PS 13																									
Flight TEM Assy 13: Elec to I&T	07/19/05	-13	-28	-28	08/26/05A																				
Flight TEM PS Assy 13: Elec to I&T	07/19/05	-13	-28	-28	08/26/05A																				
TEM/PS 14																									
Flight TEM Assy 14: Elec to I&T	07/26/05	-13	-37	-37	09/16/05																				
Flight TEM PS Assy 14: Elec to I&T	07/26/05	-13	-37	-37	09/16/05																				
TEM/PS 15																									
Flight TEM Assy 15: Elec to I&T	08/02/05	-8	-32	-32	09/16/05																				
Flight TEM PS Assy 15: Elec to I&T	08/02/05	-8	-32	-32	09/16/05																				
TEM/PS 16																									
Flight TEM Assy 16: Elec to I&T	08/09/05	-8	-32	-32	09/23/05																				
Flight TEM PS Assy 16: Elec to I&T	08/09/05	-8	-32	-32	09/23/05																				
Elex Global Items																									
Flight PDU Box-Elec to I&T	07/01/05	-75	-85	-85	11/01/05																				
Flight Harness-Elec to I&T	07/05/05	-40	-45	-45	09/07/05																				
Flight GASU Box-Elec to I&T	07/19/05	-60	-81	-81	11/10/05																				
LCB Flight Units - Elec to Elec	07/20/05	-61	-68	-68	10/25/05																				
Flight Event Processor Units-Elec to	08/19/05	-66	-70	-70	11/30/05																				

Run Date 09/21/05 15:25
 Data Date 09/01/05
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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 8



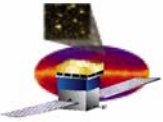
Level 3 Milestone List

Activity Description	Baseline Finish	-2m Var	-1m Var	Bsln Var	Early Finish	2005												2006						
						F	E	M	A	M	J	J	A	S	E	O	N	D	E	J	A	F	M	A
Elex Global Items																								
1st Flight EPU/SIU-Elec to I&T	08/19/05	-66	-70	-70	11/30/05																			
2nd Flight EPU/SIU-Elec to I&T	08/24/05	-71	-72	-72	12/07/05																			
3rd Flight EPU/SIU-Elec to I&T	08/26/05	-69	-75	-75	12/14/05																			
4th Flight EPU/SIU-Elec to I&T	08/30/05	-77	-78	-78	12/21/05																			
5th Flight EPU/SIU-Elec to I&T	09/02/05	-74	-113	-113	12/26/05																			
Flight Software																								
Demo: Spacecraft Interfaces	02/14/05	0	0	0	02/14/05A	▼																		
Demo: Thermal Control	02/16/05	0	0	0	02/16/05A	▼																		
Demo: Inter-task Communications	03/11/05	-25	-25	-25	04/15/05A		▼																	
Demo: Housekeeping	03/18/05	-37	-37	-37	05/10/05A			▼																
Demo: Event Filtering	03/23/05	9	9	9	03/10/05A				▼															
Demo: Watchdog	04/15/05	-15	-15	-15	05/06/05A					▼														
Science Test Data Output	08/08/05	0	-22	-22	09/08/05																			
FSW Test Peer Review Complete	08/15/05	0	0	0	08/15/05A																			
Release FSW for FQT	08/29/05	0	-15	-15	09/20/05																			
FQT Scripts Complete	08/30/05	0	-11	-11	09/15/05																			
FQT Readiness Review	09/01/05	0	-15	-15	09/23/05																			
FQT Complete	09/15/05	0	-11	-11	09/30/05																			
FSW RFI to I&T	10/03/05	0	0	0	10/03/05																			

Run Date 09/21/05 15:25
 Data Date 09/01/05
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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 9



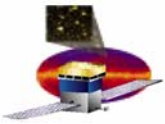
Level 3 Milestone List

Activity Description	Baseline Finish	-2m Var	-1m Var	Bsln Var	Early Finish	2005					2006										
						F	M	A	M	J	J	A	S	O	N	D	E	J	F	M	A
Flight Software																					
Delta Test Readiness Review	11/18/05	0	0	0	11/18/05																



Cost Report

Monthly Contractor Financial Management Report 31-Aug-05								NASA form 533M Approved OMB # 2700-0		Report for Month Ending: 8/31/2005	
Reporting Category	Cost Incurred				Estimated Cost			4/3/2000		Unfilled Orders Outstanding	
	During Month		Cum. to Date		Detail		Balance of Contract	Estimated Final Cost			
	Actual	Planned	Actual	Planned	AT COMPL	0		Contract Estimate	Contract Value		
4.1.7 ELECTRONICS											
4.1.7 ELECTRONICS	0	0	353	354	0	0	1	354	354	0	
4.1.7.1 ELECTRONICS MANAGEMENT	27	213	2,018	2,185	63	0	167	2,248	2,248	0	
4.1.7.2 RELIABILITY & QUALITY ASSURANCE	0	0	223	220	0	0	-3	220	220	0	
4.1.7.3 ELECTRONICS SYSTEM DESIGN	0	0	733	733	0	0	0	733	733	0	
4.1.7.4 DATAFLOW ELECTRONICS (TEMs + PROCESSOR	114	130	10,526	10,746	155	0	220	10,900	10,900	127	
4.1.7.5 SPACECRAFT INTERFACE UNIT	25	28	1,773	2,147	18	0	374	2,165	2,165	191	
4.1.7.6 POWER CONDITIONING	50	-18	2,187	2,417	32	0	230	2,449	2,449	176	
4.1.7.7 ENCLOSURES	3	37	706	680	0	0	-26	680	680	9	
4.1.7.8 CABLE HARNESS	24	0	434	649	0	0	216	649	649	158	
4.1.7.9 FLIGHT SOFTWARE	8	439	6,066	6,127	68	0	61	6,195	6,195	0	
4.1.7.A EGSE & OPERATIONS	0	6	2,491	2,579	0	0	87	2,579	2,579	18	
4.1.7.C INSTRUMENT INTEGRATION & TEST	87	157	416	452	81	0	36	533	533	27	
CAPW[3]Totals:	338	992	27,925	29,287	417	0	1,361	29,703	29,703	705	



FTE Report (DOE/NASA-funded only)

