



GLAST Large Area Telescope:

Tracker, W.B.S 4.1.4

July Status Meeting

David Rich



Tracker Tower RFI Status

- Towers A, B, 1, 2, 3, 5 are integrated into the Grid
- Tower 4 is still in the SLAC cleanroom on the Tracker test fixture but is RFI.
- Tower 6 arrived from Italy over the weekend, and Tracker-team testing is in progress.
 - Hand-off meeting scheduled for Thursday 7/28.



Tower 7, 8, 9 Status

- Tower 7 completed all environmental testing, missing two cables. It had an anomaly (INFN NCR #544) at elevated temperature with the X17 layer. That tray is being replaced this week, one flight cable (C5-11) is being added, and it will go back to environmental testing in parallel with Tower 10.
 - Tower 7 is scheduled to arrive at Alenia on 7/29.
 - Close T/V chamber door and start pump down late Friday 7/29
 - X17 layer will be inspected and tested after tray removed from Tower
- Tower 8 and 9 are currently in environmental testing.
 - Tower 8 is missing 2 cables and has one non-flight cable installed.
 - INFN NCR #551 generated 7/26. X6 layer malfunctioned in T/V appears similar to X17 layer on Tower 7.
 - Tower 9 is missing 1 cable and has two non-flight cables installed.
 - T/V testing is currently in progress with these towers.
 - Vibration testing will happen the first week of August.



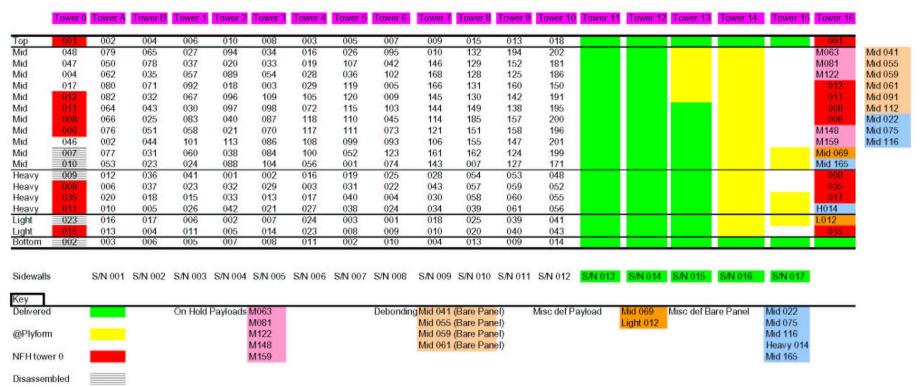
Tower 10, 11 Status

- Tower 10 is being assembled this week
 - It has 5 flight cables and 2 non-flight cables (to be removed after testing).
 - Each of the 4 sides has at least one flight cable.
 - The C3 cable is missing.
 - It will go to Alenia on Wednesday 7/27 to set-up for T/V testing
- Tower 11 is being assembled, but we do not have enough flight cables to go into environmental testing.
 - This means that Tower 14 will not be tested alone.
 - Barring unforeseen problems, we can still hold the date for delivery of the last flight tower.



Tray and Sidewall Status

- All sidewalls have been delivered.
- Plyform is close to completing the tray-panel order for the 14th tower, and quite a few trays have been delivered for the following towers.





MCM Production

Teledyne production is finished and the cell is shut down.

Status as of July 25, 2005	Short	Tall
On assembled Towers A through 9	352	44
Other MCMs shipped to Pisa and NOT on hold	181	19
At SLAC in burn-in	26	11
Total flight MCMs (need 512 and 64 for 16 towers):	559	74
Nonflight and NCR MCMs	206	16
Total MCMs made to date in the "flight" build	765	90



Tracker Flex-Circuit Cable Status

If Parlex delivers as scheduled, we will be able to fully equip towers 12 and 13 with flight cables before environmental testing.

Hopefully we will have Pioneer cables (barely) in time for Tower 14.

Assy S/N	C0	C1	C2	C3	C4	C5	C6	C7		Need Date in Pisa
DAQ EGSE	10						,			
DAQ EGSE	12	2	2	3	3	2	1	2		
DAQ I/V			3 & 5			1 & 3	4 & 7	5 & 7		
Module A	16	3	4	4	8	7	11	3		Done
Module B	11	4	14	5	9	5	10	10		Done
Module 1	18	5	7	7	7	8	13	1		Done
Module 2	20	7	9	1	6	9	5	6		Done
Module 3	19	13	6	9	1	12	6	11		Done
Module 4	21	12	10	8	12	10	14	12		Done
Module 5	25	15	C2-012	C3-010	C4-014	C5-014	C6-015	13		Done
Module 6	C0-22	C1-11	C2-011	C3-011	C4-016	C5-16	C6-16	C7-14		Done
Module 7	C0-24	C1-16	C2-15	C3-12	C4-17	C5-11		C7-15		7/4/05
Module 8	C0-26	C1-18	C2-16		C4-18		C6-12	C7-16		7/18/05
Module 9	C0-23	C1-17	C2-17		C4-13	C5-19	C6-17	C7-08		7/19/05
Module 10	C0-17	C1-14	C2-14		C4-19	C5-17	C6-18	C7-04		7/27/05
Module 11		C1-10	C2-8		C4-20	C5-18	C6-09	C7-09		7/27/05
Module 12	7/29/05	8/5/05	7/29/05	7/29/05	C4-21	8/5/05	8/5/05	8/12/05		8/18/05
Module 13	7/29/05	8/5/05	7/29/05	8/5/05	C4-22	8/12/05	8/5/05	8/12/05		8/18/05
Module 14	8/12/05	8/12/05		8/5/05	C4-24	8/12/05	8/12/05			8/24/05
Module 15	8/12/05	8/12/05			8/5/05		8/12/05			
Module 16							8/12/05			
		C1-1			C4-10	C5-20	C6-02			
					C4-23		C6-08			
Notes:										
Cable with good coupon sh	nipped to Italy									
Cable with bad coupon ins		r								
EGSE Cable (Non-Flight) Cables at SLAC.										
Scheduled ship date from	Parlex to SLAC								\vdash	
Parlex long-term projected	ship date (by end	of the giver	week)							
Cable with some cracking										
	Cable with coupon having annular ring between 1 and 2 mils on internal layers Cable with coupon having trace-to-barrel separations on internal layers								\vdash	
Cable with embedded non-		arauorio Ori	mornariay	010						



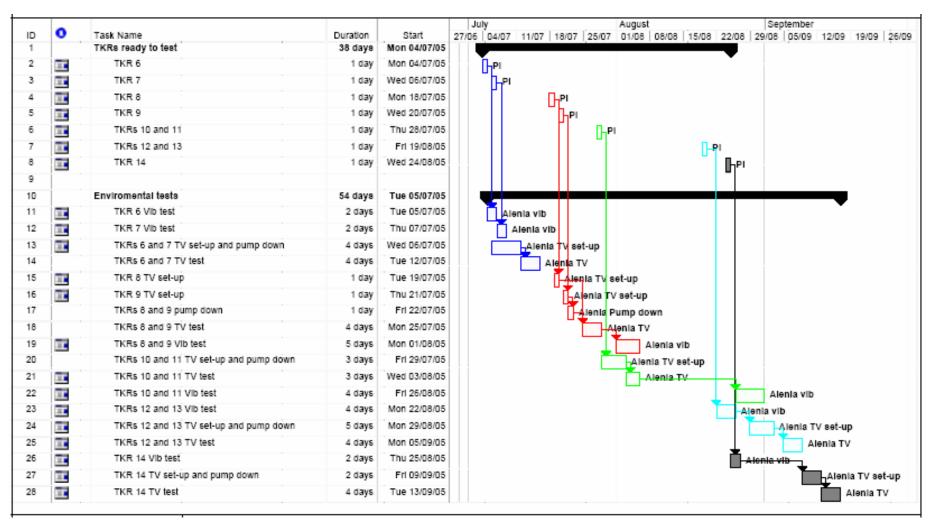
Pioneer Cable Production

- Scheduled completion dates
 - Bare PWB
 - July 18 Qual and Flight fabs C0, C1, C6 (behind schedule)
 - July 29 Qual and Flight fabs C2, C3, C4, C5, C7
 - Qual Assemblies
 - Aug 1 Qual Flex Circuit Assembly C0
 Aug 12 Qual Flex Circuit Assembly C4
 - Flight Production
 - July 29
 Aug 25
 Aug 31
 Aug 31
 1st Release (Qty. 3 flight tower sets)
 Qty. 3 flight tower sets
 Aug 31
 Release (Qty. 3 flight tower sets)
 - Sept 7 4th Release (Qty. 3 flight tower sets)
- Initial problems with maintaining minimum annular ring solved
- SLAC and NASA to visit Pioneer 7/27 to discuss production status, source inspection, and pulling in delivery schedules.



Tracker Environmental Testing Schedule

No change in this schedule since last month.



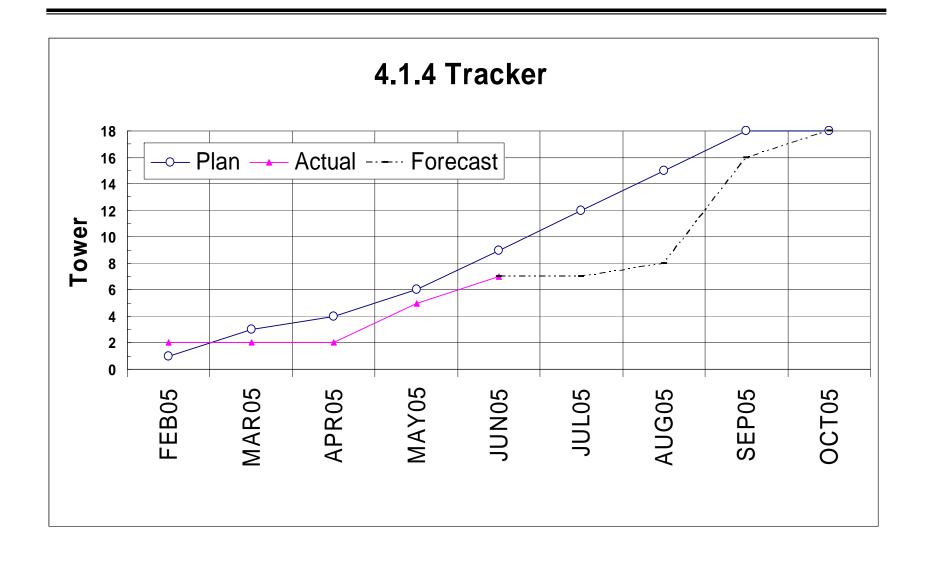




Cost/Schedule Reports for 4.1.4 Tracker Presentation June 2005 Month End



Level 3 Milestone Count





Level 3 Milestone List

Activity	Baseline	-2m	-1m	Bsln	Early			2000			
Description	Finish	Var	Var Var		Finish	FEM.A	AIMA J	UJUAUS	E O (N (DE	JA FEMA	AFMA J
4.1.4 Tracker						-					
Flight Tracker Tower A RFI	02/04/05	0	0	0	02/04/05A	T					
Flight Tracker Tower B RFI	03/02/05	4	4	4	02/24/05A	T					
Flight Tracker Tower 1 RFI	03/22/05	-35	-35	-35	05/10/05A	-	•				
Flight Tracker Tower 2 RFI	04/20/05	-14	-14	-14	05/10/05A		•				
Flight Tracker Tower 3 RFI	05/03/05	-5	-5	-5	05/10/05A		7				
Flight Tracker Tower 4 RFI	05/16/05	-17	-16	-17	06/09/05A						
Flight Tracker Tower 5 RFI	06/03/05	-6	-3	-4	06/09/05A		Ţ				
Flight Tracker Tower 6 RFI	06/16/05	-1	-13	-31	08/01/05		•	, $ abla$			
Flight Tracker Tower 7 RFI	06/27/05	-3	-8	-48	09/02/05			∇			
Flight Tracker Tower 8 RFI	07/06/05	-3	-17	-45	09/08/05			$\overline{}$	7		
Flight Tracker Tower 9 RFI	07/15/05	-3	-12	-40	09/12/05			lacksquare	7		
Flight Tracker Tower 10 RFI	07/26/05	-3	-15	-35	09/14/05			▼ ▽	7		
Flight Tracker Tower 11 RFI	08/04/05	-3	-10	-28	09/14/05			lacksquare	7		
Flight Tracker Tower 12 RFI	08/15/05	-5	-8	-24	09/19/05			▼ ∠	1		
Flight Tracker Tower 13 RFI	08/24/05	-5	-9	-19	09/21/05			_ ✓	7		
Flight Tracker Tower 14 RFI	09/02/05	-4	-4	-14	09/23/05			_ \	7		
Flight Tracker Tower 15 RFI	09/13/05	-5	-4	-21	10/12/05			•	. 🗸		
un Date 07/20/05 13:25	GLAST LAT PROJECT						: Baseline			Re	eport #10 Sheet 2
ata Date 07/01/05 © Primavera Systems, Inc.	Baseline Varian	Level 3 Milestones Baseline Variance (Organized by Subsystem)						FL-D4: AV: Level 3 Milestones			



Cost Report

Monthly Contractor Financial Management Report 30-Jun-05					NASA form 533M Report for Month E Approved OMB # 2700 6/30/2005					
Reporting Category		Cost In	curred		E	stimated Co	st	4/3/2000 Estimated Final Cost		Unfilled Orders
	During Month		Cum. to Date		Detail		Balance of	Contractor	Contract	Outstanding
	Actual	Planned	Actual	Planned	JUL05	AUG05	Contract	Estimate	Value	
4.1.4 TRACKER										
4.1.4.1 TRACKER MANAGEMENT	84	61	3,796	3,781	48	36	18	3,898	3,898	0
4.1.4.2 RELIABILITY & QUALITY ASSURANCE	0	0	4	0	0	0	-4	0	0	0
4.1.4.3 TRAY SUB-ASSEMBLY	261	348	12,754	13,245	17	19	509	13,298	13,298	194
4.1.4.4 TOWER STRUCTURE & ASSEMBLY	155	331	3,153	3,590	266	161	559	4,139	4,139	352
4.1.4.5 TRACKER TEST & CALIBRATION	22	17	158	217	16	18	76	268	268	0
4.1.4.7 INSTRUMENT INTEGRATION & TEST (SLAC)	5	12	59	93	6	0	34	99	99	0
CAPW[3]Totals:	527	768	19,923	20,926	352	235	1,191	21,702	21,702	545



FTE Report (DOE/NASA-funded only)

