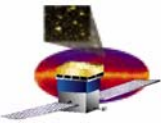


LAT Project Status Overview

November 2004

Lowell Klaisner
LAT Project Manager



CPR Level 3

Total project schedule variance

Cumulative Variance > +/-10%
(will be reported to DOE/NASA)

Notable current period variances

Cost Performance Report - Work Breakdown Structure													
Contractor:						Contract Type/No:			Project Name/No:		Report Period:		
Location:						LAT			10/31/2004		11/30/2004		
CAPW[3] Item (1)	Current Period					Cumulative to Date					At Completion		
	Budgeted Cost		Actual Cost	Variance		Budgeted Cost		Actual Cost	Variance		Budgeted	Latest Revised Estimate	Variance
	Work Scheduled	Work Performed	Work Performed	Schedule	Cost	Work Scheduled	Work Performed	Work Performed	Schedule	Cost			
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
4.1.1 INSTRUMENT MANAGEMENT	346	346	369	0	-23	14,605	14,605	14,555	0	51	16,911	16,911	0
4.1.2 SYSTEM ENGINEERING	152	152	325	0	-173	5,963	5,963	5,908	0	55	7,047	7,047	0
4.1.4 TRACKER	336	224	838	-113	-614	16,284	15,183	16,418	-1,102	-1,235	17,126	17,126	0
4.1.5 CALORIMETER	349	576	473	227	103	20,758	19,152	18,883	-1,606	269	22,022	22,022	0
4.1.6 ANTICOINCIDENCE DETECTOR	80	65	210	-15	-145	15,237	14,700	15,105	-537	-405	15,595	15,595	0
4.1.7 ELECTRONICS	229	175	891	-54	-715	21,007	18,469	21,868	-2,539	-3,400	22,238	22,238	0
4.1.8 MECHANICAL SYSTEMS	406	483	782	76	-299	12,903	12,157	13,033	-746	-876	14,179	14,179	0
4.1.9 INTEGRATION & TEST	264	201	319	-63	-118	5,944	5,330	5,576	-614	-246	8,013	8,013	0
4.1.A PERFORMANCE AND SAFETY ASSURANCE	135	135	226	0	-91	2,600	2,600	2,533	0	67	2,935	2,935	0
4.1.B LAT INSTRUMENT SCIENCE OPERATIONS CENTER	3	3	1	0	2	303	303	298	0	4	328	328	0
4.1.C EDUCATION AND PUBLIC OUTREACH	44	39	52	-5	-13	2,079	2,075	1,687	-4	388	2,448	2,448	0
4.1.D SCIENCE ANALYSIS SOFTWARE	74	74	58	0	16	2,462	2,462	2,258	0	203	3,019	3,019	0
4.1.E SUBORBITAL FLIGHT TEST	0	0	0	0	0	1,325	1,325	1,325	0	0	1,325	1,325	0
Gen. and Admin.	0	0	0	0	0	0	0	0	0	0	0	0	0
Undist. Budget											0	0	0
Sub Total	2,420	2,473	4,543	53	-2,070	121,471	114,323	119,446	-7,148	-5,124	133,187	133,187	0
Contingency											2,798	2,798	0
Total	2,420	2,473	4,543	53	-2,070	121,471	114,323	119,446	-7,148	-5,124	135,985	135,985	0



Performance Analysis

	WBS	Description	BAC	BCWS	BCWP	ACWP	SV \$	CV \$	%BCWS	%BCWP	%ACWP	SPI	CPI	SPI	CPI	Cpi_Fcst	CpiSpi_Fcst
1	4.1	LAT	133,187	121,471	114,323	119,446	-7,148	-5,124	91.20	85.84	89.68	↔	↓	0.941	0.957	139,156	140,388
2	4.1.1	Instr Mgmt	16,911	14,605	14,605	14,555	0	51	86.37	86.37	86.07	↔	↓	1.000	1.003	16,852	16,852
3	4.1.2	System Engr	7,047	5,963	5,963	5,908	0	55	84.62	84.62	83.83	↔	↓	1.000	1.009	6,982	6,982
4	4.1.4	Tracker	17,126	16,284	15,183	16,418	-1,102	-1,235	95.08	88.65	95.86	↔	↓	0.932	0.925	18,519	18,672
5	4.1.5	Calorimeter	22,022	20,758	19,152	18,883	-1,606	269	94.26	86.97	85.75	↑	↑	0.923	1.014	21,712	21,949
6	4.1.6	ACD	15,595	15,237	14,700	15,105	-537	-405	97.70	94.26	96.85	↔	↓	0.965	0.973	16,025	16,059
7	4.1.7	Electronics	22,238	21,007	18,469	21,868	-2,539	-3,400	94.47	83.05	98.34	↔	↓	0.879	0.845	26,331	26,945
8	4.1.8	Mechanical	14,179	12,903	12,157	13,033	-746	-876	91.01	85.74	91.92	↑	↓	0.942	0.933	15,200	15,333
9	4.1.9	I&T	8,013	5,944	5,330	5,576	-614	-246	74.18	66.51	69.59	↔	↓	0.897	0.956	8,383	8,707
10	4.1.A	PSA	2,935	2,600	2,600	2,533	0	67	88.59	88.59	86.29	↔	↓	1.000	1.027	2,859	2,859
11	4.1.B	ISOC	328	303	303	298	0	4	92.24	92.24	90.94	↔	↑	1.000	1.014	324	324
12	4.1.C	EPO	2,448	2,079	2,075	1,687	-4	388	84.90	84.74	68.91	↓	↔	0.998	1.230	1,991	1,992
13	4.1.D	SAS	3,019	2,462	2,462	2,258	0	203	81.52	81.52	74.78	↔	↔	1.000	1.090	2,770	2,770
14	4.1.E	Balloon Flight	1,325	1,325	1,325	1,325	0	0	100.00	100.00	99.98	↔	↔	1.000	1.000	1,325	1,325

LEGEND

BAC: Budget At Complete

BCWS: Budgeted Cost of Work Scheduled (to date)

BCWP: Budgeted Cost of Work Performed (to date)

ACWP: Actual Cost of Work Performed (to date)

SV \$: Schedule Variance = BCWP - BCWS

CV \$: Cost Variance = BCWP - ACWP

SPI: Schedule Performance Index = BCWP/BCWS

CPI: Cost Performance Index = BCWP/ACWP

% BCWS: Percent Scheduled = BCWS/BAC

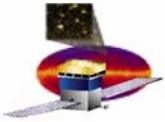
% BCWP: Percent Complete = BCWP/BAC

% ACWP: Percent Spent = ACWP/BAC

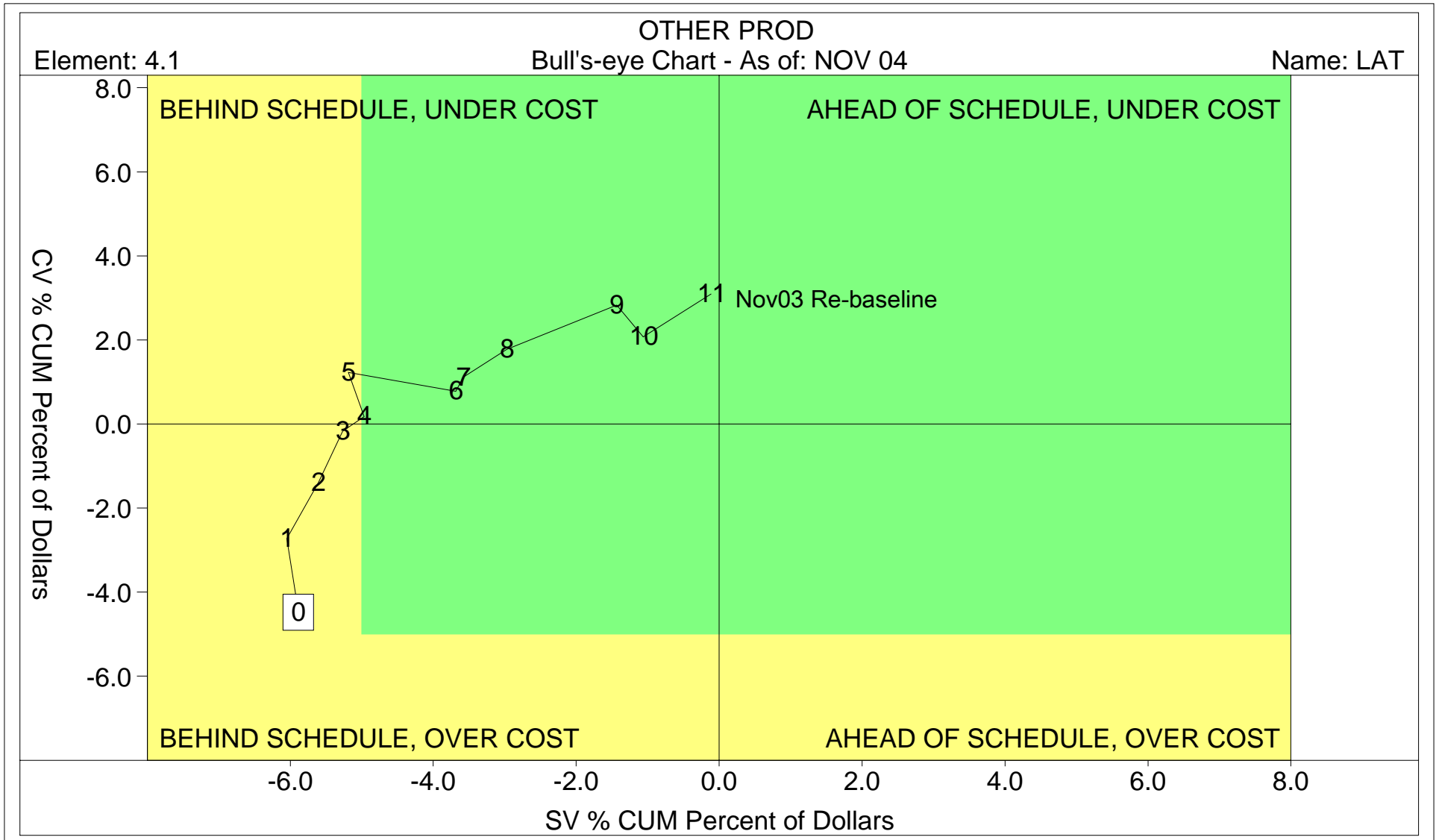
Cpi_Fcst: CPI (to date) EAC Forecast = BAC / CPI

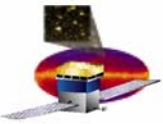
CpiSpi_Fcst: Combination CPI and SPI EAC Forecast = ACWP + (BAC - BCWP) / (CPI * SPI)

CPI and SPI Change Thresholds	
■	Worse than 0.85
■	Between 0.95 and 1.10
■	Between 0.85 and 0.95
■	Better than 1.10

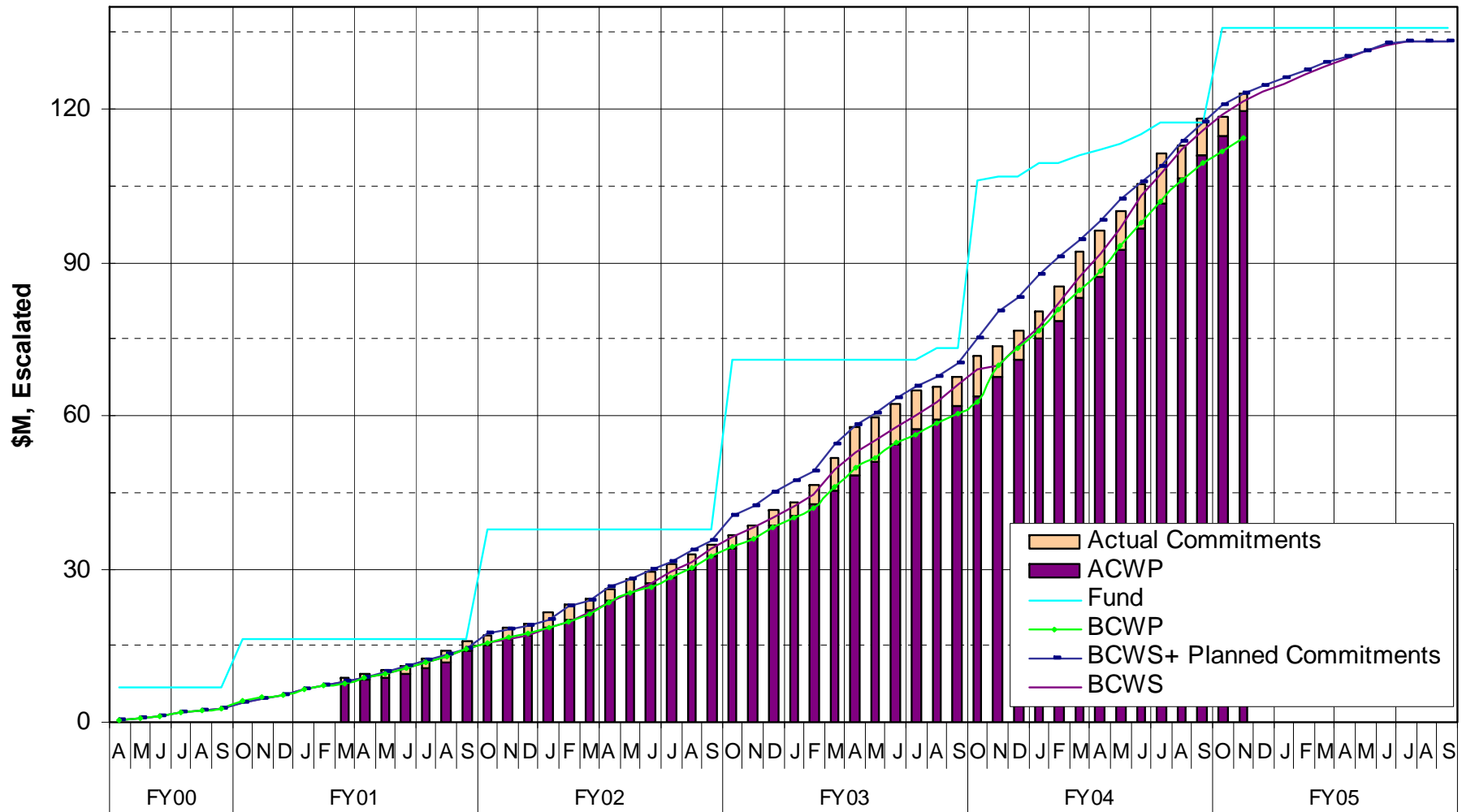


Variance Analysis



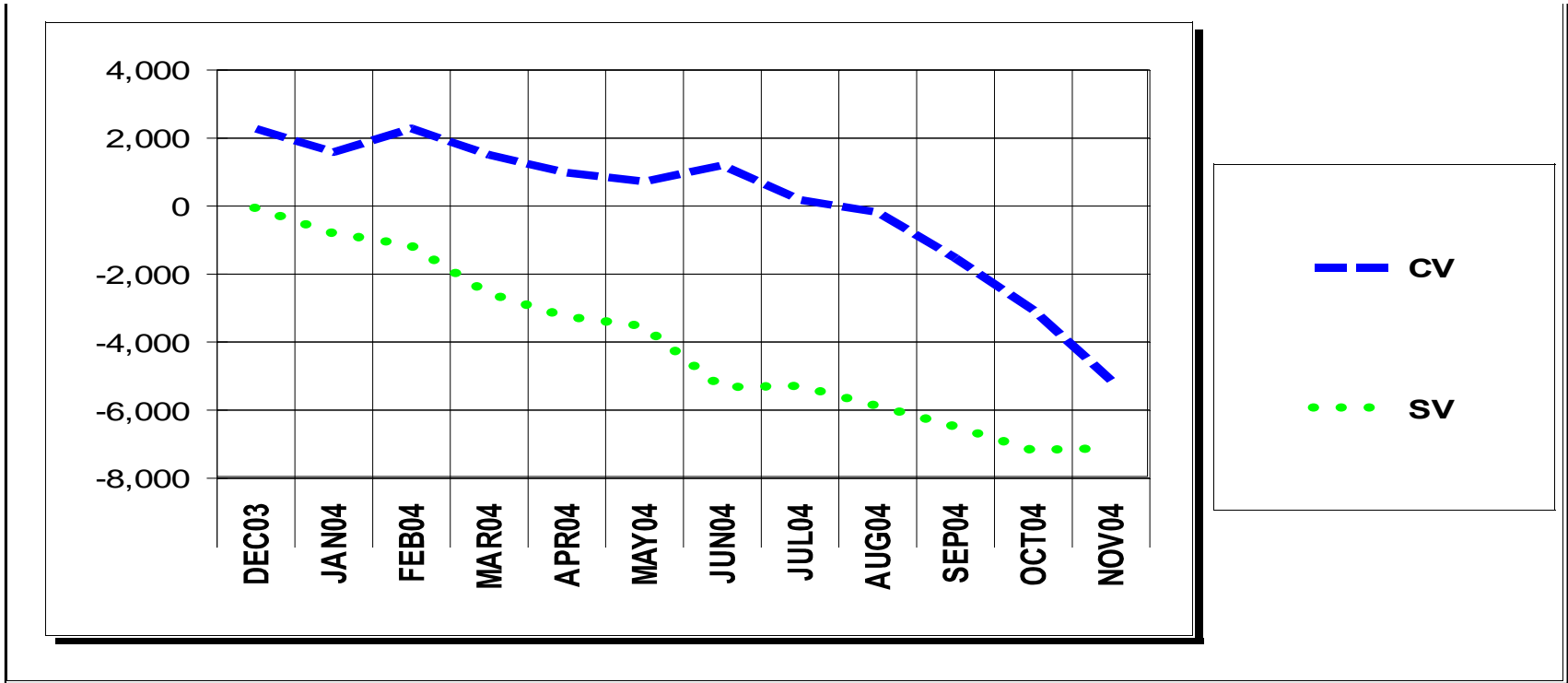


Budget, Cost, Funding, Performance

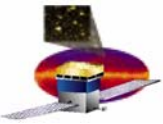




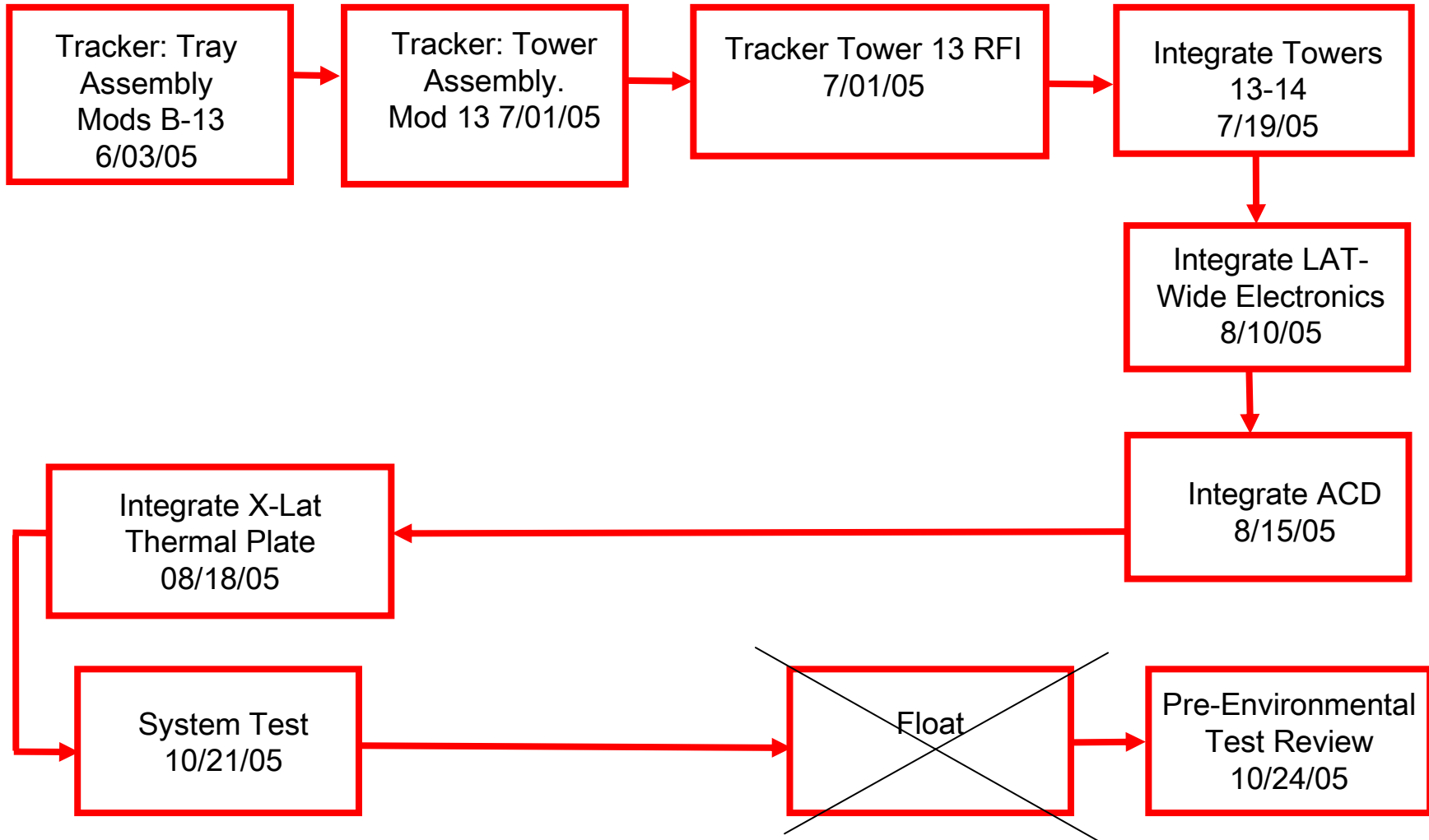
CV and SV Chart

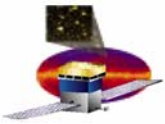


	DEC03	JAN04	FEB04	MAR04	APR04	MAY04	JUN04	JUL04	AUG04	SEP04	OCT04	NOV04
BCWS	73,433	77,394	81,916	87,277	91,518	96,621	103,131	107,062	111,988	115,928	119,051	121,471
BCWP	73,353	76,574	80,742	84,687	88,244	93,063	97,784	101,746	106,092	109,429	111,850	114,323
ACWP	71,081	74,989	78,460	83,184	87,264	92,340	96,584	101,567	106,275	110,961	114,903	119,446
CV	2,271	1,585	2,281	1,503	979	723	1,199	179	-183	-1,532	-3,053	-5,124
SV	-80	-820	-1,175	-2,590	-3,274	-3,558	-5,348	-5,316	-5,895	-6,499	-7,201	-7,148



Current Critical Path to Pre-Environmental Test Review





Current Critical Path to Pre-Environmental Test Review

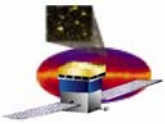
- **1st critical path: Tracker Tray Assy Mod B**
 - 97 days float to “Pre-Environmental Test Review”
 - 51 days float to LAT pre-ship review
- **2nd critical path: Electronics Flight TEM PCC Mod A**
 - 2 days behind 1st critical path
 - Also critical path to Mod A
- **3rd critical path: Electronics Flight TEM Assembly MOD A**
 - 2 days behind 2nd critical path



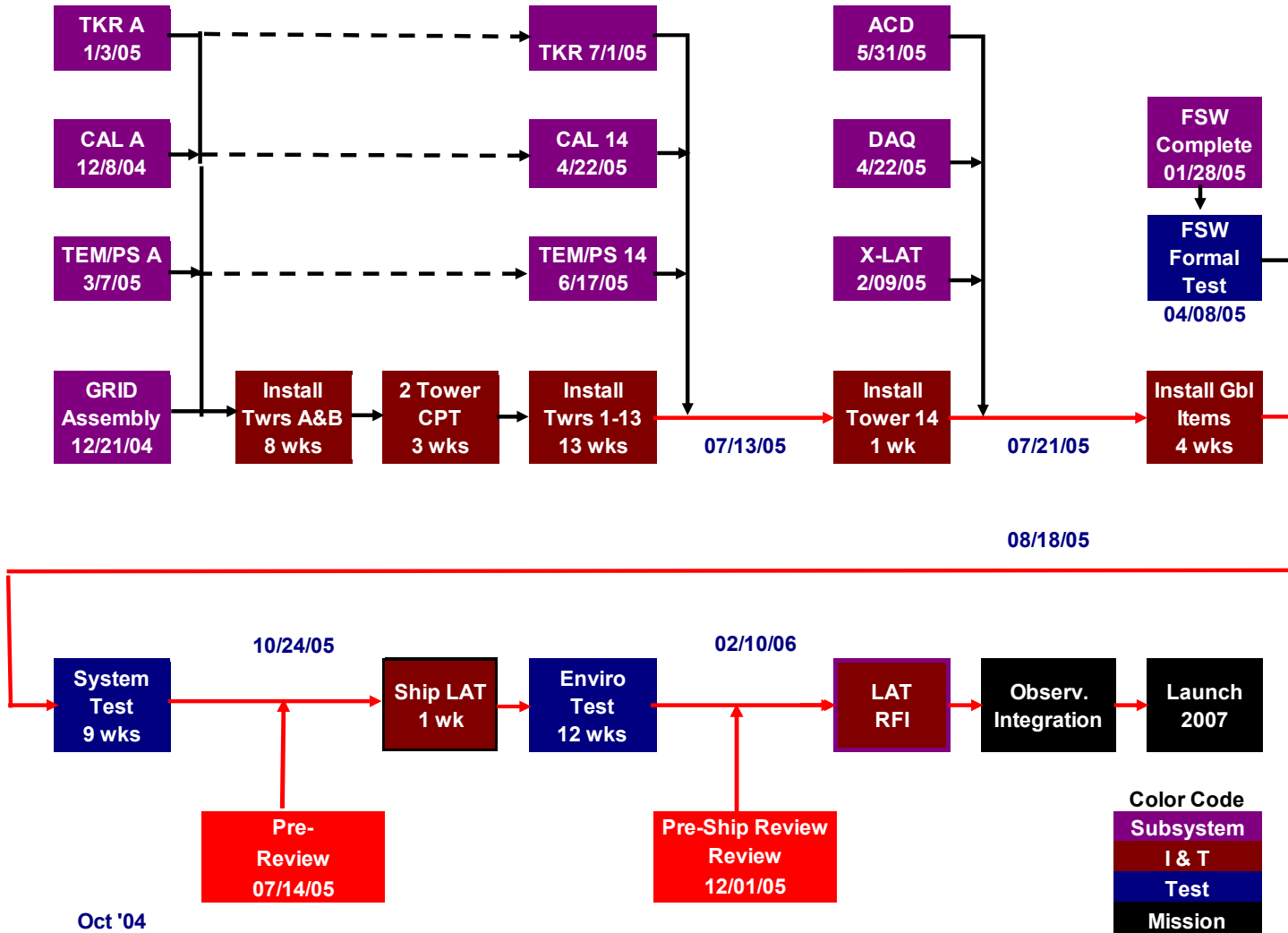
Module Schedule

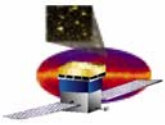
M/E November 2004	Forecast Dates and Float (working days) to "Preship Review"									
	Mech/ACD		TKR		CAL		TEM/TEM PS		I&T	
Grid	11/08/04A	-								
Module A			3-Jan-05	(25)	8-Dec-04	(13)	7-Feb-05	(49)	9-Mar-05	(49)
Module B			2-Feb-05	(31)	13-Jan-05	(13)	22-Feb-05	(39)	6-Apr-05	(49)
Module 1			2-Mar-05	(25)	19-Jan-05	4	23-Mar-05	(40)	13-Apr-05	(49)
Module 2			2-Mar-05	(20)	25-Jan-05	5	30-Mar-05	(40)	20-Apr-05	(49)
Module 3			2-Mar-05	(15)	20-Jan-05	13	5-Apr-05	(39)	27-Apr-05	(49)
Module 4			31-Mar-05	(31)	18-Jan-05	20	11-Apr-05	(38)	4-May-05	(49)
Module 5			31-Mar-05	(26)	18-Jan-05	25	15-Apr-05	(37)	11-May-05	(49)
Module 6			31-Mar-05	(21)	11-Mar-05	(7)	21-Apr-05	(36)	18-May-05	(49)
Module 7			4-May-05	(40)	11-Mar-05	(2)	28-Apr-05	(36)	25-May-05	(49)
Module 8			4-May-05	(35)	21-Mar-05	(3)	5-May-05	(36)	2-Jun-05	(49)
Module 9			4-May-05	(30)	21-Mar-05	2	12-May-05	(36)	9-Jun-05	(49)
Module 10			1-Jun-05	(44)	1-Apr-05	(2)	19-May-05	(36)	16-Jun-05	(49)
Module 11			1-Jun-05	(39)	1-Apr-05	3	26-May-05	(36)	23-Jun-05	(49)
Module 12			1-Jun-05	(34)	8-Apr-05	3	3-Jun-05	(36)	30-Jun-05	(49)
Module 13			1-Jul-05	(51)	8-Apr-05	8	10-Jun-05	(36)	12-Jul-05	(51)
Module 14			1-Jul-05	(46)	22-Apr-05	3	17-Jun-05	(36)	19-Jul-05	(51)
ACD	31-May-05	(2)								
X-LAT	9-Feb-05	78								
SIU							18-May-05	(10)		
PDU							10-May-05	(4)		
Harness							17-Feb-05	53		
GASU							3-May-05	1		
EPU							18-May-05	(10)		
FSW							28-Jan-05	25		
Inst Global Items									18-Aug-05	(51)
System Test									24-Oct-05	(51)
Ship LAT to NRL									30-Oct-05	(51)
EMI/EMC Test									26-Nov-05	(51)
Sine Vibe									9-Dec-05	(51)
Acoustic Test									21-Dec-05	(51)
TVAC									7-Feb-06	(51)
Weight & CG									9-Feb-06	(51)
Preship Review									10-Feb-06	(51)

Yellow = Float between 15 and 1
 Red = Float < 1



LAT Schedule





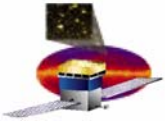
Funding Status

- Rebaseline proposal is for \$24.6M with \$21.8M in FY05.
- Currently run out of funds in March.
- OMB has capped the Capital Equipment Project at \$45M (currently \$42M).
- Cost plus commitments to date on DOE funds are \$40M.
- Office of Science wants us to identify a \$5M CEP which is funded by DOE alone.
 - **Proposal is Mechanical Ground Support Equipment and Integration.**
- Office of Science wants a lessons learned regarding why we got into such financial trouble so quickly.
- ASI has not completed the 2.9 M€ contract with G&A.
 - **Contract was recently moved from ASI Science to ASI System Engineering**
- The \$21.8M needed minus the DOE \$3M leaves \$18.8M
- Met with subsystem managers and NASA management to scrub the rebaseline proposal.
 - **\$5.1M identified**
 - **\$4.5M recommended by mission office**
 - **\$2.3M recommended by instrument office**
 - **\$1.6M feasible from the subsystem managers**



Technical Status

- **Calorimeter -- 9 flight modules complete**
 - **1 delivered, 4 ready, 2 in calibration, 2 ready for T/V**
- **Tracker – 1st flight module ready to ship**
- **Mechanical – Heat pipes bonded in GRID**
- **DAQ – 1st Flight TEM/TEMPS this month**
- **ACD – PMT assemblies underway, tile installation progressing**



Backup Material



Level 1 & 2 Milestones

Activity ID	Activity Description	Baseline Finish	Bsln Var	Early Finish	Timeline											
					FY01	FY02	FY03	FY04	FY05	FY06						
DOE/NASA Joint Oversight Group (Level 1)																
1M1P000000	DOE Critical Decision (CD) 0 Approval	06/25/01A	0	06/25/01A	▼											
1M1P000010	CD-1 Approval	07/23/02A	0	07/23/02A			▼									
1M1P000020	CD-2 Approval	11/08/02A	0	11/08/02A			▼									
1M1P000030	CD-3 Approval	09/03/03A	0	09/03/03A				▼								
1M1P000060	Flight GRID Complete	09/15/04*	-38	11/08/04A					▼							
1M1P000040	CD-4 Approval	03/15/06*	0	03/15/06*											▼	
DOE/NASA Federal Project Managers (Level 2)																
1M1BF00000	Launch Balloon Flight	08/01/01A	0	08/01/01A	▼											
1M1000100	Instrument Preliminary Design Review	01/08/02A	0	01/08/02A		▼										
1M1000110	I-CDR (Critical Design Review)	05/16/03A	0	05/16/03A				▼								
1M1000740	Start LAT Integration	08/24/04*	-85	01/03/05						▼						
1M1000700	Pre Environmental Testing Review	07/14/05*	-71	10/24/05							▼					
1M1000120	PSR-(Instrument Pre-Ship Review)	12/01/05*	-44	02/10/06								▼				
Run Date: 01/03/05 13:56					GLAST LAT PROJECT					LT-T1: Level 1 && 2 Milestones					Sheet 1	
Data Date: 12/01/04					Level 1&&2 Milestones					FL-T1: Level 1 && 2 Milestones						
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Level 3 Milestones by Subsystem

AV	Activity ID	ND	Activity Description	Baseline Finish	Bsln Var	Early Finish	FY04				FY05							
							Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4				
Instrument Project Office (Level 3)																		
4.1.1 Instrument Management																		
1	1M1001920		Pre-Environmental Test Review	06/07/05	-97	10/24/05										◆		
4.1.4 Tracker																		
4	1M1001430	9	Delv of TKR EM to SLAC I&T/MGSE	01/02/04	-200	10/15/04A	◆				▼							
4	1M1000200	9	Tracker Modules A RFI	07/28/04	-104	01/03/05					▼							
4	1M1000201	9	Tracker Modules B RFI	08/18/04	-110	02/02/05					◆	▼						
4	1M1000220	9	Tracker Modules 1 RFI	08/18/04	-129	03/02/05					◆	▼						
4	1M1000221	9	Tracker Modules 2 RFI	09/08/04	-115	03/02/05					◆	▼						
4	1M1000250	9	Flight Tracker Tower 3 RFI	09/08/04	-115	03/02/05					◆	▼						
4	1M1000251	9	Flight Tracker Tower 4 RFI	10/14/04	-110	03/31/05					◆	▼						
4	1M1000260	9	Flight Tracker Tower 5 RFI	10/14/04	-110	03/31/05					◆	▼						
4	1M1000261	9	Flight Tracker Tower 6 RFI	11/05/04	-94	03/31/05					◆	▼						
4	1M1000270	9	Flight Tracker Tower 7 RFI	11/05/04	-118	05/04/05					◆	▼			▼			
4	1M1000271	9	Flight Tracker Tower 8 RFI	11/24/04	-105	05/04/05					◆	▼			▼			
4	1M1000280	9	Flight Tracker Tower 9 RFI	11/24/04	-105	05/04/05					◆	▼			▼			
4	1M1000281	9	Flight Tracker Tower 10 RFI	12/17/04	-109	06/01/05					◆	▼			▼			
Run Date 01/03/05 13:58							GLAST LAT PROJECT							LT-T3: Level 3 sort by Subsystem (tb)				Sheet 1
Data Date 12/01/04							Level 3 Milestones							FL-T3: L3 Milestones from Oct03 on				
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Level 3 Milestones by Subsystem

AV	Activity ID	ND	Activity Description	Baseline Finish	Bsln Var	Early Finish	FY04				FY05					
							Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
4.1.4 Tracker																
4	1M1000290	9	Flight Tracker Tower 11 RFI	12/17/04	-109	06/01/05										
4	1M1000291	9	Flight Tracker Tower 12 RFI	01/11/05	-98	06/01/05										
4	1M1000300	9	Flight Tracker Tower 13 RFI	01/11/05	-120	07/01/05										
4	1M1000301	9	Flight Tracker Tower 14 RFI	01/25/05	-111	07/01/05										
4	1M1000310	9	Flight Tracker Tower 15 RFI	01/25/05	-146	08/22/05										
4	1M1000311	9	Flight Tracker Tower 16 RFI	02/08/05	-136	08/22/05										
4.1.5 Calorimeter																
5	1M1000210	9	Calorimeter Modules A RFI	07/09/04	-105	12/08/04										
5	1M1500	9	Calorimeter Modules B RFI	07/09/04	-125	01/13/05										
5	1M1000390	9	Flight Calorimeter Tower 5 RFI	09/15/04	-80	01/18/05										
5	1M1520	9	Flight Calorimeter Tower 4 RFI	08/17/04	-100	01/18/05										
5	1M1000230	9	Calorimeter Modules 1 RFI	07/30/04	-113	01/19/05										
5	1M1000400	9	Flight Calorimeter Tower 3 RFI	08/17/04	-102	01/20/05										
5	1M1510	9	Calorimeter Modules 2 RFI	08/02/04	-116	01/25/05										
5	1M1000380	9	Flight Calorimeter Tower 7 RFI	10/11/04	-99	03/11/05										
5	1M1530	9	Flight Calorimeter Tower 6 RFI	09/15/04	-117	03/11/05										

Run Date 01/03/05 13:58
 Data Date 12/01/04
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GLAST LAT PROJECT
Level 3 Milestones
Sort by Subsystem

LT-T3: Level 3 sort by Subsystem (tb)
 FL-T3: L3 Milestones from Oct03 on
 Sheet 2



Level 3 Milestones by Subsystem

AV	Activity ID	ND	Activity Description	Baseline Finish	Bsln Var	Early Finish	FY04				FY05					
							Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
4.1.5 Calorimeter																
5	1M1000370	9	Flight Calorimeter Tower 9 RFI	11/02/04	-89	03/21/05					◆		▽			
5	1M1540	9	Flight Calorimeter Tower 8 RFI	10/11/04	-105	03/21/05					◆		▽			
5	1M1000360	9	Flight Calorimeter Tower 11 RFI	11/16/04	-88	04/01/05					◆		▽			
5	1M1550	9	Flight Calorimeter Tower 10 RFI	11/02/04	-98	04/01/05					◆		▽			
5	1M1000350	9	Flight Calorimeter Tower 13 RFI	12/02/04	-83	04/08/05					◆		▽			
5	1M1560	9	Flight Calorimeter Tower 12 RFI	11/15/04	-94	04/08/05					◆		▽			
5	1M1000340	9	Flight Calorimeter Tower 15 RFI (Spare)	01/06/05	-74	04/22/05						◆		▽		
5	1M1570	9	Flight Calorimeter Tower 14 RFI	12/02/04	-93	04/22/05					◆			▽		
5	1M1580	9	Flight Calorimeter Tower 16 RFI (Spare)	01/06/05	-84	05/06/05						◆			▽	
4.1.6 ACD																
6	1M1001000	9	ACD Test Scripts (from ACD to I&T)	07/01/04	-131	01/14/05				◆		▽				
6	1M1000990	9	ACD Calibration Test Unit at SLAC, Tested & RFI	01/18/05	0	01/18/05						▽	◆			
6	1M1000410	9	ACD Flight Unit at SLAC, Tested/Inspected & RFI	11/03/04	-138	05/31/05					◆				▽	
4.1.7 Electronics																
7	1M76000010	6	3rd G2 Test Stand: Elec to ACD	12/08/03	0	12/08/03A	▽									
7	1M1000920	4	EM2 TEM: Elec to Tracker	01/12/04	-55	03/31/04A		◆	▽							
Run Date: 01/03/05 13:58							GLAST LAT PROJECT				LT-T3: Level 3 sort by Subsystem (tb)				Sheet 3	
Data Date: 12/01/04							Level 3 Milestones				FL-T3: L3 Milestones from Oct03 on					
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Level 3 Milestones by Subsystem

AV	Activity ID	ND	Activity Description	Baseline Finish	Bsln Var	Early Finish	FY04				FY05					
							Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
4.1.7 Electronics																
7	1M74000010	4	Updated EGSE System 1: Elec to TKR	12/08/03	-80	04/09/04A	◆		▼							
7	1M76000020	6	G3 Test Stand (test 2 FREE Cards): Elec to ACD	12/15/03	-84	04/22/04A	◆		▼							
7	1M74000020	4	Updated EGSE System 2: Elec to TKR	12/22/03	-82	04/27/04A	◆		▼							
7	1M76000030	6	G3 Test Stand (Fit-like I/F): Elec to ACD	02/20/04	-64	05/20/04A		◆	▼							
7	1M79010		Demo: SI Functionality - Elec to MO	05/28/04*	0	05/28/04A			▼							
7	1M74000030	4	Updated EGSE System 3: Elec to TKR	01/07/04	-104	06/04/04A	◆		▼							
7	1M74000040	4	EGSE System 4: Elec to TKR	01/14/04	-99	06/04/04A	◆		▼							
7	1M74000050	4	EGSE System 5: Elec to TKR	01/22/04	-94	06/04/04A	◆		▼							
7	1M1001870	5	5 EM2 TEM/PS for AFEE brd ass & tst: Elec to CAL	01/15/04	-99	06/07/04A	◆		▼							
7	1M1001900	5	Test Stations (5) for AFEE: Elec to CAL	01/14/04	-100	06/07/04A	◆		▼							
7	1M1001220	5	EM2 TEM/PS/CTS for FMA from Elec to CAL	01/22/04	-101	06/15/04A	◆		▼							
7	1M7941190	9	EGSE TEM/TEM PS/CTS #1 for Bldg 33-Elec to I&T	01/29/04	-104	06/25/04A	◆		▼							
7	1M1001260	5	EM2 TEM/PS/CTS for FMB from Elec to CAL	01/29/04	-128	07/30/04A	◆			▼						
7	1M79020		Demo: Inter-task Communications	07/30/04	0	07/30/04A				▼						
7	1M7941130	9	EGSE TEM/TEM PS/CTS w/ FE Elec #1-Elec to I&T	12/08/03	-158	07/30/04A	◆			▼						
7	1M7941170	9	EGSE TEM/TEM PS/CTS/GASU FE Elec-Elec to I&T	01/14/04	-138	07/30/04A	◆			▼						

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GLAST LAT PROJECT
Level 3 Milestones
Sort by Subsystem

LT-T3: Level 3 sort by Subsystem (tb)
FL-T3: L3 Milestones from Oct03 on

Sheet 4



Level 3 Milestones by Subsystem

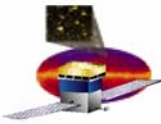
AV	Activity ID	ND	Activity Description	Baseline Finish	Bsln Var	Early Finish	FY04				FY05					
							Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
4.1.7 Electronics																
7	1M74000060	4	EGSE System 6: Elec to TKR	01/29/04	-138	08/13/04A		◆			▼					
7	1M74000070	4	EGSE System 7: Elec to TKR	02/12/04	-128	08/13/04A		◆			▼					
7	1M74000080	4	EGSE System 8: Elec to TKR	02/12/04	-128	08/13/04A		◆			▼					
7	1M7941150	9	EGSE TEM/TEM PS/CTS w/ FE Elec #2-Elec to I&T	12/22/03	-158	08/13/04A	◆				▼					
7	1M7941160	9	EGSE TEM/TEM PS/CTS w/ FE Elec #3-Elec to I&T	01/07/04	-153	08/13/04A	◆				▼					
7	1M7941420	9	EGSE TEM/TEM PS/CTS #2 for Bldg 33-Elec to I&T	02/05/04	-133	08/13/04A		◆			▼					
7	1M1001600	5	EM2 TEM/PS/CTS for FM1 from Elec to CAL	02/05/04	-141	08/25/04A		◆			▼					
7	1M1001650	5	EM2 TEM/PS/CTS for FM2 from Elec to CAL	02/12/04	-136	08/25/04A		◆			▼					
7	1M1001660	5	EM2 TEM/PS/CTS for FM3 from Elec to CAL	02/27/04	-126	08/25/04A		◆			▼					
7	1M1001680	5	EM2 TEM/PS/CTS for FM4 from Elec to CAL	02/27/04	-126	08/25/04A		◆			▼					
7	1M1001720	5	EM2 TEM/PS/CTS for FM5 from Elec to CAL	02/27/04	-126	08/25/04A		◆			▼					
7	1M1001760	5	EM2 TEM/PS/CTS for FM6 from Elec to CAL	03/05/04	-121	08/25/04A		◆			▼					
7	1M7941180	9	EGSE Development Hrdw/FSW 1st Delivr-Elec to I&T	01/22/04	-154	08/30/04A		◆			▼					
7	1M79030		Demo: Preliminary ISIS	09/01/04	-2	09/03/04A					▼					
7	1M79080		Demo: LAT Communication Board Driver	10/01/04	0	10/01/04A					▼					
7	1M74000090	4	EGSE System 9: Elec to TKR	02/20/04	-162	10/08/04A		◆			▼					

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GLAST LAT PROJECT
Level 3 Milestones
Sort by Subsystem

LT-T3: Level 3 sort by Subsystem (tb)
 FL-T3: L3 Milestones from Oct03 on

Sheet 5



Level 3 Milestones by Subsystem

AV	Activity ID	ND	Activity Description	Baseline Finish	Bsln Var	Early Finish	FY04				FY05					
							Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
4.1.7 Electronics																
7	1M74000100	4	EGSE System 10: Elec to TKR	02/20/04	-162	10/08/04A		◆			▼					
7	1M1001780	5	EM2 TEM/PS/CTS for FM8 from Elec to CAL	03/05/04	-157	10/15/04A			◆		▼					
7	1M7941430	9	EGSE TEM/TEM PS/CTS w/ GASU for B33-Elec to I&T	02/05/04	-181	10/21/04A		◆			▼					
7	1M1001770	5	EM2 TEM/PS/CTS for FM7 from Elec to CAL	03/05/04	-164	10/26/04A			◆		▼					
7	1M79120		Demo: Primary Boot	10/29/04	-3	11/03/04A					▼					
7	1M79130		Demo: Secondary Boot	10/29/04	-3	11/03/04A					▼					
7	1M79140		Demo: LCB Service	10/29/04	-3	11/03/04A					▼					
7	1M79150		Demo: Power/Initialize GASU	10/29/04	-3	11/03/04A					▼					
7	1M79090		Demo: Command and Telemetry	10/01/04	-43	12/03/04					◆	▽				
7	1M79100		Demo: 1553 Service	10/01/04	-43	12/03/04					◆	▽				
7	1M79160		Demo: File and Memory Management	12/03/04	0	12/03/04						◆	▽			
7	1M79170		Demo: Spacecraft Interfaces	12/03/04	0	12/03/04						◆	▽			
7	1M79180		Demo: Inter-task Communications	12/03/04	0	12/03/04						◆	▽			
7	1M79110		Demo: ISIS FQT	10/08/04	-57	01/07/05					◆		▽			
7	1M79190		Demo: Command and Telemetry Data Dictionary	01/07/05	0	01/07/05							◆	▽		
7	1M79200		Demo: Thermal Control	01/07/05	0	01/07/05								◆	▽	

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GLAST LAT PROJECT
Level 3 Milestones
Sort by Subsystem

LT-T3: Level 3 sort by Subsystem (tb)
 FL-T3: L3 Milestones from Oct03 on

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Level 3 Milestones by Subsystem

AV	Activity ID	ND	Activity Description	Baseline Finish	Bsln Var	Early Finish	FY04				FY05					
							Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
4.1.7 Electronics:																
7	1M79210		Demo: Watchdog	01/07/05	0	01/07/05										
7	1M79220		Demo: Charge Injection Calibration	01/07/05	0	01/07/05										
7	1M79230		Demo: Housekeeping	01/28/05	0	01/28/05										
7	1M79240		Demo: Event Integrity and Delivery	01/28/05	0	01/28/05										
7	1M79250		Demo: Event Filtering	01/28/05	0	01/28/05										
7	1M79260		Demo: GRB Detection and Response	01/28/05	0	01/28/05										
7	1M79001010	9	Flight TEM Assy A: Elec to I&T	06/07/04	-164	02/07/05										
7	1M79001020	9	Flight TEM Assy B: Elec to I&T	06/14/04	-159	02/07/05										
7	1M79002010	9	Flight TEM PS Assy A: Elec to I&T	05/12/04	-181	02/07/05										
7	1M79002020	9	Flight TEM PS Assy B: Elec to I&T	05/19/04	-176	02/07/05										
7	1M79003010	9	Flight Cables Assy A: Elec to I&T	05/10/04	-191	02/17/05										
7	1M7941110	9	Flight Harness-Elec to I&T	10/20/04	-77	02/17/05										
7	1M79003020	9	Flight Cables Assy B: Elec to I&T	05/10/04	-193	02/22/05										
7	1M79003030	9	Flight Cables Assy 1: Elec to I&T	06/10/04	-173	02/24/05										
7	1M79270		Demo: Mode Control	02/25/05	0	02/25/05										
7	1M79280		Demo: Diagnostics	02/25/05	0	02/25/05										

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GLAST LAT PROJECT
Level 3 Milestones
Sort by Subsystem

LT-T3: Level 3 sort by Subsystem (tb)
 FL-T3: L3 Milestones from Oct03 on

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Level 3 Milestones by Subsystem

AV	Activity ID	ND	Activity Description	Baseline Finish	Bsln Var	Early Finish	FY04				FY05			
							Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
4.1.7 Electronics:														
7	1M79003040	9	Flight Cables Assy 2: Elec to I&T	06/10/04	-175	02/28/05			◆			▽		
7	1M79003050	9	Flight Cables Assy 3: Elec to I&T	06/10/04	-177	03/02/05			◆			▽		
7	1M79003060	9	Flight Cables Assy 4: Elec to I&T	06/10/04	-179	03/04/05			◆			▽		
7	1M79003070	9	Flight Cables Assy 5: Elec to I&T	06/28/04	-169	03/08/05			◆			▽		
7	1M79003080	9	Flight Cables Assy 6: Elec to I&T	06/28/04	-171	03/10/05			◆			▽		
7	1M79003090	9	Flight Cables Assy 7: Elec to I&T	06/28/04	-173	03/14/05			◆			▽		
7	1M79003100	9	Flight Cables Assy 8: Elec to I&T	06/28/04	-175	03/16/05			◆			▽		
7	1M79003110	9	Flight Cables Assy 9: Elec to I&T	06/28/04	-177	03/18/05			◆			▽		
7	1M79003120	9	Flight Cables Assy 10: Elec to I&T	06/28/04	-179	03/22/05			◆			▽		
7	1M79001030	9	Flight TEM Assy 1: Elec to I&T	08/03/04	-155	03/23/05				◆		▽		
7	1M79002030	9	Flight TEM PS Assy 1: Elec to I&T	07/01/04	-177	03/23/05			◆			▽		
7	1M79003130	9	Flight Cables Assy 11: Elec to I&T	07/15/04	-169	03/24/05				◆		▽		
7	1M79003140	9	Flight Cables Assy 12: Elec to I&T	07/15/04	-171	03/28/05				◆		▽		
7	1M79001040	9	Flight TEM Assy 2: Elec to I&T	08/10/04	-155	03/30/05				◆		▽		
7	1M79002040	9	Flight TEM PS Assy 2: Elec to I&T	07/09/04	-177	03/30/05				◆		▽		
7	1M79003150	9	Flight Cables Assy 13: Elec to I&T	07/15/04	-173	03/30/05				◆		▽		

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GLAST LAT PROJECT
Level 3 Milestones
Sort by Subsystem

LT-T3: Level 3 sort by Subsystem (tb)
 FL-T3: L3 Milestones from Oct03 on
 Sheet 8



Level 3 Milestones by Subsystem

AV	Activity ID	ND	Activity Description	Baseline Finish	Bsln Var	Early Finish	FY04				FY05					
							Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
4.1.7 Electronics																
7	1M79003160	9	Flight Cables Assy 14: Elec to I&T	07/15/04	-175	04/01/05				◆					▽	
7	1M79001050	9	Flight TEM Assy 3: Elec to I&T	08/17/04	-154	04/05/05					◆				▽	
7	1M79002050	9	Flight TEM PS Assy 3: Elec to I&T	07/16/04	-176	04/05/05				◆					▽	
7	1M79003170	9	Flight Cables Assy 15: Elec to I&T	07/15/04	-177	04/05/05				◆					▽	
7	1M79003180	9	Flight Cables Assy 16: Elec to I&T	07/15/04	-179	04/07/05				◆					▽	
7	1M79001060	9	Flight TEM Assy 4: Elec to I&T	08/24/04	-153	04/11/05					◆				▽	
7	1M79002060	9	Flight TEM PS Assy 4: Elec to I&T	07/23/04	-175	04/11/05				◆					▽	
7	1M79001070	9	Flight TEM Assy 5: Elec to I&T	08/31/04	-152	04/15/05					◆				▽	
7	1M79002070	9	Flight TEM PS Assy 5: Elec to I&T	07/30/04	-174	04/15/05				◆					▽	
7	1M79001080	9	Flight TEM Assy 6: Elec to I&T	09/08/04	-151	04/21/05					◆				▽	
7	1M79002080	9	Flight TEM PS Assy 6: Elec to I&T	08/06/04	-173	04/21/05				◆					▽	
7	1M7941440	9	Final EGSE incl S/C Sim, FSW-Elec to I&T	12/13/04	-89	04/27/05						◆			▽	
7	1M79001090	9	Flight TEM Assy 7: Elec to I&T	09/15/04	-151	04/28/05					◆				▽	
7	1M79002090	9	Flight TEM PS Assy 7: Elec to I&T	08/13/04	-173	04/28/05				◆					▽	
7	1M7941070	9	Flight GASU Box-Elec to I&T	11/01/04*	-121	05/03/05					◆				▽	
7	1M79001100	9	Flight TEM Assy 8: Elec to I&T	09/22/04	-151	05/05/05					◆				▽	

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GLAST LAT PROJECT
Level 3 Milestones
Sort by Subsystem

LT-T3: Level 3 sort by Subsystem (tb)
 FL-T3: L3 Milestones from Oct03 on

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Level 3 Milestones by Subsystem

AV	Activity ID	ND	Activity Description	Baseline Finish	Bsln Var	Early Finish	FY04				FY05					
							Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
4.1.7 Electronics																
7	1M79002100	9	Flight TEM PS Assy 8: Elec to I&T	08/20/04	-173	05/05/05					◆					▽
7	1M7942000	9	Flight PDU Box-Elec to I&T	10/13/04	-139	05/10/05						◆				▽
7	1M79001110	9	Flight TEM Assy 9: Elec to I&T	09/29/04	-151	05/12/05							◆			▽
7	1M79002110	9	Flight TEM PS Assy 9: Elec to I&T	08/25/04	-175	05/12/05					◆					▽
7	1M7941080	9	Flight SIU-Elec to I&T	10/13/04	-145	05/18/05							◆			▽
7	1M7941090	9	Flight Event Processor Units-Elec to I&T	11/01/04	-132	05/18/05								◆		▽
7	1M79001120	9	Flight TEM Assy 10: Elec to I&T	10/06/04	-151	05/19/05								◆		▽
7	1M79002120	9	Flight TEM PS Assy 10: Elec to I&T	08/30/04	-177	05/19/05					◆					▽
7	1M79001130	9	Flight TEM Assy 11: Elec to I&T	10/13/04	-151	05/26/05								◆		▽
7	1M79002130	9	Flight TEM PS Assy 11: Elec to I&T	09/02/04	-179	05/26/05								◆		▽
7	1M79001140	9	Flight TEM Assy 12: Elec to I&T	10/20/04	-151	06/03/05								◆		▽
7	1M79002140	9	Flight TEM PS Assy 12: Elec to I&T	09/08/04	-181	06/03/05								◆		▽
7	1M79001150	9	Flight TEM Assy 13: Elec to I&T	10/27/04	-151	06/10/05								◆		▽
7	1M79002150	9	Flight TEM PS Assy 13: Elec to I&T	09/13/04	-183	06/10/05								◆		▽
7	1M79001160	9	Flight TEM Assy 14: Elec to I&T	11/03/04	-151	06/17/05								◆		▽
7	1M79002160	9	Flight TEM PS Assy 14: Elec to I&T	09/16/04	-185	06/17/05								◆		▽

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GLAST LAT PROJECT
Level 3 Milestones
Sort by Subsystem

LT-T3: Level 3 sort by Subsystem (tb)
 FL-T3: L3 Milestones from Oct03 on
 Sheet 10



Level 3 Milestones by Subsystem

AV	Activity ID	ND	Activity Description	Baseline Finish	Bsln Var	Early Finish	FY04				FY05					
							Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
4.1.7 Electronics																
7	1M79001170	9	Flight TEM Assy 15: Elec to I&T	11/10/04	-151	06/24/05					◆				▽	
7	1M79002170	9	Flight TEM PS Assy 15: Elec to I&T	09/21/04	-187	06/24/05						◆			▽	
7	1M79001180	9	Flight TEM Assy 16: Elec to I&T	11/17/04	-151	07/01/05					◆				▽	
7	1M79002180	9	Flight TEM PS Assy 16: Elec to I&T	09/24/04	-189	07/01/05						◆			▽	
4.1.8 Mechanica																
8	1M1001380	9	Delivery of EM (1X4) Grid to I&T/MSGE	12/19/03	-64	03/31/04A	◆	▼								
8	1M1000240	9	Flight Grid RFI-Mech to I&T	07/22/04	-105	12/21/04						◆		▽		
8	1M941710	9	X-LAT Thermal Plate RFI from Mech to I&T	08/12/04	-119	02/09/05							◆	▽		
8	1M941720	9	Radiators ready for I&T (from Mech to I&T)	03/17/05	-25	04/21/05								◆	▽	
4.1.9 I&T																
9	1M1001520	5	EM CAL Returned to NRL (arrives on dock)	10/16/03	-1	10/17/03A	▼									
9	1M1001790	5	EM2 TEM/PS (return FMA) from I&T to CAL	07/23/04	-105	12/22/04							◆	▽		
9	1M1001800	5	EM2 TEM/PS (return FMB)from I&T to CAL	07/23/04	-125	01/28/05							◆	▽		
9	1M1001840	5	EM2 TEM/PS (return FM4) from I&T to CAL	08/31/04	-100	02/01/05							◆	▽		
9	1M1001850	5	EM2 TEM/PS (return FM5) from I&T to CAL	09/29/04	-80	02/01/05							◆	▽		
9	1M1001810	5	EM2 TEM/PS (return FM1) from I&T to CAL	08/13/04	-113	02/02/05							◆	▽		
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Data Date 12/01/04							Level 3 Milestones				FL-T3: L3 Milestones from Oct03 on					
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Level 3 Milestones by Subsystem

AV	Activity ID	ND	Activity Description	Baseline Finish	Bsln Var	Early Finish	FY04				FY05					
							Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
4.1.9 I&T																
9	1M1001830	5	EM2 TEM/PS (return FM3) from I&T to CAL	08/31/04	-102	02/03/05					◆		▽			
9	1M1001820	5	EM2 TEM/PS (return FM2) from I&T to CAL	08/16/04	-116	02/08/05					◆		▽			
9	1M1001860	5	EM2 TEM/PS (return FM6) from I&T to CAL	09/29/04	-117	03/25/05					◆		▽			
9	1M1000130	2	LAT Ready to Ship to NRL for Env Test	06/08/05	-96	10/24/05									◆	
4.1.B ISOC																
B	1M005480	B	ISOC CDR	03/12/04	-101	08/04/04A		◆			▼					
B	1M1000112	B	Mission Operations Review (L-21mo.)	11/10/04	-140	06/09/05					◆				▽	
B	1M7941270	B	Ground System Interface Test start	11/10/04	-140	06/09/05					◆				▽	
Run Date							01/03/05 13:58	GLAST LAT PROJECT				LT-T3: Level 3 sort by Subsystem (tb)				Sheet 12
Data Date							12/01/04	Level 3 Milestones				FL-T3: L3 Milestones from Oct03 on				
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