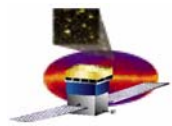
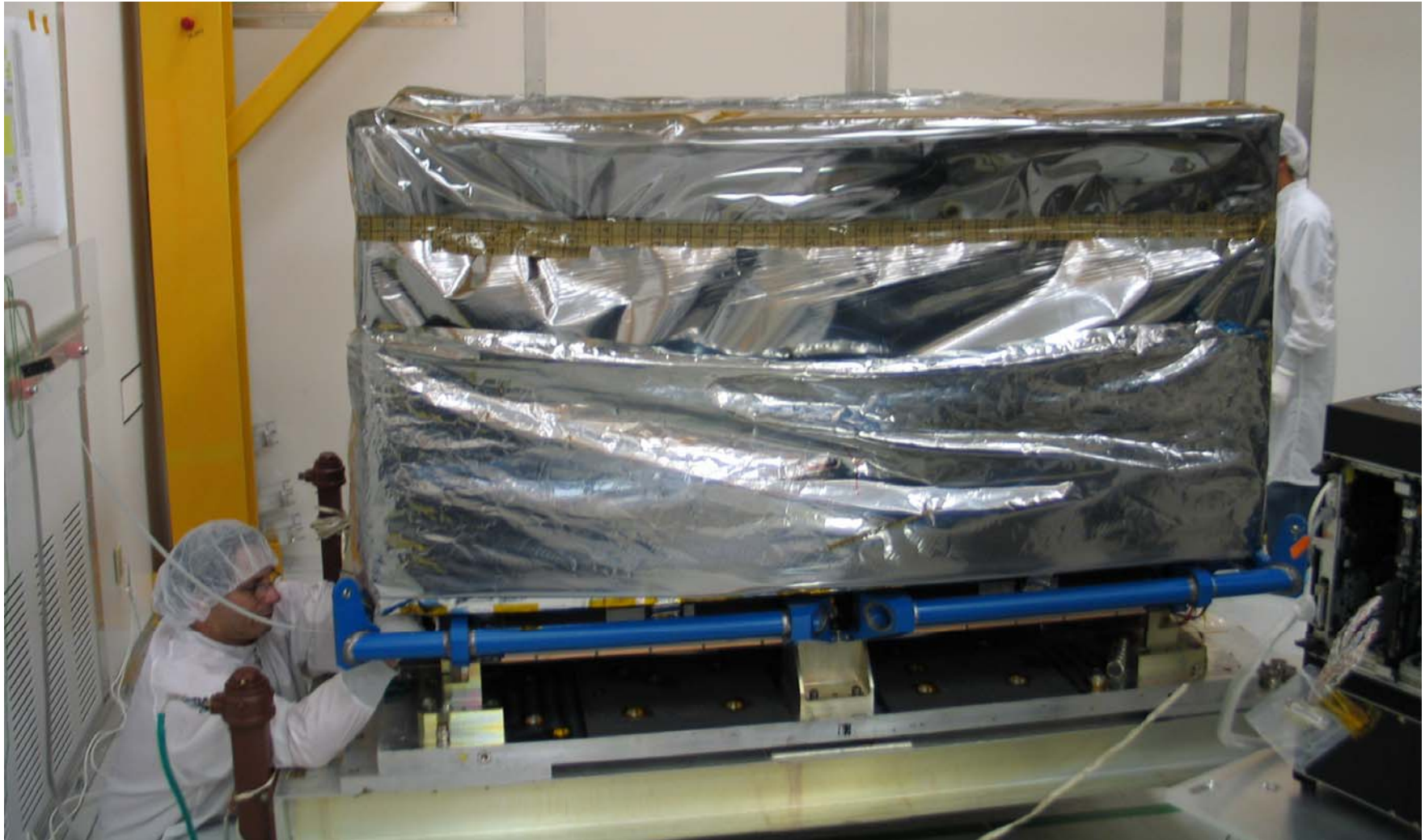


# Project Status October 2005 Month End

Lowell A. Klaisner  
Project Manager  
GLAST/LAT project



# ACD on the LAT





# LAT Status

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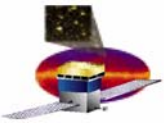
- **ACD Installed**
- **Flight GASU installed**
- **Power up in this configuration next Monday**
- **SIUs and EPUs released to I&T next week**
- **VSC and power racks next week**
- **Flight Software by December 16**
  - **V 6.0 in test**
- **Grid strength test underway**



# SLAC Holiday Site Closure

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- **SLAC will be closed from December 22 through January 2**
  - **Essential operations will continue**
  - **Computer systems will be up**
- **I&T will continue operations**
  - **The necessary LAT people will be available**
  - **My experience problems with the lack of infrastructure**



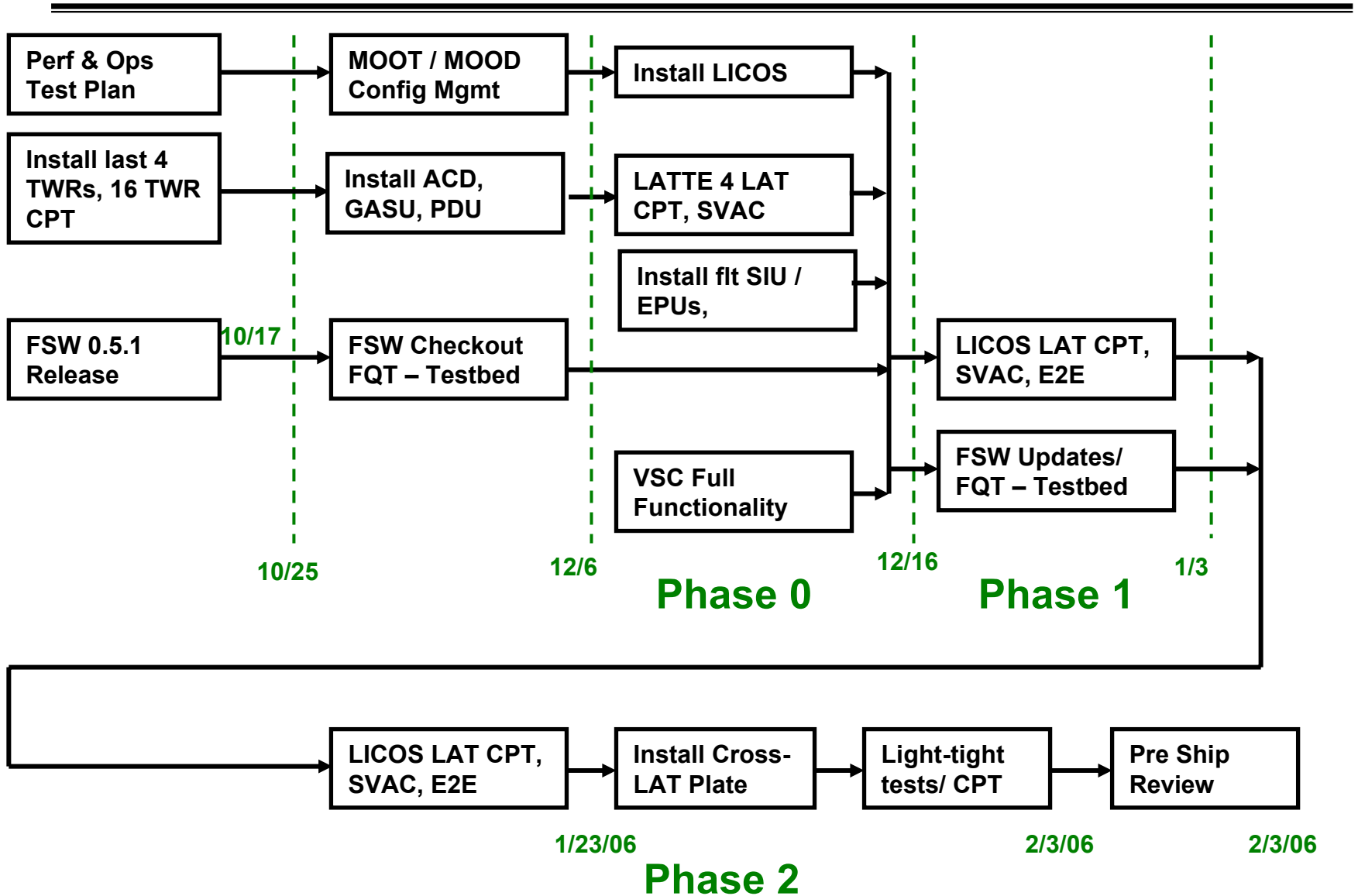
# Organizational Changes

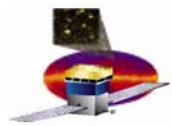
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- **Tanya Boysen has accepted a position on campus as the Executive Director of the Division of International, Comparative and Area Studies on campus.**
  - **She will take the month of December off and then start at her new position at the beginning of 2006**
  - **Linda Price will take over the Project Controls Group**
- **Debbie Nicholson will be moving to building 84 where she will join the ISOC and report to Rob Cameron**
  - **Diana Viera will step in to provide administrative support for the LAT project office**

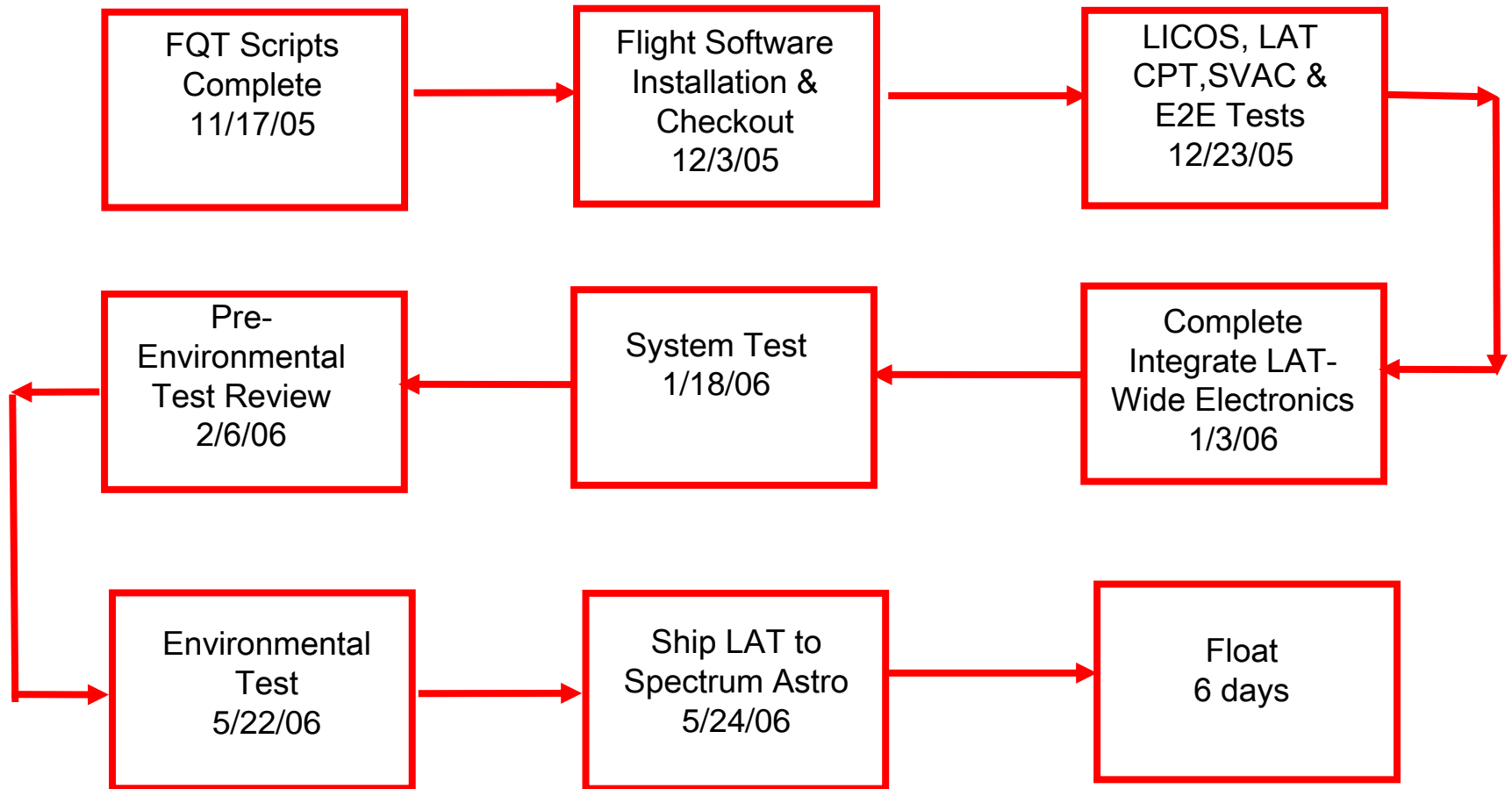


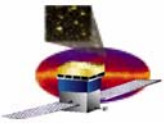
# System Test Flow





# Current Critical Path to Ship LAT to Spectrum Astro



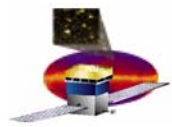


# Current Critical Path to Ship LAT to Spectrum Astro

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- **1<sup>st</sup> critical path: Flight Software Installation & Checkout, Integration of LAT Wide Electronics, System Test**  
6 days float to Ship LAT to Spectrum Astro
- **2<sup>nd</sup> critical path: Flight SIU, Integrate LAT Wide Electronics**  
19 days float to Ship LAT to Spectrum Astro

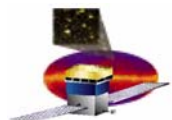




# CCB Action

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- **This allocates the remaining contingency in the DOE \$45M capital equipment project**
- **Extends System Engineering for the first quarter of FY06**



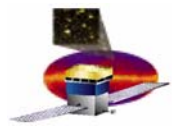
# Level 1-2 Milestone List

Activity ID	Activity Description	Baseline Finish	-2m Var	-1m Var	Bsin Var	Early Finish	Timeline																							
							FY01	FY02				FY03				FY04				FY05				FY06						
							Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
<b>DOE/NASA Joint Oversight Group (Level 1)</b>																														
1M1P000000	DOE Critical Decision (CD) 0 Approval	06/25/01A	0	0	0	06/25/01A	▼																							
1M1P000010	CD-1 Approval	07/23/02A	0	0	0	07/23/02A				▼																				
1M1P000020	CD-2 Approval	11/08/02A	0	0	0	11/08/02A					▼																			
1M1P000030	CD-3 Approval	09/03/03A	0	0	0	09/03/03A						▼																		
1M1P000060	Flight GRID Complete	11/08/04A	0	0	0	11/08/04A								▼																
1M1P000040	CD-4 Approval	03/15/06*	0	0	0	03/15/06*																			▼					
<b>DOE/NASA Federal Project Managers (Level 2)</b>																														
1M1BF00000	Launch Balloon Flight	08/01/01A	0	0	0	08/01/01A	▼																							
1M1000100	Instrument Preliminary Design Review	01/08/02A	0	0	0	01/08/02A		▼																						
1M1000110	I-CDR (Critical Design Review)	05/16/03A	0	0	0	05/16/03A					▼																			
1M1000740	Start LAT Integration	03/23/05	-5	-5	-5	03/30/05A														▼										
1M1000700	Pre Environmental Testing Review	12/20/05	-17	-13	-15	01/19/06																	▼							
1M1000120	PSR-(Instrument Pre-Ship Review)	04/18/06	-28	-25	-25	05/23/06																		▼						

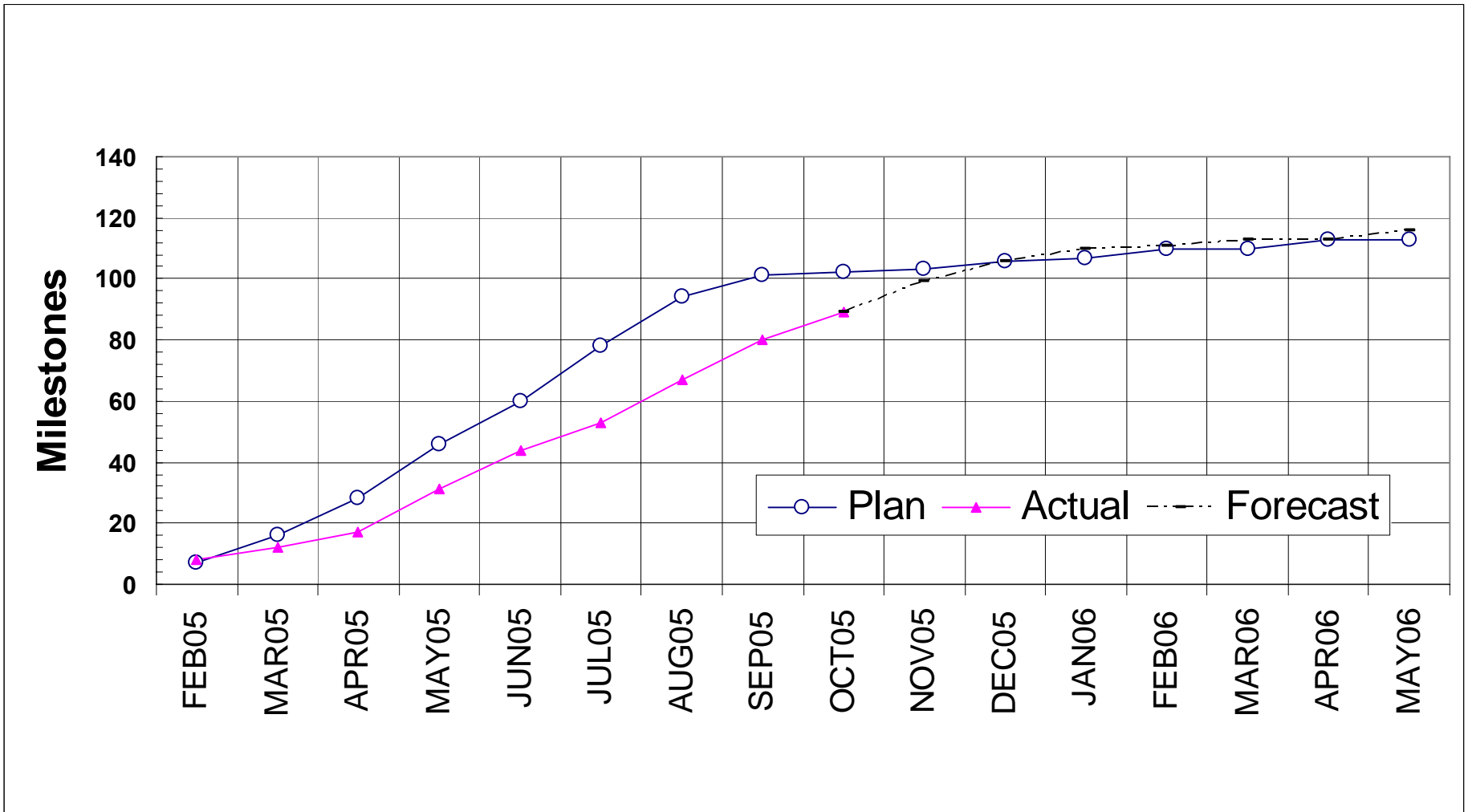
Run Date 11/21/05 15:38  
 Data Date 11/01/05  
 © Primavera Systems, Inc.

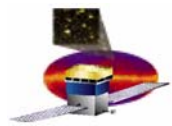
GLAST LAT PROJECT  
 Level 1&&2 Milestones

LT-T1: Level 1 && 2 Milestones  
 FL-T1: Level 1 && 2 Milestones  
 Sheet 1



# Level 3 Milestone Count





# Level 3 Milestones Completed in October 2005

AV	Activity ID	ND	Activity Description	Baseline Finish	Bsin Var	Early Finish	FY05			FY06			
							SEP	OCT	NOV	SEP	OCT	NOV	
<b>Instrument Project Office (Level 3)</b>													
<b>4.1.4 Tracker</b>													
4	1M1000291	9	Flight Tracker Tower 12 RFI	08/15/05	-36	10/05/05A		▼					
4	1M1000300	9	Flight Tracker Tower 13 RFI	08/24/05	-31	10/07/05A		▼					
4	1M1000301	9	Flight Tracker Tower 14 RFI	09/02/05	-26	10/11/05A	♦	▼					
4	1M1000271	9	Flight Tracker Tower 8 RFI	07/06/05	-70	10/13/05A		▼					
4	1M1000310	9	Flight Tracker Tower 15 RFI	09/13/05	-24	10/17/05A	♦	▼					
<b>4.1.7 Electronics</b>													
7	1M7941110	9	Flight Harness-Elec to I&T	07/05/05	-72	10/14/05A		▼					
7	1M7942000	9	Flight PDU Box-Elec to I&T	07/01/05	-79	10/24/05A		▼					
<b>4.1.9 I&amp;T</b>													
9	1M99040	9	Start 16 Tower Comprehensive Performance Test	09/07/05	-30	10/19/05A	♦	▼					
Run Date							11/22/05 10:09	<b>GLAST LAT PROJECT</b>			LT-TB: Completed Level 3 by Subsystem		
Data Date							11/01/05	Completed Level 3 Milestones in Reporting Month Sort by Subsystem			FL-TB: Level 3 Milestones compl. last month		
© Primavera Systems, Inc.											Sheet 1		



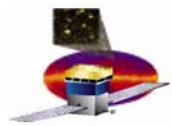
# Level 3 Milestones Completed in November 2005

AV	Activity ID	ND	Activity Description	Baseline Finish	BsIn Var	Early Finish	FY06				
							OCT	NOV	DEC		
<b>Instrument Project Office (Level 3)</b>											
<b>4.1.7 Electronics</b>											
7	1M79530		Release FSW for FQT - Phase 1	08/29/05	-54	11/14/05		▽			
7	1M7R050	7	LCB Flight Units - Elec to Elec	07/20/05	-82	11/14/05		▽			
7	1M7941070	9	Flight GASU Box-Elec to I&T	07/19/05	-93	11/30/05			▽		
Run Date							11/30/05 10:11	GLAST LAT PROJECT		LT-T9: L3 MS Completed Curr Mo (tb)	Sheet 1
Data Date							11/01/05	Level 3 Milestones Completed in November		FL-T2: L3 Milestones Completed Current Month	
© Primavera Systems, Inc.							Sort by Subsystem				

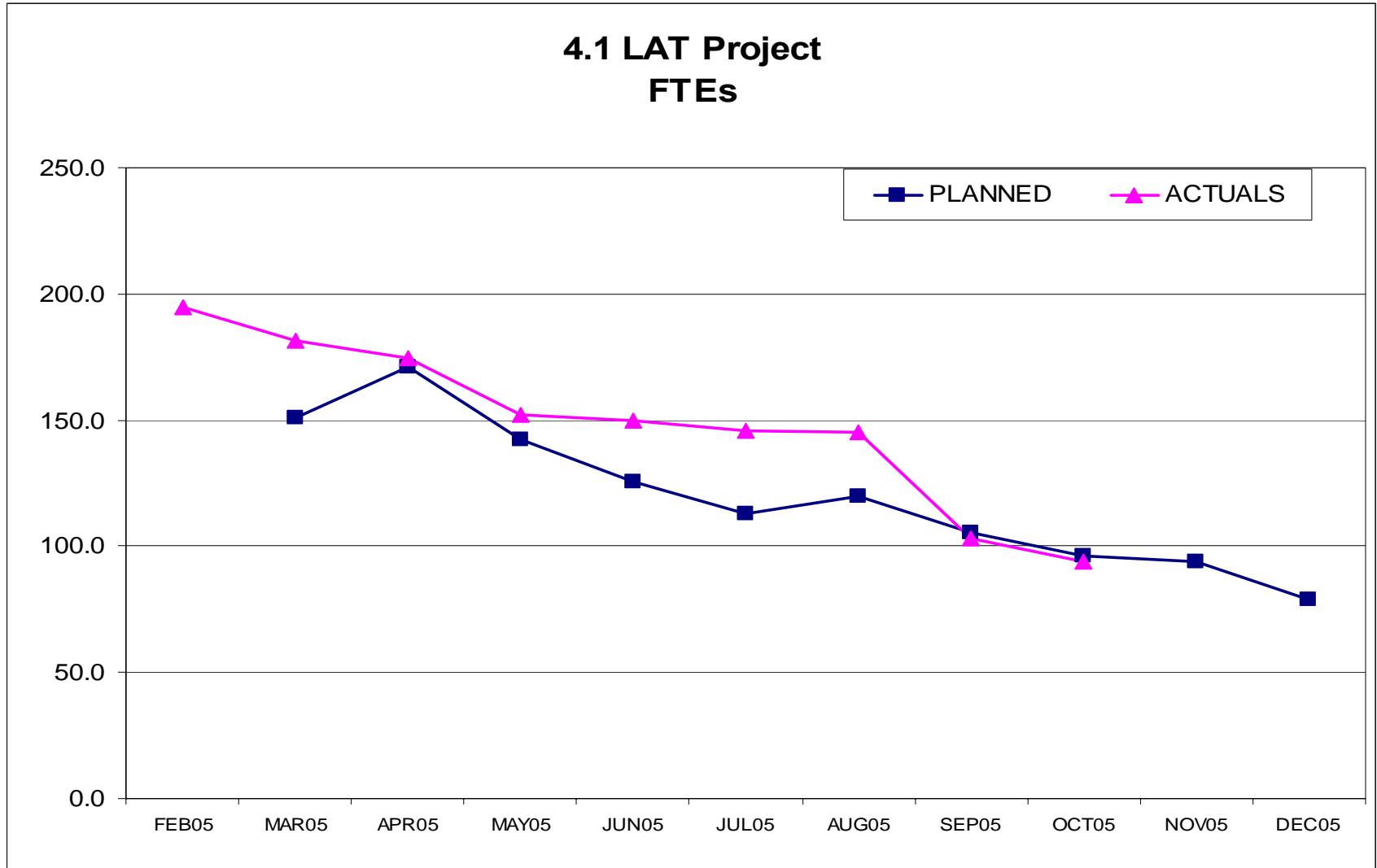


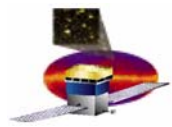
# CPR Level 3

Cost Performance Report - Work Breakdown Structure													
Contractor: Location:						Contract Type/No:			Project Name/No: LAT		Report Period: 9/30/2005      10/31/2005		
Quantity	Negotiated Cost		Est. Cost Authorized Unpriced Work		Tgt. Profit/ Fee %	Tgt. Price	Est Price	Share Ratio	Contract Ceiling	Estimated Contract Ceiling			
1	0		0		0	0.00	0	0	0	0			
CAPW[3]		Current Period					Cumulative to Date					At Completion	
Item	Budgeted Cost		Actual Cost Work Performed	Variance		Budgeted Cost		Actual Cost Work Performed	Variance		Budgeted	Latest Revised Estimate	Variance
	Work Scheduled	Work Performed		Schedule	Cost	Work Scheduled	Work Performed		Schedule	Cost			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
4.1.1 INSTRUMENT MANAGEMENT	368	368	494	0	-126	18,180	18,180	17,858	0	323	26,656	26,656	0
4.1.2 SYSTEM ENGINEERING	139	139	363	0	-224	8,209	8,209	8,335	0	-126	10,131	10,131	0
4.1.4 TRACKER	55	212	218	157	-6	22,103	22,103	21,253	0	850	22,330	22,330	0
4.1.5 CALORIMETER	0	0	0	0	0	21,554	21,554	21,554	0	0	21,554	21,554	0
4.1.6 ANTICOINCIDENCE DETECTOR	0	0	232	0	-232	18,329	18,329	18,165	0	164	18,329	18,329	0
4.1.7 ELECTRONICS	249	360	502	111	-142	29,953	29,178	28,931	-774	248	32,135	32,135	0
4.1.8 MECHANICAL SYSTEMS	38	38	-50	0	88	17,444	17,087	17,069	-356	18	18,284	18,284	0
4.1.9 INTEGRATION & TEST	443	407	324	-36	84	9,894	9,322	8,868	-573	454	13,863	13,863	0
4.1.A PERFORMANCE AND SAFETY ASSURANCE	107	107	74	0	33	4,004	4,004	4,105	0	-101	5,452	5,452	0
4.1.B LAT INSTRUMENT SCIENCE OPERATIONS CENTER	-17	-17	0	0	-17	317	317	317	0	0	317	317	0
4.1.C EDUCATION AND PUBLIC OUTREACH	51	51	106	0	-55	2,735	2,735	2,411	0	<b>324</b>	3,988	3,988	0
4.1.D SCIENCE ANALYSIS SOFTWARE	80	80	176	0	-96	3,017	3,017	2,981	0	36	5,114	5,114	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	1,513	1,745	2,438	232	-693	157,063	155,360	153,171	-1,703	2,189	179,477	179,477	0
Contingency											8,578	8,578	0
Total	1,513	1,745	2,438	232	-693	157,063	155,360	153,171	-1,703	2,189	188,055	188,055	0



# FTE Report (DOE/NASA-funded only)





# Performance Analysis

	WBS	BAC	BCWS	BCWP	ACWP	SV \$	CV \$	% BCWS	% BCWP	% ACWP	SPI Trend	CPI Trend	SPI	CPI	CPI Fcst	CpiSpi Fcst
1	4.1	179,477	157,063	155,360	153,171	-1,703	2,189	87.51	86.56	85.34	↑	↓	0.989	1.014	176,949	177,209
2	4.1.1	26,656	18,180	18,180	17,858	0	323	68.20	68.20	66.99	↔	↓	1.000	1.018	26,183	26,183
3	4.1.2	10,131	8,209	8,209	8,335	0	-126	81.03	81.03	82.28	↔	↓	1.000	0.985	10,286	10,286
4	4.1.4	22,330	22,103	22,103	21,253	0	850	98.98	98.98	95.18	↑	↔	1.000	1.040	21,471	21,471
5	4.1.5	21,554	21,554	21,554	21,554	0	0	100.00	100.00	100.00	↔	↔	1.000	1.000	21,554	21,554
6	4.1.6	18,329	18,329	18,329	18,165	0	164	100.00	100.00	99.11	↔	↓	1.000	1.009	18,165	18,165
7	4.1.7	32,135	29,953	29,178	28,931	-774	248	93.21	90.80	90.03	↑	↓	0.974	1.009	31,862	31,940
8	4.1.8	18,284	17,444	17,087	17,069	-356	18	95.40	93.46	93.36	↔	↑	0.980	1.001	18,265	18,290
9	4.1.9	13,863	9,895	9,322	8,868	-573	454	71.37	67.24	63.97	↔	↑	0.942	1.051	13,188	13,454
10	4.1.A	5,452	4,004	4,004	4,105	0	-101	73.43	73.43	75.28	↔	↑	1.000	0.975	5,590	5,590
11	4.1.B	317	317	317	317	0	0	100.00	99.99	99.92	↔	↓	1.000	1.001	317	317
12	4.1.C	3,988	2,735	2,735	2,411	0	324	68.58	68.58	60.46	↔	↓	1.000	1.134	3,516	3,516
13	4.1.D	5,114	3,017	3,017	2,981	0	36	59.00	59.00	58.30	↔	↓	1.000	1.012	5,053	5,053
14	4.1.E	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

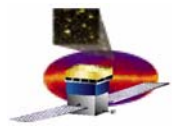
% BCWS: Percent Scheduled = BCWS/BAC  
 % BCWP: Percent Complete = BCWP/BAC  
 % ACWP: Percent Spent = ACWP/BAC

Cpi\_Fcst: CPI (to date) EAC Forecast = BAC / CPI  
 CpiSpi\_Fcst: Combination CPI and SPI EAC Forecast = ACWP + (BAC - BCWP) / (CPI \* SPI)

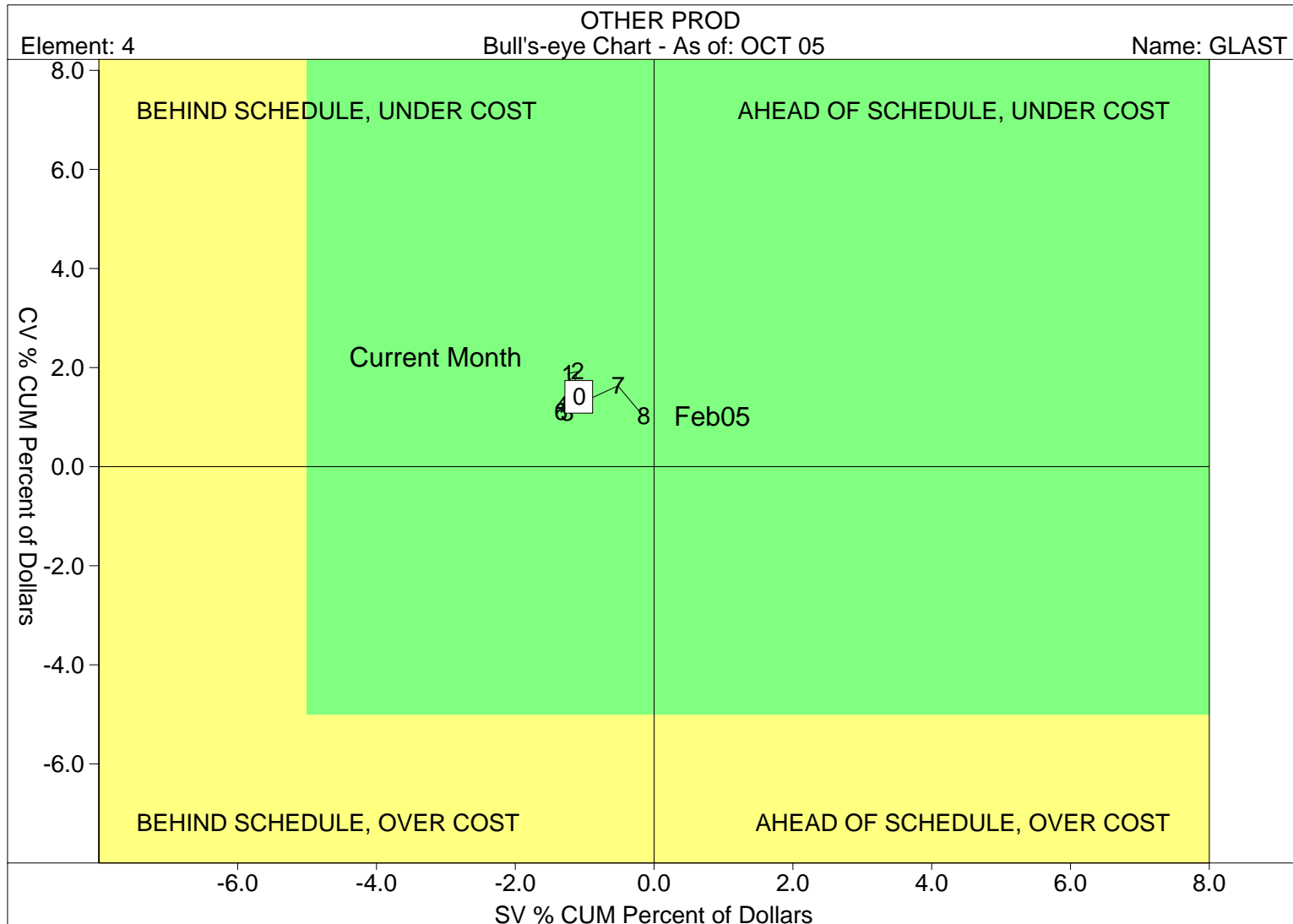
<span style="color: red;">█</span>	Worse than .85	<span style="color: green;">█</span>	Between .95 and 1.10
<span style="color: yellow;">█</span>	Between .85 and .95	<span style="color: blue;">█</span>	Better than 1.10

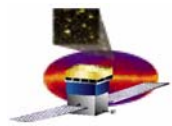
SPI and CPI Change Thresholds



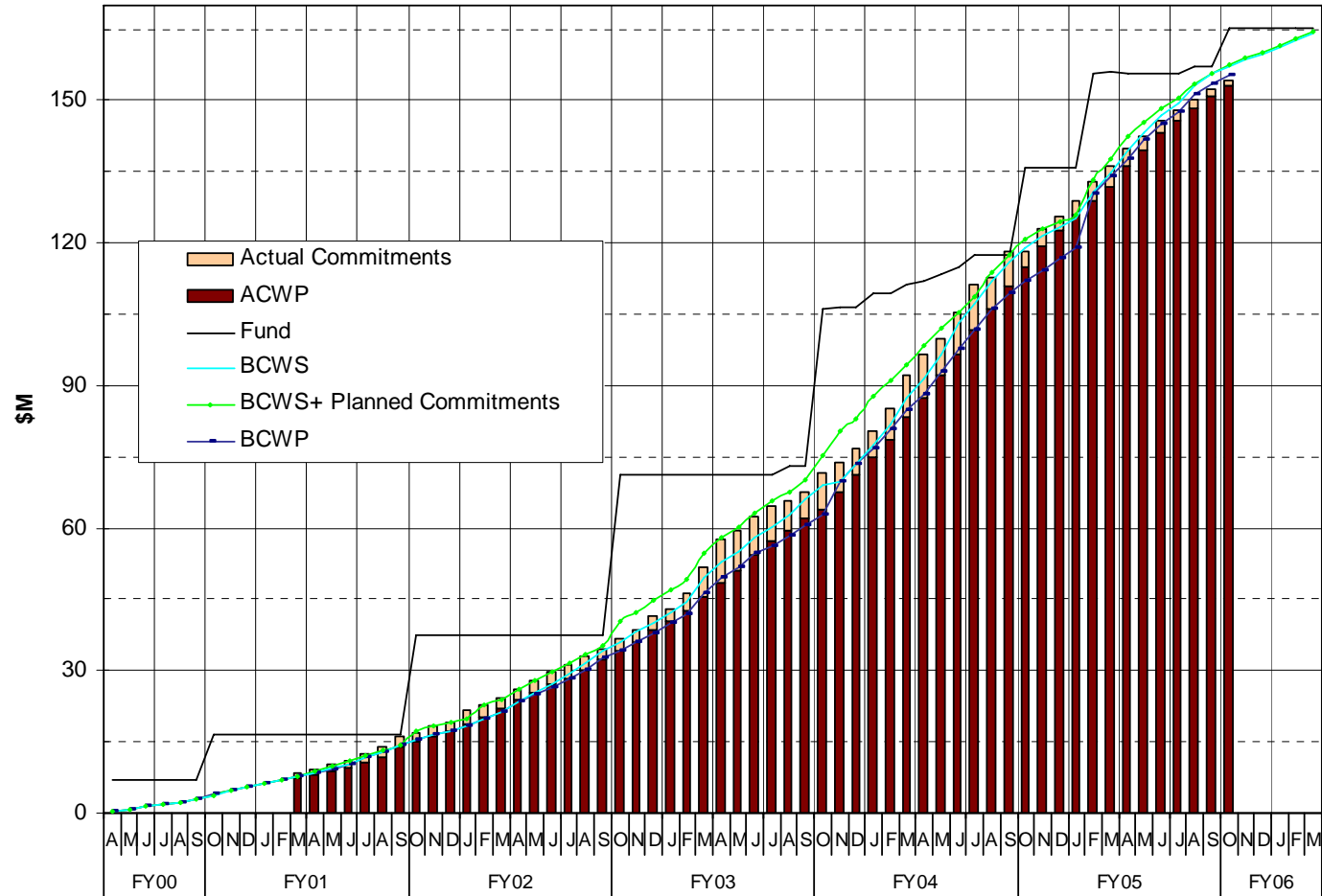


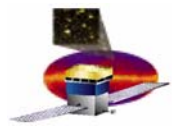
# Variance Analysis





# Budget, Cost, Funding, Performance





# 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	NOV05	ATCOMPLETE				
4.1.1 INSTRUMENT MANAGEMENT	494	368	17,858	18,180	403	8,073	323	26,656	26,656	80
4.1.2 SYSTEM ENGINEERING	363	139	8,335	8,209	141	1,780	-126	10,131	10,131	0
4.1.4 TRACKER	218	55	21,253	22,103	54	173	850	22,330	22,330	253
4.1.5 CALORIMETER	0	0	21,554	21,554	0	0	0	21,554	21,554	0
4.1.6 ANTICOINCIDENCE DETECTOR	232	0	18,165	18,329	0	0	164	18,329	18,329	123
4.1.7 ELECTRONICS	502	249	28,931	29,953	254	1,929	1,022	32,135	32,135	117
4.1.8 MECHANICAL SYSTEMS	-50	38	17,069	17,444	39	801	374	18,284	18,284	83
4.1.9 INTEGRATION & TEST	324	443	8,868	9,894	502	3,466	1,026	13,863	13,863	171
4.1.A PERFORMANCE AND SAFETY ASSURANCE	74	107	4,105	4,004	109	1,340	-101	5,452	5,452	0
4.1.B LAT INSTRUMENT SCIENCE OPERATIONS CENTER	0	-17	317	317	0	0	0	317	317	0
4.1.C EDUCATION AND PUBLIC OUTREACH	106	51	2,411	2,735	52	1,201	324	3,988	3,988	152
4.1.D SCIENCE ANALYSIS SOFTWARE	176	80	2,981	3,017	80	2,017	36	5,114	5,114	22
4.1.E SUBORBITAL FLIGHT TEST	0	0	1,325	1,325	0	0	0	1,325	1,325	0
Gen. and Admin.	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>2,438</b>	<b>1,513</b>	<b>153,171</b>	<b>157,063</b>	<b>1,634</b>	<b>20,780</b>	<b>3,892</b>	<b>179,477</b>	<b>179,477</b>	<b>1,001</b>



# Agenda

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- 8:00 - 8:30am Project Status Overview - Lowell Klaisner**
- 8:30 – 9:00am System Engineering Status & Action items - Pat Hascall**
- 9:00 – 9:30am DAQ/EGSE Hardware – Gunther Haller**
- 9:30 – 10:00am FSW – Terry Schalk**
- 10:00 – 10:30am Design Integration & Analysis – Martin Nordby**
- 10:30 – 11:00am LAT Environmental Test Planning – Martin Nordby/Neil Johnson**
- 11:00 – 11:30am Integration and Test – Ken Fouts**
- 11:30 – 12:00pm Mechanical Hardware/Grid Qual - Marc Campell**
- 12:00 – 12:45pm Lunch**
- 12:45 – 1:45pm Cost and schedule reporting – Lowell Klaisner**
- 1:45 – 2:15pm ISOC/Data Base Planning – Rob Cameron**
- 2:15 – 3:00pm Tracker closeout – Robert Johnson**
- 3:00 – 3:15pm Break**
- 3:15 – 3:45pm PSA – Joe Cullinan**
- 3:45 – 4:00pm EPO – Lynn Cominsky**