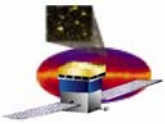


## Project Status Overview

Lowell Klaisner  
Project Manager  
GLAST-LAT Project



# My Status

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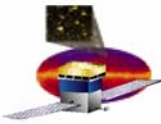
**Stroke on September 15**  
**Expect full recovery in a couple of weeks**  
**10% probability of recurrence in 2 years**



# Summary

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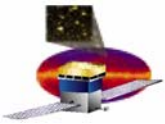
- **Anti-coincidence detector** **Complete**
- **Calorimeter** **Complete**
- **Tracker** **September**
  - **All flight modules fabricated**
- **Mechanical/ Thermal** **September**
  - **Radiator Pre-Ship Complete**
- **Flight Software** **November**
  - **System C/O FQT TRR Complete, v 5.0 Released**
- **Data Acquisition boxes** **December**
- **Instrument** **January, 2006**
  
- **Issues**
  - **Tracker cables (Last 2 flight cables this week)**
  - **DAQ boxes**
    - **Subsequent integration and test**



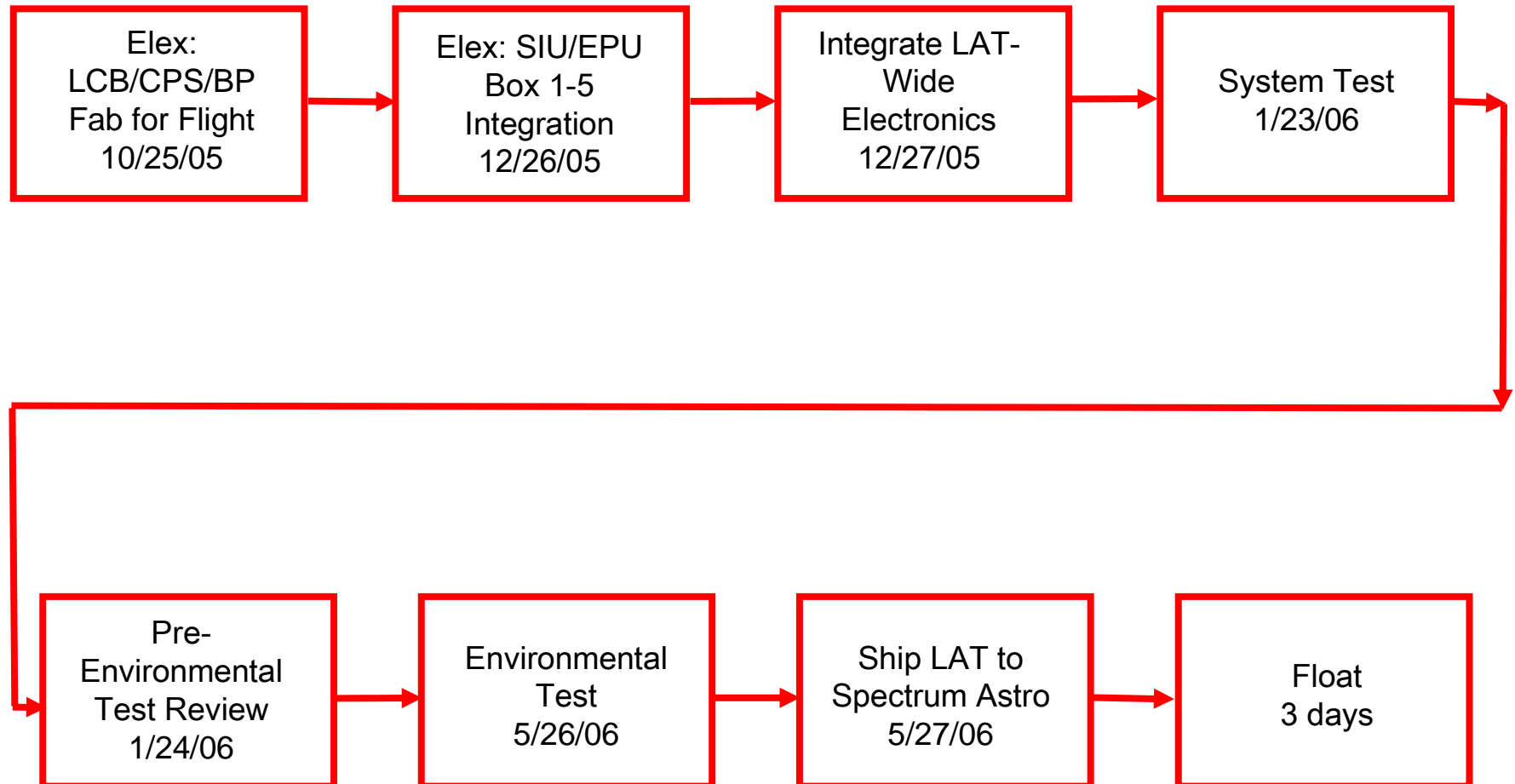
# Module Schedule

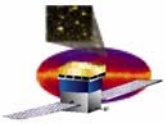
Status of 9/23	Forecast Dates and Float (working days) to "Ship LAT"									
	Mech/ACD		TKR		CAL		ELEC		I&T	
Grid	11/08/04A	-								
1st Module			02/04/05A	-	12/08/04A	-	02/17/05A	-	04/07/05A	-
2nd Module			02/24/05A	-	01/14/05A	-	03/09/05A	-	04/13/05A	-
3rd Module			05/10/05A	-	01/14/05A	-	05/19/05A	-	05/27/05A	-
4th Module			05/10/05A	-	01/14/05A	-	05/19/05A	-	05/31/05A	-
5th Module			05/10/05A	-	01/14/05A	-	06/02/05A	-	06/08/05A	-
6th Module			06/09/05A	-	02/22/05A	-	06/06/05A	-	06/27/05A	-
7th Module			06/09/05A	-	02/22/05A	-	06/06/05A	-	08/03/05A	-
8th Module			8/01/05A	-	04/25/05A	-	07/22/05A	-	08/05/05A	-
9th Module			09/19/05A	-	04/25/05A	-	07/22/05A	-	09/22/05	50
10th Module			09/19/05A	-	04/25/05A	-	07/22/05A	-	09/26/05	50
11th Module			09/23/05	46	05/25/05A	-	08/05/05A	-	09/29/05	49
12th Module			09/23/05	49	05/25/05A	-	08/05/05A	-	09/29/05	49
13th Module			10/03/05	41	05/25/05A	-	08/05/05A	-	10/07/05	43
14th Module			10/03/05	42	05/25/05A	-	09/19/05A	-	10/10/05	42
15th Module			10/05/05	41	06/10/05A	-	09/19/05A	-	10/11/05	24
16th Module			10/06/05	24	06/10/05A	-	09/19/05A	-	10/12/05	24
ACD	08/23/05A	-								
X-LAT	07/22/05A	-								
Radiators	09/20/05	103								
Harness							09/07/05	49		
PDU							11/01/05	34		
GASU							11/10/05	28		
1st EPU/SIU							11/30/05	16		
Last EPU/SIU							12/26/05	3		
FSW Cand Test Start							06/14/05A	-		
FSW FQT							09/27/05	35		
Inst Global Items									12/27/05	3
System Test									01/23/06	3
LAT Arrives at NRL									01/27/06	3
Sine Vibe									03/16/06	3
EMI/EMC Test									02/23/06	3
Acoustic Test									03/27/06	3
TVAC									05/23/06	3
Weight & CG									05/25/06	3
Preship Review									05/26/06	3
Ship LAT									05/27/06	3

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



# Current Critical Path to Ship LAT to Spectrum Astro

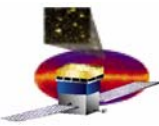




## Current Critical Path to Ship LAT to Spectrum Astro

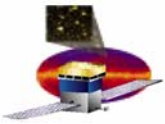
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- **1<sup>st</sup> critical path: Electronics SIU/EPU Components for Installation of LAT-wide Electronics**  
3 days float to Ship LAT to Spectrum Astro
- **2<sup>nd</sup> critical path: Delivery & Installation of Trackers drives 16-Tower Test, ACD Installation and FSW testing**  
16 days float to Ship LAT to Spectrum Astro
- **3<sup>rd</sup> critical path: LAT Vibration Test Fixture drives shipment of LAT to NRL**  
23 days float to Ship LAT to Spectrum Astro

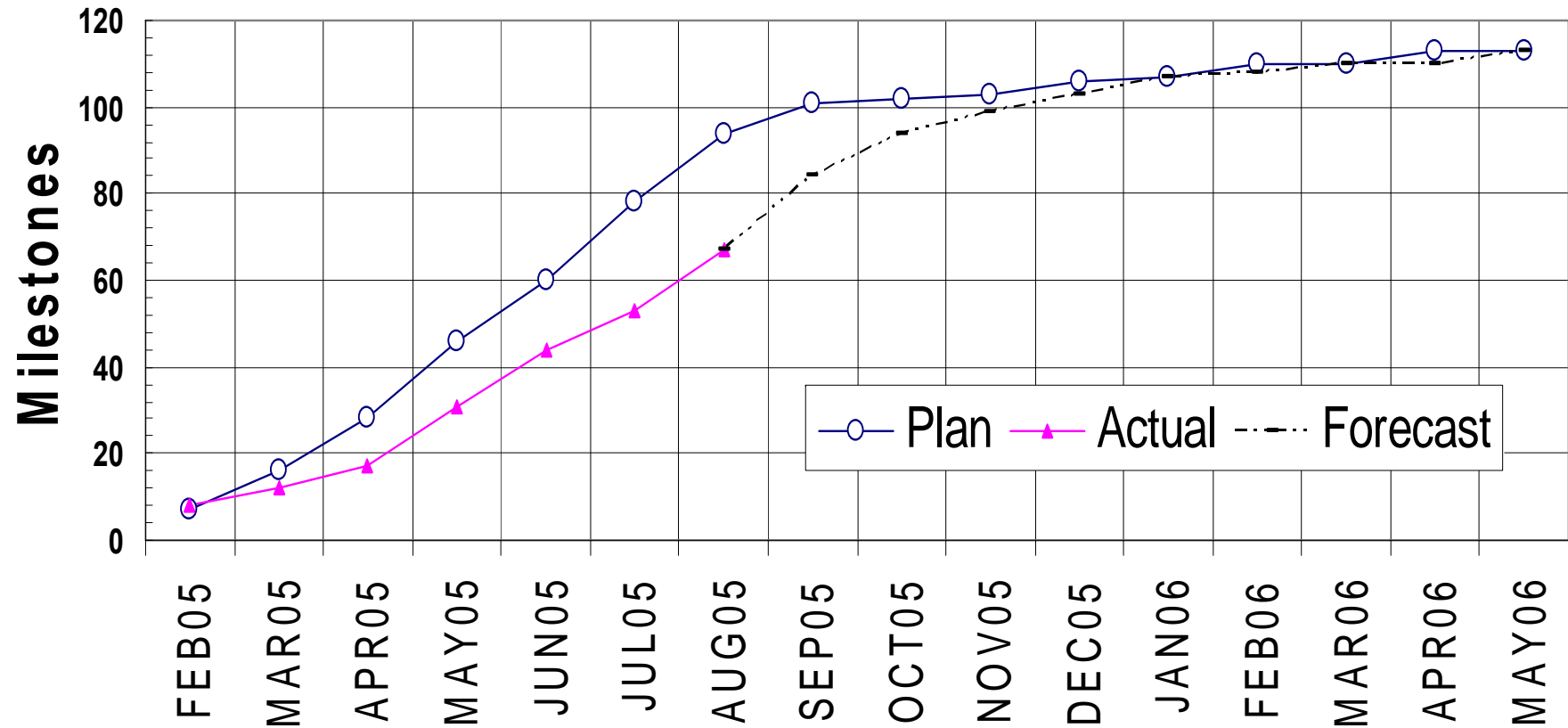


# Level 1-2 Milestone List

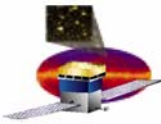
Activity ID	Activity Description	Baseline Finish	-2m Var	-1m Var	Bsn Var	Early Finish	FY01	FY02				FY03				FY04				FY05				FY06					
							Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
<b>DOE/NASA Joint Oversight Group (Level 1)</b>																													
1M1P000000	DOE 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	-10	-20	-17	01/23/06																▼							
1M1000120	PSR-(Instrument Pre-Ship Review	04/18/06	-18	-28	-28	05/26/06																	▼						



# Level 3 Milestone Count







# Level 3 Milestones Completed in August 2005

AV	Activity ID	ND	Activity Description	Baseline Finish	Bsln Var	Early Finish	FY05			
							JUL	AUG	SEP	
<b>Instrument Project Office (Level 3)</b>										
<b>4.1.4 Tracker</b>										
4	1M1000261	9	Flight Tracker Tower 6 RFI	06/16/05	-31	08/01/05A		▼		
<b>4.1.6 ACD</b>										
6	1M1000410	9	ACD Flight Unit at SLAC, Tested/Inspected & RFI	07/15/05	-27	08/23/05A	•		▼	
<b>4.1.7 Electronics</b>										
7	1M79001110	9	Flight TEM Assy 9: Elec to I&T	06/20/05	-33	08/05/05A		▼		
7	1M79001120	9	Flight TEM Assy 10: Elec to I&T	06/27/05	-28	08/05/05A		▼		
7	1M79001130	9	Flight TEM Assy 11: Elec to I&T	07/05/05	-23	08/05/05A	•		▼	
7	1M79002110	9	Flight TEM PS Assy 9: Elec to I&T	06/20/05	-33	08/05/05A		▼		
7	1M79002120	9	Flight TEM PS Assy 10: Elec to I&T	06/27/05	-28	08/05/05A		▼		
7	1M79002130	9	Flight TEM PS Assy 11: Elec to I&T	07/05/05	-23	08/05/05A	•		▼	
7	1M79520		FSW Test Peer Review Complete	08/15/05	0	08/15/05A			▼	
7	1M79001140	9	Flight TEM Assy 12: Elec to I&T	07/12/05	-33	08/26/05A	•		▼	
7	1M79001150	9	Flight TEM Assy 13: Elec to I&T	07/19/05	-28	08/26/05A		•	▼	
7	1M79002140	9	Flight TEM PS Assy 12: Elec to I&T	07/12/05	-33	08/26/05A	•		▼	
7	1M79002150	9	Flight TEM PS Assy 13: Elec to I&T	07/19/05	-28	08/26/05A	•		▼	
<b>4.1.9 I&amp;T</b>										
9	1M99030	9	Start 8 Tower Comprehensive Performance Test	06/20/05	-33	08/05/05A		▼		
Run Date: 09/23/05 14:24 Data Date: 09/01/05							<b>GLAST LAT PROJECT</b> Completed Level 3 Milestones in Reporting Month Sort by Subsystem			LT-TB: Completed Level 3 by Subsystem FL-TB: Level 3 Milestones compl. last month Sheet 1
© Primavera Systems, Inc.										



# Level 3 Milestones Completed in September 2005 (as of 9/26/05)

AV	Activity ID	ND	Activity Description	Baseline Finish	Bslin Var	Early Finish	FY05				
							AUG	SEP	OCT		
<b>Instrument Project Office (Level 3)</b>											
<b>4.1.4 Tracker</b>											
4	1M1000270	9	Flight Tracker Tower 7 RFI	06/27/05	-57	09/16/05		▽			
4	1M1000280	9	Flight Tracker Tower 9 RFI	07/15/05	-44	09/16/05		▽			
<b>4.1.7 Electronics</b>											
7	1M79001160	9	Flight TEM Assy 14: Elec to I&T	07/26/05	-37	09/16/05		▽			
7	1M79001170	9	Flight TEM Assy 15: Elec to I&T	08/02/05	-32	09/16/05	•	▽			
7	1M79002160	9	Flight TEM PS Assy 14: Elec to I&T	07/26/05	-37	09/16/05		▽			
7	1M79002170	9	Flight TEM PS Assy 15: Elec to I&T	08/02/05	-32	09/16/05	•	▽			
7	1M79001180	9	Flight TEM Assy 16: Elec to I&T	08/09/05	-32	09/23/05	•		▽		
7	1M79002180	9	Flight TEM PS Assy 16: Elec to I&T	08/09/05	-32	09/23/05	•		▽		
Run Date							09/26/05 12:15	GLAST LAT PROJECT		LT-T9: L3 MS Completed Curr Mo (tb)	Sheet 1
Data Date							09/01/05	Level 3 Milestones Completed in September Sort by Subsystem		FL-T2: L3 Milestones Completed Current Month	
© Primavera Systems, Inc.											



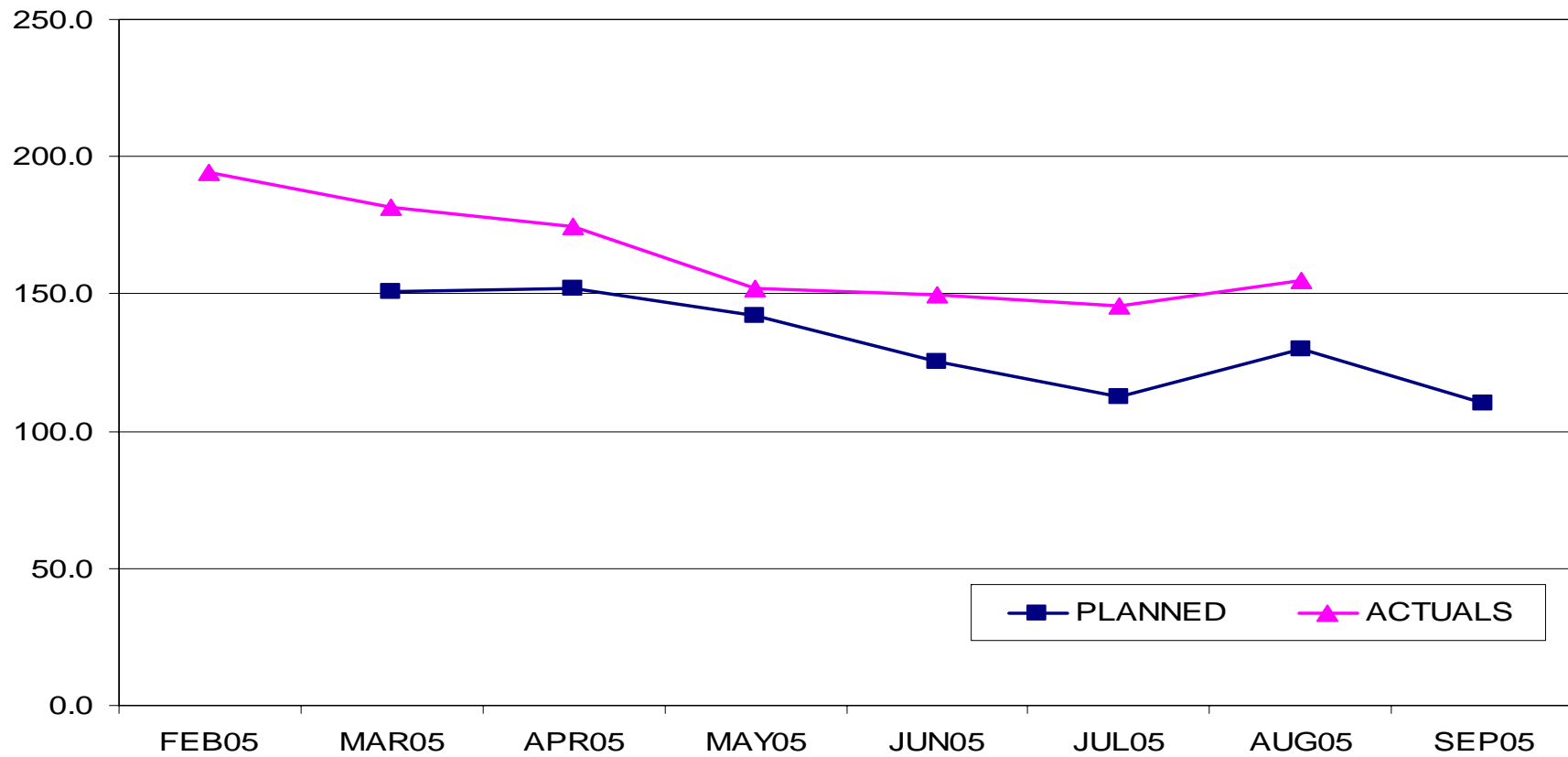
# CPR Level 3

Cost Performance Report - Work Breakdown Structure													
Contractor:					Contract Type/No:			Project Name/No:		Report Period:			
Location:								LAT		7/31/2005		8/31/2005	
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		
	Budgeted Cost		Actual Cost Work	Variance		Budgeted Cost		Actual Cost Work	Variance		Budgeted	Latest Revised Estimate	Variance
	Work Scheduled	Work Performed		Schedule	Cost	Work Scheduled	Work Performed		Schedule	Cost			
Item	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
4.1.1 INSTRUMENT MANAGEMENT	98	98	261	0	-164	17,304	17,304	17,236	0	68	17,511	17,511	0
4.1.2 SYSTEM ENGINEERING	291	291	244	0	47	7,655	7,655	7,619	0	36	7,950	7,950	0
4.1.4 TRACKER	581	853	573	272	280	21,860	21,523	20,863	-337	660	22,048	22,048	0
4.1.5 CALORIMETER	201	200	0	-1	200	22,424	22,321	21,554	-102	767	22,594	22,594	0
4.1.6 ANTICOINCIDENCE DETECTOR	411	460	265	49	195	18,228	18,226	17,933	-2	294	18,329	18,329	0
4.1.7 ELECTRONICS	992	1,061	338	69	723	29,287	28,437	27,925	-850	511	29,703	29,703	0
4.1.8 MECHANICAL SYSTEMS	500	261	347	-239	-86	16,650	16,355	16,504	-295	-149	16,866	16,866	0
4.1.9 INTEGRATION & TEST	291	326	275	35	51	8,702	8,597	8,228	-105	370	9,451	9,451	0
4.1.A PERFORMANCE AND SAFETY ASSURANCE	93	93	78	0	15	3,761	3,761	3,880	0	-119	3,846	3,846	0
4.1.B LAT INSTRUMENT SCIENCE OPERATIONS CENTER	5	5	2	0	2	332	332	314	0	17	334	334	0
4.1.C EDUCATION AND PUBLIC OUTREACH	77	77	46	0	31	2,614	2,614	2,263	0	<b>350</b>	2,684	2,684	0
4.1.D SCIENCE ANALYSIS SOFTWARE	80	80	72	0	8	2,862	2,862	2,764	0	97	2,936	2,936	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	3,618	3,804	2,501	186	1,303	153,003	151,312	148,410	-1,691	2,902	155,577	155,577	0
Contingency											1,730	1,730	0
Total	3,618	3,804	2,501	186	1,303	153,003	151,312	148,410	-1,691	2,902	157,307	157,307	0



# FTE Report (DOE/NASA-funded only)

## 4.1 LAT Project FTEs





# 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	155,577	153,003	151,312	148,409	-1,692	2,902	98.35	97.26	95.39	↑	↑	0.989	1.020	152,593	152,640
2	4.1.1	17,511	17,304	17,304	17,236	0	68	98.82	98.82	98.43	↔	↓	1.000	1.004	17,442	17,442
3	4.1.2	7,950	7,655	7,655	7,619	0	36	96.29	96.29	95.84	↔	↑	1.000	1.005	7,913	7,913
4	4.1.4	22,048	21,860	21,523	20,863	-337	660	99.15	97.62	94.62	↑	↑	0.985	1.032	21,372	21,380
5	4.1.5	22,594	22,424	22,321	21,554	-102	767	99.24	98.79	95.40	↔	↑	0.995	1.036	21,818	21,819
6	4.1.6	18,329	18,228	18,227	17,933	-2	294	99.45	99.44	97.84	↑	↑	1.000	1.016	18,034	18,034
7	4.1.7	29,703	29,287	28,437	27,925	-850	511	98.60	95.74	94.01	↑	↑	0.971	1.018	29,169	29,207
8	4.1.8	16,866	16,650	16,355	16,504	-295	-149	98.72	96.97	97.86	↓	↓	0.982	0.991	17,020	17,029
9	4.1.9	9,451	8,702	8,597	8,228	-105	370	92.07	90.96	87.05	↑	↑	0.988	1.045	9,045	9,055
10	4.1.A	3,846	3,761	3,761	3,880	0	-119	97.79	97.79	100.89	↔	↑	1.000	0.969	3,968	3,968
11	4.1.B	334	332	332	314	0	17	99.27	99.27	94.03	↔	↑	1.000	1.056	317	317
12	4.1.C	2,684	2,614	2,614	2,263	0	350	97.39	97.39	84.34	↔	↔	1.000	1.155	2,324	2,324
13	4.1.D	2,936	2,862	2,862	2,764	0	98	97.46	97.46	94.14	↔	↔	1.000	1.035	2,836	2,836
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

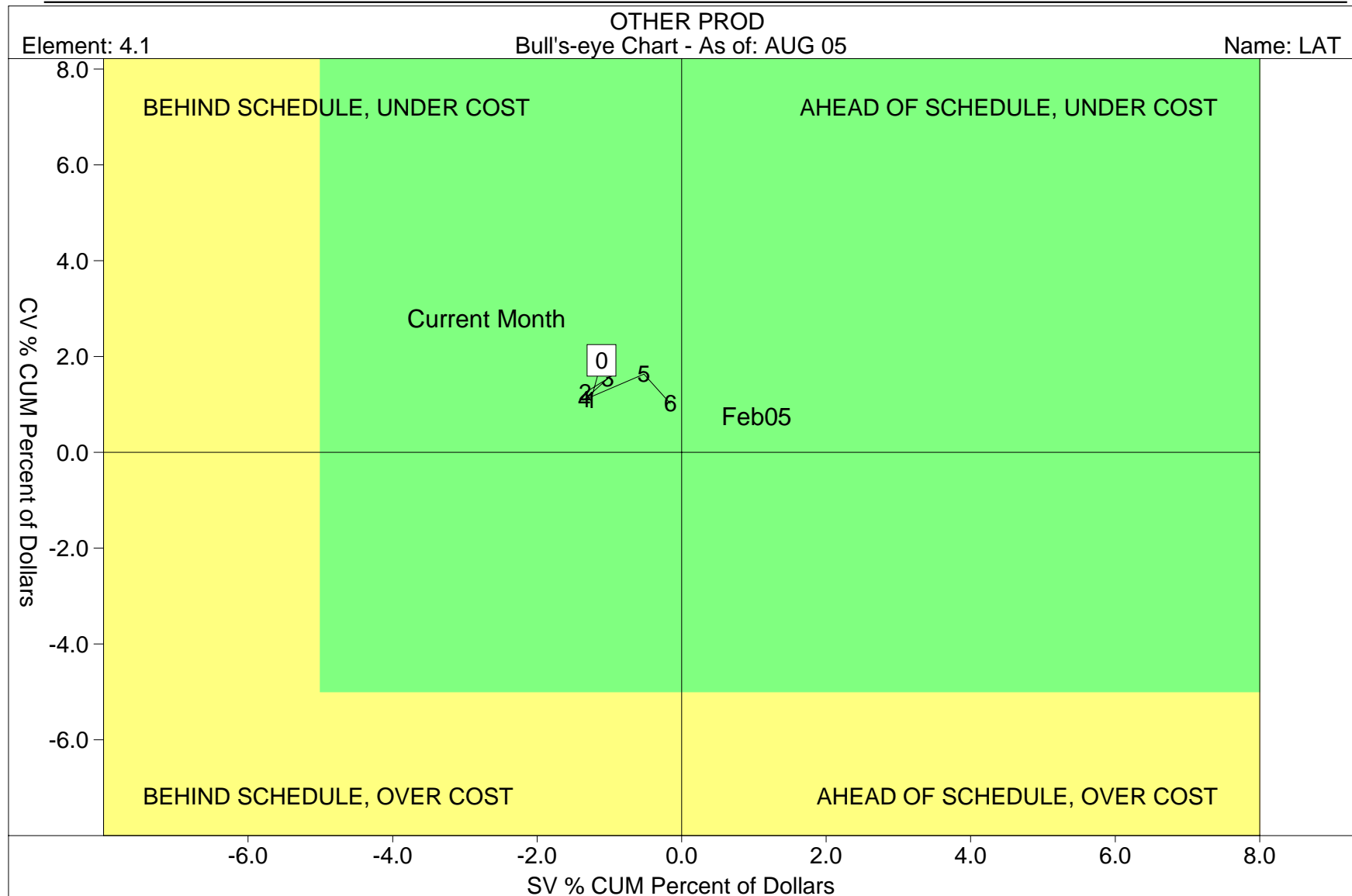
Cpi\_Fcst: CPI (to date) EAC Forecast = BAC / CPI  
 CpiSpi\_Fcst: Combination CPI and SPI EAC Forecast = ACWP + (BAC - BCWP) / (CPI \* SPI)

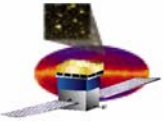
<span style="color: red;">█</span>	Worse than .85	<span style="color: green;">█</span>	Between .95 and 1.10
<span style="color: yellow;">█</span>	Between .85 and .95	<span style="color: blue;">█</span>	Better than 1.10

SPI and CPI Change Thresholds

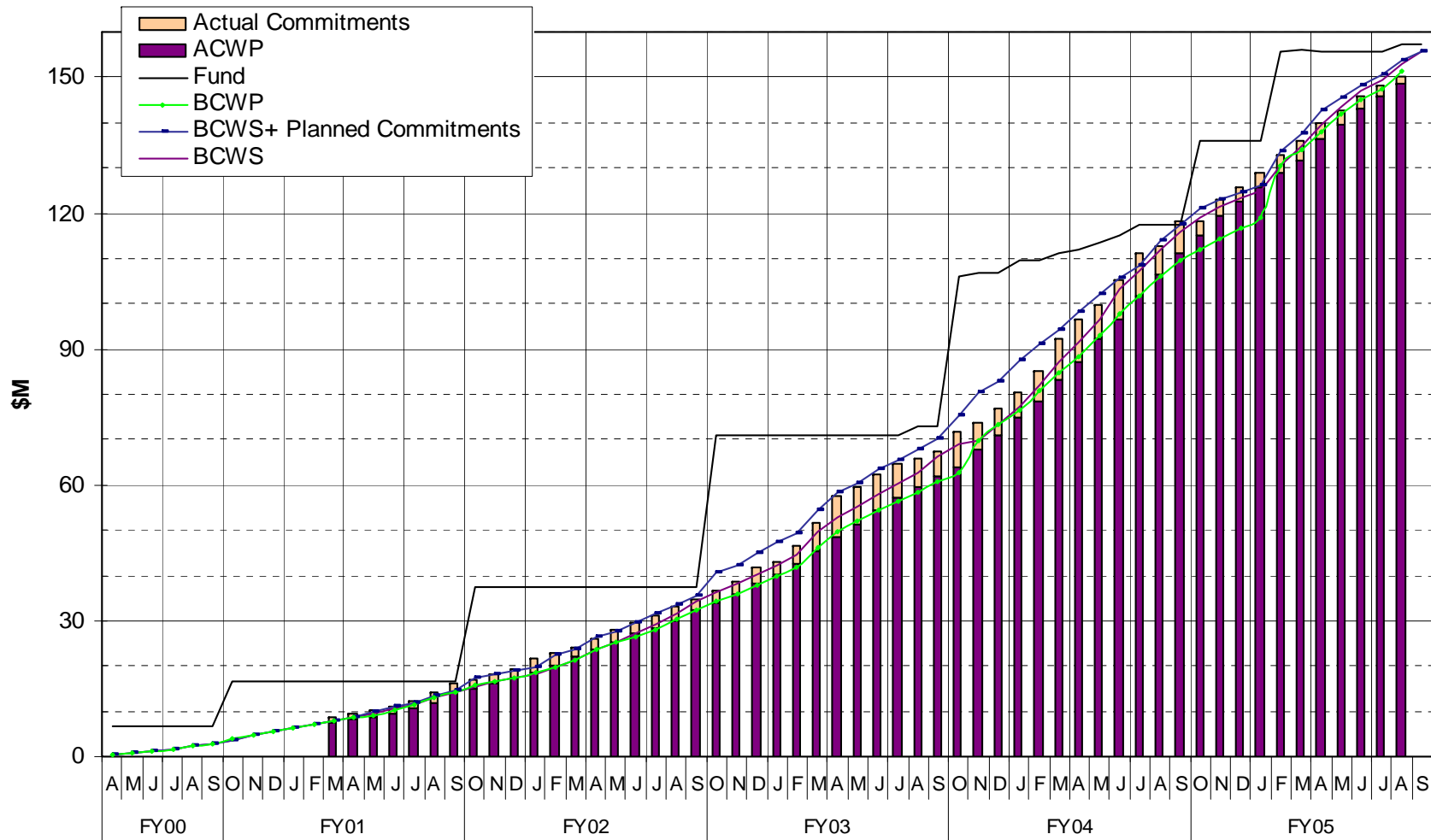


# Variance Analysis





# Budget, Cost, Funding, Performance





# Cost Report

Monthly Contractor Financial Management Report 31-Aug-05								NASA form 533M Approved OMB # 2700-00		Report for Month Ending: 8/31/2005	
Reporting Category	Cost Incurred				Estimated Cost			4/3/2000 Estimated Final Cost/Hours		Unfilled Orders Outstanding	
	During Month		Cum. to Date		Detail		Balance of Contract	Contractor Estimate	Contract Value		
	Actual	Planned	Actual	Planned	AT COMPL	0					
4.1.1 INSTRUMENT MANAGEMENT	261	98	17,236	17,304	206	0	68	17,511	17,511	30	
4.1.2 SYSTEM ENGINEERING	244	291	7,619	7,655	295	0	35	7,950	7,950	0	
4.1.4 TRACKER	573	581	20,863	21,860	188	0	997	22,048	22,048	335	
4.1.5 CALORIMETER	0	201	21,554	22,424	171	0	869	22,594	22,594	14	
4.1.6 ANTICOINCIDENCE DETECTOR	265	411	17,933	18,228	100	0	295	18,329	18,329	138	
4.1.7 ELECTRONICS	338	992	27,925	29,287	417	0	1,361	29,703	29,703	705	
4.1.8 MECHANICAL SYSTEMS	347	500	16,504	16,650	215	0	146	16,866	16,866	85	
4.1.9 INTEGRATION & TEST	275	291	8,228	8,702	749	0	475	9,451	9,451	19	
4.1.A PERFORMANCE AND SAFETY ASSURANCE	78	93	3,880	3,761	85	0	-119	3,846	3,846	0	
4.1.B LAT INSTRUMENT SCIENCE OPERATIONS	2	5	314	332	2	0	17	334	334	0	
4.1.C EDUCATION AND PUBLIC OUTREACH	46	77	2,263	2,614	70	0	350	2,684	2,684	202	
4.1.D SCIENCE ANALYSIS SOFTWARE	72	80	2,764	2,862	75	0	97	2,936	2,936	117	
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>2,501</b>	<b>3,618</b>	<b>148,410</b>	<b>153,003</b>	<b>2,574</b>	<b>0</b>	<b>4,594</b>	<b>155,577</b>	<b>155,577</b>	<b>1,644</b>	