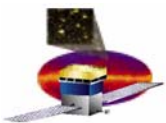


GLAST Large Area Telescope: I & T Input to Monthly Technical/Cost/Schedule Review 09/01/04

**Elliott Bloom
SU-SLAC
Subsystem Manager**

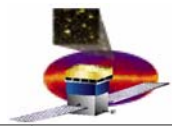
**Ken Fouts
SU-SLAC
Subsystem Engineering Manager**

**elliott@slac.stanford.edu, kfouts@slac.stanford.edu
650-926-2469 650-926-2553**



Last Month's Accomplishments

- **Management**
 - Helped organize LAT Managers Face to Face Meeting focusing on I&T needs.
 - Continue weekly document reviews with NASA I&T and subsystems.
 - 26 of 61 I&T documents and procedures in approval cycle.
 - Supported Observatory I&T meeting.
 - Initiated EM-2 program that is ongoing until the end of September
- **IFCT**
 - Tracker Integration training in progress with Mechanical Subsystem.
 - Facility substation/emergency generator transfer switch integration completed.
 - Successfully integrated EM CAL with mini-TKR and completed CPT, LPT and safe to mate.
 - Received EM-ACD and started to assemble per ACD subsystem guidance.
- **MGSE**
 - 4x4 Base Structure delivered and assembled.
 - Delivery of 1x4 and 4x4 Lift fixture planned for week of 8/30/04.
 - 267 MGSE drawings complete or in final release cycle, 20 to go.
 - 35 PAP drawings revised to reduce PAP integration cost.
- **Online**
 - LATTE V 4.3.1 Released on 8/27/04
 - Debugging proceeding with mini-tower in B33.
 - Completed initial review of E-log requirements document (LAT-MD-04601).
- **SVAC**
 - Offline production pipe line in beta test.
- **Particle Test**
 - Draft versions of 6 out of 8 procedures completed and in review.
 - Changed Van de Graaff generator target.



Near-term Milestones & Status for next 3 months


ID	Task Name	Start	Finish	August							September				October				November				December								
				Aug 1	Aug 8	Aug 15	Aug 22	Aug 29	Sep 5	Sep 12	Sep 19	Sep 26	Oct 3	Oct 10	Oct 17	Oct 24	Oct 31	Nov 7	Nov 14	Nov 21	Nov 28										
1	IFCT	Mon 8/2/04	Fri 10/29/04	[Gantt bar: Mon 8/2/04 to Fri 10/29/04]																											
2	Procedure Definition and Release	Mon 8/2/04	Thu 10/14/04	[Gantt bar: Mon 8/2/04 to Thu 10/14/04]																											
3	Mechanical/Electrical Training	Mon 8/9/04	Fri 10/29/04	[Gantt bar: Mon 8/9/04 to Fri 10/29/04]																											
4	Two Tower IRR	Fri 10/15/04	Fri 10/15/04	[Milestone: 10/15?]																											
5	EM2	Mon 8/9/04	Thu 9/30/04	[Gantt bar: Mon 8/9/04 to Thu 9/30/04]																											
6	EM CAL Return to NRL	Tue 8/24/04	Tue 8/24/04	[Milestone: 8/24]																											
7	Mini-ACD Delivery	Wed 8/25/04	Wed 8/25/04	[Milestone: 8/25]																											
8	Mini ACD Integration at SLAC	Mon 8/30/04	Mon 9/6/04	[Gantt bar: Mon 8/30/04 to Mon 9/6/04]																											
9	EM CAL Return to SLAC	Tue 9/14/04	Tue 9/14/04	[Milestone: 9/14]																											
10	EM2 Testing	Mon 8/9/04	Thu 9/30/04	[Gantt bar: Mon 8/9/04 to Thu 9/30/04]																											
11	MGSE	Mon 8/16/04	Fri 10/29/04	[Gantt bar: Mon 8/16/04 to Fri 10/29/04]																											
12	Grid Perimeter Ring Delivery and Proof test	Tue 8/24/04	Wed 9/15/04	[Gantt bar: Tue 8/24/04 to Wed 9/15/04]																											
13	PAP Delivery and Proof Test	Fri 10/15/04	Fri 10/29/04	[Gantt bar: Fri 10/15/04 to Fri 10/29/04]																											
14	Shipping Container Design	Mon 8/16/04	Fri 10/1/04	[Gantt bar: Mon 8/16/04 to Fri 10/1/04]																											
15	Mechanical Operation Grid Assembly	Wed 9/15/04	Tue 10/19/04	[Gantt bar: Wed 9/15/04 to Tue 10/19/04]																											
16	Receive Grid	Wed 9/15/04	Wed 9/15/04	[Milestone: 9/15?]																											
17	Grid Assembly in I&T	Wed 9/15/04	Tue 10/19/04	[Gantt bar: Wed 9/15/04 to Tue 10/19/04]																											
18	Online	Mon 8/16/04	Thu 9/30/04	[Gantt bar: Mon 8/16/04 to Thu 9/30/04]																											
19	LATTE Ver. 4.0	Thu 8/26/04	Thu 8/26/04	[Milestone: 8/26]																											
20	I&T and Subsystem Script Verification	Mon 8/16/04	Thu 9/30/04	[Gantt bar: Mon 8/16/04 to Thu 9/30/04]																											
21	Subsystem Deliveries	Thu 9/30/04	Fri 10/22/04	[Gantt bar: Thu 9/30/04 to Fri 10/22/04]																											
22	TKR A Delivery	Thu 9/30/04	Thu 9/30/04	[Milestone: 9/30?]																											
23	CAL A Delivery	Fri 10/22/04	Fri 10/22/04	[Milestone: 10/22]																											
24	TEM/TPS A Delivery	Wed 10/20/04	Wed 10/20/04	[Milestone: 10/20?]																											
25	Tower A Integration	Fri 10/22/04	Fri 11/19/04	[Gantt bar: Fri 10/22/04 to Fri 11/19/04]																											
26	Environmental Test TIM	Fri 10/1/04	Fri 10/1/04	[Milestone: 10/1]																											

I&T Mechanical Training

Rev. 7/23/04 L. Wai	= done				= to do					
I&T Mechanical Team Training List	Doug (QA)	Dave	Tom	Leo	Mark	Reggie	Eliazar	Expiration	Validator	
Contamination Control		14-Apr-04	14-Apr-04	14-Apr-04	6-Aug-03	5-May-04	6-Aug-03	end project	Cullinan	
Electrostatic discharge (ESD)		14-Apr-04	14-Apr-04	14-Apr-04	1-May-03	1-Dec-03	1-Apr-03	2 yr	Tice	
Oxygen Deficiency		30-Apr-04	30-Apr-04	30-Apr-04	3-Jun-04	3-Jun-04	30-Apr-04	end project	Ortiz	
Critical Operations								end project	Ortiz	
Crane Operation	n/a	16-Apr-04	16-Apr-04	16-Apr-04	done	done	16-Apr-04	2 yr	Wai	
Crane Operation Practical Test	n/a	20-May-04	20-May-04	20-May-04	20-May-04	Done	20-May-04	2 yr	Wai	
GERT		12-Apr-04	Done	Done	Done	Done	Done	2 yr	Wai	
ITAR Training		21-Apr-04	21-Apr-04	21-Apr-04			21-Apr-04	2 yr	Wai	
RAD Worker Training	n/a	8-Jun-04	11-May-04	11-May-04	11-May-04	8-Jun-04	11-May-04	2 yr	Wai	
Van De-graaff operation	n/a	10-Jun-04	10-Jun-04	10-Jun-04			10-Jun-04	2 yr	Wai	
Mate/Demate			9-Jul-04	trainer	9-Jul-04			2 yr	Manger	
Crimping and Harnessing		Comp	Comp	n/a	n/a	n/a	n/a	2 yr	Bartholomew	
Electronic log book training								end project	Ortiz	
Electronic Mate/Demate log training								end project	Ortiz	
Electronic component installation log								end project	Ortiz	
Hardware Bagging								end project	Ortiz	
Room 104 Access		17-May-04	17-May-04	17-May-04	17-May-04		17-May-04	end project	Ortiz	
Air Bearings Operation		22-Apr-04	22-Apr-04	22-Apr-04	25-May-04	26-May-04	22-Apr-04	end project	Ortiz	
Cleanroom fork lift operation								end project	Manger	
Tracker Receiving Inspection								end project	Ortiz	
Calorimeter receiving Inspection		14-Aug-04	14-Aug-04	14-Aug-04	13-Feb-04		13-Feb-04	end project	Ortiz	
CAL Insertion/Inversion Handling		18-May-04	28-Apr-04	28-Apr-04	21-May-04	21-May-04	28-Apr-04	end project	Ortiz	
CAL Insertion/Inversion Crane		28-Apr-04	18-May-04	18-May-04	21-May-04	21-May-04	28-Apr-04	end project	Ortiz	
CAL Removal/Inversion Handling		18-May-04	28-Apr-04	28-Apr-04	21-May-04	21-May-04	28-Apr-04	end project	Ortiz	
CAL Removal/Inversion Crane		28-Apr-04	18-May-04	18-May-04	21-May-04	21-May-04	28-Apr-04	end project	Ortiz	
CAL Torquing		21-May-04	21-May-04	21-May-04	21-May-04	21-May-04	21-May-04	end project	Ortiz	
TEM/PSU Shimmiing/Torquing		20-Jul-04	20-Jul-04	20-Jul-04	20-Jul-04			end project	Ortiz	
ELX cable sequence		19-May-04	19-May-04	19-May-04	19-May-04		19-May-04	end project	Ortiz	
2-Tower CPT GASU / PDU /BOB Setup								end project	Ortiz	
Menning plate installation / removal		14-Jun-04	14-Jun-04	14-Jun-04	14-Jun-04			end project	Ortiz	
Tracker Heat Straps Installation								end project	Borden	
Tracker Cone installation								end project	Borden	
Tracker Flex Cable Installation								end project	Borden	
Tracker Flex Cable Removal								end project	Borden	
Tracker Insertion Handling								end project	Borden	
Tracker Insertion Crane								end project	Borden	
Tracker Removal Handling								end project	Borden	
Tracker Removal Crane								end project	Borden	
Optical Survey Setup								end project	Borden	
LAT Lift Fixture Crane Operation								end project	Borden	
GPR Installation								end project	Borden	
LAT Integration Stand Operation								end project	Borden	
LAT Floor Test Configuration								end project	Borden	
% done	0%	40%	40%	43%	38%	31%	43%			

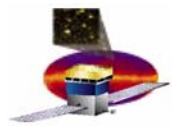
IFCT Electrical Training

Rev. 7/23/04 L. Wai

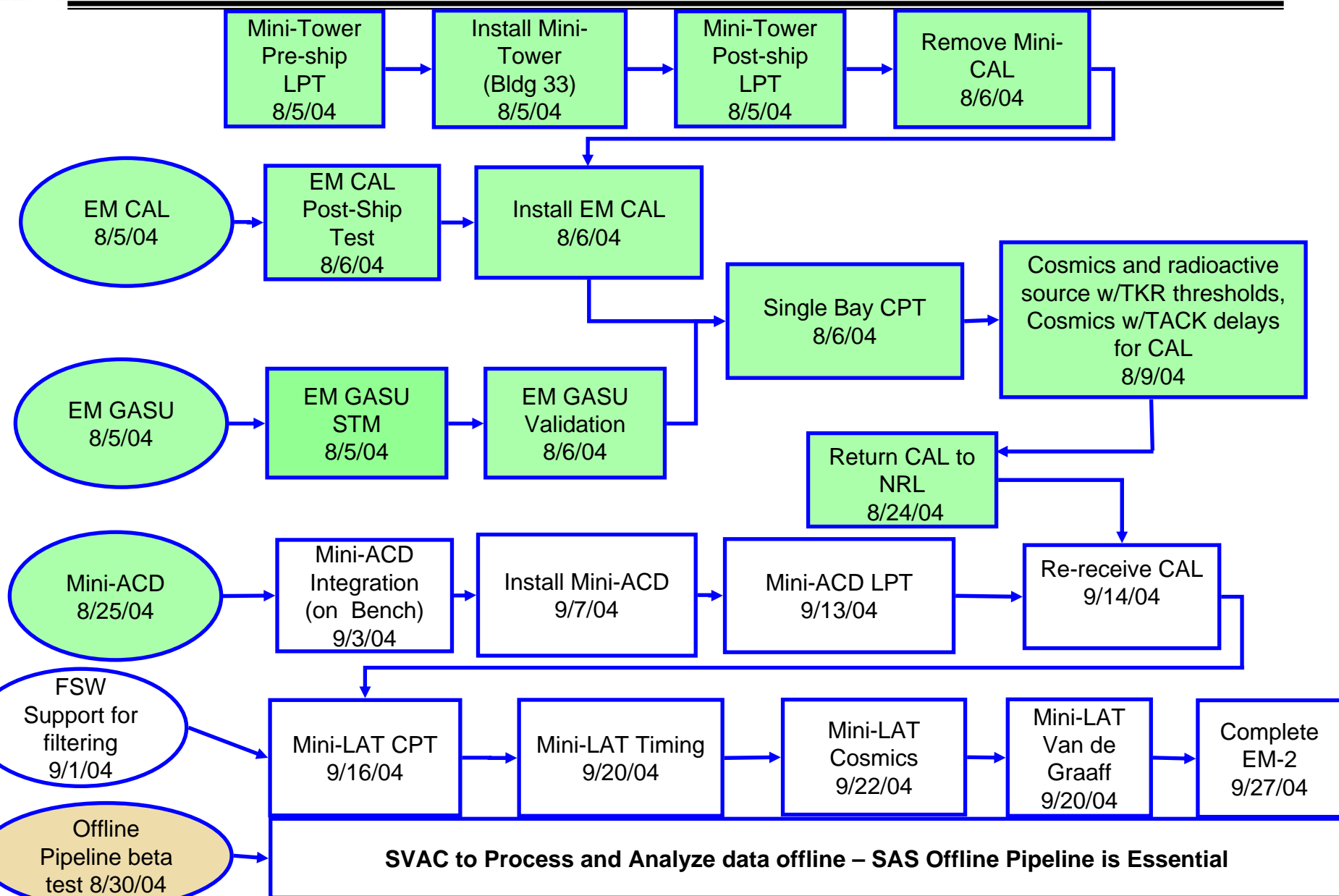
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 = to do

I&T Electrical Test Team Training	Doug (QA)	Brian H.	John C.	Toan Le	Joel B.	Expiration	Validator
Contamination Control		14-Apr-04	18-Jun-04	30-Aug-04	30-Aug-04	end project	Cullinan
Electrostatic discharge (ESD)		14-Apr-04	15-Jun-04	30-Aug-04	30-Aug-04	2 yr	Tice
Oxygen Deficiency		3-Jun-04	3-Jun-04	30-Aug-04	30-Aug-04	end project	Ortiz
ITAR Training		31-May-04	7-Jun-04	30-Aug-04	30-Aug-04	end project	Wai
GERT						2 yr	Wai
RAD Worker Training	n/a	6-Jun-04	6-Jun-04	30-Aug-04	30-Aug-04	2 yr	Wai
Van De-graaff operation	n/a	10-Jun-04	10-Jun-04			2 yr	Wai
Mate/Demate		9-Jul-04	9-Jul-04	9-Jul-04	9-Jul-04	end project	Manger
Hardware Bagging						end project	Ortiz
Electronic Logbook Training			22-Jun-04			end project	Horwitz
EGSE Validation		30-Aug-04	30-Aug-04	30-Aug-04	30-Aug-04	end project	Horwitz
TPS interface and BOB usage		30-Aug-04	30-Aug-04	30-Aug-04	30-Aug-04	end project	Horwitz
TEM interface and BOB usage		30-Aug-04	30-Aug-04	30-Aug-04	30-Aug-04	end project	Horwitz
GASU interface and BOB usage						end project	Horwitz
PDU interface and BOB usage						end project	Horwitz
Tracker Performance Test						end project	Horwitz
CAL Performance Test		30-Aug-04	30-Aug-04	30-Aug-04		end project	Horwitz
Single Bay Test						end project	Horwitz
Timing-In Test						end project	Horwitz
Cosmics and VDG data collection						end project	Horwitz
Two Bay Test						end project	Horwitz
TEM CPT						end project	Horwitz
TPS CPT						end project	Horwitz
GASU CPT						end project	Horwitz
PDU CPT						end project	Horwitz
% done	0%	50%	54%	46%	42%		



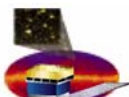
EM-2 (August-September 2004)





Drawing Release Plan & Status required to achieve production milestones

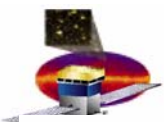
- **Total MGSE Drawing Sheet Count ~ 294**
 - **267 Drawing Sheets Released**
 - **7 drawing Sheets in Release Cycle**
 - **35 PAP related drawing sheets have been revised and soon will enter release cycle**
 - **20 sheets scheduled to be complete by Sept 20.**
 - **LAT Stand Top Assembly**
 - **Limit switch configuration**
 - **PAP wiring diagram**



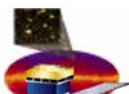
Status of Subsystem's Documentation (1 of 4)

Document #	Document Title	Author	Document Number Assigned	Outline Complete	Draft Started	Draft Complete	Internal Review Complete	Draft in LATDocs	Draft discussed w/ NASA	Submitted to CM (Natalie) for signoff (or expected date)	DCN written	DCN and Doc sent for signoff	Signed by Author	Signed by Elliott Bloom	Signed by QA	Released in LATDocs	# of Days in signoff	Completion Date (or expected)	Comments
LAT-MD-01376-01	LAT Integration & Test Plan	Bloom / Grist	✓	✓	✓	✓	✓	✓	03-May-04	✓	✓	✓	✓	✓	✓	✓	94	05-Aug-04	
LAT-TD-03828	TPS Safe to Mate Procedure	Horwitz	✓	✓	✓	✓	✓	✓	15-Jul-04	✓	✓	✓	✓				47	11-Sep-04	Held pending updates based on policy statement
LAT-TD-04099	TPS EICIT Procedure	Horwitz	✓	✓	✓	✓	✓	✓	15-Jul-04	✓	✓	✓	✓				47	11-Sep-04	Held pending updates based on policy statement
LAT-TD-03831	TEM Safe to Mate Procedure	Horwitz	✓	✓	✓	✓	✓	✓	19-Jul-04	✓	✓	✓	✓				43	11-Sep-04	Held pending updates based on policy statement
LAT-TD-03875	TEM EICIT Procedure	Horwitz	✓	✓	✓	✓	✓	✓	19-Jul-04	✓	✓	✓	✓				43	11-Sep-04	Held pending updates based on policy statement
LAT-TD-04097	TEM IVT Procedure	Horwitz	✓	✓	✓	✓	✓	✓	19-Jul-04	✓	✓	✓	✓				43	11-Sep-04	Held pending updates based on policy statement
LAT-TD-04098	TPS IVT Procedure	Horwitz	✓	✓	✓	✓	✓	✓	19-Jul-04	✓	✓	✓	✓				43	11-Sep-04	Held pending updates based on policy statement
LAT-PS-03060	Room 104 Access Procedure	Ortiz	✓	✓	✓	✓	✓	✓	27-Jul-04	✓	✓						35	13-Sep-04	
LAT-PS-03062	Tem/TemPS Shimming Procedure	Ortiz	✓	✓	✓	✓	✓	✓	28-Jul-04	✓	✓	✓					34	12-Sep-04	
LAT-PS-03263	Fastener Installation and Torquing Procedure	Borden	✓	✓	✓	✓	✓	✓	28-Jul-04	✓	✓						34	13-Sep-04	Comments from Rob Black
LAT-TD-04325	Acceptance Test Procedure, Break out Boxes and Cables	Horwitz	✓	✓	✓	✓	✓	✓	02-Aug-04								29	14-Sep-04	
LAT-PS-03027	Calorimeter Integration Procedures	Ortiz	✓	✓	✓	✓	✓	✓	06-Aug-04	✓	✓						25	13-Sep-04	
LAT-PS-04133	Procedure to Take Simultaneous BGO and LAT Data	Godfrey	✓	✓	✓	✓	✓	✓	06-Aug-04	✓	✓						25	13-Sep-04	
LAT-TD-01396	Calibration of the Van de Graaff Photon Flux	Godfrey	✓	✓	✓	✓	✓	✓	06-Aug-04	✓	✓						25	13-Sep-04	
LAT-TD-01805-02	Van de Graaff Accelerator Safety/Operations Handbook	Godfrey	✓	✓	✓	✓	✓	✓	06-Aug-04	✓	✓						25	13-Sep-04	
LAT-TD-04134	Procedure for Setting the LAT Timing Registers	Godfrey	✓	✓	✓	✓	✓	✓	06-Aug-04	✓	✓						25	13-Sep-04	

Status of Subsystem's Documentation (2 of 4)

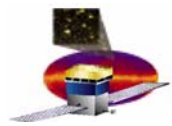


Document #	Document Title	Author	Document Number Assigned	Outline Complete	Draft Started	Draft Complete	Internal Review Complete	Draft in LATDocs	Draft discussed w/ NASA	Submitted to CM (Natalie) for signoff (for expected date)	DCN written	DCN and Doc sent for signoff	Signed by Author	Signed by Elliott Bloom	Signed by OA	Released by Others	# of Days in signoff	Completion Date (or expected)	Comments
LAT-TD-04135	Procedure for Measuring the LAT Trigger Jitter using the Muon Telescope	Godfrey	✓	✓	✓	✓	✓	✓	06-Aug-04	✓	✓						25	13-Sep-04	
LAT-TD-04419	Muon Telescope	Godfrey	✓	✓	✓	✓	✓	✓	06-Aug-04	✓	✓						25	13-Sep-04	
LAT-PS-03287	Cal Module Test Procedure	Canfield	✓	✓	✓	✓	✓	✓	11-Aug-04								20	14-Sep-04	
LAT-PS-03290	Tracker Module Test Procedure	Canfield	✓	✓	✓	✓	✓	✓	12-Aug-04								19	14-Sep-04	
LAT-TD-04260	GASU EICIT Procedure	Horwitz	✓	✓	✓	✓	✓		13-Aug-04								18	14-Sep-04	
LAT-TD-04332	PDU EICIT Procedure	Horwitz	✓	✓	✓	✓	✓		13-Aug-04								18	14-Sep-04	
LAT-TD-03481	GLAST LAT Integration Facility Emergency Plan	Wai	✓	✓	✓	✓	✓	✓	17-Aug-04								14	14-Sep-04	
LAT-MD-00446-06	SVAC Plan	do Couto E Silva	✓	✓	✓	✓			24-Aug-04								7	14-Sep-04	
LAT-PS-04436	AeroGo Air Bearing Reference Guide	Ortiz	✓	✓	✓	✓	✓	✓	27-Aug-04								4	14-Sep-04	
LAT-PS-04510	LATTE Operators Users Guide	Canfield	✓	✓	✓	✓	✓	✓	01-Sep-04									13-Sep-04	
LAT-TD-00440-04	LAT Particle Test Plan	Godfrey	✓	✓	✓	✓	✓		01-Sep-04									13-Sep-04	
LAT-MD-01386	LAT Facilities Plan	Wai	✓	✓	✓		✓	✓	01-Sep-04	✓								13-Sep-04	Larry incorporating comments from Nordby
LAT-MD-04601	LAT I&T E-Logbook Implementation	Kavelaars / Fouts	✓	✓	✓				01-Sep-04									15-Sep-04	
LAT-PS-03057	Critical Operations Procedure	Ortiz	✓	✓	✓				01-Sep-04									15-Sep-04	
LAT-PS-03259	Menning Plate Procedures	Ortiz	✓	✓	✓	✓	✓	✓	01-Sep-04									13-Sep-04	
LAT-PS-04459	Connector Mate and Demate	Manger	✓	✓	✓	✓			01-Sep-04									15-Sep-04	Comments need to be incorporated before resubmittal
LAT-PS-03058	Tracker Integration Procedures	Borden	✓	✓	✓	✓		✓	03-Sep-04									17-Sep-04	



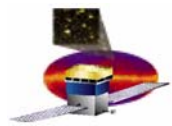
Status of Subsystem's Documentation (3 of 4)

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LAT-MD-04542	ACD Subsystem to LAT I&T Deliverables MOU	Bloom / Bright	✓	✓	✓					08-Sep-04								22-Sep-04	
LAT-MD-04543	CAL Subsystem to LAT I&T Deliverables MOU	Bloom / Bright	✓	✓	✓					08-Sep-04								22-Sep-04	
LAT-MD-04544	Mechanical and TCS Subsystem to LAT I&T Deliverables MOU	Bloom / Bright	✓	✓	✓					08-Sep-04								22-Sep-04	
LAT-MD-04545	Science Analysis Software to LAT I&T Deliverables MOU	Bloom / Bright	✓	✓	✓					08-Sep-04								22-Sep-04	
LAT-MD-04546	T&DF Subsystem to LAT I&T Deliverables MOU	Bloom / Bright	✓	✓	✓					08-Sep-04								22-Sep-04	
LAT-MD-04547	TKR Subsystem to LAT I&T Deliverables MOU	Bloom / Bright	✓	✓	✓					08-Sep-04								22-Sep-04	
LAT-PS-04511	Single Tower Test Procedure - Simple	Horwitz / Canfield	✓	✓	✓					08-Sep-04								22-Sep-04	
LAT-PS-04512	Single Tower Test Procedure - w/ GASU	Horwitz / Canfield	✓	✓	✓					08-Sep-04								22-Sep-04	
LAT-TD-04381	GASU Safe to Mate Procedure	Horwitz	✓							08-Sep-04								22-Sep-04	
LAT-TD-04382	GASU IVT Procedure	Horwitz	✓	✓	✓					08-Sep-04								22-Sep-04	
LAT-TD-04383	PDU Safe to Mate Procedure	Horwitz	✓							08-Sep-04								22-Sep-04	
LAT-TD-04384	PDU IVT Procedure	Horwitz	✓							08-Sep-04								22-Sep-04	
LAT-PS-03277	LAT Test Floor Configuration Procedure	Borden	✓	✓	✓	✓		✓		10-Sep-04								24-Sep-04	
LAT-PS-03291	Flight Hardware Bag and Purge Procedure	Borden	✓	✓	✓			✓		10-Sep-04								24-Sep-04	
LAT-PS-03276	Two Tower w/GASU/PDU Test Procedure	Horwitz / Canfield	✓							13-Sep-04								27-Sep-04	
LAT-MD-00575	SVAC Plan for LAT Integration at SLAC	do Couto E Silva	✓	✓	✓	✓	✓			15-Sep-04								29-Sep-04	
LAT-MD-01533	EGSE Plan	Claus / Horwitz	✓							15-Sep-04								29-Sep-04	

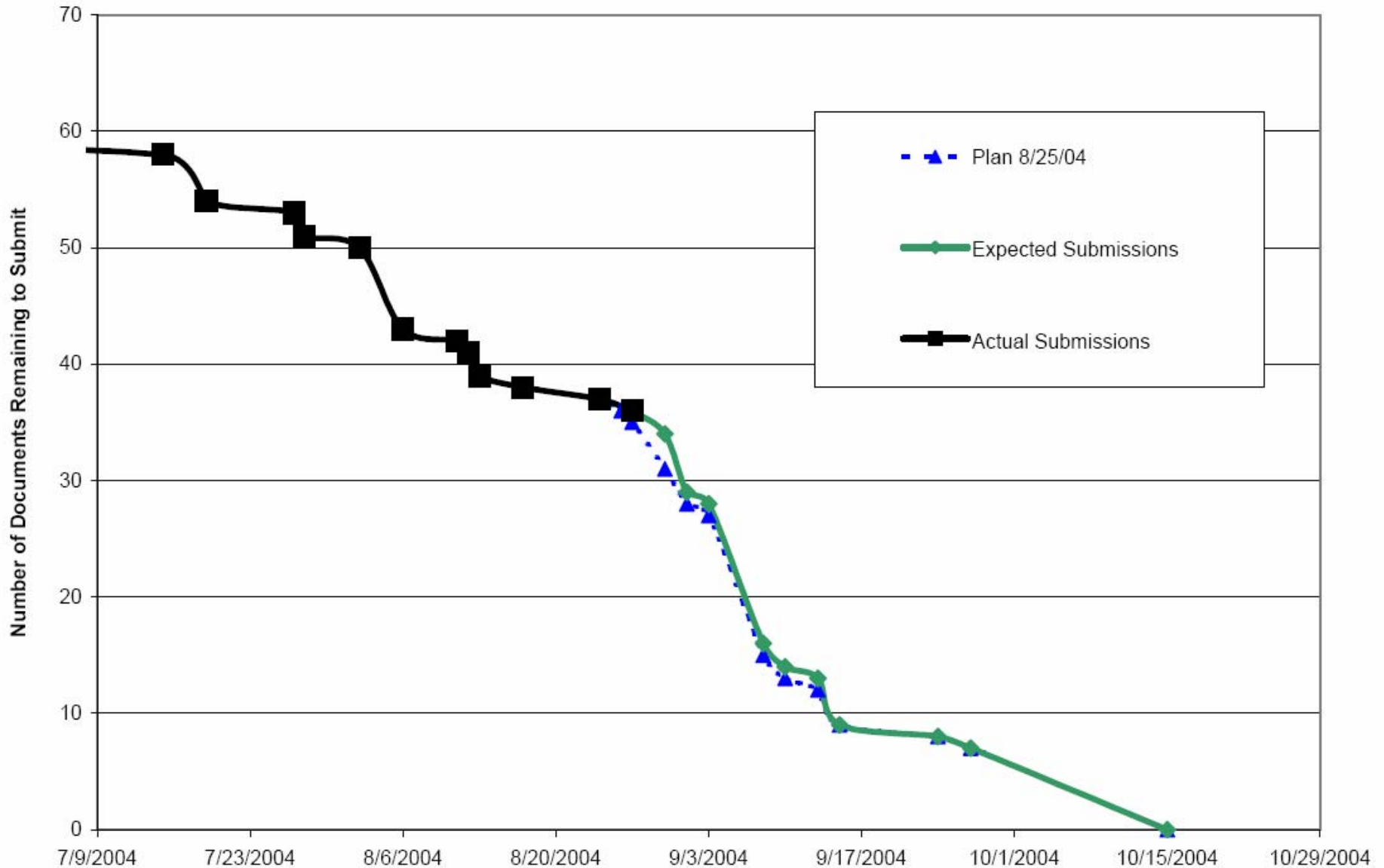


Status of Subsystem's Documentation (4 of 4)

Document #	Document Title	Author	Document Number Assigned	Outline Complete	Draft Started	Draft Complete	Internal Review Complete	Draft in LATDocs	Draft discussed w/ NASA	Submitted to CM (Natalie) for signoff (or expected date)	DCN written	DCN and Doc sent for signoff	Signed by Author	Signed by Elliott Bloom	Signed by QA	Released in LATDocs	# of Days in signoff	Completion Date (or expected)	Comments
LAT-PS-04244	Load Mass simulators into GRID MGSE	Ortiz	✓							15-Sep-04								29-Sep-04	
LAT-TD-04136	Van de Graaff and Cosmic Data Runs for LAT Integration	Godfrey	✓	✓	✓	✓		✓		15-Sep-04								29-Sep-04	
LAT-PS-01586	Survey Procedures	Borden	✓	✓	✓	✓		✓		24-Sep-04								08-Oct-04	
LAT-MD-00613	SVAC Contributed Manpower	do Couto E Silva	✓	✓	✓					27-Sep-04								11-Oct-04	
LAT-MD-01462-02	MGSE Development Plan	Gawehn	✓	✓	✓					?								?	
LAT-PS-04226	1x1 Lift Fixture Installation and Removal	Gawehn / Borden	✓							?								?	
LAT-PS-04227	GPR onto rotation Stand MGSE	Gawehn / Borden	✓							?								?	
LAT-PS-04228	4x4 Stand Operations Manual	Gawehn / Borden	✓							?								?	
LAT-PS-04229	4x4 Lift Fixture Installation and Removal	Gawehn / Borden	✓							?								?	
LAT-PS-04230	4x4 Stand Proof Test	Gawehn / Borden	✓							?								?	
LAT-PS-04231	Grid integration into GPR MGSE	Gawehn / Borden	✓							?								?	



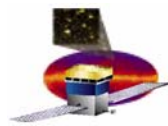
I&T Document Submission Status for IRR



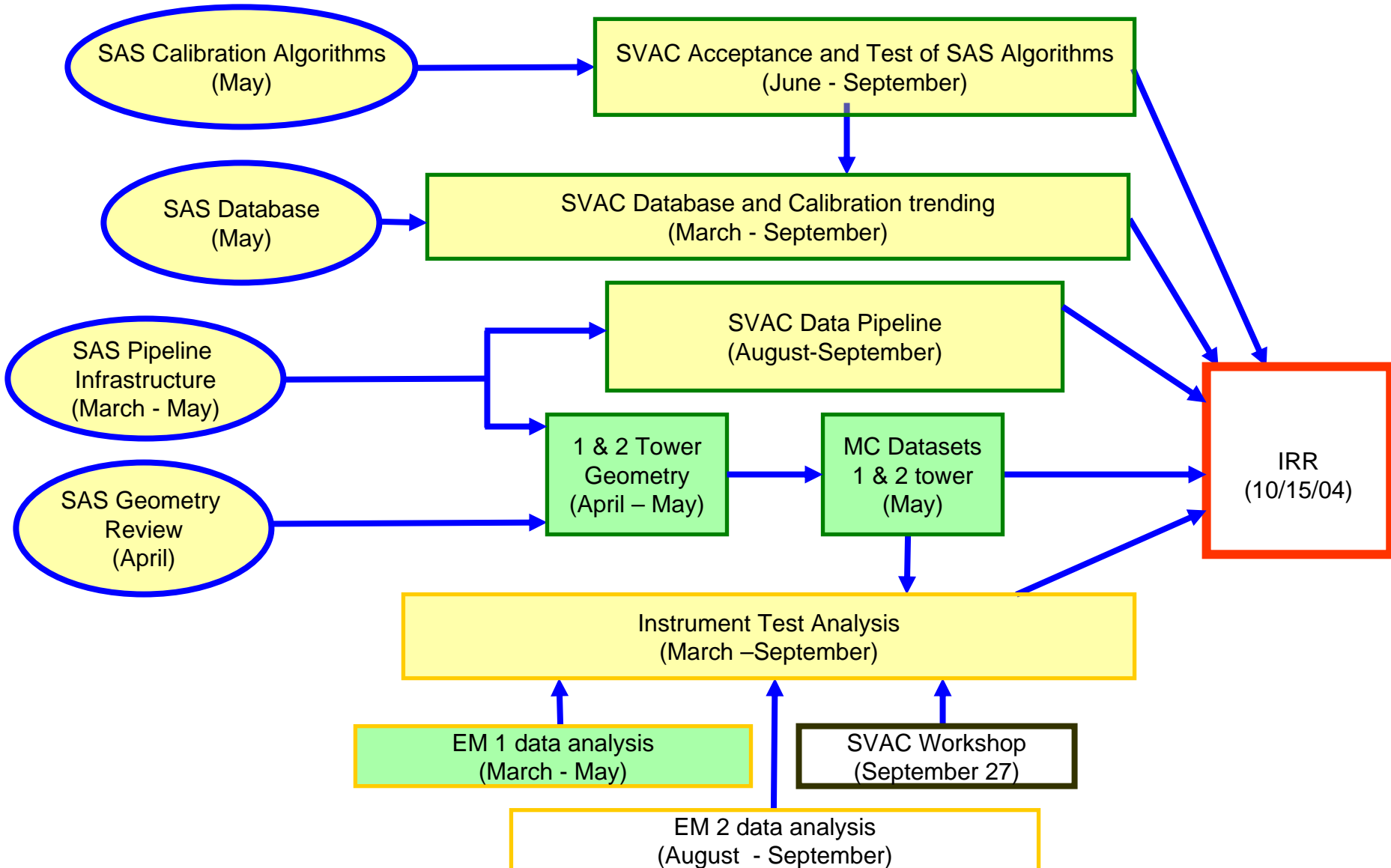


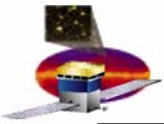
Priority Ordering for Online Roadmap to 2 Towers

1. **Hardware Monitoring, Trending, and Power up.**
 - **LATTE 4.3.1 released 8/27/04 includes hardware monitoring and preliminary trending capability.**
 - **Testing will continue with EM2 work.**
 - **Final trending and power-up support in work.**
2. **Subsystem – I&T scripts ready to use by I&T on Flight Hardware and under configuration control.**
 - **Receive Final subsystem scripts**
 - **CAL –September 22 need date, based on 10/22 CAL A delivery to SLAC**
 - **ELX – September 15 (need date)**
 - **TKR – September 1 (need date)**
 - **ACD – one month before delivery (need date)**
 - **End to End script definition in progress with System Engineering.**
 - **Trigger and timing (system) scripts being addressed by Trigger group.**
3. **LATTE parameter verification (done).**
4. **LATTE 4.3.1 released 8/27/04. Other than bug fixes, LATTE 4.x.x will be used for LAT testing in I&T.**
5. **Event filtering software in work.**
6. **Transfer of LDF.fits, Run Configuration files, Run and Test Report files to persistent storage.**
 - **Transfer via Pipeline trials in process (ECD 9/1).**
7. **Electronic Logbook – Requirements specification (LAT-MD-04601) out for review.**



Science Verification, Analysis, and Calibration (SVAC) - Roadmap





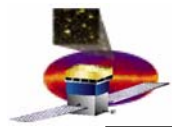
Summary of issues & concerns

ISSUES

- Hardware delivery dates to I&T continue to be in flux
 - TKR
 - CAL
 - TEM/TPS

CONCERNS

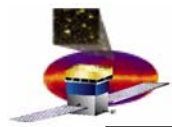
- MGSE Delivery Schedule
 - Fabrication and proof test dates have slipped partially due procurement delays.
 - Requires continuous support to procurement from I&T and MGSE.
 - Personnel Access Platform (PAP)
 - Order to be placed 9/1 with delivery 6 weeks ARO.
- I&T Procedure Development
 - Coordination of inputs from subsystems.
- I&T Training
 - Parallel Grid work and EM2 activities



Cost and Schedule Status

	WBS	BAC	BCWS	BCWP	ACWP	SV \$	CV \$	% BCWS	% BCWP	% ACWP	SPI Trend	CPI Trend	SPI	CPI	Cpi_Fcst	CpiSpi_Fcst
65	4.1.9	7,616	4,849	4,496	4,364	-353	132	63.66	59.03	57.30	↔	↑	0.927	1.030	7,393	7,631

- **Cumulative Schedule Variance (end of July)**
 - **Work Scheduled: 4849 k\$; Work Performed: 4469 k\$**
 - **Schedule Variance: -353 k\$ (-7.3%)**
 - **-249 k\$ in MGSE**
 - The following items are not complete per the baseline: Integration Stand hardware & PAP, Radiator & X-Lat Lift fixtures, Vibration Test Fixture, Tower Mass simulators, Low Humidity Bag, Shipping container for LAT vibe test equipment, LAT ground test heat exchanger, LAT GPR and attach brackets, Proof test of Integration stand, LAT lifting fixture, LAT misc equip, Misc Transport containers.
 - **-104 k\$ in IFCT department**
 - The following items are not complete per the baseline: Receive/inspect Tower A electronics and Grid, Receive/inspect TKR Tower A, training for tower integration, Receive/Inspect CAL module A, Integrate TKR/CAL A, Rcv/Inspect TKR B, Rcv/Inspect CAL B, Install test stands, Test installed stands, Survey and alignments, Tower integration test support, Prep flight grid for integration, Comprehensive test procedure development.
- **Cumulative Cost Variance (end of July)**
 - **Work Performed: 4849 k\$; Actual Cost: 4364 k\$**
 - **Cost Variance: 132 k\$ (+3%)**
 - **Positive cost variance will be reduced when CR LAT-XR-04490 is implemented**



Specific actions required to retain zero schedule variance (Work Arounds / CCBActions)

- **Complete MGSE tasks that are in flow for two tower and LAT build. (done end of September)**
- **Zero baseline variance requires matching I&T schedule to hardware deliveries. Current baseline PMCS schedule calls for tower A and Grid work having begun in June.**
- **Training using mockups, and EM-2 activities, replacing actual integration. This allows I&T considerable risk reduction for flight integration.**
- **TIMs with TKR, CAL and ELX to take advantage of lessons learned by subsystems prior to delivery.**
- **Continue the weekly meetings with NASA Mission I&T to work through documents and procedures.**