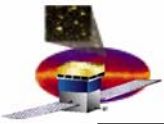


# GLAST Large Area Telescope: I & T Input to Monthly Technical/Cost/Schedule Review 01/27/05

**Elliott Bloom**  
**SU-SLAC**  
**Subsystem Manager**

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

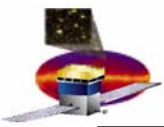
**[elliott@slac.stanford.edu](mailto:elliott@slac.stanford.edu), [kfouts@slac.stanford.edu](mailto:kfouts@slac.stanford.edu)**  
**650-926-2469 650-926-2553**



# Last Month's Accomplishments

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- **Management**
  - 39 of 66 I&T documents and procedures in review/approval cycle.
  - Supported successful receipt of TKR A.
- **IFCT**
  - Completed receipt of CAL FM 102-105.
  - Grid rework and heatpipe bonding complete.
  - Completed check out and validation of test stands and work stations.
- **MGSE**
  - PAP's installed on LAT Integration Stand.
- **Online**
  - Support update to CAL test suites.
  - Supported data taking and trigger script development.
  - Released LATTE 4.6.5
  - Completed pre-release version of LATTE 4.7
- **SVAC**
  - SVAC Pipeline running with new front-end interface.
  - Processing TKR FMA with new code from SAS.
  - Finalized definition of calibration for integrated tower.
- **Particle Test**
  - VdG has worked reliably for 18 weeks since the last fix.



# IFCT Accomplishments

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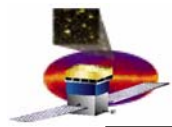
- **Mech. Systems**
  - Addition of purge groove pockets and chamfer of sharp edges complete
- **Elec. Systems**
  - TVAC chamber checkout complete and chamber is operational.
- **TKR Subsystem**
  - Completed TKR receiving and set-up for receiving and EMI test.
  - Develop EMI taping process with TKR team.
- **I&T Test Validation**
  - I&T Test Stand Set-up Procedure completed and released.
  - Version 3 of CAL Module Test Procedure released.
  - Validation process for Trigger Scripts in work
  - Validation process for TKR Scripts in work
  - Validation process for data collection scripts completed
  - TEM/PS Shimming Procedure released.
  - Prepared for dry run of TKR mechanical integration process (configuration of single bay, start installing flex cables on TKR EM)

# MGSE Accomplishments

- PAP platforms have been integrated with the stand.
- Finalizing preparation and safety approvals for proof test.



4.1.9 - Integration and Test



# I&T Milestone Overview for January 2005

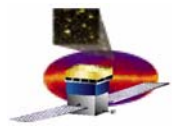
- **FM101**
  - Receiving inspection completed on FM
    - Complete
  - Calorimeter Test Stand Validated
    - Complete
  - Post-ship test completed on FM
    - Complete
  - Calorimeter CPT Software Validated on EM
    - Complete
  - Calorimeter receiving CPT completed on FM
    - Complete
- **TKR-A**
  - Installation procedure validated on EM
    - Complete
  - Thermal strap procedure validated on EM
    - Complete
  - Tracker flex cable procedure validated
    - 2/18/05
  - Tracker CPT software validated
    - Complete
- **TEM/TPS-A**
  - Tvac chamber installed in cleanroom
    - Complete
- **Single Tower I&T Validation**
  - Metrology bay I&T validated on EM
    - Complete
  - Single Bay trigger tests validated on EM
    - 2/7/05
  - Single Bay data collection validated on EM
    - Complete
- **Grid Assembly**
  - Tilt table proof test
    - Complete
  - Heat pipe bonding completed
    - Complete
  - Thermal control system installation
    - Rescheduled due to design change
  - I&T Need
    - 3/7/05
- **Integration Stand**
  - Delivery of GPR to I&T
    - Complete
  - Earth quaking of base frame
    - In Work (ECD TBD)
  - Match GPR to Proof Test Weight 1
    - Complete
  - I&T Need
    - 3/7/05

# I&T Detailed Schedule

ID	Task Name	Duration	Start	Finish	05															
					Feb '05				Mar '05				Apr '05							
					9	16	23	30	6	13	20	27	6	13	20	27	3	10	17	24
1	<b>LAT Integration Plan</b>	<b>287.5 days?</b>	<b>3/19/04</b>	<b>5/31/05</b>	[Gantt bar from 3/19/04 to 5/31/05]															
2	Receive Grid	0 days	11/3/04	11/3/04	[Gantt bar from 11/3/04 to 11/3/04]															
3	X-LAT Thermal Plate RFI	0 days	2/9/05	2/9/05	[Gantt bar from 2/9/05 to 2/9/05]															
4	Radiators RFI	0 days	5/31/05	5/31/05	[Gantt bar from 5/31/05 to 5/31/05]															
5	<b>Tracker Receiving</b>	<b>38.56 days?</b>	<b>1/14/05</b>	<b>3/14/05</b>	[Gantt bar from 1/14/05 to 3/14/05]															
6	<b>Tower A</b>	<b>11.63 days?</b>	<b>1/14/05</b>	<b>2/1/05</b>	[Gantt bar from 1/14/05 to 2/1/05]															
20	<b>Tower B</b>	<b>24 days</b>	<b>2/7/05</b>	<b>3/14/05</b>	[Gantt bar from 2/7/05 to 3/14/05]															
32	<b>Calorimeter Receiving</b>	<b>41.56 days?</b>	<b>11/10/04</b>	<b>1/14/05</b>	[Gantt bar from 11/10/04 to 1/14/05]															
33	<b>Calorimeter A</b>	<b>36.63 days</b>	<b>11/10/04</b>	<b>1/7/05</b>	[Gantt bar from 11/10/04 to 1/7/05]															
38	<b>Calorimeter B-FM105</b>	<b>4 days?</b>	<b>1/10/05</b>	<b>1/14/05</b>	[Gantt bar from 1/10/05 to 1/14/05]															
45	<b>Electronics Receiving</b>	<b>269.19 days</b>	<b>3/19/04</b>	<b>5/3/05</b>	[Gantt bar from 3/19/04 to 5/3/05]															
46	<b>Cables</b>	<b>3.75 days</b>	<b>11/15/04</b>	<b>11/19/04</b>	[Gantt bar from 11/15/04 to 11/19/04]															
65	<b>TEM Assemblies</b>	<b>0 days</b>	<b>2/4/05</b>	<b>2/4/05</b>	[Gantt bar from 2/4/05 to 2/4/05]															
68	<b>TEM PS Assemblies</b>	<b>0 days</b>	<b>2/4/05</b>	<b>2/4/05</b>	[Gantt bar from 2/4/05 to 2/4/05]															
71	<b>Electronic Boxes</b>	<b>269.19 days</b>	<b>3/19/04</b>	<b>5/3/05</b>	[Gantt bar from 3/19/04 to 5/3/05]															
79	<b>Grid Mechanical in I&amp;T</b>	<b>99.19 days</b>	<b>9/15/04</b>	<b>2/14/05</b>	[Gantt bar from 9/15/04 to 2/14/05]															
80	Receive Grid	0 days	11/3/04	11/3/04	[Gantt bar from 11/3/04 to 11/3/04]															
81	Receive EMI Skirt Assy	0 days	11/3/04	11/3/04	[Gantt bar from 11/3/04 to 11/3/04]															
82	<b>Grid Box Base Assembly Operations</b>	<b>38.75 days</b>	<b>11/17/04</b>	<b>1/19/05</b>	[Gantt bar from 11/17/04 to 1/19/05]															
89	<b>Grid Box Base Assembly Thermal Control System Operations</b>	<b>6.75 days</b>	<b>9/15/04</b>	<b>9/24/04</b>	[Gantt bar from 9/15/04 to 9/24/04]															
96	Bakeout Grid	3 days	1/31/05	2/3/05	[Gantt bar from 1/31/05 to 2/3/05]															
97	<b>Grid Box Base Assy Inspection and Fitcheck</b>	<b>7 days</b>	<b>2/3/05</b>	<b>2/14/05</b>	[Gantt bar from 2/3/05 to 2/14/05]															
106	Grid RFI	0 days	2/14/05	2/14/05	[Gantt bar from 2/14/05 to 2/14/05]															
107	<b>MGSE</b>	<b>16 days?</b>	<b>1/31/05</b>	<b>2/23/05</b>	[Gantt bar from 1/31/05 to 2/23/05]															
108	MGSE Proof Test	5 days	1/31/05	2/7/05	[Gantt bar from 1/31/05 to 2/7/05]															
109	HEEC, ESC Committee Review	1 day?	2/3/05	2/4/05	[Gantt bar from 2/3/05 to 2/4/05]															
110	Grid Perimeter Ring to Grid Fit-up	3 days	2/14/05	2/17/05	[Gantt bar from 2/14/05 to 2/17/05]															
111	Integration Stand Electrical Integration	5 days	2/4/05	2/11/05	[Gantt bar from 2/4/05 to 2/11/05]															
112	Integration Stand Check-out	3 days	2/11/05	2/16/05	[Gantt bar from 2/11/05 to 2/16/05]															
113	Integration Stand move to Bldg 33	1 day	2/16/05	2/17/05	[Gantt bar from 2/16/05 to 2/17/05]															
114	Integration Stand Training and Checkout	3 days	2/17/05	2/23/05	[Gantt bar from 2/17/05 to 2/23/05]															
115	Install Grid in GPR	2 days	2/23/05	2/25/05	[Gantt bar from 2/23/05 to 2/25/05]															
116	Grid Survey	5 days	2/25/05	3/4/05	[Gantt bar from 2/25/05 to 3/4/05]															

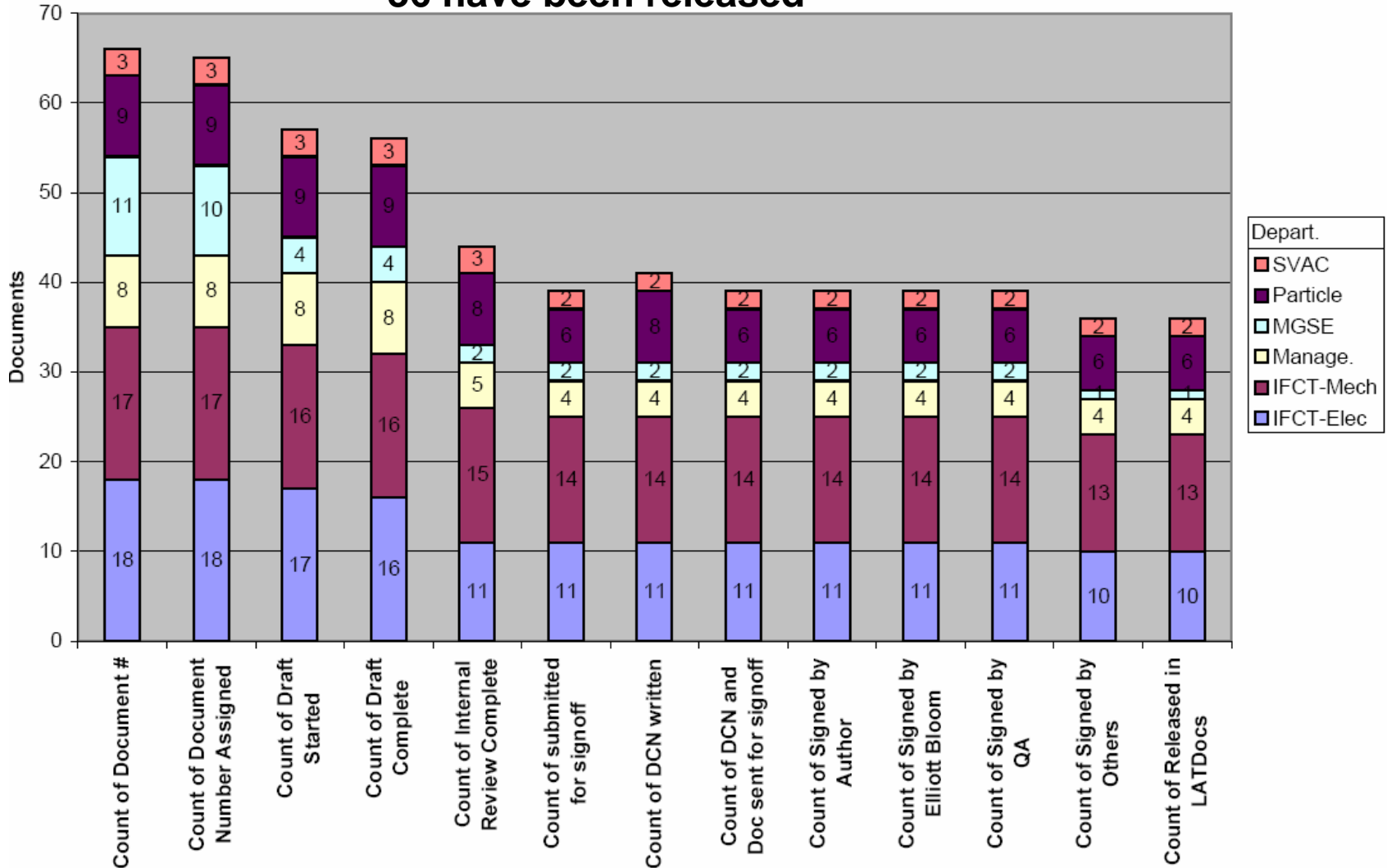
# I&T Detailed Schedule

ID	Task Name	Duration	Start	Finish	05															
					Jan '05			Feb '05			Mar '05			Apr '05						
					9	16	23	30	6	13	20	27	6	13	20	27	3	10	17	24
117	<b>TEM to Calorimeter</b>	<b>23.94 days</b>	<b>2/7/05</b>	<b>3/14/05</b>																
118	<b>Calorimeter A</b>	<b>2 days</b>	<b>2/7/05</b>	<b>2/9/05</b>																
119	Install Calorimeter into Metrology Bay	1 day	2/7/05	2/8/05																
120	Install TEM A and Shim	1 day	2/8/05	2/9/05																
121	<b>Calorimeter B</b>	<b>2 days</b>	<b>3/10/05</b>	<b>3/14/05</b>																
122	Install Calorimeter into Metrology Bay	1 day	3/10/05	3/11/05																
123	Install TEM and Shim	1 day	3/11/05	3/14/05																
124	<b>Calorimeter/Tracker/TEM/TEM-PS Test</b>	<b>36.94 days</b>	<b>2/9/05</b>	<b>4/5/05</b>																
125	<b>Tower A</b>	<b>14 days</b>	<b>2/9/05</b>	<b>3/2/05</b>																
126	Install Tracker & Cal/TEM/TEM-PS into Single Bay	3 days	2/9/05	2/14/05																
127	Single Tower CPT TRR	1 day	2/14/05	2/15/05																
128	Test TKR/CAL/TEM/TEM-PS	10 days	2/15/05	3/2/05																
129	<b>Tower B</b>	<b>15 days</b>	<b>3/14/05</b>	<b>4/5/05</b>																
130	Install Tracker & Cal/TEM/TEM-PS into Single Bay	3 days	3/14/05	3/17/05																
131	Single Tower CPT TRR	2 days	3/17/05	3/21/05																
132	Test TKR/CAL/TEM/TEM-PS	10 days	3/22/05	4/5/05																
133	<b>Tower Installation</b>	<b>52.38 days</b>	<b>3/4/05</b>	<b>5/23/05</b>																
134	<b>Install Tower A</b>	<b>24 days</b>	<b>3/4/05</b>	<b>4/11/05</b>																
135	Grid/Integration Stand Need Date	0 days	3/4/05	3/4/05																
136	Instal Tracker into Grid	10 days	3/4/05	3/21/05																
137	Install Calorimeter	2 days	3/21/05	3/23/05																
138	Electrical Test	12 days	3/23/05	4/11/05																
139	<b>Install Tower B</b>	<b>19 days</b>	<b>4/11/05</b>	<b>5/9/05</b>																
140	Instal Tracker into Grid	5 days	4/11/05	4/18/05																
141	Install Calorimeter	2 days	4/18/05	4/20/05																
142	Electrical Test	12 days	4/20/05	5/9/05																
143	Two Tower CPT TRR	0 days	5/9/05	5/9/05																
144	2 Tower CPT	21 days	5/9/05	5/23/05																

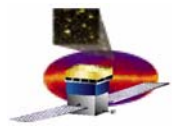


# Procedure Status

- 66 documents total
- 39 have been submitted for sign-off
- 36 have been released

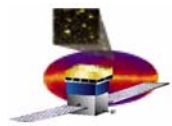






# Procedure Status (1 of 6) - Management

Depart.	Document #	Document Title	Author														Completion Date (or expected)	Comments		
				Document Number Assigned	Draft Started	Draft Complete	Internal Review Complete	Latest Draft in LATDocs	Draft sent to NASA	Submitted to CM (Natalie) for signoff (or expected date)	DCN written	DCN and Doc sent for signoff	Signed by Authhor	Signed by Elliott Bloom	Signed by QA	Released in LATDocs			# of Days in signoff	
Manage.	LAT-MD-01376-01	LAT Integration & Test Plan	Bloom / Fouts / Grist	✓	✓	✓	✓	✓	✓	03-May-04	✓	✓	✓	✓	✓	✓	✓	94	05-Aug-04	Version 2 in work
Manage.	LAT-TD-04542-01	ACD Subsystem to LAT I&T Deliverables MOU	Bloom / Bright	✓	✓	✓	✓	N/A	01-Feb-05									15-Feb-05		
Manage.	LAT-TD-04543-01	CAL Subsystem to LAT I&T Deliverables MOU	Bloom / Bright	✓	✓	✓	✓	✓	N/A	07-Oct-04	✓	✓	✓	✓	✓	✓	41	17-Nov-04		
Manage.	LAT-TD-04544-01	Mechanical and TCS Subsystem to LAT I&T Deliverables MOU	Bloom / Bright	✓	✓	✓		N/A	<b>Past Due</b>									08-Feb-05		
Manage.	LAT-TD-04545-01	Science Analysis Software to LAT I&T Deliverables MOU	Bloom / Bright	✓	✓	✓		N/A	<b>Past Due</b>									08-Feb-05		
Manage.	LAT-TD-04546-01	ELX/T&DF Subsystem to LAT I&T Deliverables MOU	Bloom / Bright	✓	✓	✓	✓	✓	N/A	27-Aug-04	✓	✓	✓	✓	✓	✓	38	04-Oct-04		
Manage.	LAT-TD-04547-01	TKR Subsystem to LAT I&T Deliverables MOU	Bloom / Bright	✓	✓	✓		N/A	<b>Past Due</b>									08-Feb-05	Latest draft sent to Dave Rich by Elliott.	
Manage.	LAT-MD-04601-01	LAT I&T E-Logbook Implementation	Kavelaars / Fouts	✓	✓	✓	✓	✓	01-Nov-04	✓	✓	✓	✓	✓	✓	✓	42	13-Dec-04		

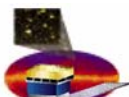


# Procedure Status (2 of 6) - MGSE

Depart.	Document #	Document Title	Author	Document Number Assigned	Draft Started	Draft Complete	Internal Review Complete	Latest Draft in LATDocs	Draft sent to 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 by Others	# of Days in signoff	Completion Date (or expected)	Comments	
MGSE	LAT-MD-01462-02	MGSE Development Plan	Gawehn	✓	✓	✓				Past Due								08-Feb-05	Tom and Ken are reviewing the draft	
MGSE	LAT-PS-04226-01	1x1 Lift Fixture Installation and Removal	Gawehn / Borden	✓						Past Due								08-Feb-05		
MGSE	LAT-PS-04227-01	GPR onto rotation Stand MGSE	Gawehn / Borden	✓						Past Due								08-Feb-05		
MGSE	LAT-PS-04228-01	4x4 Stand Operations Manual	Gawehn / Borden	✓						Past Due								08-Feb-05		
MGSE	LAT-PS-04229-01	4x4 Lift Fixture Installation and Removal, +Z axis vertical	Gawehn / Borden	✓						Past Due								08-Feb-05		
MGSE	LAT-PS-04230-01	4x4 Lift Fixture Installation and Removal, +Z axis horizontal	Gawehn / Borden	✓						Past Due								08-Feb-05		
MGSE	LAT-PS-04231-01	Grid integration into GPR MGSE	Gawehn / Borden	✓						Past Due								08-Feb-05		
MGSE	LAT-PS-05137-01	Calorimeter Lift Fixture Proof Tests	Gawehn	✓	✓	✓	✓	✓	✓	09-Dec-04	✓	✓	✓	✓	✓	✓	✓	4	13-Dec-04	
MGSE	LAT-PS-05172-01	GPR, GPR to Grid Bracket, Support Shaft, and Base Struc. Proof Test	Gawehn	✓	✓	✓				Past Due								08-Feb-05		
MGSE	LAT-PS-05236-01	Tracker Lift Fixture Proof Tests	Borden	✓	✓	✓	✓	✓		22-Nov-04	✓	✓	✓	✓	✓			65	01-Feb-05	Remaining signature: Nordby.
MGSE	LAT-PS-xxxx-01	Calorimeter Alignment Tool Operations	Gawehn							Past Due								08-Feb-05		

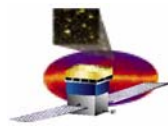
# Procedure Status (3 of 6) – IFCT Electrical

Depart.	Document #	Document Title	Author	Document Number Assigned	Draft Started	Draft Complete	Internal Review Complete	Latest Draft in LATDocs	Draft sent to 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 by Others	# of Days in signoff	Completion Date (or expected)	Comments	
IFCT-Elec	LAT-MD-01533-01	EGSE Plan	Horwitz / Wai	✓	✓	✓	✓	✓	✓	17-Nov-04	✓	✓	✓	✓	✓	✓	✓	27	14-Dec-04	
IFCT-Elec	LAT-PS-03276-01	Two Tower Test Procedure	Canfield	✓						28-Jan-05									11-Feb-05	
IFCT-Elec	LAT-PS-03287-03	Cal Module Test Procedure	Canfield	✓	✓	✓	✓	✓	✓	10-Jan-05	✓	✓	✓	✓	✓	✓	✓	1	11-Jan-05	
IFCT-Elec	LAT-PS-03290-01	Tracker Module Test Procedure	Canfield	✓	✓	✓	✓	✓	✓	12-Nov-04	✓	✓	✓	✓				75	01-Feb-05	Modification required before signature of R. Johnson
IFCT-Elec	LAT-TD-03875-02	TEM EICIT Procedure	Horwitz	✓	✓	✓	✓	✓	✓	19-Jul-04	✓	✓	✓	✓	✓	✓	✓	101	28-Oct-04	Version 3 in work
IFCT-Elec	LAT-TD-04097-02	TEM SVT Procedure	Horwitz	✓	✓	✓	✓	✓	✓	19-Jul-04	✓	✓	✓	✓	✓	✓	✓	102	29-Oct-04	
IFCT-Elec	LAT-TD-04098-01	TPS SVT Procedure	Horwitz	✓	✓	✓	✓	✓	✓	19-Jul-04	✓	✓	✓	✓	✓	✓	✓	102	29-Oct-04	
IFCT-Elec	LAT-TD-04099-02	TPS EICIT Procedure	Horwitz	✓	✓	✓	✓	✓	✓	02-Dec-04	✓	✓	✓	✓	✓	✓	✓	15	17-Dec-04	
IFCT-Elec	LAT-TD-04260-02	GASU EICIT Procedure	Horwitz	✓	✓	✓	✓	✓	✓	14-Dec-04	✓	✓	✓	✓	✓	✓	✓	3	17-Dec-04	
IFCT-Elec	LAT-TD-04325-01	Acceptance Test Procedure, Break out Boxes and Cables	Horwitz	✓	✓	✓	✓	✓	✓	12-Nov-04	✓	✓	✓	✓	✓	✓	✓	4	16-Nov-04	
IFCT-Elec	LAT-TD-04332-01	PDU EICIT Procedure	Horwitz	✓	✓	✓	✓	✓	✓	13-Aug-04	✓	✓	✓	✓	✓	✓	✓	76	28-Oct-04	Version 2 in work
IFCT-Elec	LAT-TD-04382-01	GASU SVT Procedure	Horwitz	✓	✓	✓				Past Due									08-Feb-05	
IFCT-Elec	LAT-TD-04384-01	PDU SVT Procedure	Horwitz	✓	✓	✓				Past Due									08-Feb-05	
IFCT-Elec	LAT-PS-04510-01	LATTE Operators Users Guide	Canfield	✓	✓	✓		✓		Past Due									08-Feb-05	
IFCT-Elec	LAT-PS-04511-01	Data Collection Procedure	Horwitz	✓	✓	✓				Past Due									08-Feb-05	
IFCT-Elec	LAT-PS-04512-01	Single Tower Test Procedure	Horwitz	✓	✓	✓				Past Due									08-Feb-05	
IFCT-Elec	LAT-PS-05504-01	Computing Infrastructure	Canfield	✓	✓					Past Due									08-Feb-05	
IFCT-Elec	LAT-PS-05527-01	I&T Test Stand Setup Procedure	Horwitz	✓	✓	✓	✓	✓	✓	05-Jan-05	✓	✓	✓	✓	✓	✓	✓	6	11-Jan-05	



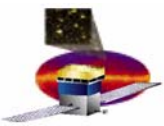
# Procedure Status (4 of 6) – IFCT Mechanical

Depart.	Document #	Document Title	Author														# of Days in signoff	Completion Date (for expected)	Comments	
				Document Number Assigned	Draft Started	Draft Complete	Internal Review Complete	Latest Draft in LATDocs	Draft sent to 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 QA	Signed by Others				
IFCT-Mech	LAT-MD-01386-01	LAT Facilities Plan	Borden	✓	✓	✓	✓	✓	✓	29-Oct-04	✓	✓	✓	✓	✓	✓	✓	49	17-Dec-04	
IFCT-Mech	LAT-PS-01586-01	Survey Procedure	Borden	✓	✓	✓			✓	<i>Past Due</i>								08-Feb-05		
IFCT-Mech	LAT-PS-03027-01	Calorimeter Integration Procedures	Ortiz	✓	✓	✓	✓	✓	✓	06-Aug-04	✓	✓	✓	✓	✓	✓	125	09-Dec-04		
IFCT-Mech	LAT-PS-03059-01	Critical Operations Procedure	Ortiz	✓	✓	✓	✓			<i>Past Due</i>								08-Feb-05		
IFCT-Mech	LAT-PS-03058-01	Tracker Integration Procedures	Borden	✓	✓	✓	✓	✓	✓	24-Jan-05	✓	✓	✓	✓	✓		2	01-Feb-05	Remaining signatures: Nordby, Patterson, R. Johnson	
IFCT-Mech	LAT-PS-03060-01	Room 104, Ingress and Egress of Large Equipment Procedure	Ortiz	✓	✓	✓	✓	✓	✓	27-Jul-04	✓	✓	✓	✓	✓	✓	142	16-Dec-04		
IFCT-Mech	LAT-PS-03062-01	Tem/TemPS Shimming Procedure	Ortiz	✓	✓	✓	✓	✓	✓	28-Jul-04	✓	✓	✓	✓	✓	✓	161	05-Jan-05		
IFCT-Mech	LAT-PS-03259-01	Shear Plate Shim Procedure	Ortiz	✓	✓	✓	✓	✓	✓	02-Sep-04	✓	✓	✓	✓	✓	✓	81	22-Nov-04		
IFCT-Mech	LAT-PS-03263-01	Fastener Installation and Torquing Procedure	Borden	✓	✓	✓	✓	✓	✓	13-Oct-04	✓	✓	✓	✓	✓	✓	50	02-Dec-04		
IFCT-Mech	LAT-PS-03281-01	LAT Test Floor Configuration Procedure	Borden	✓	✓	✓	✓	✓	✓	21-Jan-05	✓	✓	✓	✓	✓	✓	3	24-Jan-05		
IFCT-Mech	LAT-PS-03291-01	Flight Hardware Bag and Purge Procedure	Borden	✓	✓	✓	✓	✓	✓	28-Oct-04	✓	✓	✓	✓	✓	✓	47	14-Dec-04		
IFCT-Mech	LAT-PS-03481-02	GLAST LAT Integration Facility Emergency Plan	Borden	✓	✓	✓	✓	✓	✓	01-Oct-04	✓	✓	✓	✓	✓	✓	42	12-Nov-04		
IFCT-Mech	LAT-PS-04244-01	Load Mass simulators into GRID MGSE	Ortiz	✓						<i>Past Due</i>								08-Feb-05		
IFCT-Mech	LAT-PS-04436-01	AeroGo Air Bearing Reference Guide	Ortiz	✓	✓	✓	✓	✓	✓	02-Sep-04	✓	✓	✓	✓	✓	✓	63	04-Nov-04		
IFCT-Mech	LAT-PS-04459-01	Connector Mate and Demate	Manger / Horwitz	✓	✓	✓	✓	✓	✓	16-Dec-04	✓	✓	✓	✓	✓	✓	20	05-Jan-05		
IFCT-Mech	LAT-PS-04727-01	Tie Mount Bonding Procedure	Ortiz	✓	✓	✓	✓	✓	✓	30-Sep-04	✓	✓	✓	✓	✓	✓	48	17-Nov-04		
IFCT-Mech	LAT-PS-05487-01	Mobile Hydraulic Unit (MHU) Operations Procedure	Manger	✓	✓	✓	✓	✓	✓	17-Dec-04	✓	✓	✓	✓	✓	✓	3	20-Dec-04		



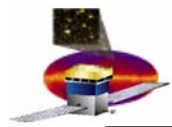
# Procedure Status (5 of 6) - Particle

Depart.	Document #	Document Title	Author	Document Number Assigned	Draft Started	Draft Complete	Internal Review Complete	Latest Draft in LATDocs	Draft sent to 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 QA	Released by Others	# of Days in LATDocs	Completion Date (for expected)	Comments
Particle	LAT-TD-00440-07	LAT Particle Test Plan	Godfrey	✓	✓	✓	✓	✓	Past Due	✓								08-Feb-05	Pulled from signoff, needs changes.
Particle	LAT-TD-01396-01	Calibration of the Van de Graaff Photon Flux	Godfrey	✓	✓	✓	✓	✓	06-Aug-04	✓	✓	✓	✓	✓	✓	✓	103	17-Nov-04	
Particle	LAT-TD-01805-02	Van de Graaff Accelerator Safety/Operations Handbook	Godfrey	✓	✓	✓	✓	✓	30-Sep-04	✓	✓	✓	✓	✓	✓	✓	14	14-Oct-04	
Particle	LAT-PS-04133-01	Procedure to Take Simultaneous BGO and LAT Data	Godfrey	✓	✓	✓	✓	✓	06-Aug-04	✓	✓	✓	✓	✓	✓	✓	103	17-Nov-04	
Particle	LAT-TD-04134-01	Procedure for Setting the LAT Timing Registers	Godfrey	✓	✓	✓	✓	✓	06-Aug-04	✓	✓	✓	✓	✓	✓	✓	104	18-Nov-04	
Particle	LAT-TD-04135-01	Procedure for Measuring the LAT Trigger Jitter using the Muon Telescope	Godfrey	✓	✓	✓	✓	✓	06-Aug-04	✓	✓	✓	✓	✓	✓	✓	104	18-Nov-04	
Particle	LAT-TD-04136-01	Van de Graaff and Cosmic Data Runs for LAT Integration	Godfrey	✓	✓	✓	✓		Past Due	✓								08-Feb-05	
Particle	LAT-TD-04419-02	Muon Telescope	Godfrey	✓	✓	✓	✓	✓	04-Nov-04	✓	✓	✓	✓	✓	✓	✓	14	18-Nov-04	
Particle	LAT-TD-04980-01	Use of an Am241 Source for High Rate Triggering	Godfrey	✓	✓	✓			Past Due									08-Feb-05	



# Procedure Status (6 of 6) - SVAC

Depart.	Document #	Document Title	Author	Document Number Assigned	Draft Started	Draft Complete	Internal Review Complete	Latest Draft in LATDocs	Draft sent to 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 by Others	# of Days in signoff	Completion Date (or expected)	Comments
SVAC	LAT-MD-00446-06	SVAC Plan	do Couto e Silva	✓	✓	✓	✓	✓	24-Aug-04	✓	✓	✓	✓	✓	✓	✓	67	30-Oct-04	
SVAC	LAT-MD-00575-01	SVAC Plan for LAT Integration at SLAC	do Couto e Silva	✓	✓	✓	✓	✓	04-Nov-04	✓	✓	✓	✓	✓	✓	✓	12	16-Nov-04	
SVAC	LAT-MD-00613-02	SVAC Contributed Manpower	do Couto e Silva	✓	✓	✓	✓		04-Mar-05									18-Mar-05	



# Cost and Schedule Status

	WBS	Description	BAC	BCWS	BCWP	ACWP	SV \$	CV \$	%BCWS	%BCWF	%ACWF	SPI	CPI	SPI	CPI	Cpi_Fcst	CpiSpi_Fcst
65	4.1.9	I&T	8,013	6,144	5,661	5,958	-483	-297	76.68	70.64	74.35	↑	↓	0.921	0.950	8,434	8,645

- **Cumulative Schedule Variance (end of December)**

- **Work Scheduled: 6144 k\$; Work Performed: 5661 k\$**
- **Schedule Variance: -483 k\$ (-8%)**

- **-141 k\$ in MGSE**

- Receive LAT Gnd Tst Heat Exchanger, Receive LAT Misc Equip and Fixtures, Receive LAT Vibration Test Fixture, Receive Misc LAT Transport Containers, Receive LAT Low Humidity Tent, Proof Test-LAT 4x4 Stand, Receive Rad & X-LAT Plate Lift Fixtures, Receive Ship Cont for LAT Vibe Test Equip, Prep and Proof Test 1 X 4, 1x1 Grid Lift Fixture

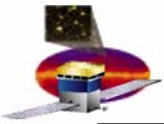
- **-343 k\$ in IFCT department**

- Receive/Inspect Grid, Receive/Inspect TKR Tower A,B,1,2,3,4,5,6,7,8,9,10,11, Receive/Inspect CAL Module A,B,1,2,3,4,5,6,7,8, 9,10,11,12,13,14, Receive/Inspect Tower Electronics A,B,1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16, Integrate Flight TKR/CAL Towers A,B,1,2,3,4,5,6,7,8, Functional Test Tower A,B,1,2,3,4,5,6,7,8,9,10, Receive/Inspect Flight ACD, Receive/Inspect LAT-wide electronics, Receive/Inspect Cross-LAT Thermal Plate, Survey and Alignment Support of Inspection, Tower Integration Training, Fabricate Custom Connector Mate Tool, Power Supplies & Bus Protection Units, Comprehensive Test procedure development.

- **Cumulative Cost Variance (end of December)**

- **Work Performed: 5661 k\$; Actual Cost: 5958 k\$**
- **Cost Variance: -297 k\$ (-5%)**

- The actual variance should be -166k\$ (-3%) due to an error in SLAC accounting of accruals.

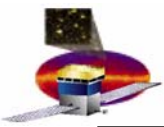


# Zero Schedule Variance Actions

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- **Complete MGSE tasks that are in flow for two tower and LAT build.**
- **Zero baseline variance requires matching I&T schedule to hardware deliveries. Current rebaseline will correct variances.**
- **Utilize TIMs with TKR and ELX to take advantage of lessons learned by subsystems prior to delivery.**





# Issues & concerns

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## ISSUES

- Availability of flight assembly hardware.
  - Shortages identified by I&T and being worked with Subsystems.

## CONCERNS

- MGSE Delivery Schedule
  - MGSE Proof test (ECD 2/5/05)
- I&T Procedure Development
  - Tracker Integration Procedure for Grid Installation. (3/14/05 Need date).
  - TKR and Mechanical MOU's require input from Subsystems.