

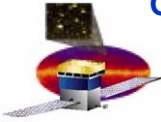
GLAST Large Area Telescope

Systems Engineering

NCRs and Waivers Verification Status

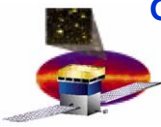
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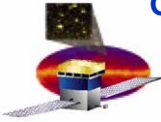
LAT Functional Test Status

- The LAT functional test is about half complete (24 of 50 hours)
- Liens/Lessons
 - Downlink data rate
 - Was 1/40 of expected, doubled duration of early tests
 - 40 MBPS rates demonstrated evening of 1/9
 - Dropped telemetry packets
 - Caused problems in several tests
 - Have “commented out” portions of two tests
 - » Watchdog timer readouts
 - » File upload timing/commanding test
 - Have added functionality to be more robust in the face of dropped packets
 - » Residual risk of test failures
 - May continue to hamper problem resolution by causing false alarms
 - Commanding rate
 - Uplink rate at the spacecraft at 2 kbps results in a commanding rate about 1/5 that observed at LAT level, increasing some tests significantly
 - LAT team is looking at methods to alleviate the impact
 - 10kbps command rate to be attempted on evening of 1/10
 - Scripts
 - Script problems have been encountered and are being worked off
 - Documented in flags in GD system
 - Documented in JIRAs in the SLAC system
 - Rate is near expected (my estimate)
 - Third shift LAT testing lowers efficiency, especially when running first time procedures



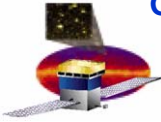
NCR Summary Status

Closure Plan	Definition	Count
Issue resolved, closure plan in place or no impact to LAT		
Closing	Issue resolved, documentation required to close	1
Closure deferred	EGSE issues, low priority to fix or hold open to track repeats	8
Work continuing		
B1.0.0	Resolved with FSW release B1.0.0 or later	2
QAR	CND or other issue expected to be transferred to a QAR	9
In process	Investigation ongoing	5



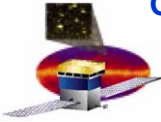
Status of NCRs Promoted to QARs

Open NCR	Corresponding QAR	Description	Resolution
880, 881, 902, 948, 949	1196-4894	EPU, SIU Reboots	CND, hold open
942	1196-4895	+X, -X LAT blanket replacement and final closeout	Close post TV at final closeout
946	1196-4876	ACD FREE board 5 power up	CND, hold open
855, 894	1196-4894	LATC verify and dump errors	CND, hold open



NCR Progress

- **Closed NCRs 995 (Compression bug) and 994 (Helium)**
- **NCRs in process**
 - **NCR 922 LKH stopped**
 - **Potential cause found, JIRA FSW-847 going to CCB**
 - **NCR 975 EPU timetag 4.2 seconds fast and NCR 989 SIU timetag 4.2 seconds fast**
 - **Addressed in B0-7-0 via JIRA FSW-744**
 - **Need more statistics to confirm problem was eliminated**
 - **NCR 983 LTC file size changed**
 - **New LTC files generated and in FMX, still need to integrate with script/MOOT**
 - **Needed before TV**
- **NCRs closing**
 - **NCR 992 (TEM phasing errors)**
 - **LAT work is done, still need changes to on-line analysis**



LAT Level Verification Status

Category	Verification Method					Totals	
	Test	Demo	Analysis	Inspection	Children	Complete	% Comp
	# Comp	# Comp	# Comp	# Comp	# Comp		
Requirement Identified	120	72	208	36	22	458	100.0%
Flow Down Complete	120	72	208	36	22	458	100.0%
Draft Verification Plans	120	72	208	36	22	458	100.0%
Final Verification Plans	120	72	208	36	22	458	100.0%
Verification Plans Executed	86	63	165	22	13	349	76.2%
Verification Reports Submitted	86	54	165	22	13	340	74.2%
Requirements Sold	83	51	150	21	12	317	69.2%
Expect Compliance	16	0	22	12	1	51	11.1%
Verifications Plan Deferred	18	9	19	2	8	56	12.2%
Requirements Issues	0	0	2	0	0	2	0.4%
Total VPs	120	72	208	36	22	458	

- **Progress this month**
 - All 458 VPs are Final
 - All VPs planned for execution to this point have been performed
 - 349 VPs have been executed to date, 11 VPs executed last month
 - An additional 17 requirements have been sold in the last month
 - ~90% of the executed VPs have been approved
- **Status**
 - VCRM version 24 released
 - All deferred GRB reqts will be sold post FSW B1.0 installation