

GLAST Large Area Telescope:

Draft presentation to the JOG

July 16, 2003

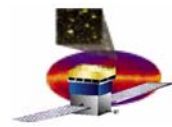
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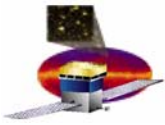
Process for Assessing LAT Cost to Complete

- **Peer Reviews** **March 17—28, 2003**
- **CDR/CD-3 Review** **May 12—16, 2003**
- **Director's Assessment** **May 19—21, 2003**
- **LAT Needs Assessment** **May 29--June 13, '03**
- **LAT Team Management Meeting** **June 12—13, 2003**
- **Pre JOG Meeting** **June 24, 2003**
- **JOG Meeting** **July 7, 2003**
- **Subsystem Managers Meeting at SLAC** **July 17 – 18, 2003**
- **Director's review at SLAC** **July 21, 2003**
- **DOE rebaseline review at Headquarters** **July 28, 2003**



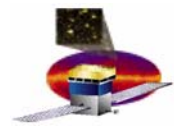
Additional Costs

Calorimeter CDE fabrication	\$4.2M
Cost to project due to loss of French funding	
Schedule impact of change -- 3 mo @ \$1.8M/mo	5.4M
Other identified costs	4.8M
-- CDR Review Committee + internal review	
Move environmental testing to Spectrum Astro	-1.0M
Contingency restoration -- restore to 28% of Costs at risk	2.8M
TOTAL	\$16.2M
Moved off the fabrication phase	4.5M
Move Environmental Test to Commissioning Phase	\$2.7M
Move IOC cost to SLAC operating expense	\$1.8M
Net Change to the EAC for the fabrication phase	\$11.7M



Profile for Additional Costs

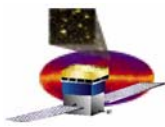
	\$M				
	FY03	FY04	FY05	FY06	TOTAL
Additional costs					
Fabricate CDEs	2.1	2.1			4.2
Schedule Delay		1.0	1.7	2.7	5.4
Other costs	0.5	4.3			4.8
Savings			-1.0		-1.0
Subtotal	2.6	7.4	0.7	2.7	13.4
Contingency		0.7	2.1		2.8
Total	2.6	8.1	2.8	2.7	16.2
Move Environmental test to Commissioning Phase				-2.7	-2.7
Move IOC costs		-1.0	-0.8		-1.8
Total Fab Phase	2.6	7.1	2.0	0.0	11.7



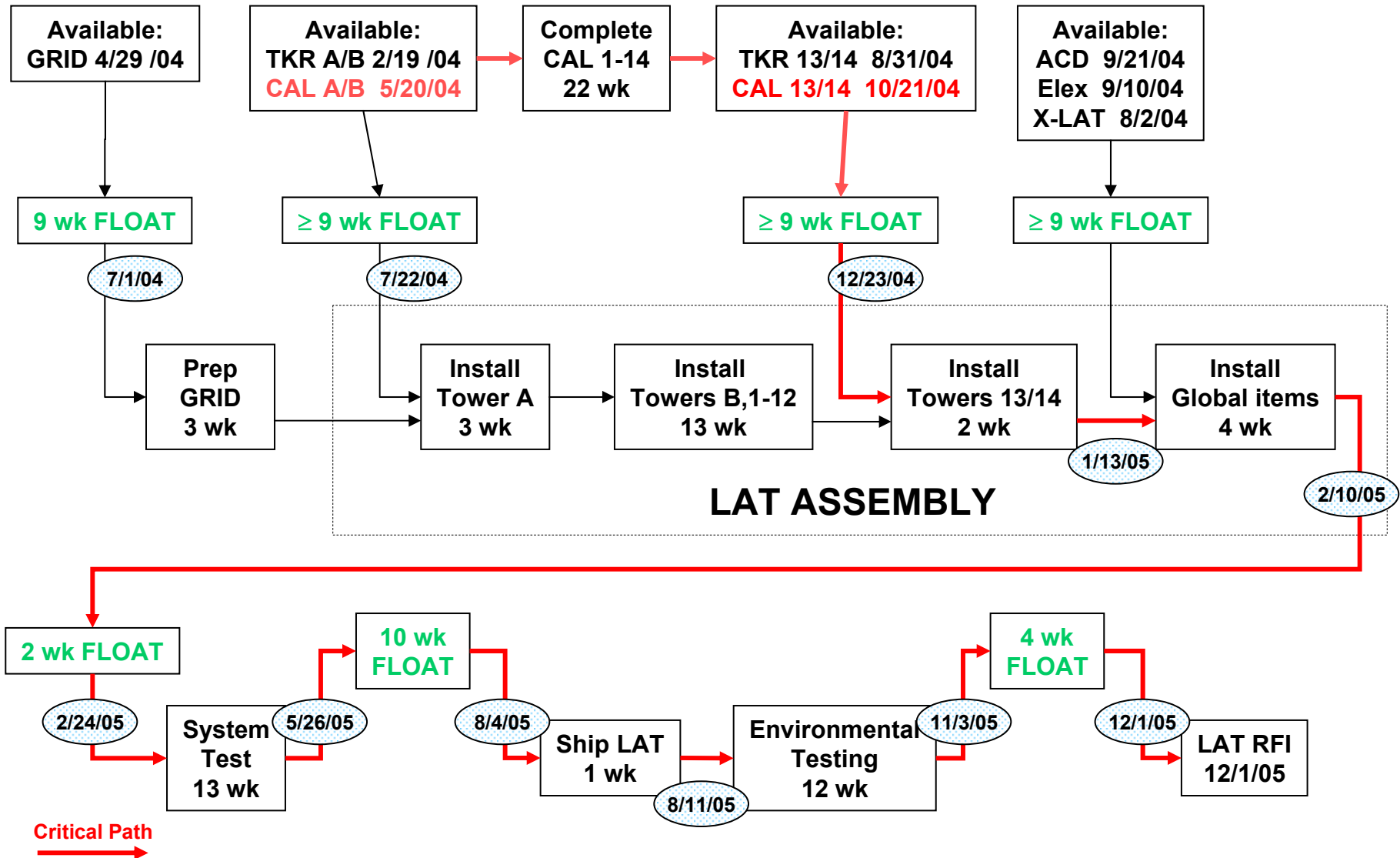
Estimated DOE + NASA Costs for Fabrication Phase

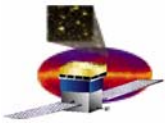
	May '03	Delta	Proposed
Total funding	\$121.7M	\$11.7M	\$133.4M
Estimated Cost at Completion	\$107.9M	\$8.9M	\$116.8M
Estimated Cost at Risk*	\$51.3M	\$8.9M	\$60.2M
Contingency	\$13.7M	\$2.8M	\$16.6M
Contingency %	27%		28%

* Estimated Cost to Complete minus EPO



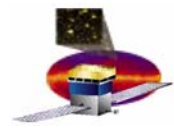
LAT I&T Schedule Drivers





LAT Critical Path

CAL modules A/B ready for installation	5/20/04
+2 wks/module through CAL 7/8	
+1 wk/module CAL 9/10 through CAL 13/14	
+9 wks schedule float for CAL A-14	
CAL modules 13/14 ready for installation (incl 9 wk float)	12/23/04
CAL 13/14 installation complete	1/6/05
LAT assembly complete	2/17/05
System test complete	5/26/05
Schedule float – 10 wks	8/4/05
Ship LAT	8/4/05
Environmental test complete	11/3/05
Schedule float – 4 wks	12/1/05



Descope Options to Preserve Schedule

- Previously moved beam test from before I&T to Comm. Phase
- Tier 1
 - Reprogram I&T prep and assembly of first towers
 - Reprogram calibration modules for beam testing to be last modules fabricated – add 2 weeks float
 - Move environmental testing to Spectrum Astro
- Tier 2
 - Build 16 modules, Fly 14 (present plan Build 18 modules, Fly 16)
 - Acceptable (above minimum criteria) science impact
- Tier 3
 - Build 14 modules, Fly 12
 - Significant science impact (below minimum criteria)
 - Potential savings in launch vehicle due to lighter load