GLAST Large Area Telescope:

Project Status

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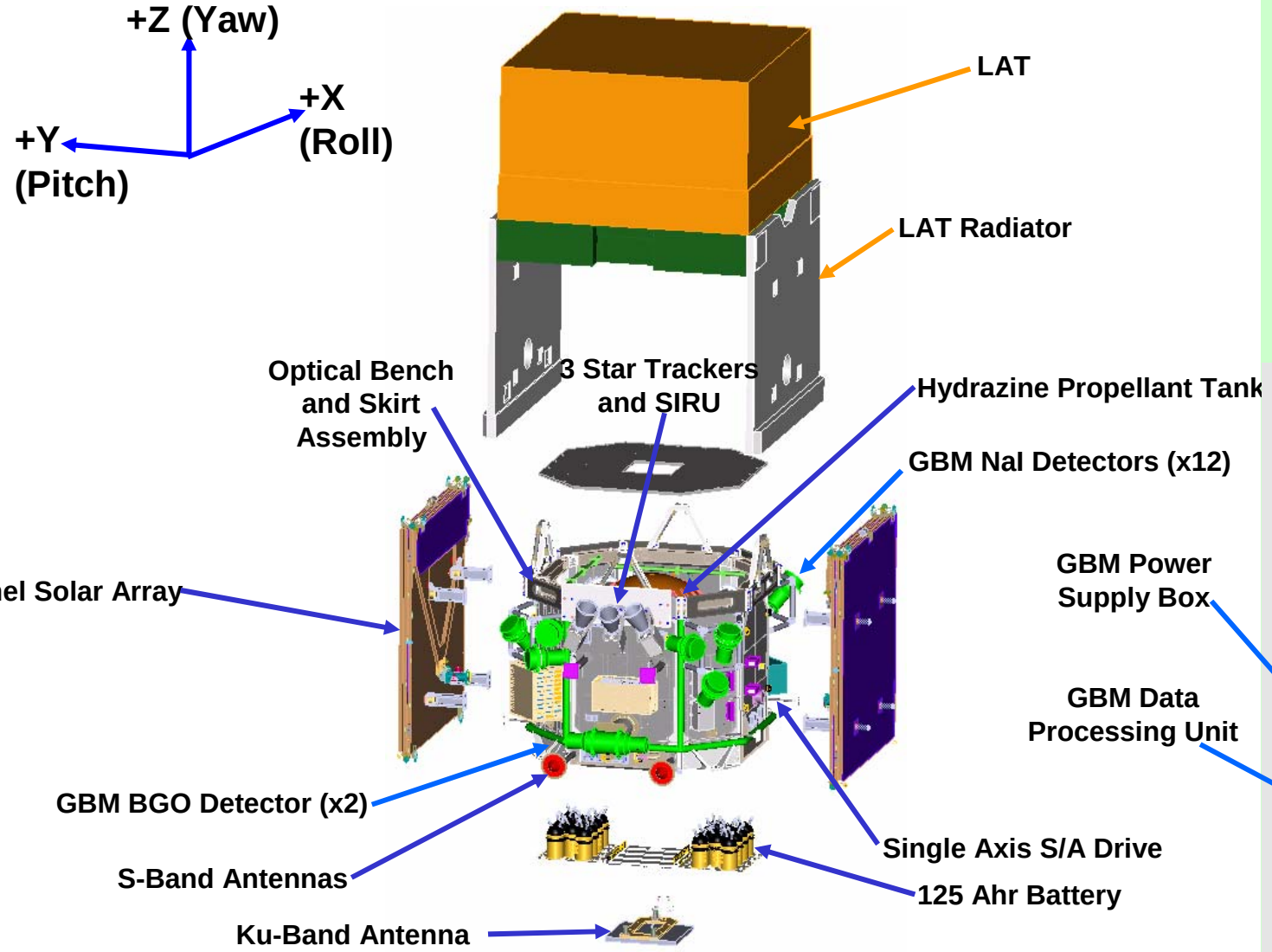
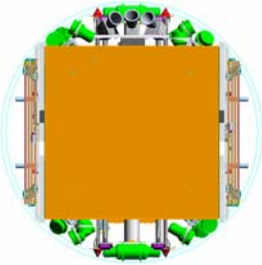
Rev. B

Observatory Layout



Launch Config.



Status

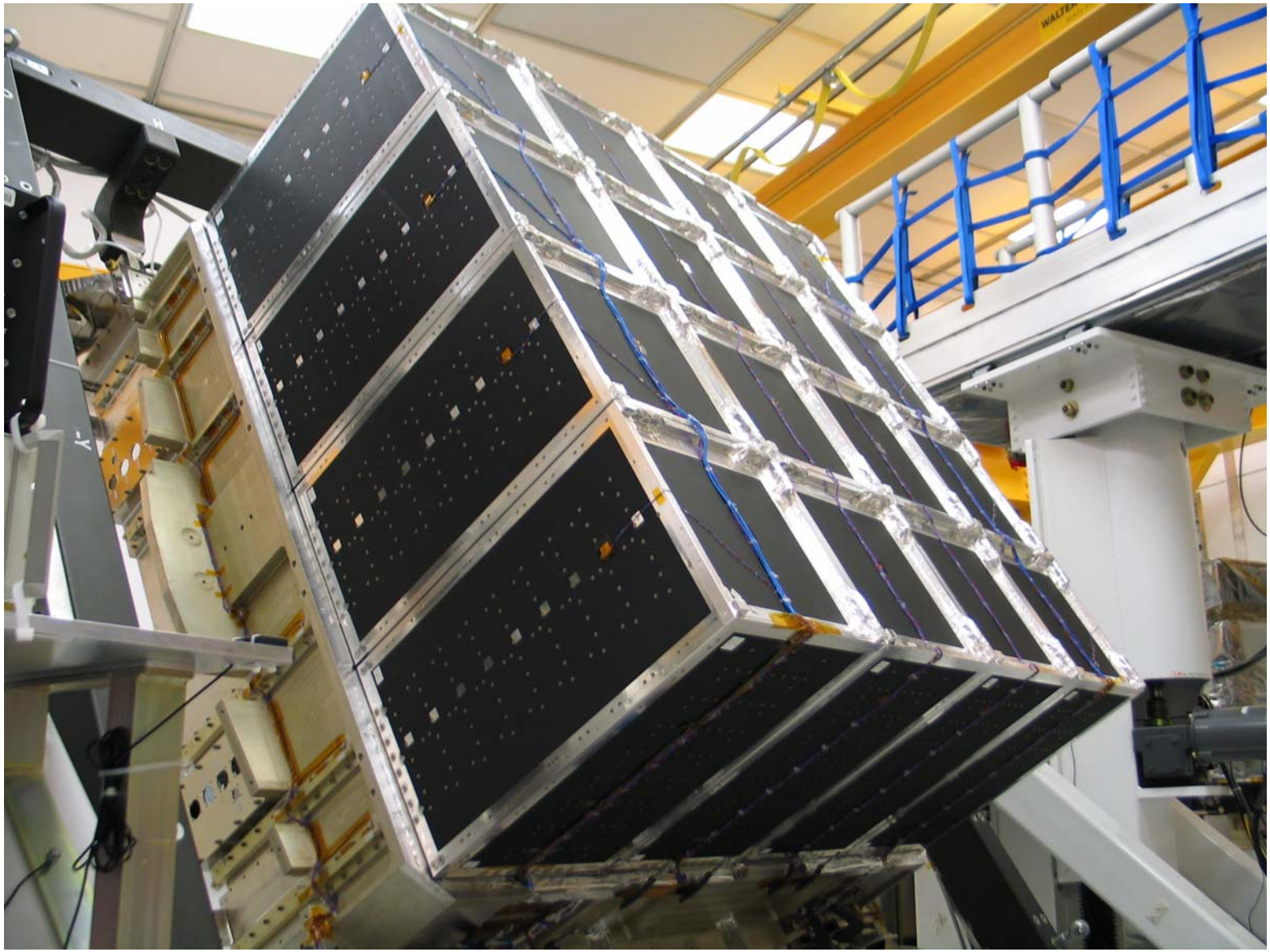
- Instrument is assembled except for Event Processor Unit, Spacecraft Interface Unit, Heater Control Boxes, and Cross LAT Plate
  - Rotating EPUs and SIUs to inspect RAD 750 Computers
- Commissioning flight software and associated ground support systems
- System test at SLAC
- Environmental test at Naval Research Laboratory, Washington, D.C.
- Hand off to NASA at GA/SASS in Phoenix, AZ

Master Schedule

- LAT complete and tested April 2006
  - To Naval Research Laboratory for environmental testing
- Delivery to Observatory Integration August 2006
  - Mate with spacecraft and GBM and test
- Launch Fall 2007
  - Kennedy Space Center

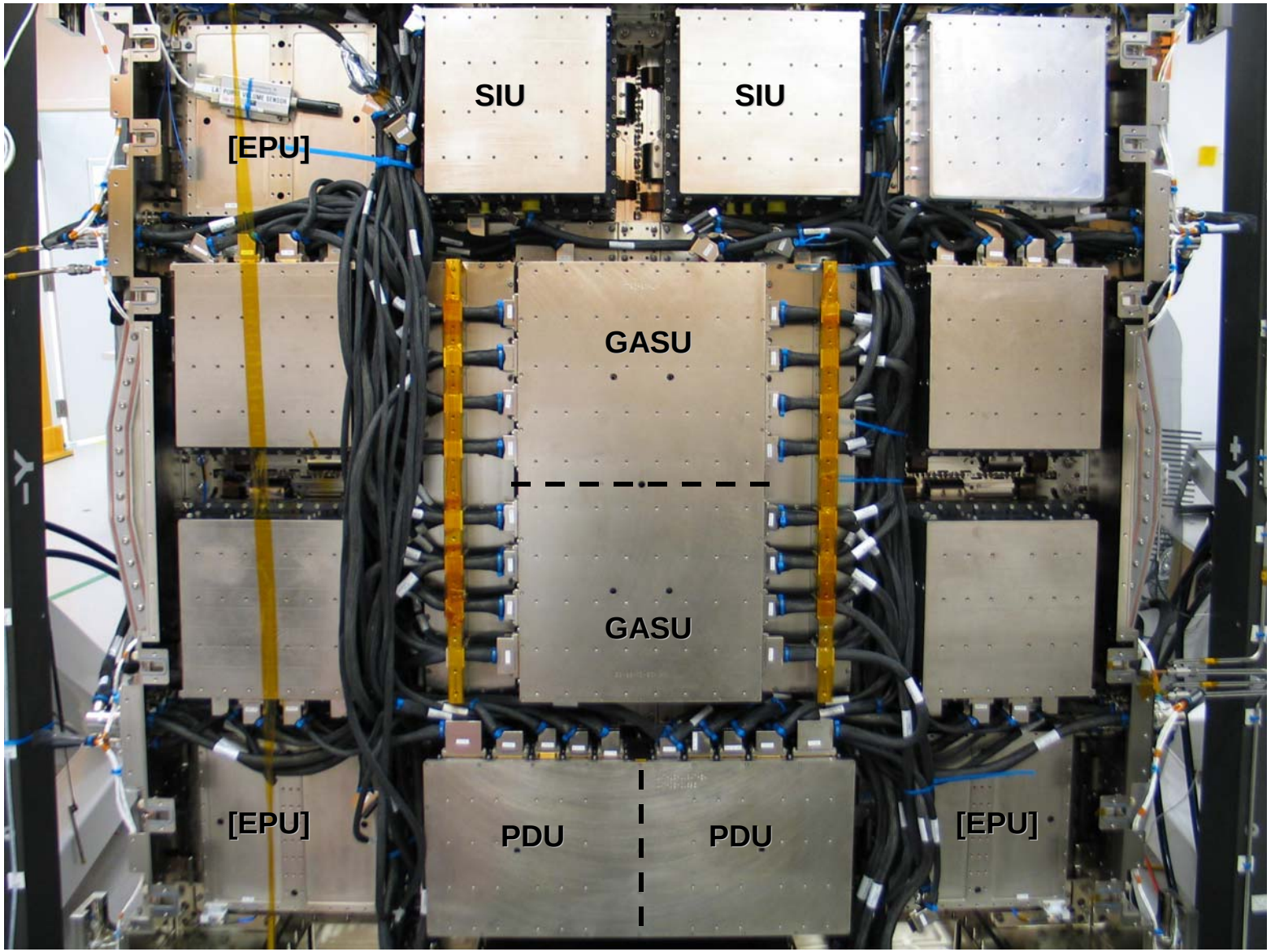
Spitzer Launch on a Delta Rocket

16 Towers !

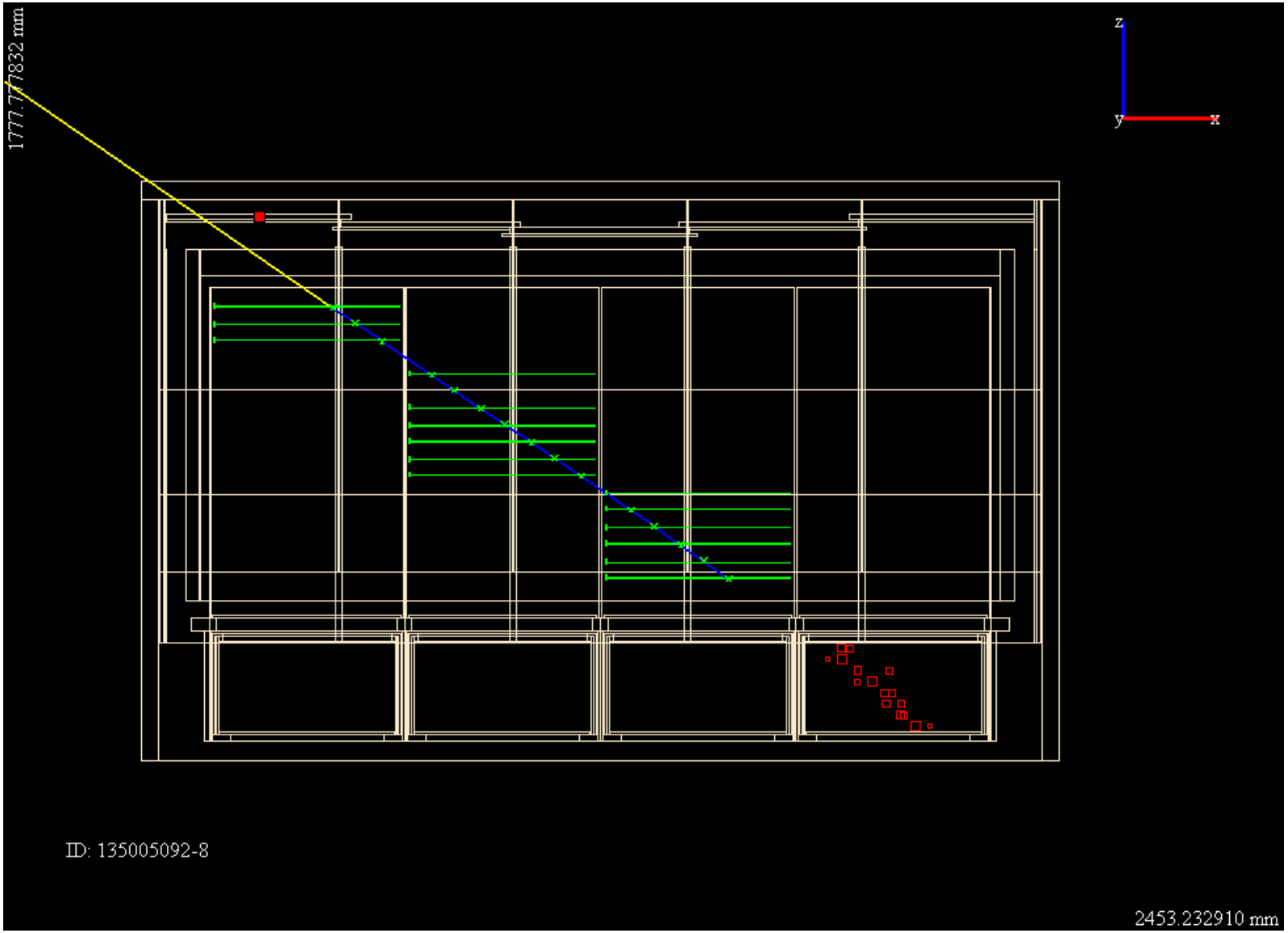


ACD on the LAT

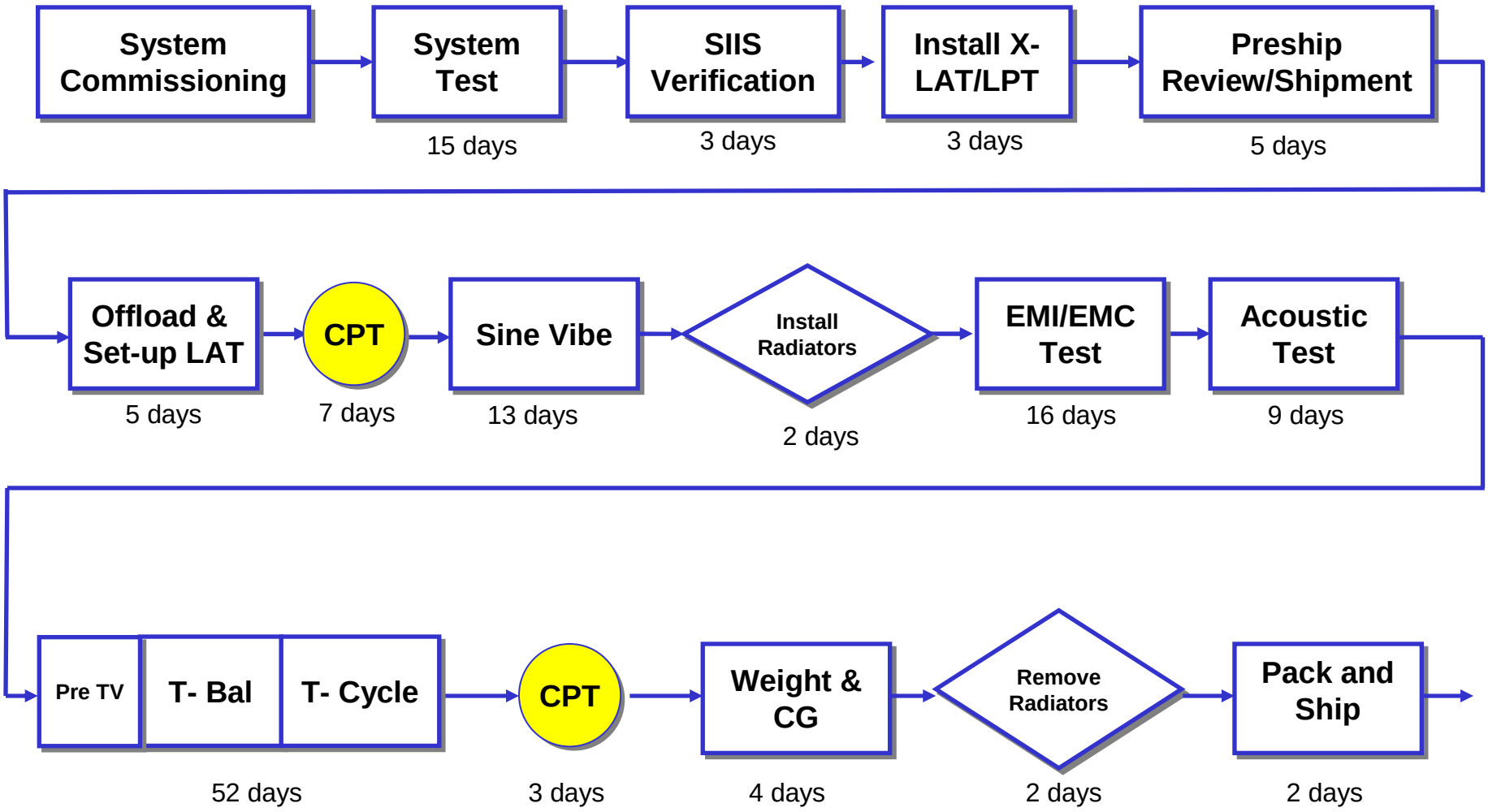
Data Acquisition System



16 Towers with ACD



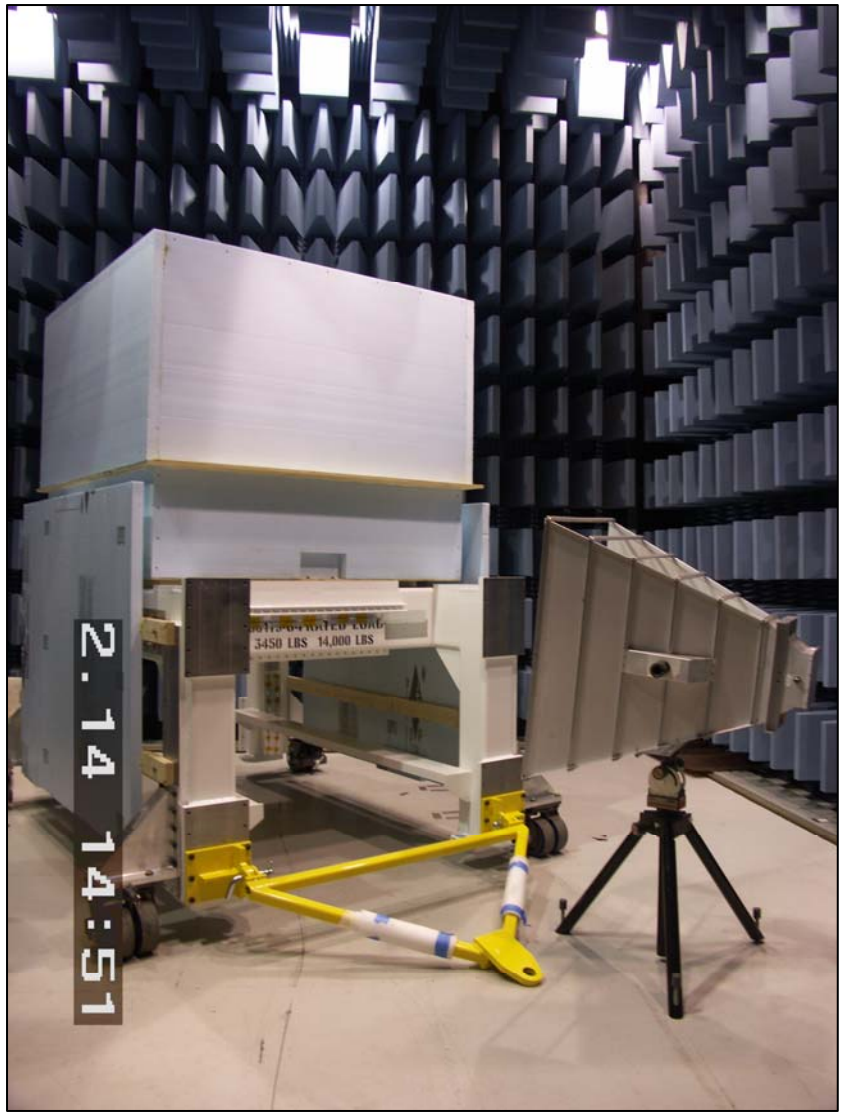
LAT Test Flow



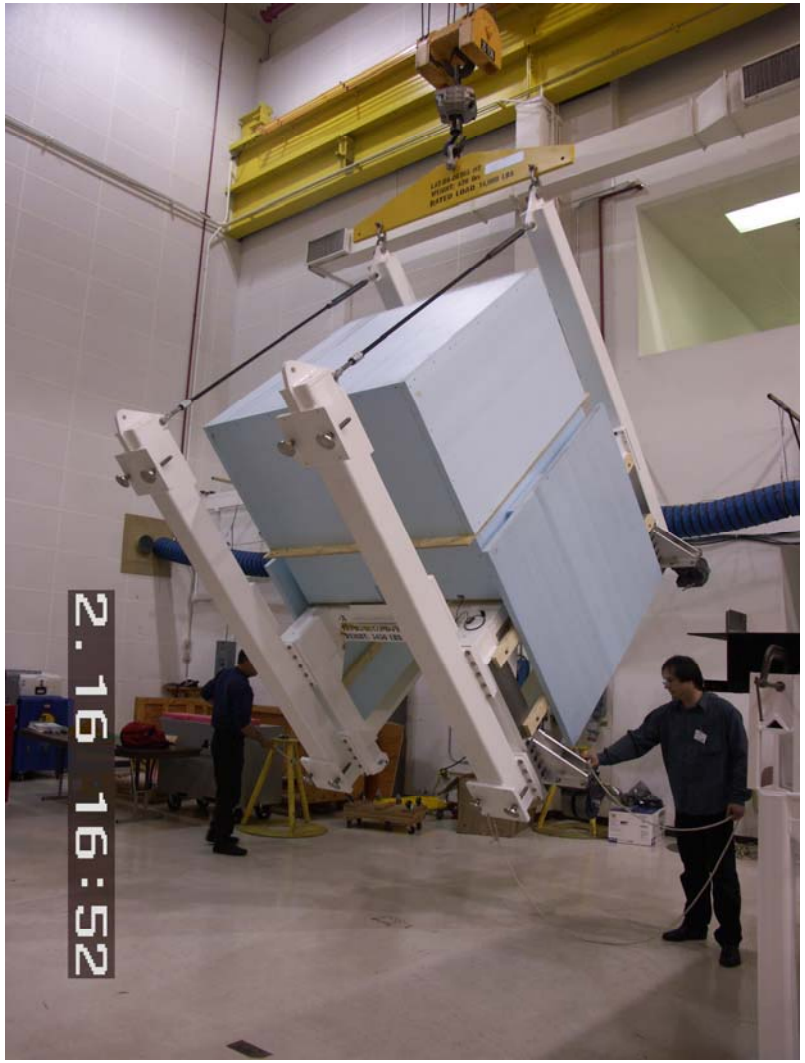
NOTE: Durations for moving and setup have been incorporated into the total duration for the test in calendar days. 5 Days per week except Thermal/Vac which is 24/7

Pathfinder at NRL

Pathfinder at NRL



Pathfinder at NRL

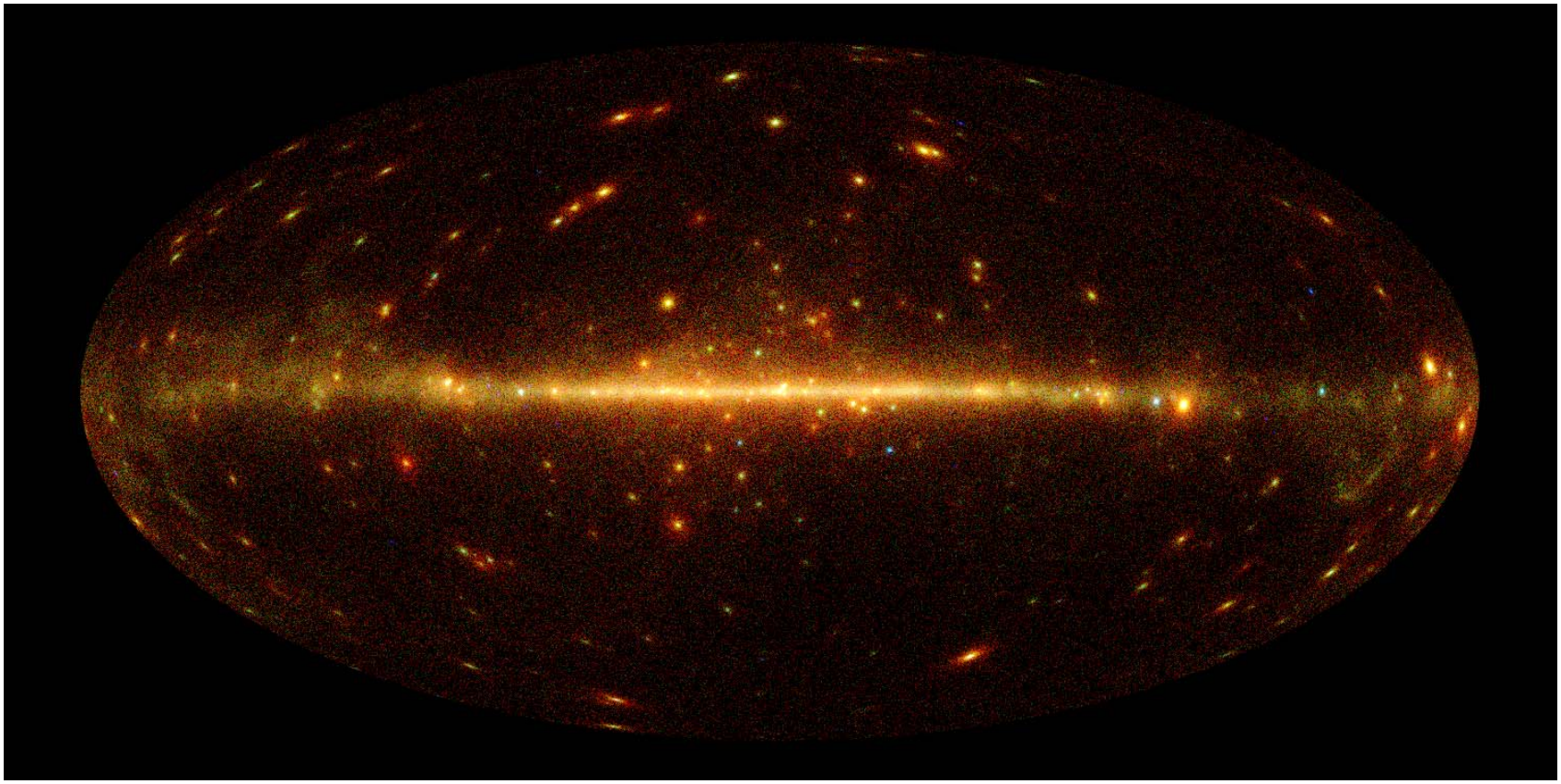


Data Challenge 2

- **55 days of LAT data provide a deeper view of the high energy gamma-ray sky than has previously been achieved.**
  - **Results from previous gamma-ray missions provide, at best, an incomplete guide to the DC2 sky.**
  - **Part of the challenge of DC2 will be to figure out what was included in the sky model.**
  - **DC2 data has a fairly realistic level of detail which will support a wide variety of both science and instrument performance studies.**
  - **Exercise the science tools – but don't feel restricted to them**
  - **Improve the documentation and analysis software from user feedback.**

The DC2 Sky

- **DC2 sky in galactic coordinates**



Plot by Seth Digel

Next Steps

- 2006 – Complete and test instrument and hand off to NASA
- 2007 – Support observatory testing and establish instrument ground systems including the ISOC at SLAC
- 2008 – Begin science with an all sky survey
- 2009 through 2017 – Continue discovery-based science

International Contributions

Calendar Year	2001 [a]	2002	2003	2004	2005	2006	2007	2008	Total
Funding for the GLAST-LAT Project (in thousands, USD)									
France - IN2P3	2,520	1,450	1,725	830	350	380	460	380	8,095
France - CEA[b]	1,477	1,474	939	206	241	211	210	171	4,928
Italy - ASI			1,260	4,038	2,172	416	900	2,466	11,252
Italy - INFN	2,100	4,319	1,801	1,333	1,150	917			11,620
Japan	1,140	1,040	880	730	150	100	100	100	4,240
Sweden	300	900	1,000	300					2,500
US - DOE Project	10,709	8,288	8,658	8,780	8,566				45,000
US - DOE Ops & Science	4,224	3,385	4,123	5,141	6,853	7,683	7,590	7,135	46,134
US - NASA	11,161	16,316	28,913	34,191	25,860	16,540	10,423	6,868	150,270
Scientific and Technical FTE's supporting the GLAST-LAT Project (Not included in the funding above)									
France - IN2P3	10.4	3.4	3.8	6.4	7.8	10.1	10.1	10.1	
France - CEA[b]	0.9	1.5	1.5	1.7	2.2	2.2	3.5	5.0	
Italy - INFN	14.4	37.6	47.8	43.2	49.5	43.8			
Italy - ASI	No scientific and technical FTE's involved in GLAST-LAT Project								
Japan	4.0	4.5	3.5	3.5	3.5	1.5	2.5	2.5	
Sweden	6.3	7.5	5.6	5.0					
US DOE & NASA	FTEs included in the funding above.								

(a) The 2001 column includes funds from prior years.

(b) CEA: Numbers require updating.

*Shading indicates revisions since Mar 05 IFC.