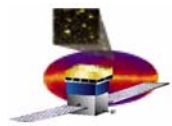


GLAST Large Area Telescope:

LAT Project Status

Lowell A. Klaisner
Stanford Linear Accelerator Center
Project Manager

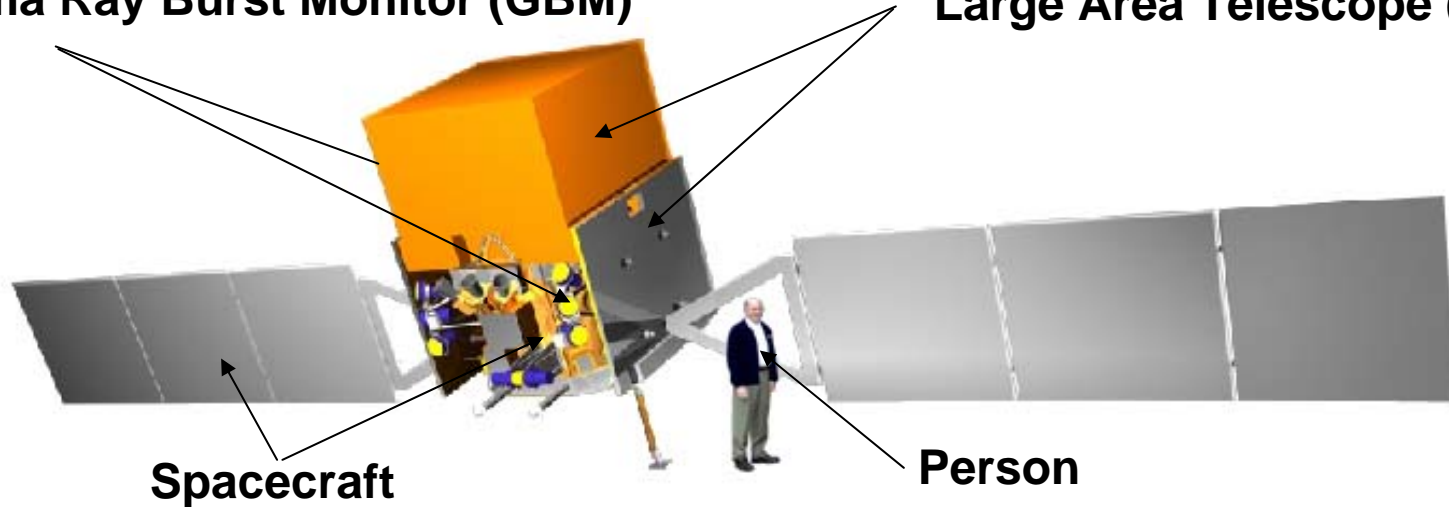
Klaisner@slac.stanford.edu
650-926-2726



GLAST Observatory

Gamma Ray Burst Monitor (GBM)

Large Area Telescope (LAT)



Spacecraft

Person

Launch Vehicle

Delta II – 2920-10H

Launch Location

Kennedy Space Center

Orbit Altitude

575 Km

Orbit Inclination

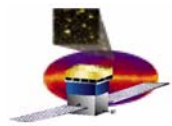
28.5 degrees

Orbit Period

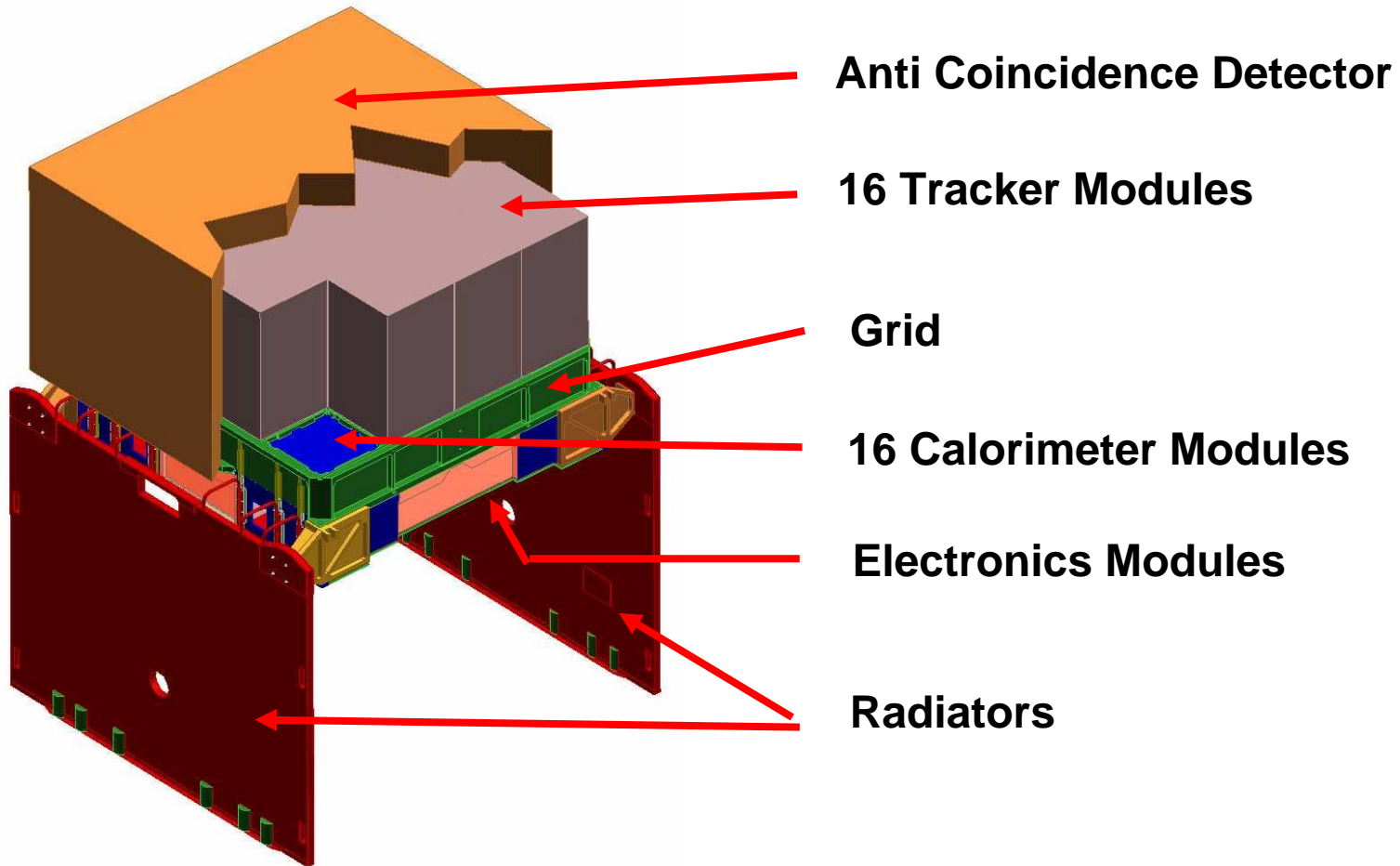
95 Minutes

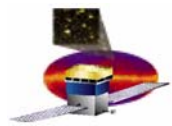
Orientation

+X to the Sun

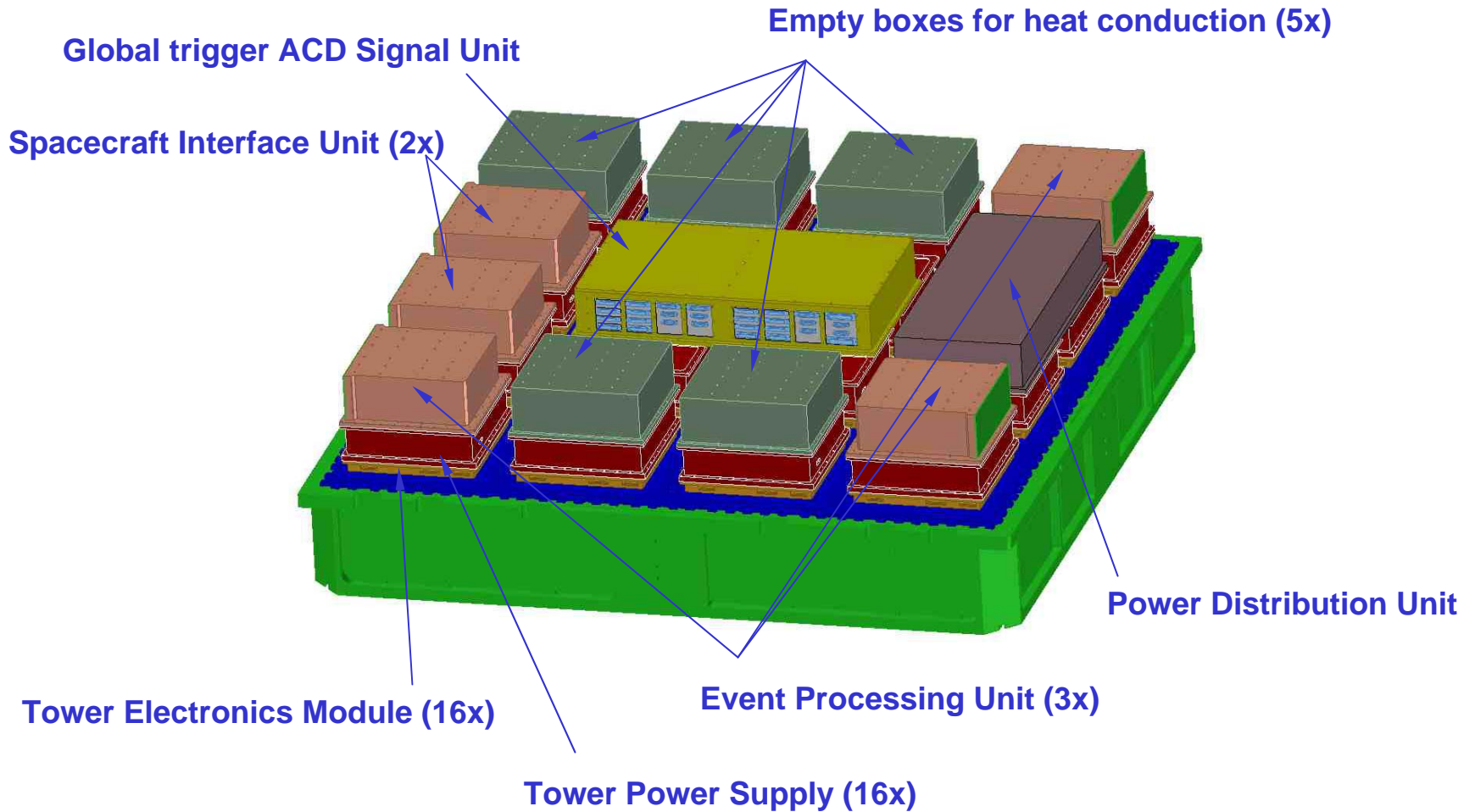


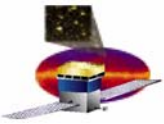
Instrument Structure





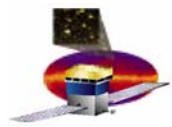
Data Acquisition System Structure





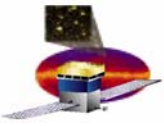
Key LAT events

- **First tower modules ready for installation** **November 2004**
- **Two towers installed and tested in the grid** **January 2005**
- **Two tower Comprehensive Perf. Test Complete** **February 2005**
- **Sixteen towers installed and tested** **May 2005**
- **LAT completely assembled** **June 2005**
- **LAT system test complete** **August 2005**
- **LAT environmental test complete** **December 2005**
- **GLAST observatory integration and test begins** **January 2006**
- **Launch** **February 2007**

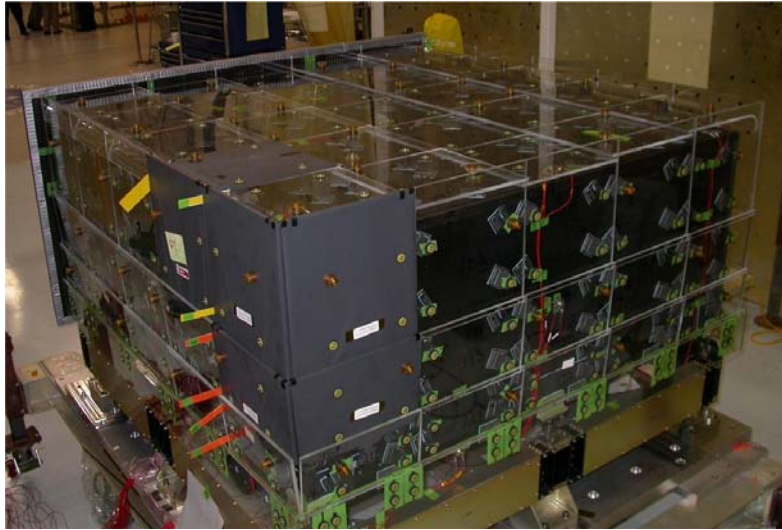


LAT Status

- **Building flight hardware**
 - **All subsystems are fabricating subassemblies**
 - **Calorimeter first flight module in test**
 - **Integration and Test facilities are in place and instrument handling equipment is being assembled**
- **Tight schedule to delivery to observatory integration in Dec '05**
 - **Anomalies have been uncovered during the testing of the flight components in the Tracker, Calorimeter, and Anticoincidence Detector**
 - **The TKR, CAL, ACD and Electronics have had components that failed to meet requirements**
 - **The associated delays in delivery of the first flight unit puts the overall schedule in jeopardy**
 - **The schedule will be reevaluated after the first tower is integrated and all systems are in production**

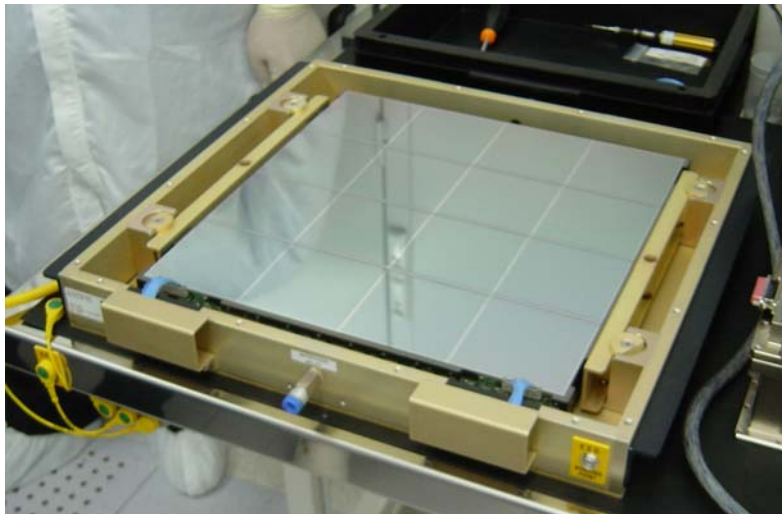
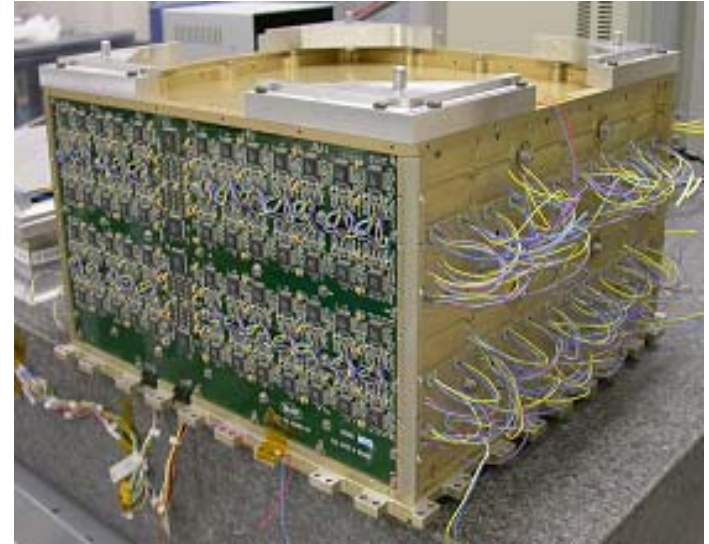


Flight Hardware



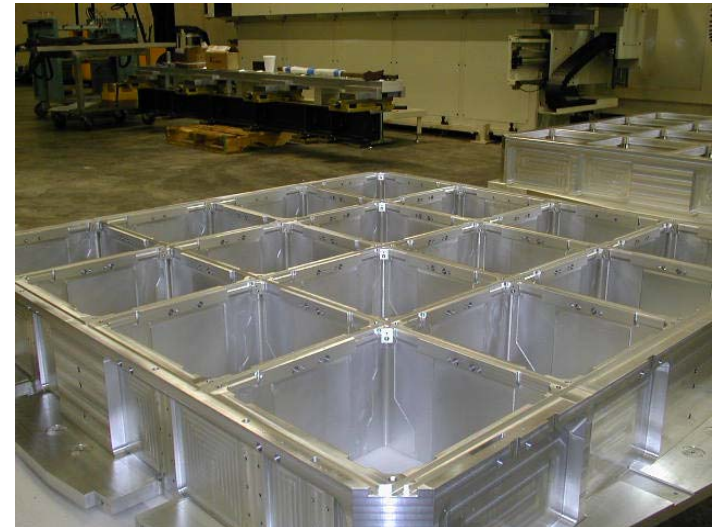
← ACD Shell

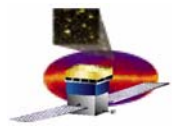
Calorimeter Module →



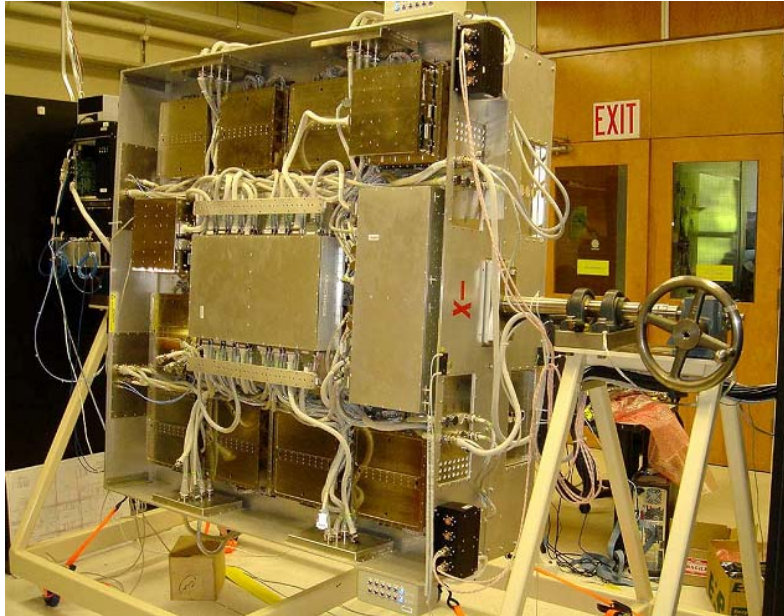
← Tracker Tray

GRID →





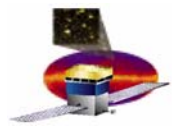
Flight Hardware



← Data Acquisition System Test Bed

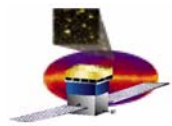
Integration and Test Ground Support Equipment



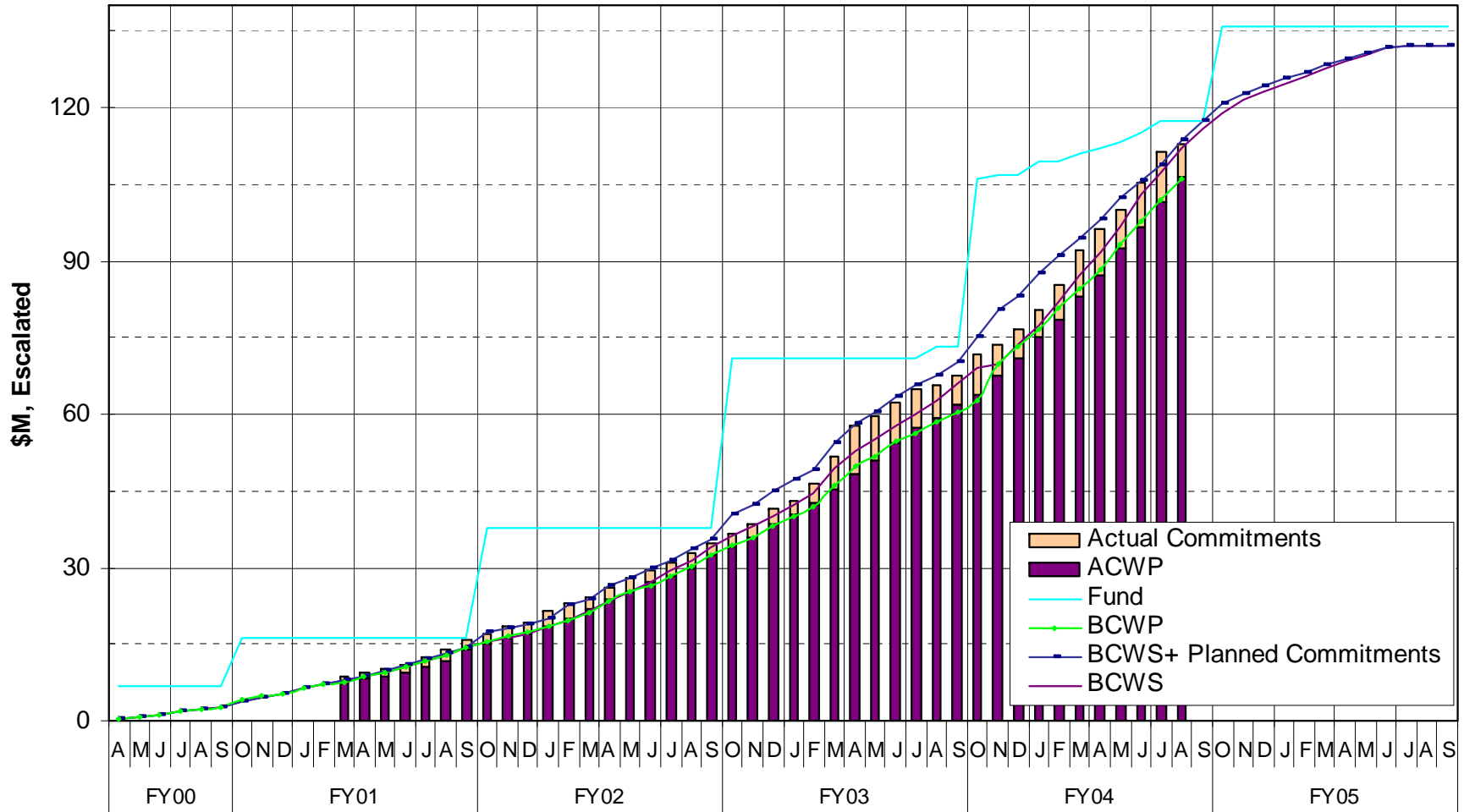


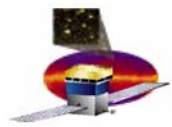
Subsystem Status Reports

- **Tuesday, September 28**
 - **10:40**
 - **Tracker**
 - **Calorimeter**
 - **Anticoincidence Detector**
 - **1:15**
 - **Data Acquisition**
- **Wednesday, September 29**
 - **9:00**
 - **Instrument Science Operations Center**
 - **10:45**
 - **Science Analysis Software**



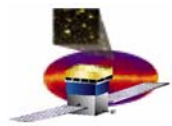
Budget, Cost, Funding, Performance



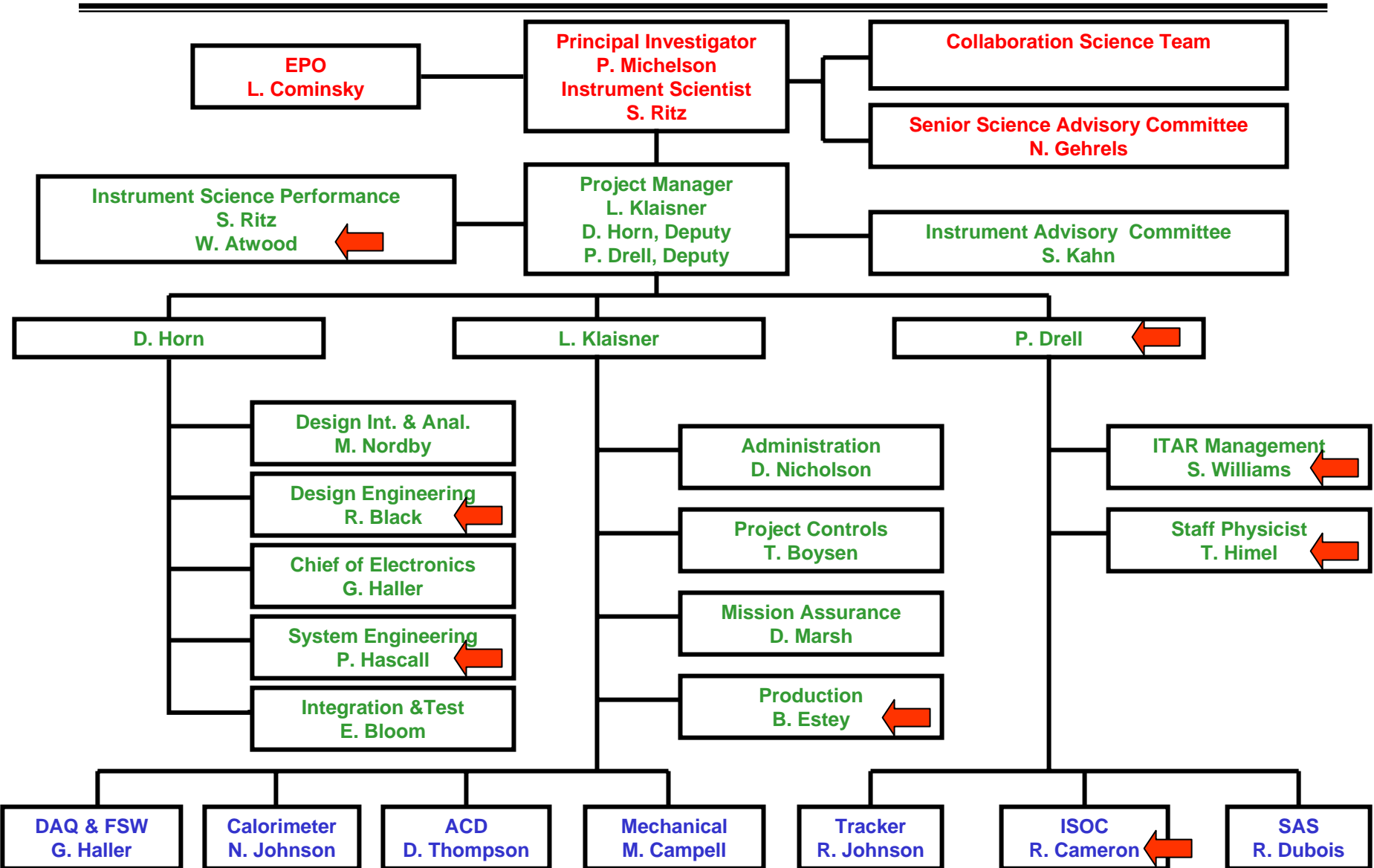


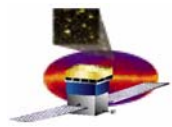
August 04 Status

Total Project Budget:	\$132.2M
Actual cost through Aug. 04:	\$106.3M
Cost of remaining work:	\$26.1M
Contingency:	\$3.8M
(as % of remaining work):	(15%)



LAT Organization Chart





Summary

- All subsystems have begun flight production
 - Grid complete and being plated
 - First flight Calorimeter module in environmental test
- Anomalies uncovered in first flight unit production have delayed delivery of first flight tower
- The LAT plan supports a February 2007 launch
- Cost and schedule will be reviewed after installation of the first tower
 - Review early in 2005
- Preparations for the Instrument Science Operating Center are well underway