

S. Ritz Instrument Analysis Workshop 2 September 27, 2004

GLAST LAT Project



The Hardware is Coming!

- This is a very exciting (and demanding) year for us.
 - after >10 years of talk, thought, planning, meetings, documents, gigabytes of ppt, reviews, and more reviews...flight hardware is on its way!
 - the exact arrival dates still uncertain (see following slides), but the first hardware should be ready for integration at SLAC within the next two months.
 - » there are continuing threats to the schedule, but we must be prepared.

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Context

- A suite of detailed test data-taking runs is being defined for each stage of the build. Using the data, there are two basic categories of data analysis:
 - (mostly) automated, basic go/no-go tests. These are done by I&T, with ~instant result turn-around to support the schedule.
 - this work: more detailed analyses using (very likely) the same data. A key opportunity to look for more subtle, sophisticated, and detailed effects:
 - » To uncover and quantify any instrumental effects early that could have an impact on science data analysis
 - » Are there additions to the go/no-go test suite?
 - » To apply reconstruction algorithms to real data
 - » To start the work that will evolve in the Instrument Science Operations Center (ISOC)/Science Operations Group (SOG)
 - » To grow a group to participate in the beam tests analysis effort (after instrument delivery)
 - Although these are not the critical go/no-go tests (gates to the next steps of integration), there will be time pressure to get results -typically days-weeks. The collaboration is relying on this analysis being done.

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- Huge amount of activity fabricating flight hardware
 - see more details tomorrow
 - many great accomplishments, some significant delays
- TKR is the critical path
 - current best estimate has tower A delivered end of November and tower B end of December.
- LAT schedule shows 8 weeks to install and test towers (CAL+TKR) A&B, followed by the 2-tower Comprehensive Performance Test (CPT).
- Thus, nominally can expect 2-tower CPT data in February BUT BE READY EARLIER!
 - be ready for Tower A data by mid-November
 - be ready for Tower B data by mid-December
 - be ready for 2-tower CPT data by mid-January



- This is the first opportunity to get to know the instrument we've been planning for so long! The start of a long relationship.
- The tasks, questions, and issues discussed at this workshop are just the start. The results will lead to more questions. See Eduardo's talk for the goals of this workshop.
- We already have lots of experience
 - beam tests, EM tests, balloon flight, simulations and performance analysis.
- Ready to take the next big step. Enjoy!