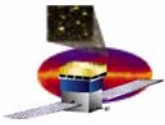


GLAST Large Area Telescope

**WBS 4.1.D SAS
GSFC Monthly Review**

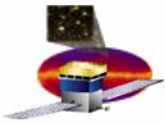
Period Ending: Oct 2003

**Richard Dubois
LAT SAS Subsystem Manager**



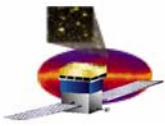
Key Milestones

- **Start DC1 Analysis effort – mid December 2003 (closeout Feb 2004)**
 - **We are planning to modify the DC1 plan to separate signal from background generation.**
 - **No advantage is apparent by tying them together**
 - **Allows us to continue background rejection analyses**
 - **Mitigates tight schedule to demonstrate OPUS pipeline, since the signal can easily be generated.**
 - **We still have a fallback position with existing scripts**
 - **Generate large background samples with OPUS, but decoupled from analysis of the signal with the Science Tools**
- **We have been using mid-Oct to mid-Nov as float to get it all together**
- **SAS Subsystem Peer Review – Feb 2004**



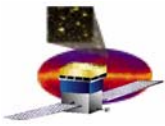
Oct Accomplishments

- ❑ **Continued preparations for Data Challenge 1**
 - First Onboard Filter version has been tested. Working with JJ on improvements.
 - machinery to generate day's data is ready
 - Added handling of ACD ribbons, and improved ToT analysis
 - Completion of another round of PSF, background rejection analysis is imminent
 - Compiler-optimized version of sim/recon now available - ~2.5x faster than un-opt
 - Started assembling tools at SLAC for expanded web access to DC1 data
 - L1 Database ready to go at Goddard; tweaking for performance now
 - Main SciTool – Likelihood – is essentially ready to go
- ❑ **EM data has been successfully analyzed using our tools**
- ❑ **Continued validation of GEANT4**
 - Continuing to implement E-M tests
 - First hadronic tests going in
 - Starting to look at G4 version 6.0 – just to keep an eye on them



Issues & Concerns

- ❑ No significant technical threat at this time
- ❑ Still do not have OPUS going
 - ❑ No technical show-stopper, just a matter of grinding it through
- ❑ EM Support need is unpredictable
 - ❑ New unscheduled work pops up as things are learned from the EM
 - ❑ Can't really complain, but it requires some flexibility in manpower allocation
- ❑ Need to turn around generation of IRFs quickly for DC1
 - ❑ Being addressed now and is the top priority



Software Testing Update

- **documentation and coding reviews enforce coding rules**
 - **Will schedule code review of L1 database shortly**
- **“Continuous integration”**
 - **Sim/recon, Science Tools nightly builds tracked at least daily**
- **Continuing effort with SLAC to validate GEANT4 EM physics**
- **Data Challenge**
 - **performance evaluation tested sim/recon in great detail.**
 - **Stress-test data production capabilities**
 - **Try first connections to SSC with DTS**