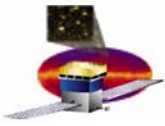


# GLAST Large Area Telescope

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

**Period Ending: July 2003**

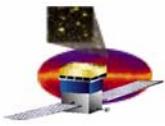
**Richard Dubois  
LAT SAS Subsystem Manager**



# July Accomplishments

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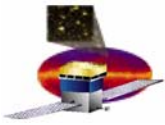
- Presented the SAS story at the Ground System Readiness Review (GSRR) held on July 22, 2003 at GSFC
- Held Ground Software Workshop at SLAC
  - 15-18 July
  - Organization for Fall Data Challenge
- Launched 50M event Monte Carlo runs for ongoing PSF and background rejection
  - ~600 CPU-days – 0.5 TB output
  - Shaking more bugs out of the system as we step up the complexity of tasks
- Got official permission to use STScI OPUS pipeline code – and just received it!
- Inaugurated group to continue validation of GEANT4
- Began next iteration of System Tests diagnostics
- Started interview process for replacement SciProg position at SLAC
- Prototype observation simulator committed to repository
- Data interface classes for SciTools committed to repository



# Issues & Concerns

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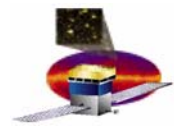
- ❑ No significant technical threat at this time
- ❑ Awaiting CAL EM data
  - ❑ Usually some scrambling to ensure proper decoding into ground system
    - ❑ Can input EM format
    - ❑ Working on conversion to ground format
  - ❑ Having done TKR already makes it easier 2<sup>nd</sup> time around
- ❑ Schedule threat
  - Continued delay in obtaining OPUS source code
    - Working with SSC and Project Scientist to obtain code
    - **Late breaking news – code just arrived!!**
  - Will need to prepare for Peer Review and CDR during the Data Challenge



# Software Testing

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- **documentation and coding reviews enforce coding rules**
  - Held review of SciTools Likelihood
  - Review of Onboard Filter (in ground code) coming up
- **“Continuous integration”**
  - Releases are uniquely identified (for all time) in the cvs repository
  - Eliminate surprises for incoming code releases
  - Build code every night; alert owners to failures in build or running of unit tests. Results tracked in database.
  - Developing comprehensive system tests in multiple source configurations. Track results in database; web viewable.
- **Mounting effort with SLAC to validate GEANT4 EM physics**
- **Data Challenge**
  - performance evaluation tests sim/recon in great detail.
  - Stress test data production capabilities
  - Try first connections to SSC
- **Will participate in Mission end-to-end tests starting late next year**



# Key Milestones

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- ❑ **Data Challenge 1 Kickoff at Rome Collaboration meeting – Sept 2003**
  - **Preliminary instrument response functions ready**
  
- ❑ **Start DC1 Analysis effort – December 2003**
  - **Start processing 400M events in late November**
  
  
  
  
  
- ❑ **SAS Subsystem Peer Review – November 2003**
  
- ❑ **SAS Subsystem CDR – February 2004**
  
  
  
  
  
- ❑ **Participate in the Mission Ground Readiness Testing**
  - **GRT# 1-4: SAS ready by August 2004**
  - **GRT# 5-7: SAS ready by September 2005**