



GLAST Large Area Telescope:

Electronics, Data Acquisition &
Flight Software W.B.S 4.1.7

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Discussion

- **FSW Schedule/Demo's: T. Schalk**
- **Testing: G. Haller**
- **EGSE: G. Haller**
- **ISIS: E. Hansen**



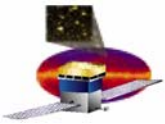
Test Group

- The system test group is responsible for delivering to I&T a working set of hardware and software including the test scripts and test hardware that will allow I&T to verify that the delivered system works
 - Unit testing is done by FSW group. This test-group tests functions (see FSW requirements)
 - Scripts are initially driven for HW testing, but are also used to test functionality of SW/HW package and SW (incremental until all FSW is in place)
 - Most SW testing is on target and many scripts are used for both
- Overall System Test-Group Lead: Jana Thayer
- Hardware Test-group lead: Jana Thayer (acting)
- Software Test-Group lead: Eric Hansen
- Group Members (and initial tasks)
 - Rama - Python test scripts, TEM and GEM
 - Mark McDougald: GASU, SIU
 - Erick Delange: GUI interface, python test scripts for AEM, PDU
 - Suchit: GUI interface, python test scripts
 - Amadeo: GASU
 - Gregg: Environmental Monitoring
 - Phil (new hire): initially TEM testing, then tbd
 - Igor: FSW not covered by other testing on target
 - Tbd: one more person like Igor



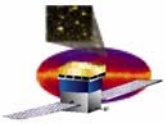
EGSE (1)

- **VME-based**
 - **TEM's & TEM-PS are available for FSW use**
 - **VME crates, power supplies are available**
 - **PMC LCB's are available**
 - **PC's are available**



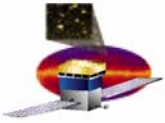
EGSE (2)

- **GASU's (not counting "old" GASU's with reprogrammable FPGAs, only new GASU's with flight-foot-print FPGA's)**
 - All boxes contain primary and redundant DAQ electronics
 - Have PCB's fabricated for 7 boxes
 - 1 went to ACD ("old" GASU for SW development)
 - 1 went to ACD for BEA testing
 - 1 additional to go to ACD
 - Needs ACD-power-circuit updated/modified before acceptance testing
 - 1 assembled, being debugged, for test-bed to replace "old" GASU (for DAQ/FSW)
 - 1 in assembly
 - ISIS (1), ACD (2), I&T (2 or 3), FSW/DAQ (3), Spare (1)
 - 4 un-loaded boards left
 - Could use "old" GASU's (at ACD & testbed) for I&T or FSW
 - New board fab starts when ACD power-circuit layout has finished, 30 boards



EGSE (3)

- **PDU's (not counting "old" PDU's with reprogrammable FPGAs, only new PDU's with flight-foot-print FPGA's)**
 - **All boxes contain primary and redundant DAQ electronics**
 - **Have PCB's fabricated for 2 boxes**
 - **1 on test-bed (DAQ/FSW)**
 - **1 ready for ISIS**
 - **New boards to be fabricated (some cap flight foot-print was changed)**
 - **I&T (2), FSW/DAQ (2), Spare (1)**



EGSE (4)

- **SIU (drivers)**
 - **BAE750**
 - 1 at NRL
 - 3 at SLAC
 - 4 on order
 - Inquiring for 2 more
 - **SIB**
 - 3 at NRL
 - 5 at SLAC
 - 2 in assembly
 - **Back-plane**
 - 4 built
 - 10 more in fabrication
 - **SIU's assembled**
 - 2 test-bed (only one has 750)
 - 2 FSW
 - **Next ones**
 - **ISIS**
 - **Testbed/FSW (SLAC/NRL)**