

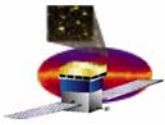
GLAST Large Area Telescope:

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

Sept 03 Status

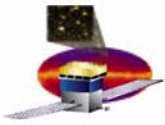
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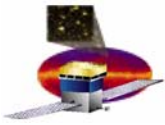
September Accomplishments

- **GASU tests continued, main engineer on vacation**
- **PDU in test, main engineer on vacation**
- **TEM-Power-Supply: laid-out TEM-PS board, fabricated, in testing, held review**
- **TEM with ASICs (flight model): writing test for flight acceptance testing**
- **Submitted requisitions for more flight-parts**
- **Crate cPCI backplane in fabrication**
- **Crate Power Supply fabricated in loading**
- **Wrote requisitions for most parts for additional EGSE systems (except PC's)**



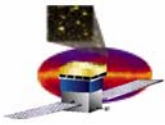
September Accomplishments (2)

- **Worked on bonding diagrams and packaging forms for T31D ASIC run for ASAT flight packaging (T31D chips were sent to ASAT). Includes DAQ ASIC's, CAL Controller ASIC**
- **Received T36T ASIC run (new flight CAL front-end ASIC, flight ACD GAFE and GARC ASIC's, refab DAQ ASIC's for EGSE stands).**
 - **Worked on dicing and packaging documents for all T36T ASICs**
 - **Placed contract for grinding/dicing/picking**
 - **First wafer was cut, delivered to OSE for prototype plastic packaging (so designs can be validated)**
 - **Other 19 wafers being cut in flight process**
- **Vacation of several FSW people**
- **Continued LCB testing with special attention to boundary conditions**
- **Built up test stand for GASU testing**
- **First of two new FSW engineers started. Second was supposed to start this week, but bad news, has instead accepted position in Texas**



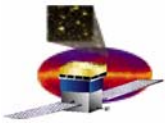
Issues and Concern

- **Power supply schedule**
 - Peer review held
 - Need to test power-supply with cal and tkr front-end this week
 - Update of layout, depending on test results
- **Still concern that 1st prototype of TEM ASICs may not be final flight**
 - In test, still ok, but need CAL/TKR front-end with flight-like ASICs to verify performance
 - Decided not to connect new TEM to engineering tower at SLAC (since CAL will go to beam-test -> risk to cal)
 - Instead will send one TEM to NRL to test with CAL
- **Need to order parts asap, delivery risk**
 - Ordering parts almost daily
- **Need software help**
 - First engineer started
 - Second was supposed to start this week, changed his mind at last minute, new search started.
- **In order to make EGSE test-stand schedule need**
 - TEM ASIC's packaged (went to packaging last week)
 - Closed mechanical issues on enclosures, wrote requisition, needs to be approved (budgets) and placed by purchasing
- **Concern with GASU schedule, engineer on vacation for 3 weeks**



Next 3 Months

- **Order all components**
- **TEM Pre-qual (with ASICs, everything as flight except board-material & non-flight ACTEL's) Used for new EGSE: Oct 1 (first versions, additional copies need more ASIC's and mechanical enclosures)**
- **GASU EM2 (non-flight memories, FPGA's): end of November (engineer on vacation)**
- **PDU EM (non-flight FPGA): Oct 15 (engineer on vacation)**
- **LAT Comm Board EM (PMC Card). Out for fabrication of 60 copies for EGSE stands**
- **Storage Interface Board EM (cPCI card) Used for DAQ Internal test-stands: Oct 15 (done at Silver Engineering)**
- **Crate Backplane EM : Sept 30 (vendor had to refabricate due to Gerber file problem)**
- **Software EM2 review: November**
- **EGSE TEM (with ASICs) test-stands ready (with EM1 FSW): November 1 due to ASICV/enclosure delivery dates**
- **Finalize all enclosures (as per PCMS)**
- **Mini-tower test support**



Schedule/Budget Comments

- Working with PCMS group to update schedule
- End of August Report:
- Work scheduled: \$6,630 (out of \$16,672)
- Work performed: \$6,647 (- 17k)
- Actuals: \$7,245 (- 598k)
 - Most are BAE RAD750 actuals originally planned to become actuals next FY (pre-payment clause)
 - About \$150k over due to
 - Simulator overrun
 - Additional EGSE cost