

GLAST LAT Project Weekly Report for the week ending January 25, 2001

*** CALORIMETER (N. Johnson)

CAL Management (Johnson)

Preparations for Lehman Review dominated the management activities. Carosso worked with IPO in getting CAL information into PMCS. Cost data had to be reformatted. CAL subsystem presentation was iterated.

Participated in dry run of Lehman presentations.

Participated in SWG teleconference where Isabelle Grenier announced distressing news on CNES approval timescale for GLAST/France.

CAL CsI Crystal Elements

Iterated Kapton cable design issues with Nick Virmani on quality/reliability requirements. Nick and Dave Nelson need to talk about apparent differences in design requirements. (NRL)

Intense negotiations and iterations with Hamamatsu about engineering model PIN diode specifications have occurred. Electrical and mechanical specifications are agreed upon, now working the pin connections and Kapton interconnect. SMT pads on PIN diode have been changed to posts to which the kapton cable will be soldered. Hamamatsu provided details on their proposed kapton cable design. Hamamatsu provided insight to their production processing and proposals for process qualification for performance assurance requirements. (Phlips)

CsI crystal procurement has closed. Per Carlson reports receiving three responses. Technical and management review of the proposals is underway.

CsI crystal acceptance test box fabrication is progressing: manufacturing of enclosures is almost finished, purchases of mechanical parts is complete, radioactive source purchase request is being walked through approval process, breadboarding of custom ADC-PC interface board has begun, and software requirements document was initiated. (Phlips, Grove)

No report from France

CAL Pre Electronics Module (Bogaert, Polytechnique)

No report

CAL Analog Front End Electronics (Ampe)

Continued development of CAL AFEE side board design concepts, packaging issues and routing problems. The issues are the size of the ASIC packages and the required number of pins. Also of concern is the potential interference (mechanical and electrical) of interface connectors with ASICs and PIN photodiode signals on the +/-Y boards at the bottom layer of the calorimeter.

CAL Balloon Flight (Phlips, Grove)

Initial testing with the new CAL TEM, Rev D, showed problems that were resolved in software modifications (Lauben, D Wood).

Repeated collections of muon and electronic calibration data at SLAC (Lauben, thanks

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Dave). Analysis is underway. Initial inspection shows no significant changes in optical bond quality of PIN diodes during shipment.

Concern about temperature stability of DC-DC converters. Integration of the converter demonstrated that the CAL front end (e.g. pedestals) is sensitive to variations in the 5V supply. We requested that the temperature stability of the converter output be tested over 10C to 40C at the CAL load.

CAL Software/Design Verification (Grove)

Discussion on Digi classes continues. Will complete design in the coming week.

Sandora is analyzing GSI data, studying energy resolution for C beam.

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