

GLAST LAT Project Weekly Report for the week ending January 4, 2001

*** CALORIMETER (N. Johnson)

Contributions from NRL, Ecole Polytechnique

CAL Management (Johnson)

Work on the Memorandum of Agreement for the calorimeter work in France continues. Draft of MoA with Sweden is being reviewed by NRL.

Updated and distributed (internal CAL team) CAL Performance Spec.

Met with financial reporting experts to organize NRL reporting to IPO's PMCS.

Met with ITAR experts at NRL & Swales to try to resolve ITAR requirements for work with France and Sweden.

CAL CsI Crystal Elements

Grove distributed a completed draft memo summarizing joint crystal testing (light yields, light asymmetry). He is awaiting comments from Bogaert and Debraine.

(Bogaert) PIN diodes: agreement found between NRL and France to allow delivering of diode prototypes in time (before PDR). NRL will supply the EM parts, while Frenchs are responsible of the flight parts. Extensive discussions adressed to mechanical, electrical, optical concerns, issues and solutions. Agressive work made by NRL and France for diode and connection specs definition and writting converges already to a nearly completed document. Discussions with the provider are expected in January with French and Americans.

Report to the french collaboration of the travel to NRL and usefull work done there. Already received a report draft from NRL (Eric Grove) that must be completed. In Progress (Gilles, Alain).

CAL Pre Electronics Module (Bogaert, Polytechnique)

After shake optical test in progress at CEA.

Development plan : Agressive investigation of test and validation procedures and equipments for the crystal reception from Sweden, diode reception, diode bonding, and global test of PEM (Didier, Arache, Gilles, Oscar ...). The suggestion made by NRL to provide nice wire chambers for muon test is (aknowledgingly) considered. Questions asked to NRL (Bernard) about the characterictics of these chambers. Test bench mechanics and front end electronics work in progress.

CAL Analog Front End Electronics (Ampe)

Completed GSE and Labview data acquisition support for radiation testing COTS ADCs at Brookhaven - now planned for sometime in the next few months.

Draft specification document for the CAL Front End ASIC continues. (Johnson)

Draft specification document for the CAL Front End ASIC Conceptual Design has been iterated three times. (Johnson, Ampe, Haller, Nelson)

Meetings at NRL to address alternate PIN diode interconnect to PCB were held. IPC requirements for kapton cable will likely make it too stiff - straining optical bond. Alternates include mini coax and posts. Connections for testing prior to solder to PCB are issue. Virmani recommends ignoring IPC guidance and using more flexible kapton.

CAL Balloon Flight (Ampe, Grove)

BFEM calorimeter boards have been completely inspected. Corrected a few bad solder joints. Previous problem with apparent bad ASIC was bad solder joint.

Troubleshooting lockup problem between TEM and CAL causing TEM to ignore CAL event messages. Standalone CAL TEM software was modified to support diagnostics (D. Wood).

BFEM calibration -- We continue muon calibrations and electronic calibrations.

NRL received the balloon flight calorimeter base plate [is there a better name?] from SLAC. We completed a test assembly of the BFEM calorimeter, the base plate, and the flying buttresses for side support of the calorimeter. We have modified the CAL controller EMI shield to clear the base plate, and we will repeat the test assembly later this week.

Grove is generating and running procedures for CAL checkout before and after shipment of the BFEM CAL to SLAC next week. He will distribute the procedures when they are complete.

Johnson, Ampe have updated the BFEM CAL interface control document.

CAL Software/Design Verification

Grove proposed alternative [Digi] classes for MC runs to more closely parallel the flight readout. Discussion with SLAC continues.

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