

May 16 2016 EUSO-SPB Telcon

Takky: Lens Manufacturing

rear lens finished!

measured atomic force microscope 30 nm RMS

after a correction factor of 0.6 the 30 rms becomes 20 nm which is acceptable

Showed a report and answered questions

Tried to used dental mold, surface of silicon mix a and b material, mixing makes many bubbles, then AFM observes small bubbles

Takky - question for Peter - finished rear lens manufacturing. 9.1 mm? were 8mm now are 9.1 mm, think is not a big issue. Can play with the seals, don't need to be water tight. Choice of the seal is completely open. Can take thinner material for seal. Need to ask about seals. Doesn't have to be held very tightly. Seal was 3mm need 2mm Will talk to Gill tomorrow

Action Item: Peter will give Takky a response in 24 hours after discussing this with Gil

Action Item: Takky assuming on OK is received from Peter, Takky will remove 3rd lens from machine.

Lawrence: Lens Testing Update

Two methods in US. Test with Collimator in Golden. Looking at light source options. Fiber coupled LED or fiber coupled laser with difuser(s) look like best option. Have a path to get a 1m f3.5" diffraction limited mirror. Direct test with ~50-100m distant light source in MSFC tunnel.

Action Item: Lawrence: Schedule follow up meeting this week.

Francesco, Claudio Software

Francesco reported on discussion with Giuseppe, Claudio, Francesco, Lawrence about software.

Had to modify the way the software that handles with the rest of the system. In Timmins we were able to log on to CPU in flight.

Will use slow control to control everything. To handle exchange of messages between processes to react. In progress.

Juan - Carlos sent a document for all commands

Ancillary Devices Telcon: Wednesday 13:00-15:00 UTC

Action Item: One slide status for each system:

Chi

UAH (health LED),

CSM (NIST photodiode)

CSM (compass)

KIT (SiPM)

UNAM (HK)

Francesco: Update software slides for EUSO-SPB

Francesco: In advance of this meeting send an email with request for information about coms from ancillary device teams.

Lawrence, Guiseppe, Gustavo: slide showing baseline arrangement of data/trigger/coms lines from HK/CPU to ancillary devices

Guillaume PDM testing,

received 5 more HVPS units, Matra has parts for 8 more ECs.

Situation with Jacek is hectic , Jacek2 getting rest after heart surgery, don't know when they can deliver control board. Has everything to provide HVPS for each EC, but need control board and spares..... Delivery of reset of work package is not clear. Waiting for feedback from Jacek1. Production of this board has to start now DC-DC control board harder because the design has been studied. Email to Jacek#1 about status.

Email from Jorge summarizing progress he did with Pierre, Slyvia and Aera, French team came to Tubing to test interfaces with new ASICS board to PDM board. It worked. PDM was able to configure ASIC board, could read charge injected into ASICs board with PDM board. Great Milestone. Jorge will come from end of month with PDM boards.

Finalized PDM mechanics. Should have PDM mechanics producing and ready. We continue integration of PDM

Will receive HV and DP teams for integration Giuseppe asked to keep DP in Italy for as long as possible. Get DP in first week of June. Schedule is quite tight. Requested to CNES to find another timeslot for thermal tests, in case not ready to do June 13th. Not easy but they know we are looking. August too late. If someone releases time slot, CNES will make available to us.

Gustavo HK - boards are being produced Waiting on these and boxes for new mechanical rack. Showed results of thermal tests of LVPS. Not seen rack and boxes. The problem is that this should be the final solution. To do final thermal tests. Problem for thermal tests. Interface between PDM and radiator not completely clear

Action Item: Lawrence Order Boxes for HK

Peter - Adaption of PDM for radiator Will provide this with discussion from Guillaume and Giuseppe.

Gustavo: Battery Box and Thermal Model discussion:

Battery boxes do not need to be sealed. Two metal shelves, with each battery tied to shelves. Questions arose over how much thermal contact would be between the batteries and the back wall of the gondola.

Action Item: Jim - Make sketch and share with Gustavo, Yitz, Lawrence

Action Item: Lawrence: Set up time for skype on this issue