PØD Repair Update

- Brief updates on hardware
- Manpower
- Planning for PØD testing and recommissioning
Brief hardware updates:

Mounting frame:
- Designed, fabrication underway
- Plan to ship by the start of next week

Water cooling:
- Conceptual design complete
  (single loop with same ID as current cooling loops, inserted in series with one existing cooling loop at downstream end)
- Detailed design still in progress (including new cooling blocks)
- Also plan to ship by the start of next week

Temperature sensors:
- Existing sensors not appropriate for direct measurement of FPGA surface temperatures
- Mount existing sensor type near FPGA on RMM
- Cooling block design will incorporate mount for thermocouple in thermal contact with RMM surface
Brief hardware updates:

Cables:
- New cables identified, ready to order
- UK electronics group testing sample cables as an extra crosscheck
Manpower:

RMM mounting
• Done in advance, planned to start Nov. 12
• Lead: Vittorio Paolone
• Assistance: Scott Davis (water cooling system), Jay Jo

Magnet open work: Two weeks, starting Monday, November 28
  First week: Main hardware work
    • Need 6 people total
    • Bruce Berger, Dave Warner, Scott Davis, Istvan Danko, Jay Jo (?), Tomasz Wachala (?)
    • Dan Ruterbories - consulting role

PØD testing/recomissioning - one week, Sat. Dec. 3 - Fri. Dec. 9
  • Needs defined by DAQ/analysis tasks...
  • Danko, Wachala, Ruterbories (consulting), ...

Closeup
  • One day (Sat. Dec. 10), ~4 people

-> Two UK electronics and one UK DAQ person will also be on hand
PØD testing and recommissioning

Outline of the plan:
- Check that the system works stably over 1 week
- Check channel pedestals/gains/ HV tuning
- LI checks - tests all channels, including fiber-MPPC coupling, at multiple light levels
- Cosmosics - higher level check of full system functionality

Are there other tests?
- Explicit tests that timing changes (due to longer TFB-to-RMM cables) have been handled correctly?
- Charge injection scan?
- LI data at different overvoltages (time permitting; relevant to PDE vs. overvoltage correction)

Flesh out details
- What types of LI data are needed? -> LI group
- Who will analyze the data?