



L1Calo Activities

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- Recent LHC and ATLAS status (last week or two)
- Activities in the last week
 - Floating MD
 - ALFA Run
 - Return to standard pp setup
- L1Calo issues
 - LAr/Tile/Receivers
- Plans...



Recent LHC & ATLAS Status

- LHC performance since the technical stop
 - Only a little time between last TS and recent “floating MD”
 - Many fills lost before stable beams
 - Downtime due to cryo problems and recovery
 - Not yet reached the luminosity before the break (10% less)
 - New instabilities seen?
 - Suggestions for different schemes for reaching stable beams
 - More details: <https://indico.cern.ch/conferenceDisplay.py?confId=194944>
- ATLAS also had problems
 - Water leak (also affected LHC)
 - Several slow dumps of ATLAS Magnets
 - Faulty temperature probe
 - Lost quite a bit of LHC stable luminosity
 - Muon alignment profited from unexpected toroid off periods
 - (Recoverable) loss of lumi from missing logging to COOL



Floating MD, ALFA Run, etc

- “Floating MD” last week: Several useful LHC tests:
 - High pileup run (up to $\mu \sim 70$)
 - Injection tests for 25ns
 - Tests of ATS (dont ask me what this means)
 - Beta* levelling
 - Better way of controlling luminosity than separating beams
 - Could be used for LHCb soon
 - Maybe also for ATLAS & CMS in future if pileup becomes intolerable
- Two days of 90m optics for ALFA and TOTEM
 - Considered successful
- Good weekend
 - Back to standard pp physics with several long fills $\sim 450 \text{ pb}^{-1}$
- This week:
 - Van de Meer scans (Mon-Wed) then back to standard lumi



L1Calo

• Readout and simulation errors

- Real L1Calo busy during high pileup run (with 15 slice readout)
 - One ROD (roc1-rod1) had lots of Glink timeouts from source PPMs
 - Same ROD was "stoplessly removed" once in May
 - Cured by reconfiguring L1Calo ("TTC Restart")
 - Underlying cause not really understood
- Simulation errors in monitoring
 - Many errors seen in 15 slice running
 - Incorrect handling of saturated pulses in disabled towers
 - Not seen normally
 - Additional checks on correct BCID can only be made with >5 slice readout
 - Few errors seen online also after return to 5 slice readout
 - Online monitoring was running older version - updated to latest version on Friday
 - Also need to update tier0 for the most recently fixed bug(s)

• Online SW updates

- Consolidate previous patches, couple of new patches
 - Remove simple dead time check, update scripts and Tile trigger monitor



LAr, Tile, Receivers

- Still chasing regular problems with HECFCAL-A crate
 - Cabling swapped with EMEC-A receiver crate
 - Wait to see whether errors move
 - No problems in the last week...
- Hot LAr towers
 - As usual in the traditional (dusty) HEC quadrant
 - One cell disabled in 05170102
 - Nearby tower 05170603 started heating up in sympathy...
- Low rate Tile tower MRS messages
 - Trigger and RC shifters often ELOG them
 - And several times phone L1Calo oncall for advice
 - We need some better instructions for them...



Plans for LHC Running

- Decision to extend run until early February 2013
- Preliminary schedule
 - pp running until mid/late December
 - Then pPb run 4 weeks from early Jan 2013
- However
 - Suggestion to keep pPb run this Nov/Dec
 - Takes long time to start ion source after shutdown
 - So would have to keep it alive over Xmas!?
 - Then return to pp in early 2013
 - Problem: inner ATLAS is more activated after pp run
 - No time to cool off before access starts