AEM: SeaQuest

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- First Beam Friday ~16:30!!!
- Commissioning starts in parallel with beam tuning.

Controlled Accesses

- 3 controlled accesses:

  10/10/2013: 10:40am

  - Remove pulser-trigger from wire chambers
  - Check gas flow into wire chambers

  10/10/2013: 2pm

  - Noisy chambers – check ribbon cables on chambers

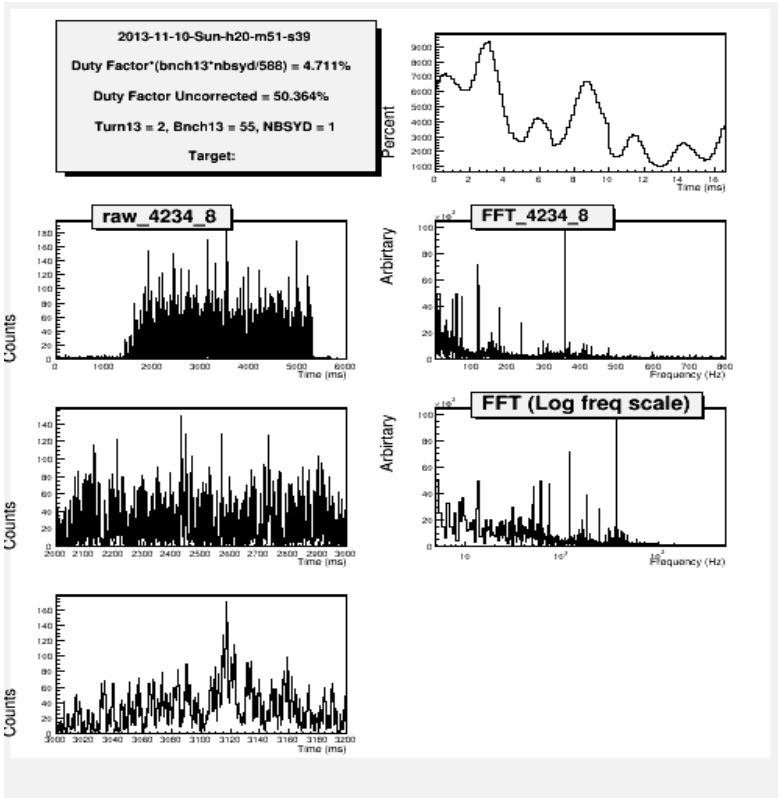
  10/10/2013: 4:30pm

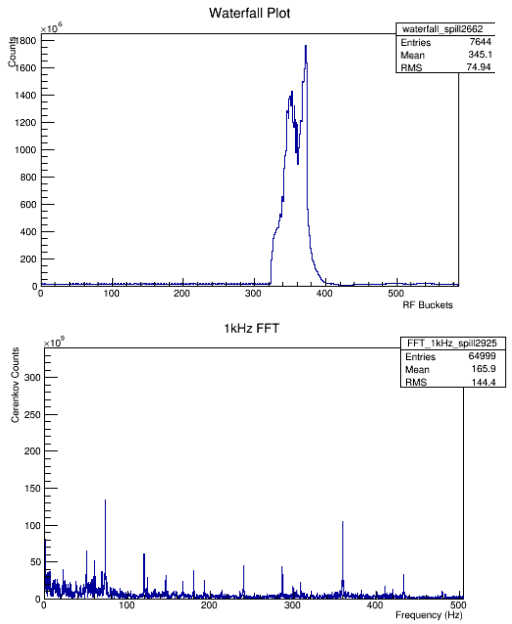
  - Replaced remote-controllable power switch that serves 3 VME crates
  - Checked and replaced low voltage power supply for proportional tubes
  - Change gas flow rate for St1 Chambers (check rates, and then reduce flow rate if necessary)

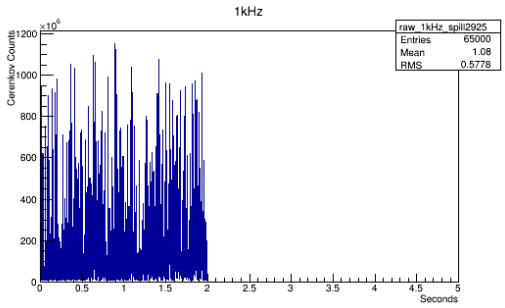
- More controlled accesses expected as commissioning continues…

Beam

- 2 means of monitoring beam quality
  - ScalerDAQ: indirectly through hodoscope rates
  - Cerenkov beam monitor: direct observation at 53MHz
- Both FFT's show same frequencies contaminating beam ➔ Early in the tuning process – don't read too much into this.







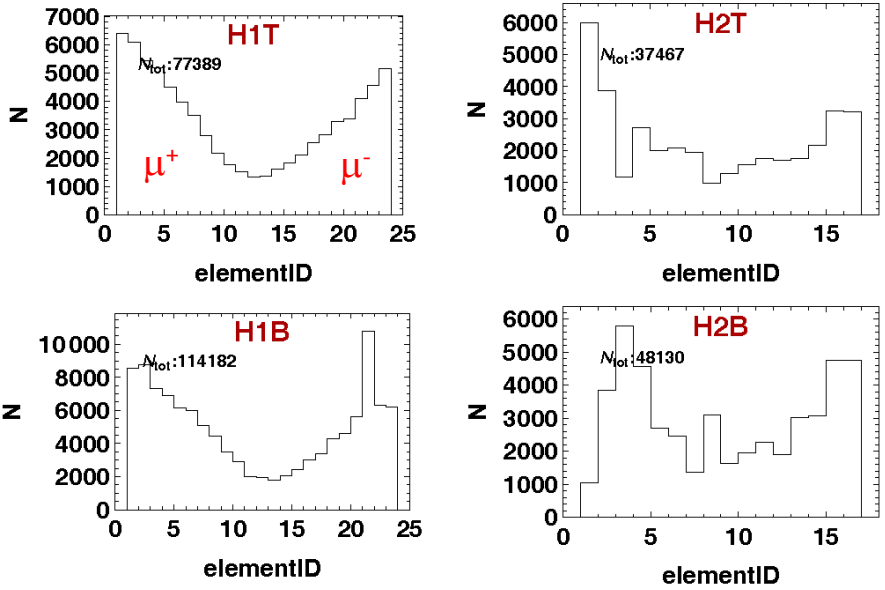
Cerenkov QIE firmware still under development.

Magnet

- FMAG ➔ 1000A, would like 2000A (full cooling power needed)
- kMAG ➔ 1000A

Detectors

- Hodoscope gain + efficiency study started. Scanning Hodoscope HV setting to get appropriate rate.

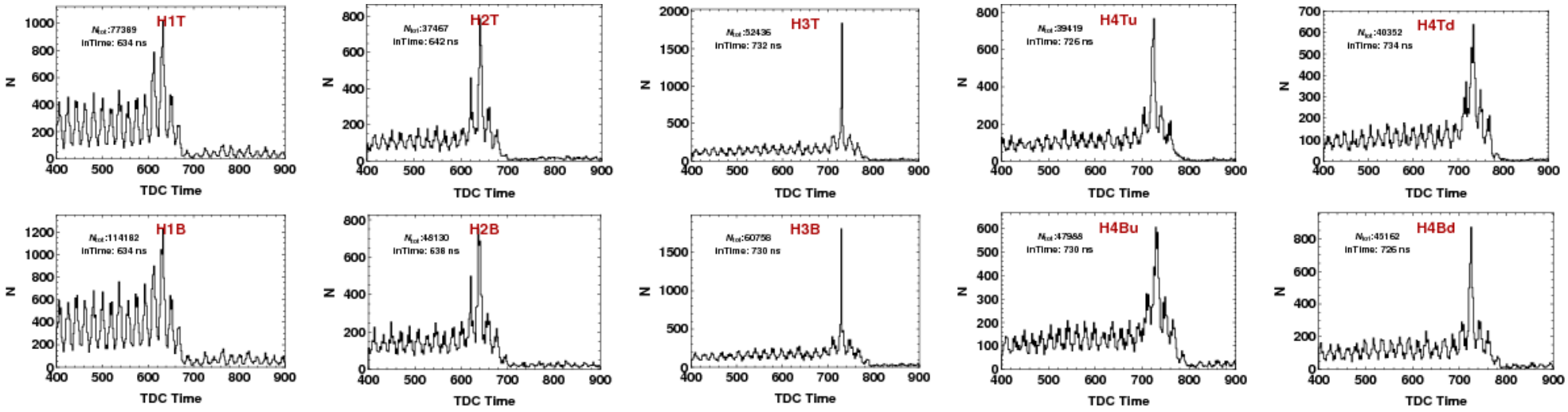


- With 1000A on FMAG, we can see muons
- Some of the spectrum don't look so great at the moment, but expecting better as we go through our studies
- Signal mapping seems reasonable

DAQ

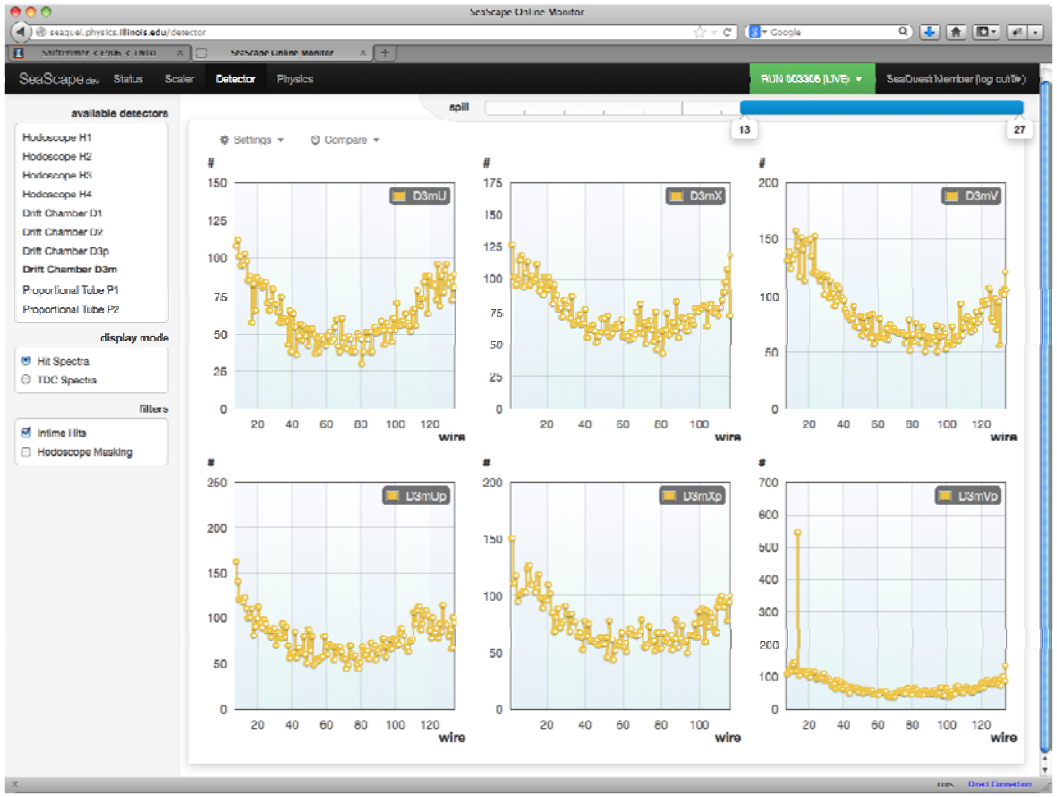
Tasks:

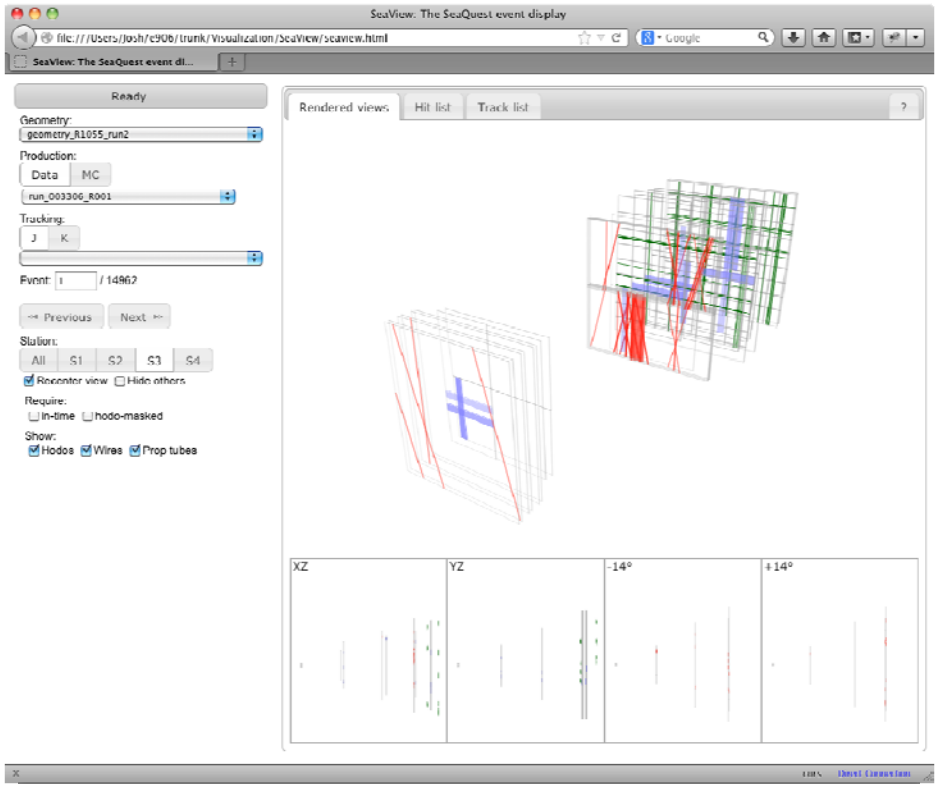
- time-in TDC time-window
- Can see in-time peak – hits in TDC spectra corresponding to correct RF bucket



Data Monitoring Software

- Online monitoring software is up and running – decoding/displaying on-the-fly.
- Event display working.





In the coming week(s)…

- Continue hodoscope HV scan – gain matching
- Hodoscope timing studies
- Trigger checkout
- Hodoscope efficiency studies
- Pencil/solid target scan – locate beam w.r.t target
- Deadtime studies
- Chamber efficiency studies
- Chamber timing studies
- Software geometry model checkout
- Software/analysis efficiencies, alignment, RT curves