E906/SeaQuest

Kazutaka Nakahara

University of Maryland

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- Most beam-time being used for:
  - Hodoscope timing studies
  - Chamber plateau studies
  - Splat-block studies
  - DAQ hiccup studies
  - “Dimuon” trigger to look for tracks

- Long access (~2-4 hours taken) to adjust hodoscope timing.
- Numerous small accesses to fix/replace/reboot systems.

Beam

1. Increase beam intensity
2. Get beam structure under control

- Attempts to increase beam intensity were made: radiation levels measured inside NM4 prevents beam > ~7E11 ppp (on NM3ION).

  ➔ this was not a problem during Run1

  ➔ Attempting to find cause of the higher radiation levels in the hall

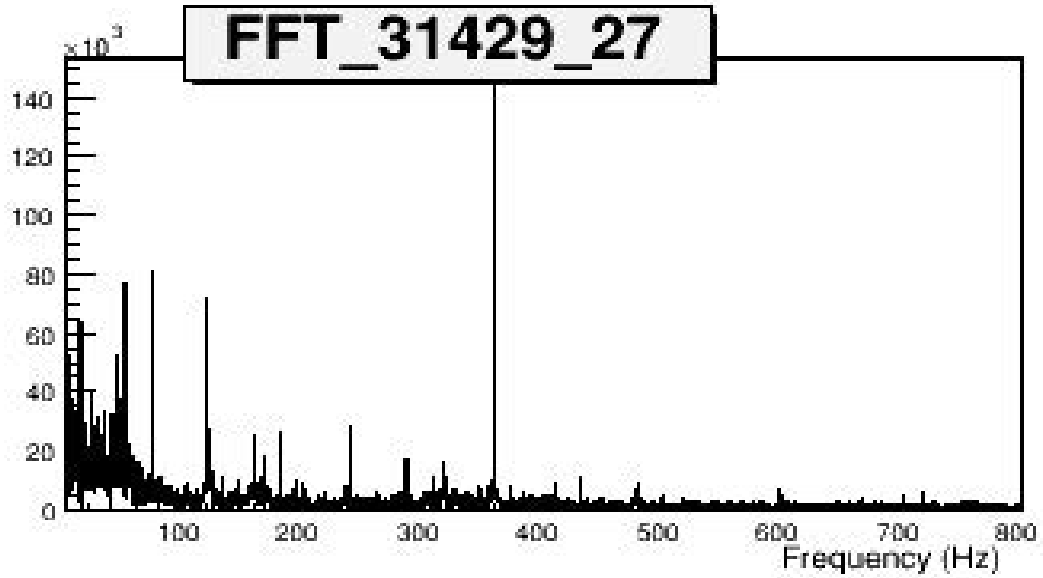
  - Cerenkov beam monitor?

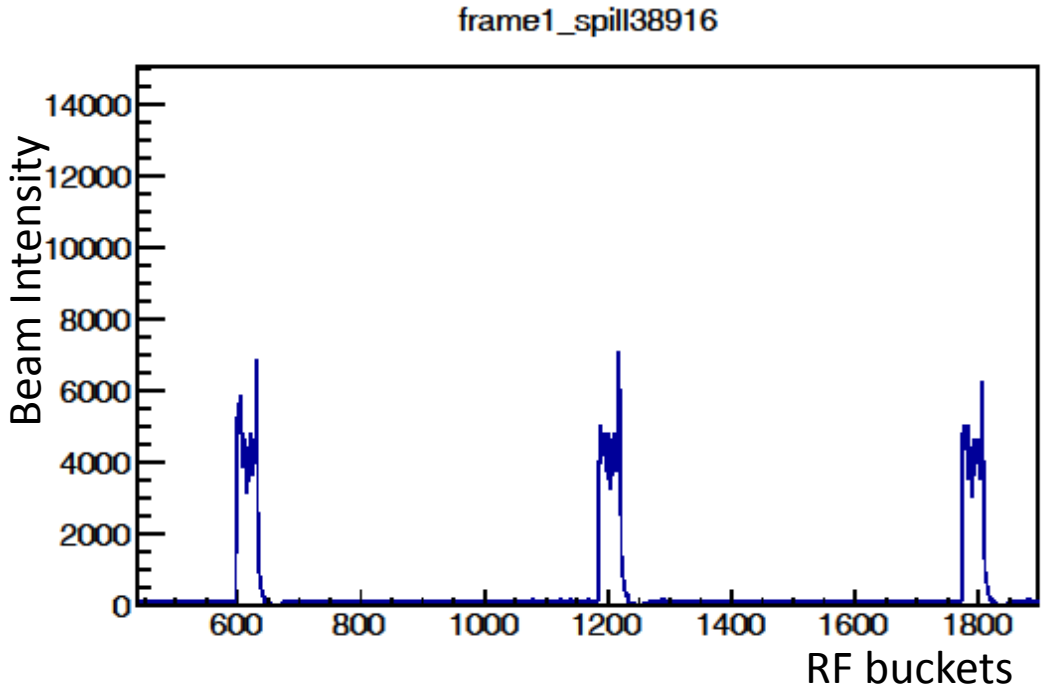
Beam Structure

- Duty factor @ 7.5kHz ~ 40-60%
- Duty factor @ 53MHz ~10-20%

Cerenkov:

- We can see beam intensity bucket-by-bucket, turn-by-turn
- Splat-block (veto high buckets with high occupancy)
- Beam normalization

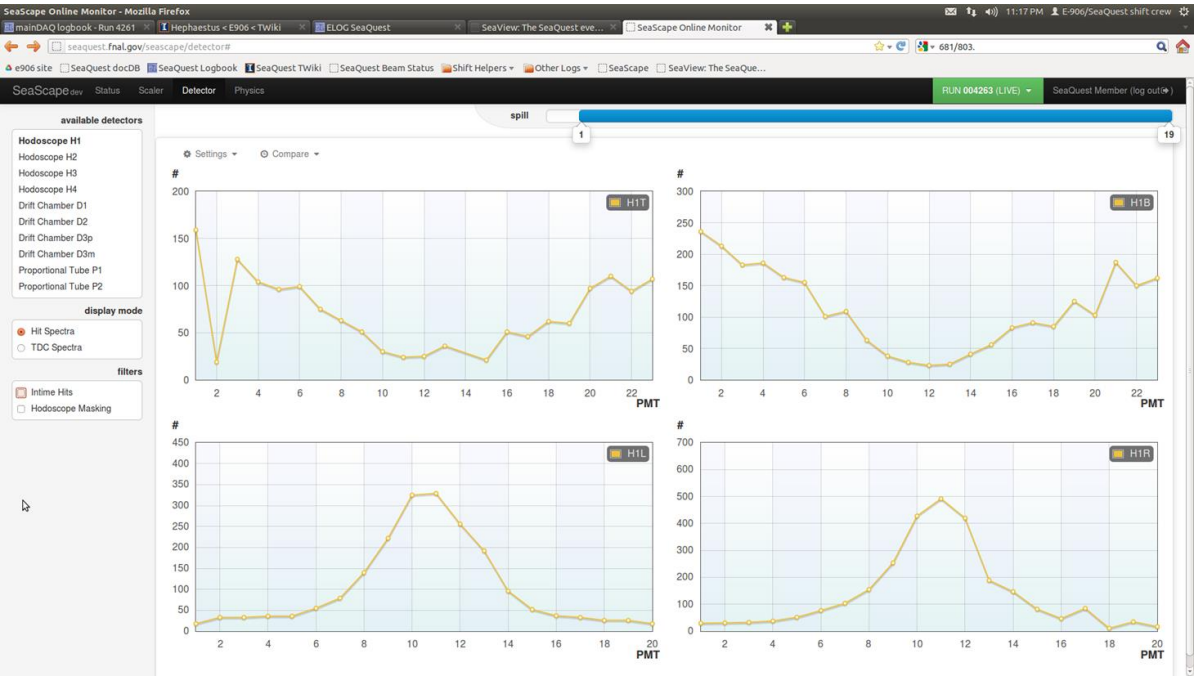


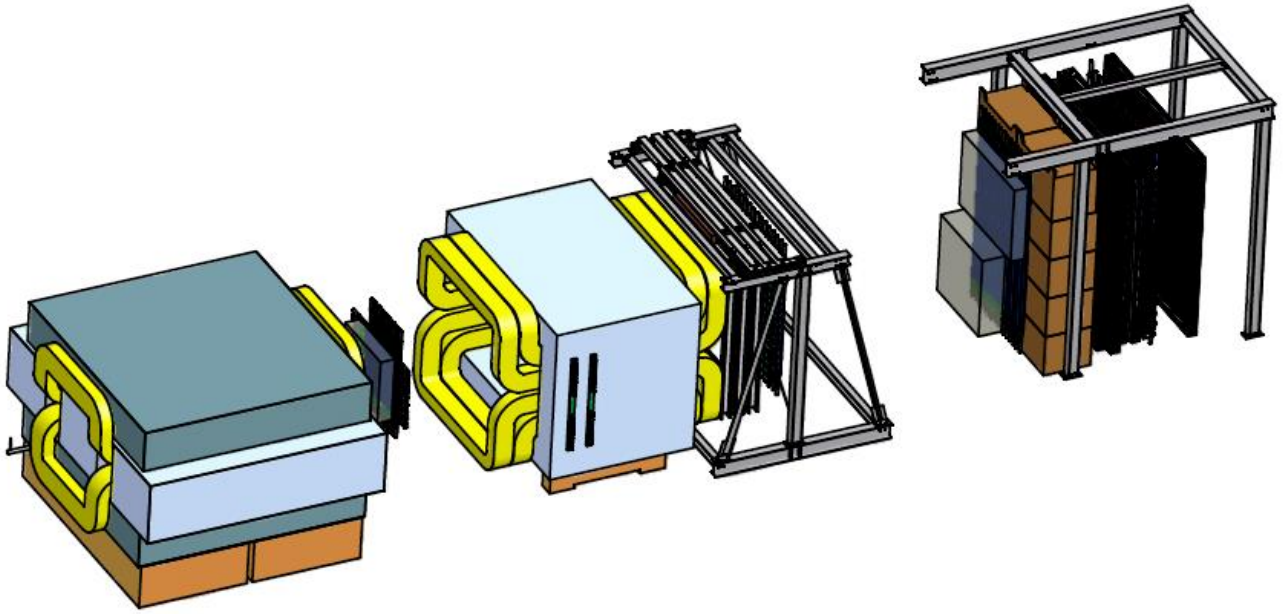


http://e906-gat3.fnal.gov:8081/seaquestacc

Detectors

- Hodoscopes:
  - HV gain matching done.
  - Adjusting delays on hodoscopes –finish during 3-day access period this week





- Chambers:
  - Chamber Plateau studies continues. Currently flushing with P8/CF4. Awaiting a few planes to get to nominal voltage.

Major things to do…

- Understand radiation levels inside the hall
- Target position calibration – pencil target scan – postponed until radiation situation is understood
- Continue to characterize the structure of the beam
- FPGA trigger with muon roads will be installed this week
- Finish timing in the hodoscopes
- Chamber plateau studies