

E906/SeaQuest AEM Meeting

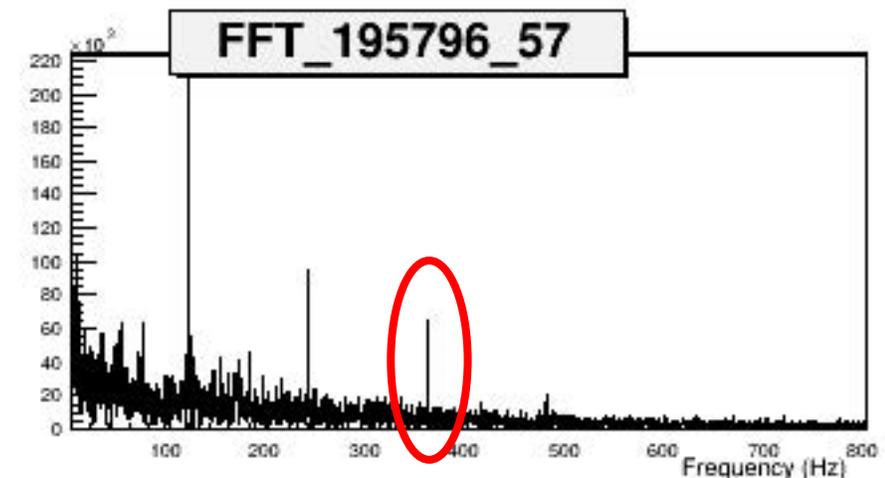
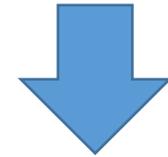
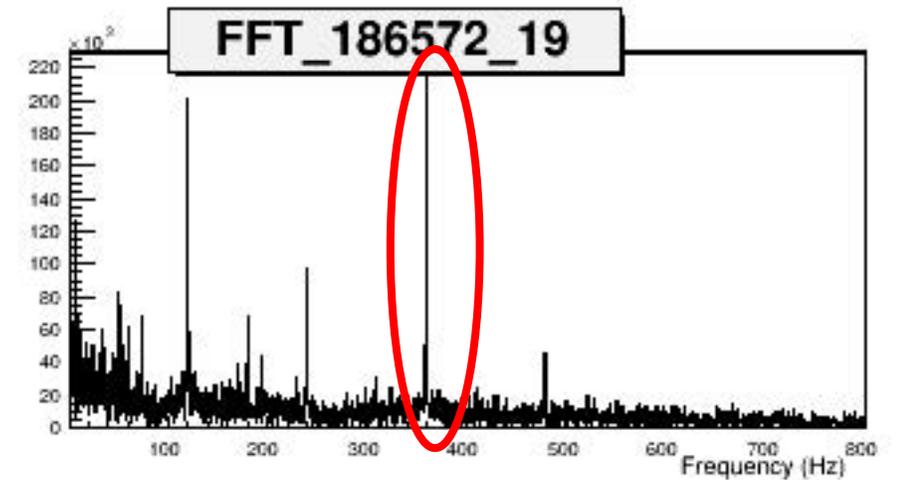
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4/5/2014

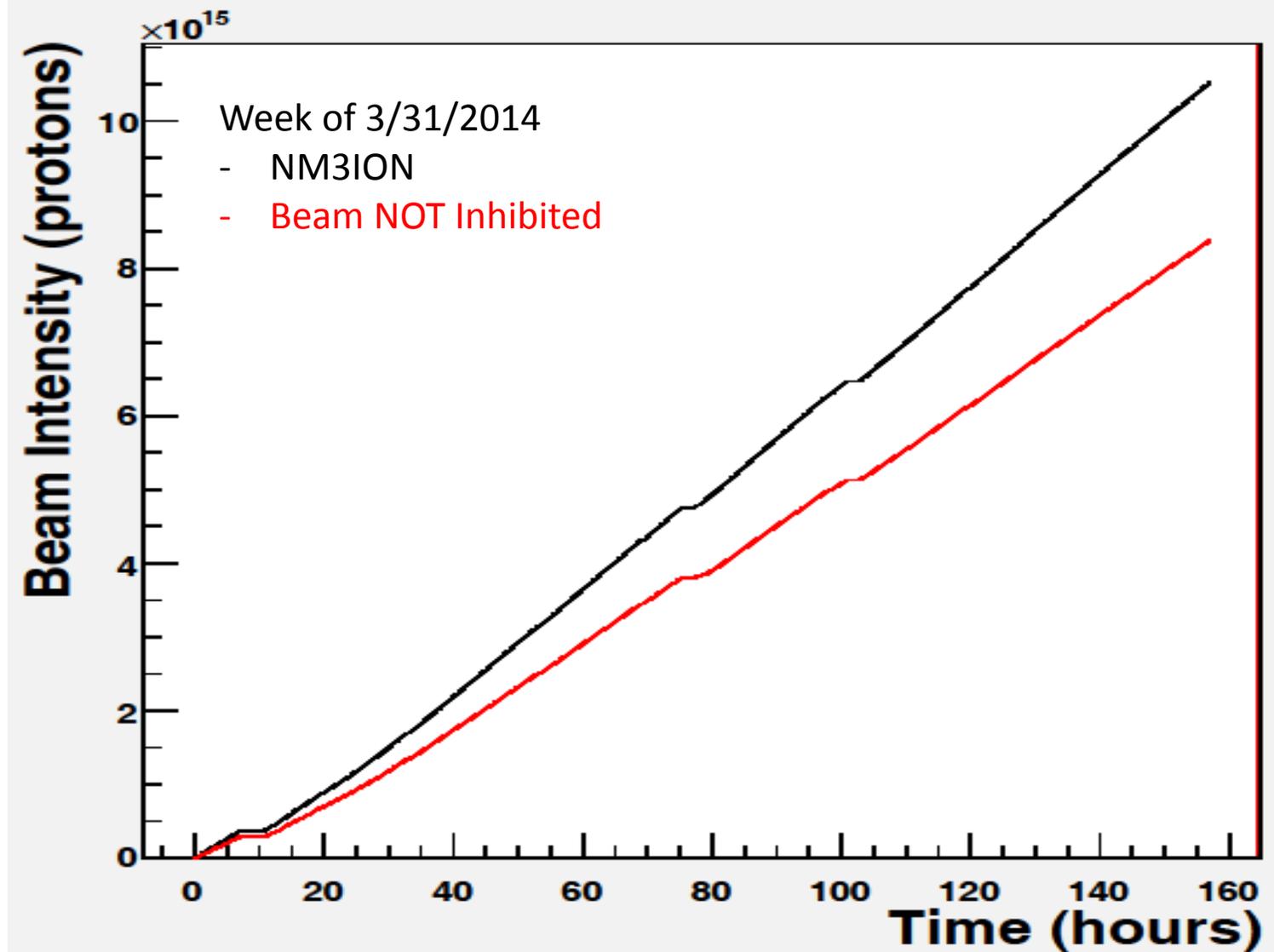
General Status

- Replaced flammable gas detector inside target enclosure.
- 360Hz filter on MI quad supplies has significantly reduced the 360Hz component seen in the beam. Duty factor initially went down to $\sim 20\%$ after the installation
 - Gradually improved to $\sim 40\%$ @53MHz over a few days.
 - Trying to determine what changed, and quantify the actual improvement from the filter installation.
- POT:
 - NM3ION: $1.05E16$
 - G2SEM: $1.57E16$



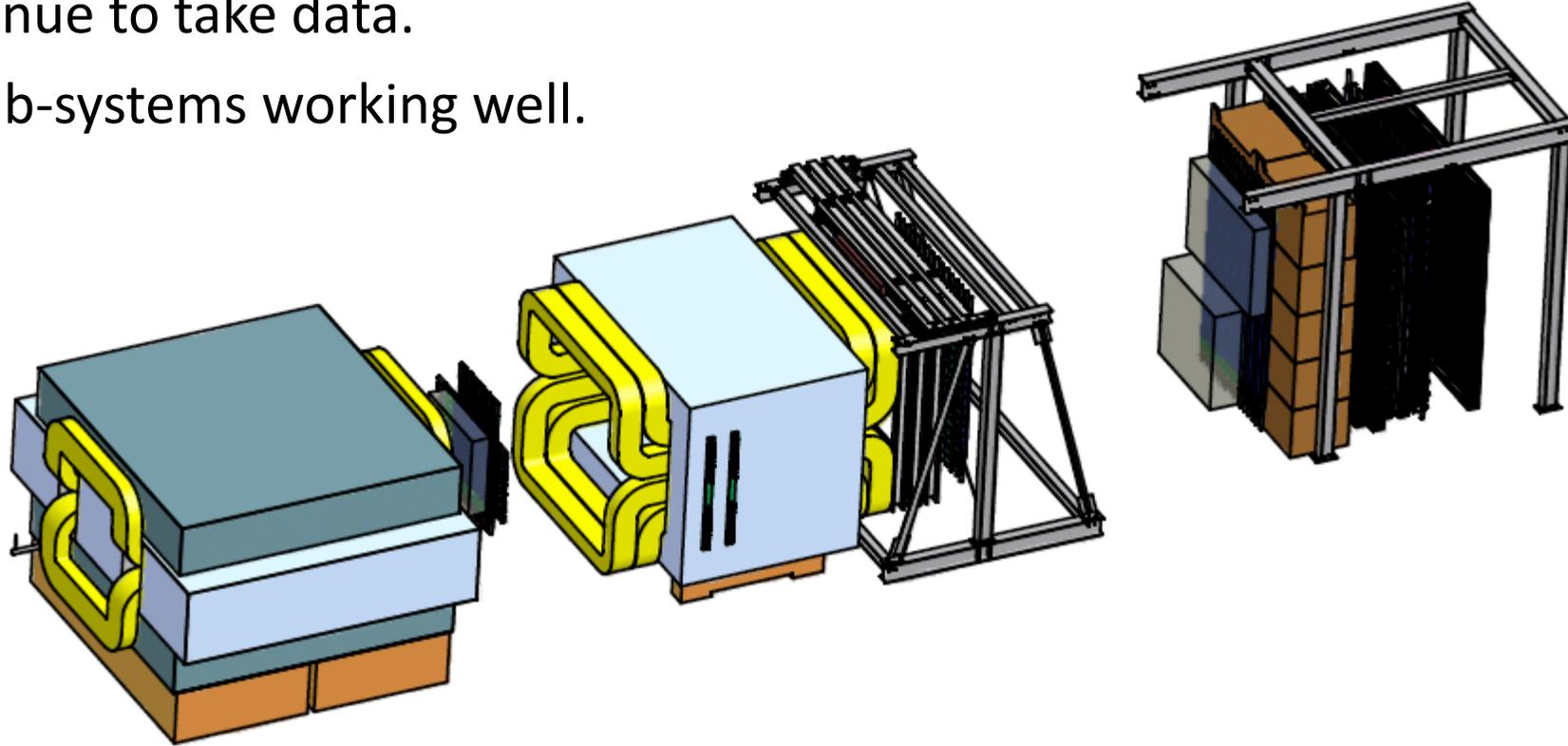
- Beam Cerenkov monitor inhibits data-taking when RF bucket is above intensity threshold.
- Inhibit width = 19 RF buckets
- ~20% of beam inhibited with Cerenkov QIE board

- POT:
 - NM3ION: $1.05E16$
 - G2SEM: $1.57E16$
- Note: beam intensity data not recorded when there is no \$75 event.



Status of Experiment

- Continue to take data.
- All sub-systems working well.



- Experimenting with different trigger road sets to maximize di-muon yield.
- Cerenkov readout board firmware close to completion.
All features working except pedestal subtraction.

Downtimes/Accesses at NM4

- Short controlled accesses to update firmware on Cerenkov readout board.
- Broke interlock to NM4 (mistake). Went into west wall staircase to retrieve borated poly. This staircase is interlock at the top AND BOTTOM of stairs.

Ongoing/Upcoming work

- Radiation damage to electronics inside the hall? Using borated poly to shield thermal neutrons. Our VME DAQ crashes ~once a shift.
- No major scheduled downtime in the coming week, but...

5-day downtime scheduled mid-April:

- water chiller work for SeaQuest magnets.
- installation of VESDA system in place of the flammable gas detector, with shielded electronics
- electrical power work (power OFF to SeaQuest...do we warm up our cryo-targets?)
- Installation of UNSER beam intensity monitor.