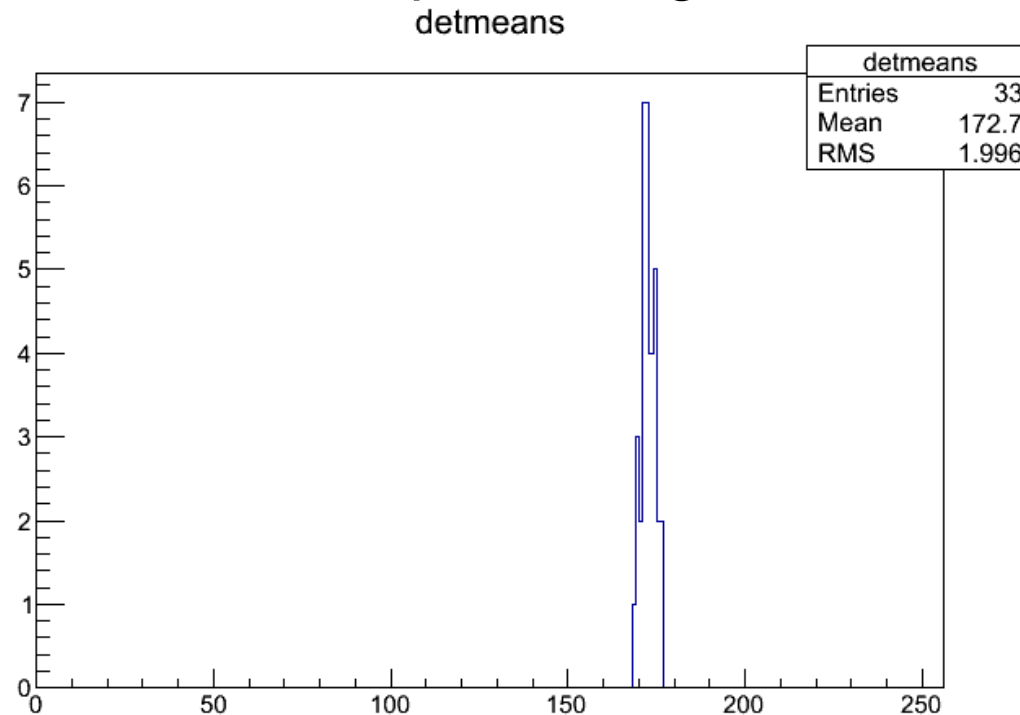


pC polarim. Run17 preparations

polarim. mtg.
01.02.17

Detector tests

- We received 36 det. on ceramic boards from Instrumentation
- Tested bias current @ 150 V (Grigor)
- All tested 10 min. α runs in test chamber (Igor, Dima, Bill)
- 3 detectors rejected: dead channel, high I_{bias} , low α pulse height
- 33 tested with α 's, mean det. pulse height uniform $\sim 1\%$:



Spares (after installation, debugging)

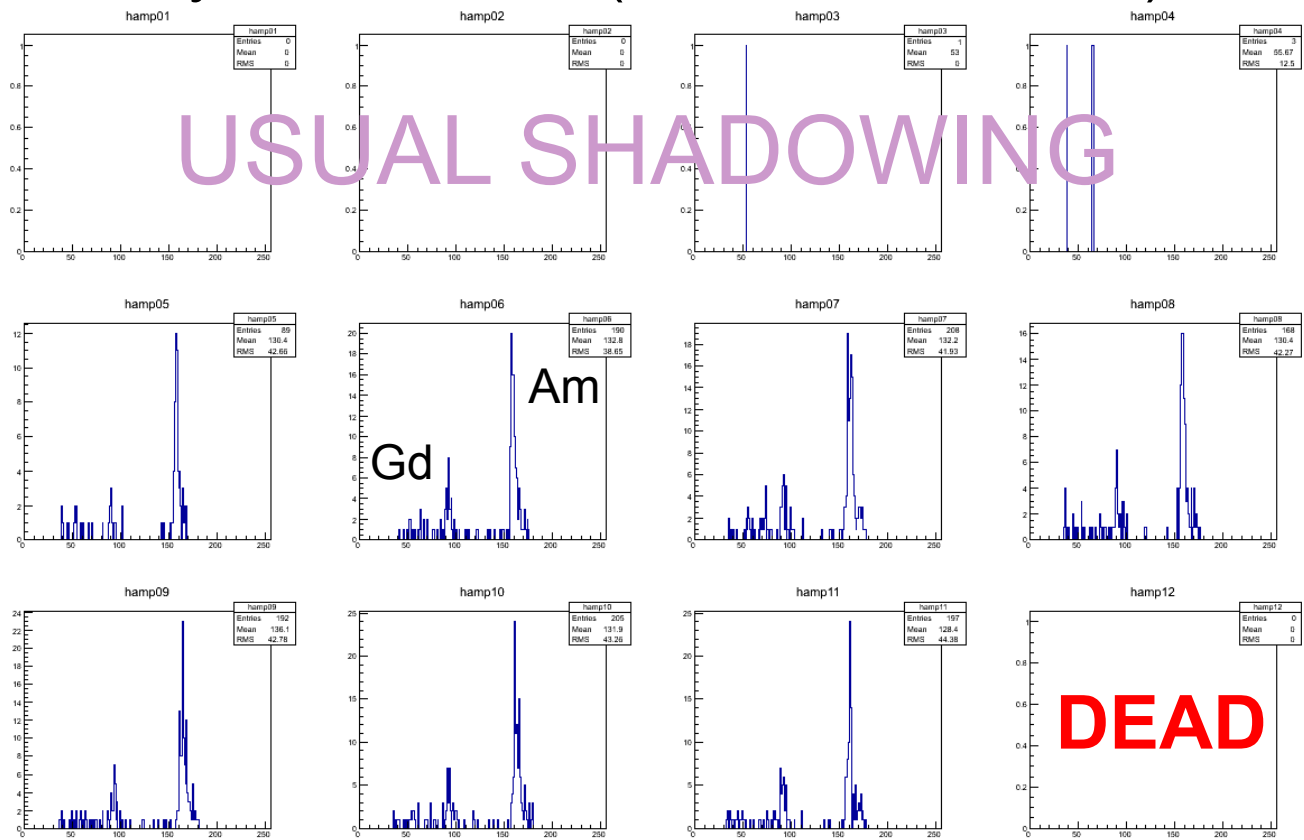
- 5 OK spares, 4 maybe minor problem
- Received 3 more from Instrumentation, untested

Installation

- All detectors, preamps, targets installed, slow pumpdown before Xmas
- Later: PMT/scintillators in and connected; target cameras aligned

Debugging

- Only 1 preamp 1 bad chan.; removal for HI run was invaluable
- Few minor glitches: miscabling, loose BNC connector nuts
- Sadly one channel (Y2 det. 4 chan. 12) dead to α 's:

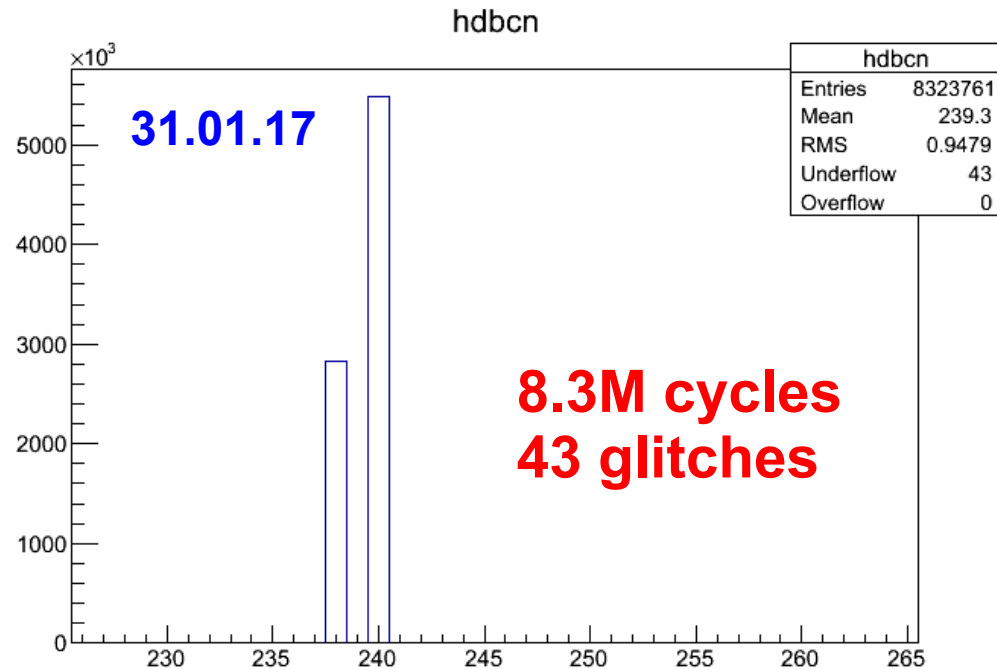
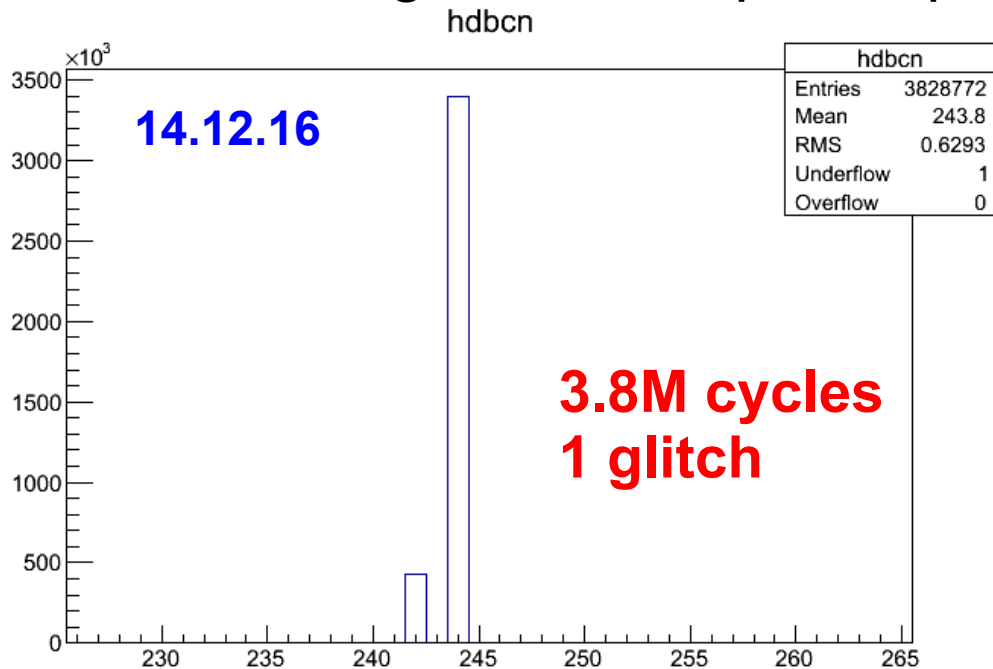


- Seen in α test after fast pumpdown
- Preamp & detector changed; detector α tested OK just prior
- Still dead after slow pumpdown
- Flange feedthrough?
Check if targets reloaded

~daily TP & α checkouts: stable through January 2

Spin Tune Monitor (STM)

- CAD supplied cable w/ STM driver 39kHz phase to IP12 racks
- Igor & Dima incorporated as bit into 1 chan. Blue WFD readout
Implementation: gated into WFD every 2 bunch crossings; ~200 nS resolution
- #bunch crossings between phase pulses:



- ~240 #bunch crossings \approx 39 kHz
- Driver period not integer multiple of bunch period: two bins filled
- Late Dec. \rightarrow early Jan.: period shift $\sim 244 \rightarrow \sim 240$
slightly more glitches, still few $\times 10^{-6}$
- Good enough for phase measurement $\sim 1\%$ of period