Polarimeter Update

- Detector is set for data taking

- Checked noise levels in collimator cave

- Setting up scaler readouts, fADCs
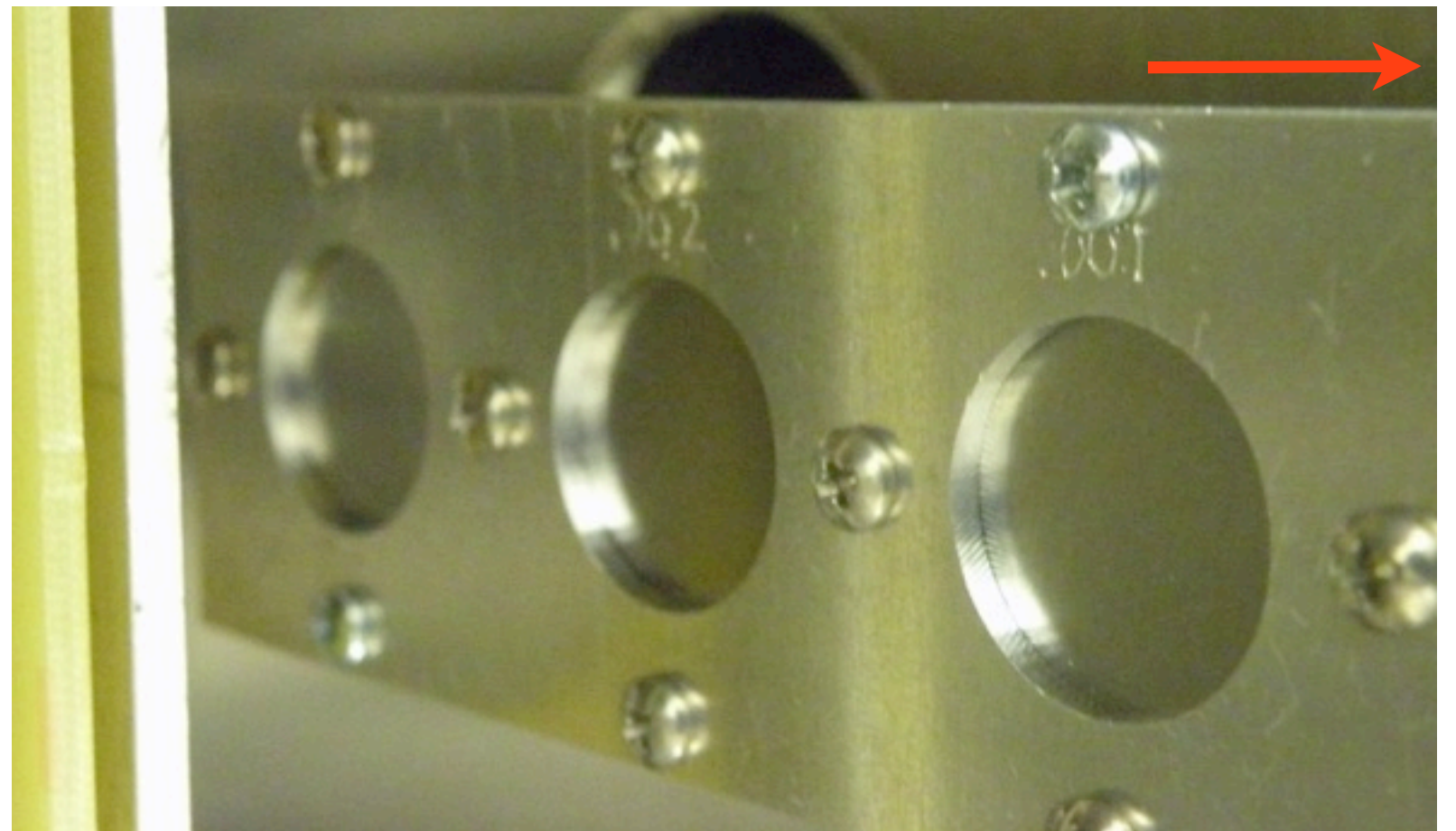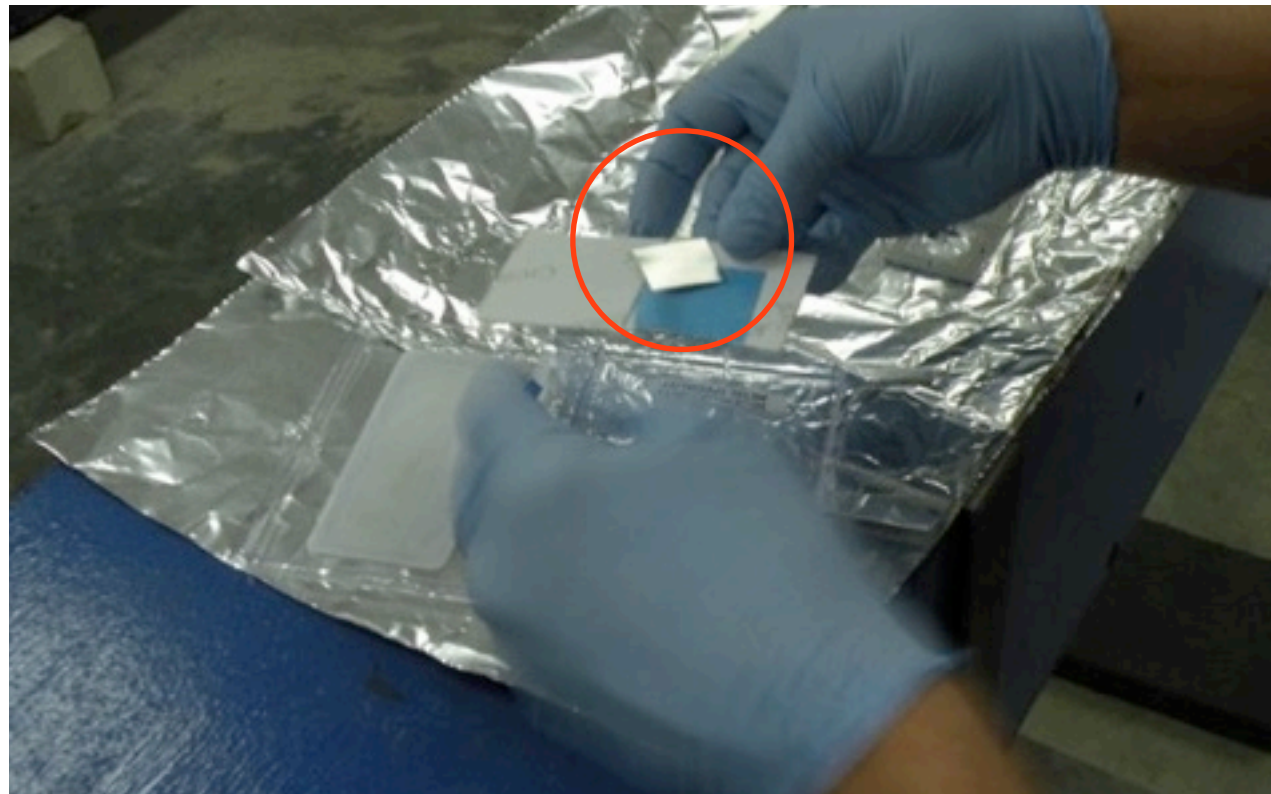
April 27, 2015
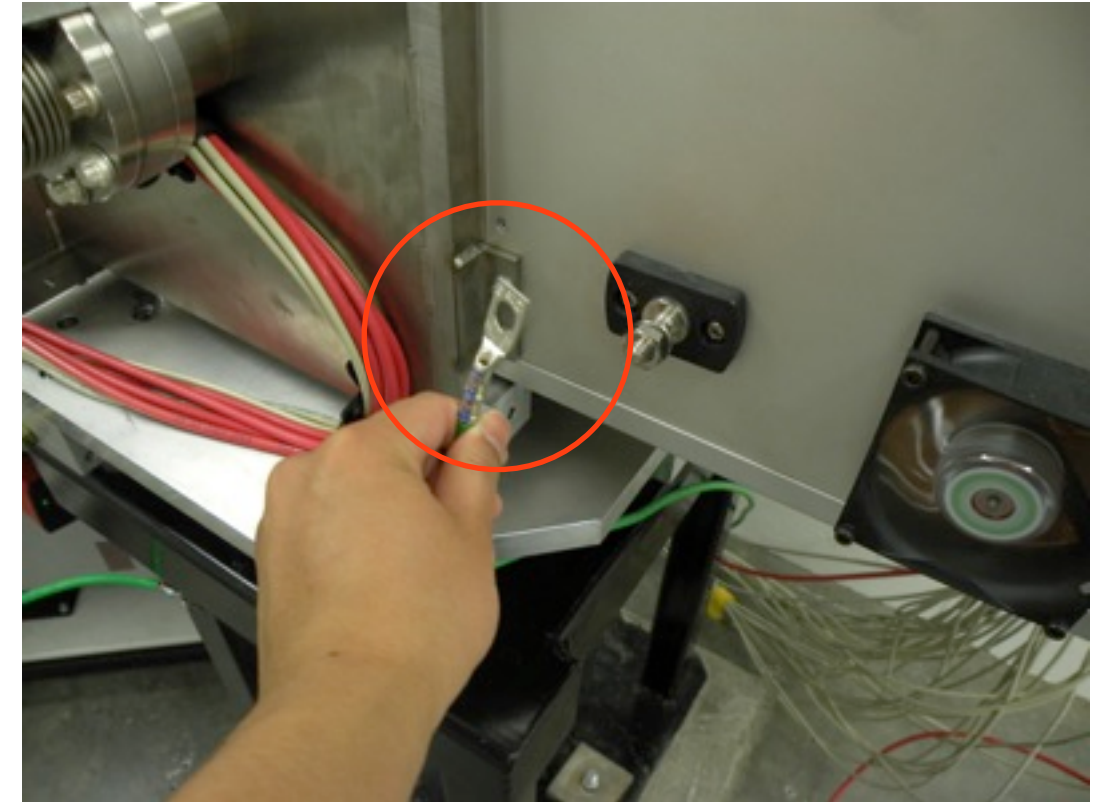
Kei Moriya, Michael Dugger

Converter Foils

- Due to safety regulations (Be), asked Mark Stevens, Keith for help

- Mark etched the converter thicknesses onto the converter tray

- Converter closest to door is 0.001" (25 μm), furthest is 0.003" (75 μm)

- Motor GUI is ready (thanks to Hovanes)
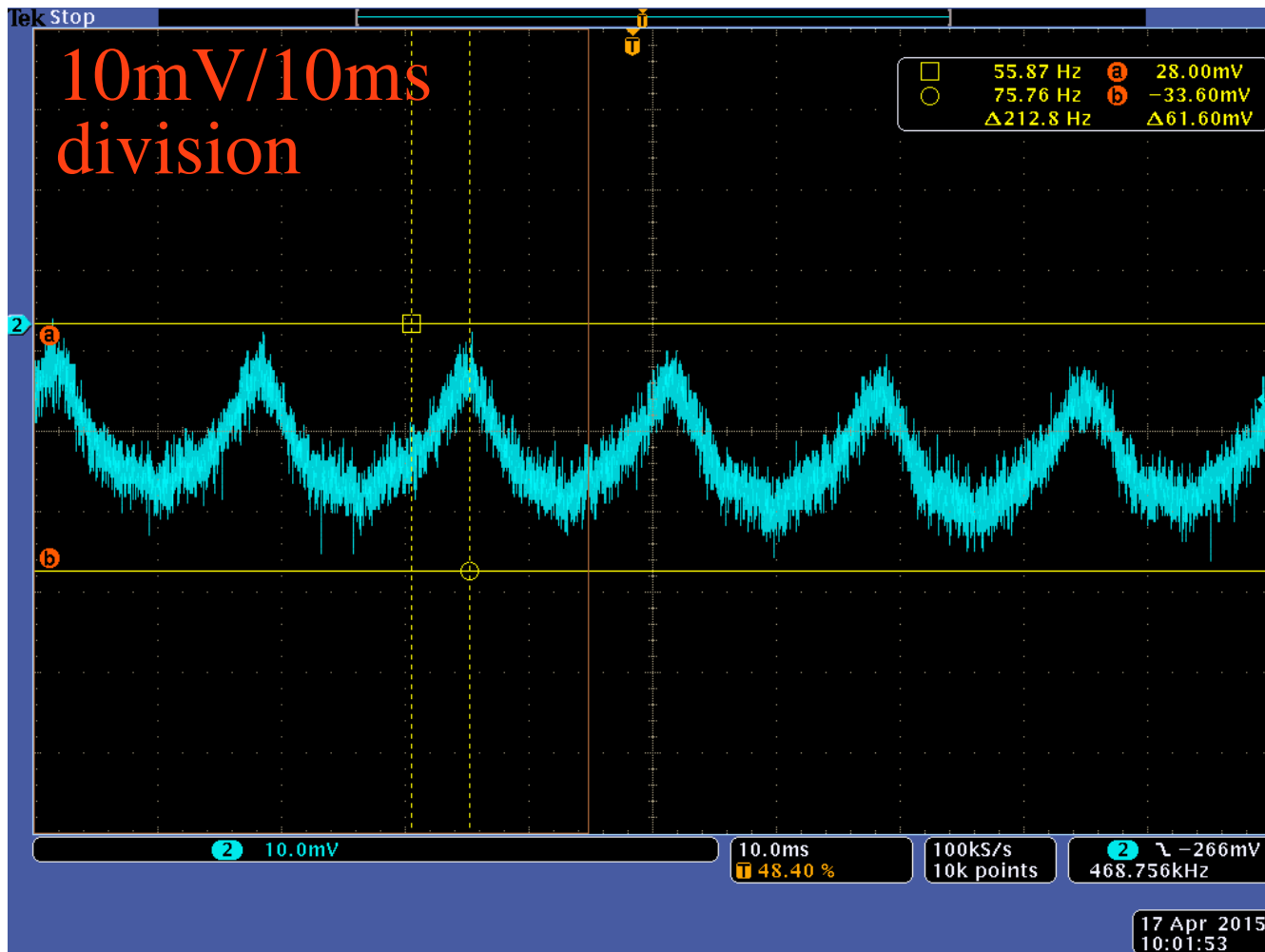
vacuum chamber door

Noise in Collimator Cave

- Initially saw very strong noise levels

- Ground cable picking up noise in cable tray
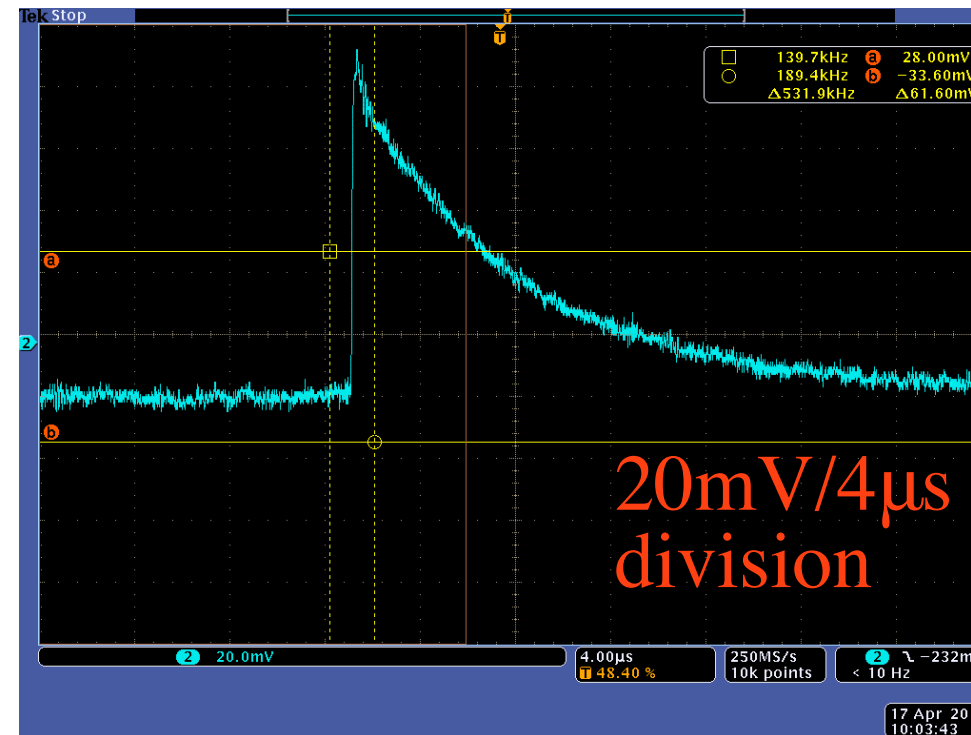

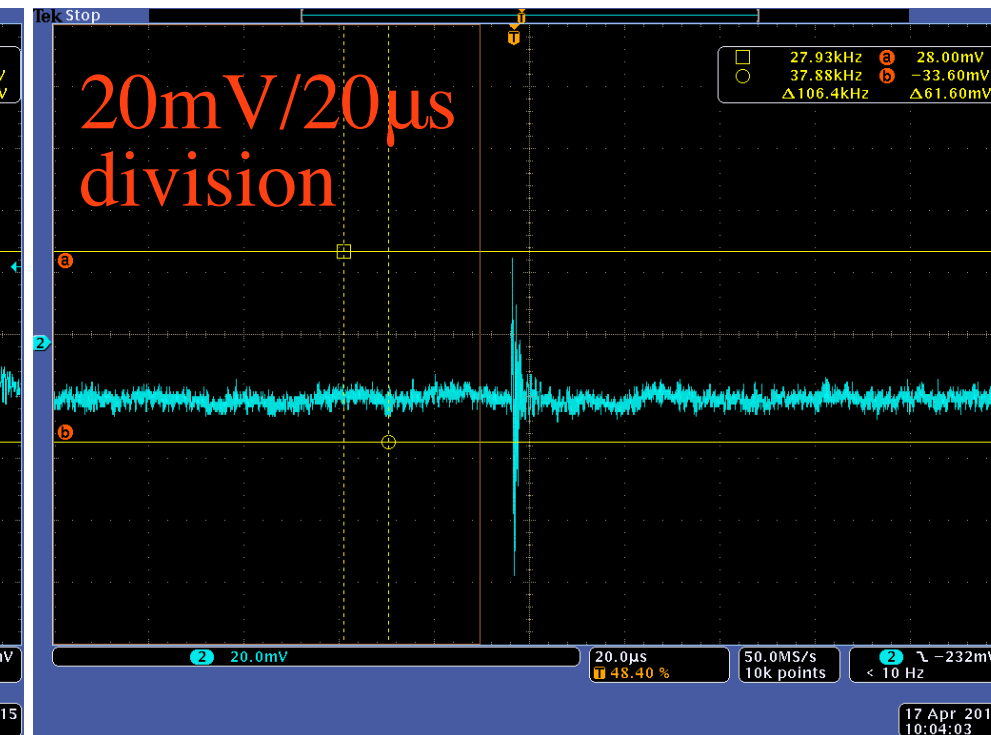50mV/2μs division
200 kHz noise

Noise, Signal

- After all adjustments, most of (high frequency) noise is gone

- Still picking up switching noise from somewhere (< 10 Hz)

baseline

cosmic signal

switching noise

fADC, Scalers

- Monitor rates online

- fADC channels are in Translation Table

- Sasha set up self-trigger for fADCs $\rightarrow$ will be able to read out noise levels when there is no beam/DAQ activity

- Will set baseline, thresholds today

Looking Forward

- Hardware is ready on our end

- Polarimeter signals will be read out in raw mode with PS trigger

- Hoping for

  - background rate measurements, at least some signal measurements

  - data for several combinations of triplet/PS converter

- Checked run 2914 from last night (PS trigger) but no TPOL data - thresholds were set incorrectly, no converter, very small run (30k events)