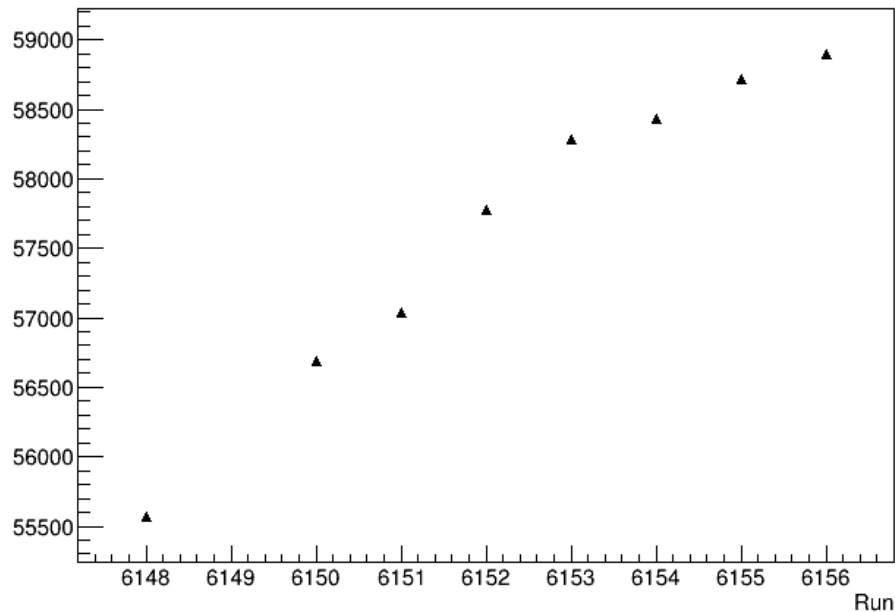


Yield Drift Study

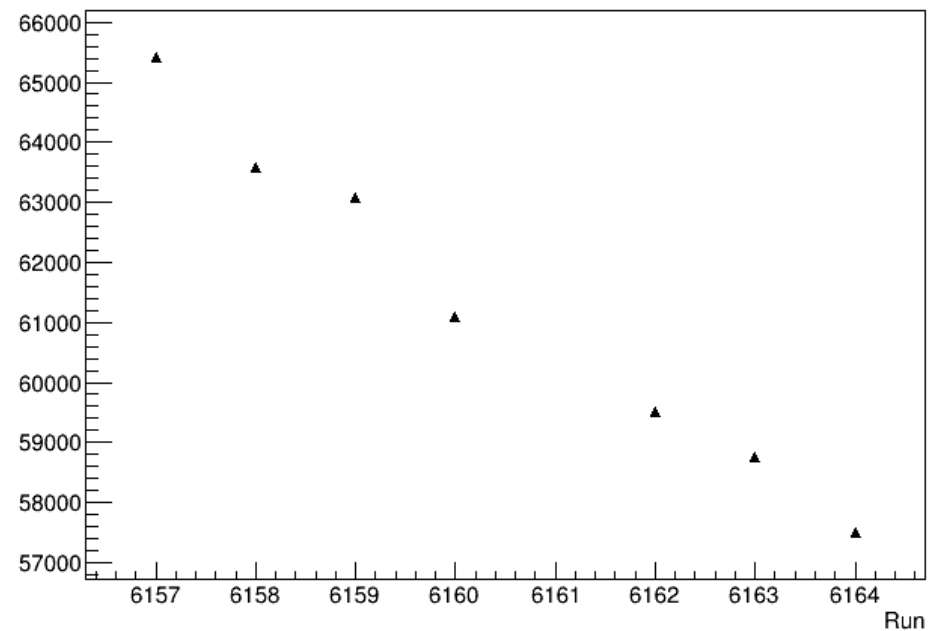
Toby Badman

3.350GeV 5T Transverse Yield Drift

Normalized Yield for $p_0 = 2.342000$



Normalized Yield for $p_0 = 2.492000$



Time

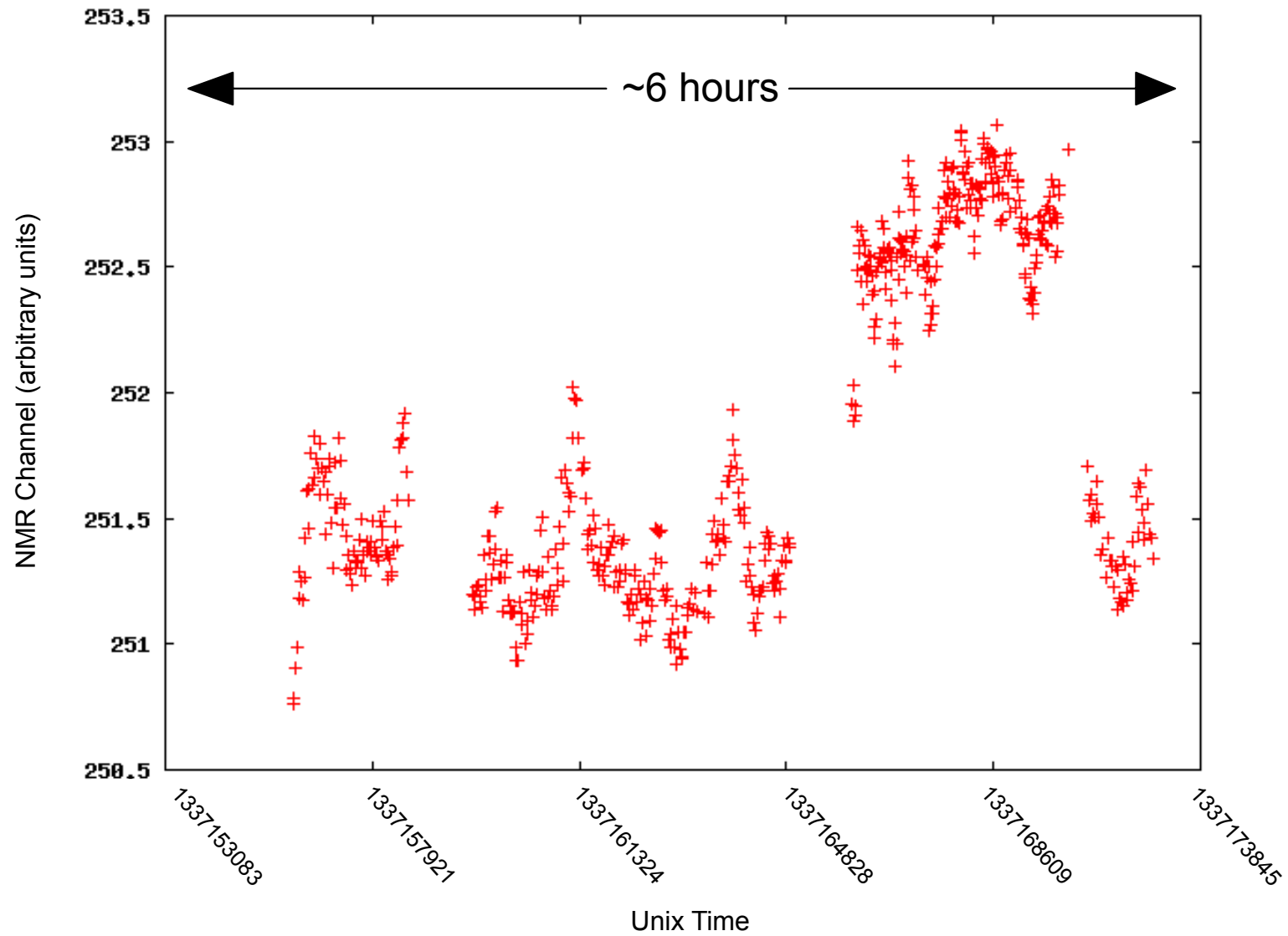
Things I've looked at...

- Halog entries
- Beam current
- Septum Current
- Beam position (X and Y at target)
- Raster pattern
- Target field
- Scaler rates (BCM and Trigger)

Plots available on the g2p wiki.

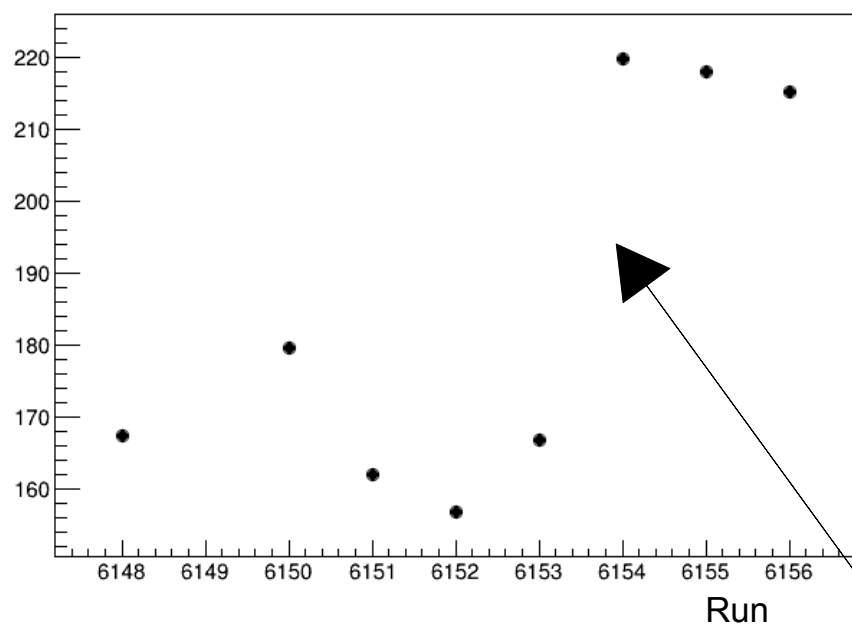
Target Field

Central NMR Value for $p_0=2.342\text{GeV}$

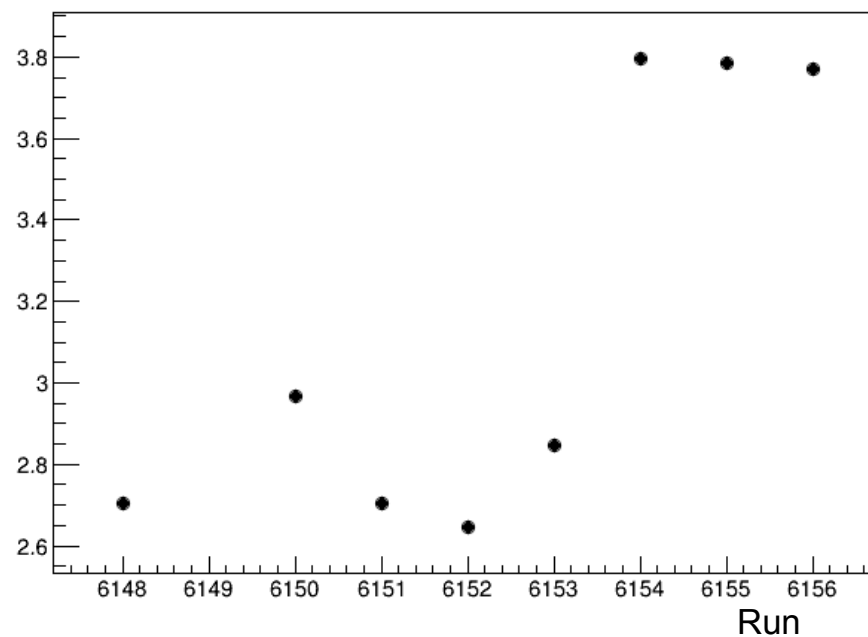


Scalers for 3.350GeV $p_0=2.342\text{GeV}$

Scaler BCM Counts / 1KHz slowclock



Scaler Accepted Trigger Counts / 1KHz slow clock

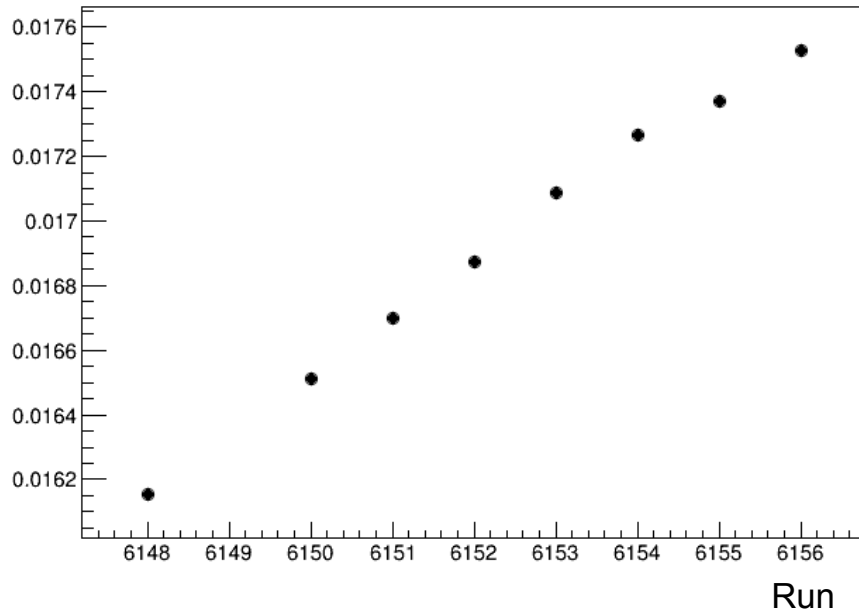


Current is changed
from $\sim 45\text{nA}$ to $\sim 60\text{nA}$

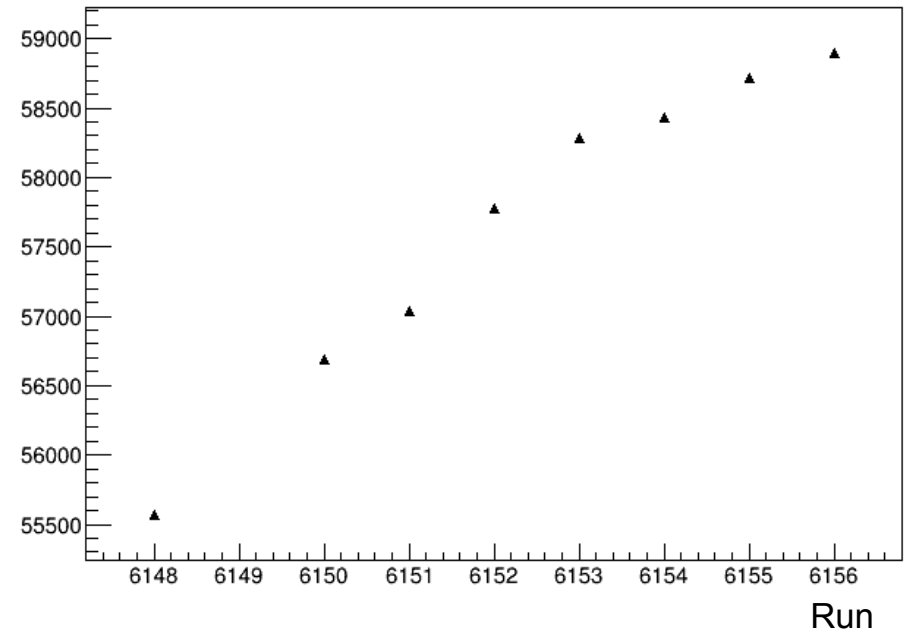
No noticeable drifting in scaler rates.

Scalers for 3.350GeV $p_0=2.342\text{GeV}$

Scaler Total Triggers / Scaler BCM Counts
(Normalized Scaler Yield)



Normalized Standard Yield



- Yield drift still seen in normalized yield from scalers (unstable current means we won't be able to see any drift in scaler rates).
- Power outage in hall may have caused problems in bcm?
- Possible to cross check scalers with third arm?
- Suggestions from meeting.