



Muon Campus Report - 03/03/2023

Steve Boi

Overview and Issues

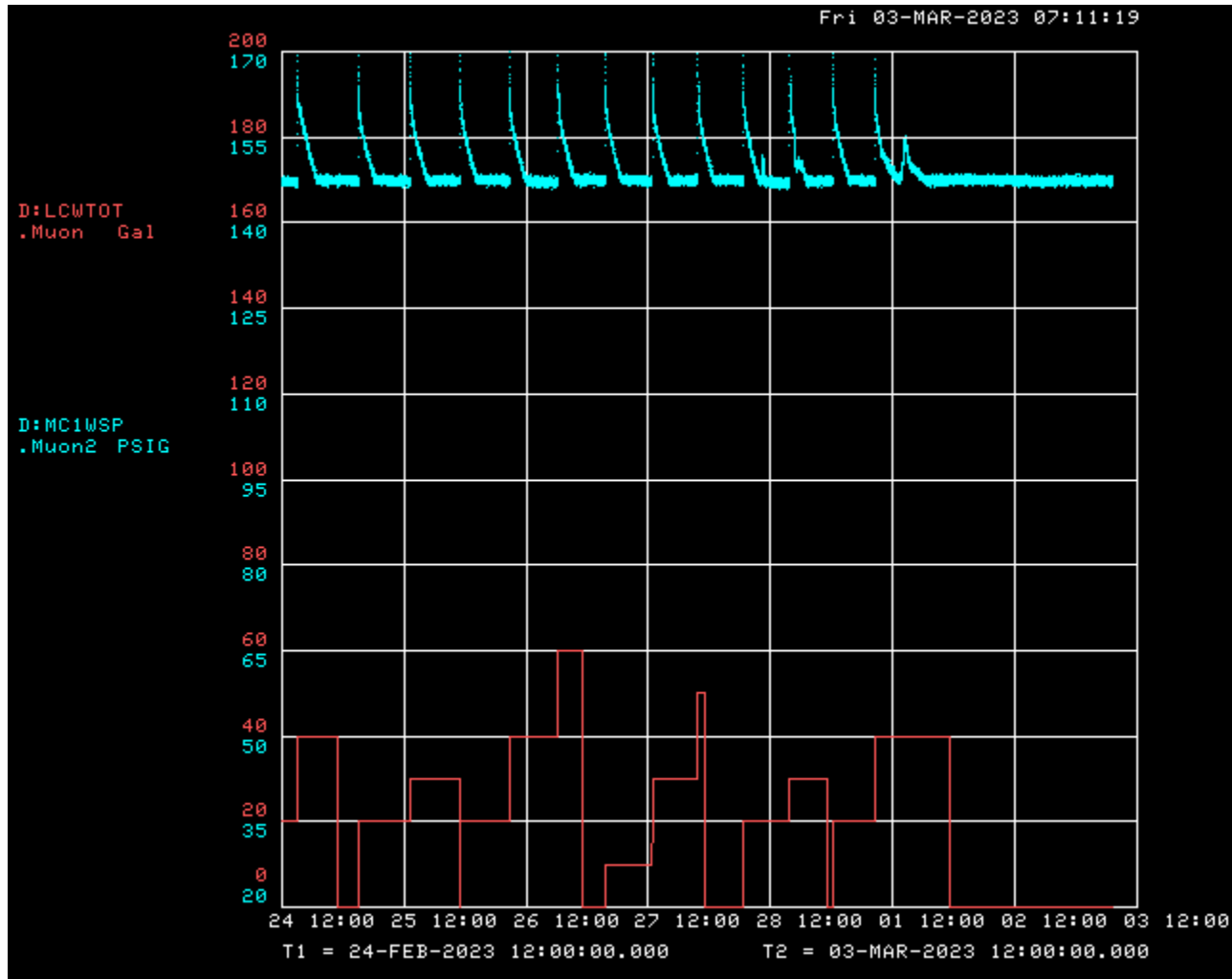
- Beam to g-2 between periods of Mu2e studies and downtime.
- Saturday/Sunday: beam to g-2.
- Monday:
 - x21 BNLS at g-2 achieved!
- Tuesday:
 - Mu2e studies – BPM commissioning continued.
 - Switched to g-2 at 16:00.
 - Breaker trip on D:V907 overnight, Ops reset ok.
- Wednesday:
 - Downtime for LCW leak investigation. Patched D6SF17 sextupole – reduced to dripping leak. Magnet was previously patched and requires brazing for proper repair.
 - D:QF supply DCCT amp failed during DR ramp-up.

Overview and Issues

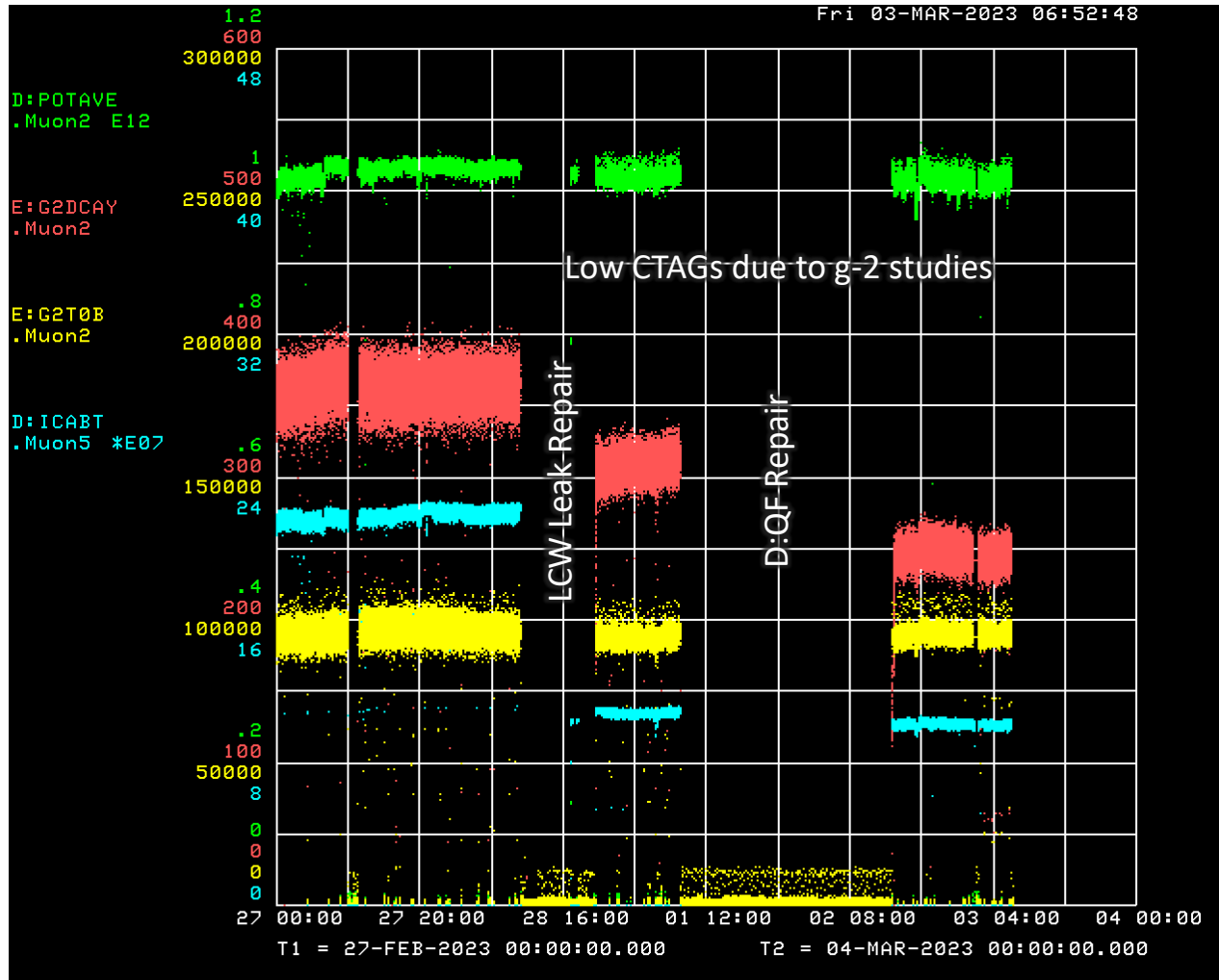
- Wednesday (cont):
 - ESS ORC signed off and ESS powered for the first time! (D:ESS2)
- Thursday:
 - D:QF supply repaired – Matt Kufer & EE Support.
 - AP-0 Target Blower maintenance was performed.
 - Beam to g-2 for studies.
- Today:
 - Mode switch to Mu2e for continued BPM commissioning in DR until 16:00.
 - Beam to g-2 after 16:00.

LCW Leak Repair

- No significant water makeup after repair.



Beam to g-2



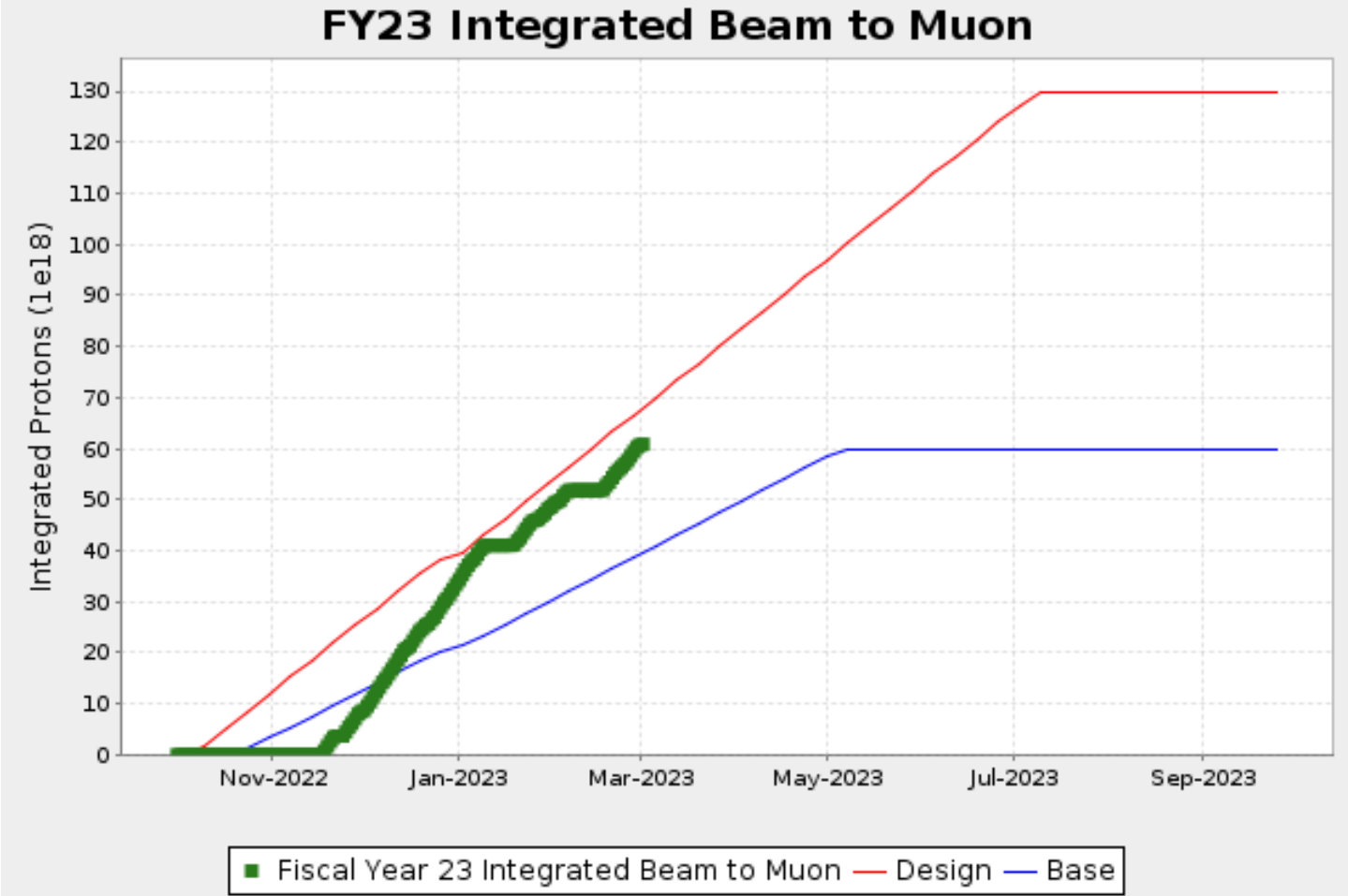
Protons to APO
Target

g-2 Calorimeter-
Tagged Muon Decays
($\sum_{24 \text{ calos}} n_i$)

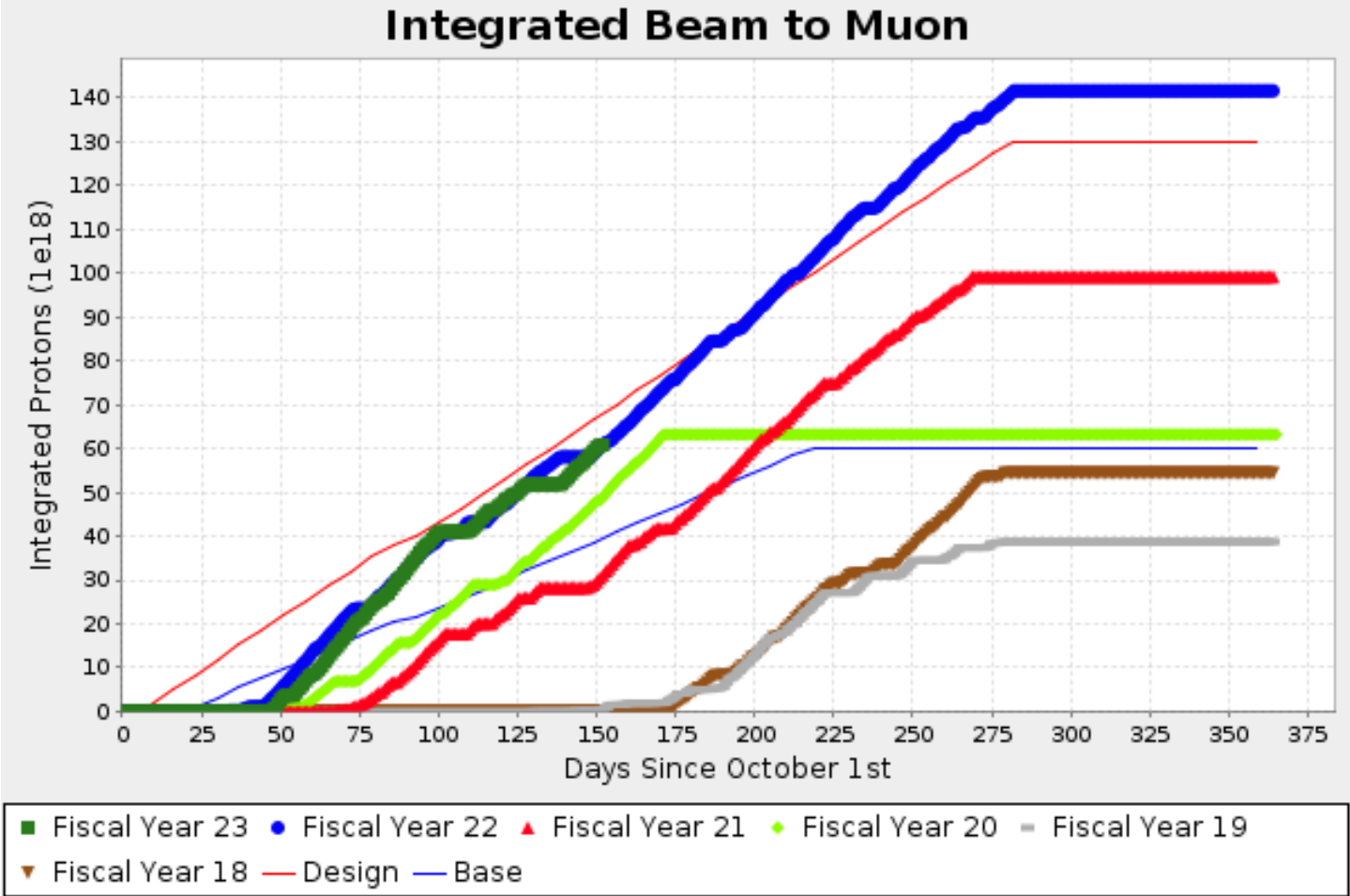
g-2 T0 Detector

Delivery Ring Abort

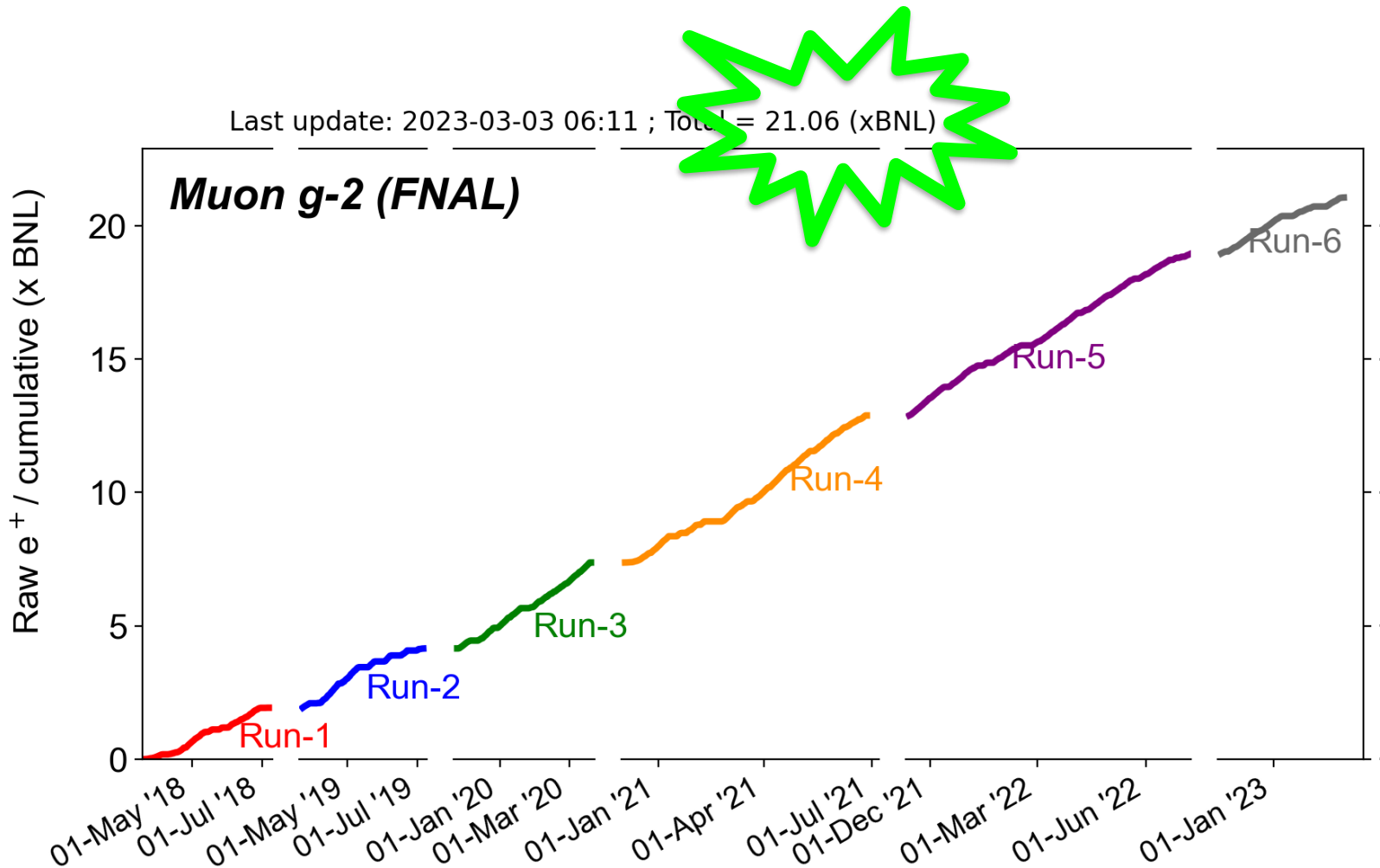
g-2 Protons on Target



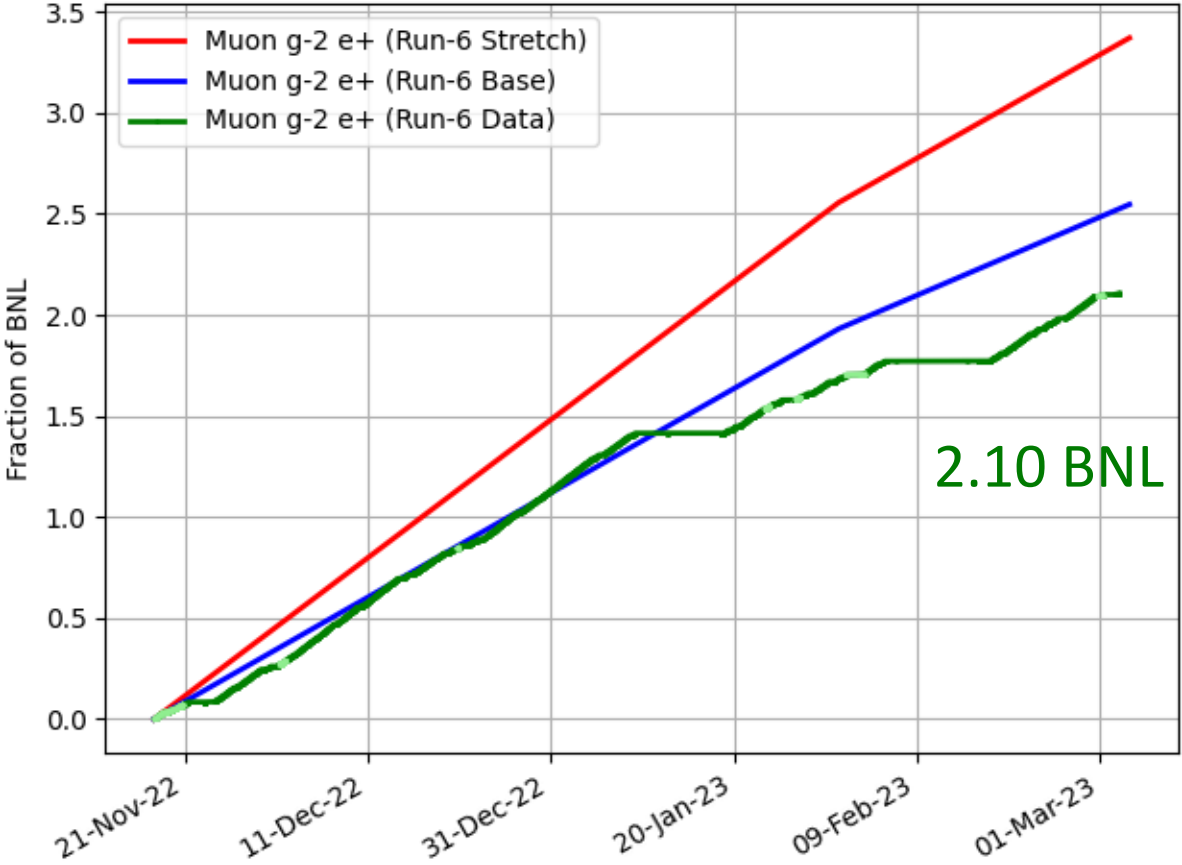
g-2 Protons on Target



g-2 Performance



g-2 Performance



Future Prospects

- Mu2e studies
 - Prepare DR for resonant extraction with ESS2 only.
 - BPM commissioning
 - ESS conditioning.
- g-2 running between Mu2e study time.