

CREX RC Report Sep 9 - 15

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Hall A weekly meeting

Tue Sep 15, 2020

Day	Shift and Mode	Comments
Wed Sep 9 43.75% ABU in 24h	Owl - production	Acc down ~3.5h for cavities work; Harp 1H04A not working
	Day - production	Recovery from Acc down; Access to repair harp (done)
	Swing - production	PITA scan, pedestal scans; 7:32pm limited to 140 uA due to BLM trip rate in the Injector
Thu Sep 10 19% ABU in 24h	Owl - production	Lost Compton laser power – recovered in 1h by rebooting the IOC
	Day - production	Injector re-steering + cavities RF recovery, back to 150 uA
	Swing - production	BPMs 11+12 widths randomly triggering the Parity Alh – thought to be caused by electronics switching time, not beam energy fluctuations
Fri Sep 11 54.87% ABU in 24h	Owl - production	BPMs 11+12 same behavior as during previous shift (comes and goes on its own), almost no beam, Acc down, multiple events
	Day - production	Recovered from Acc down events, production
	Swing - production	R-HRS Q1 Gaussmeter reading 0, Jack fixed the readback by power cycling it remotely, data looks good

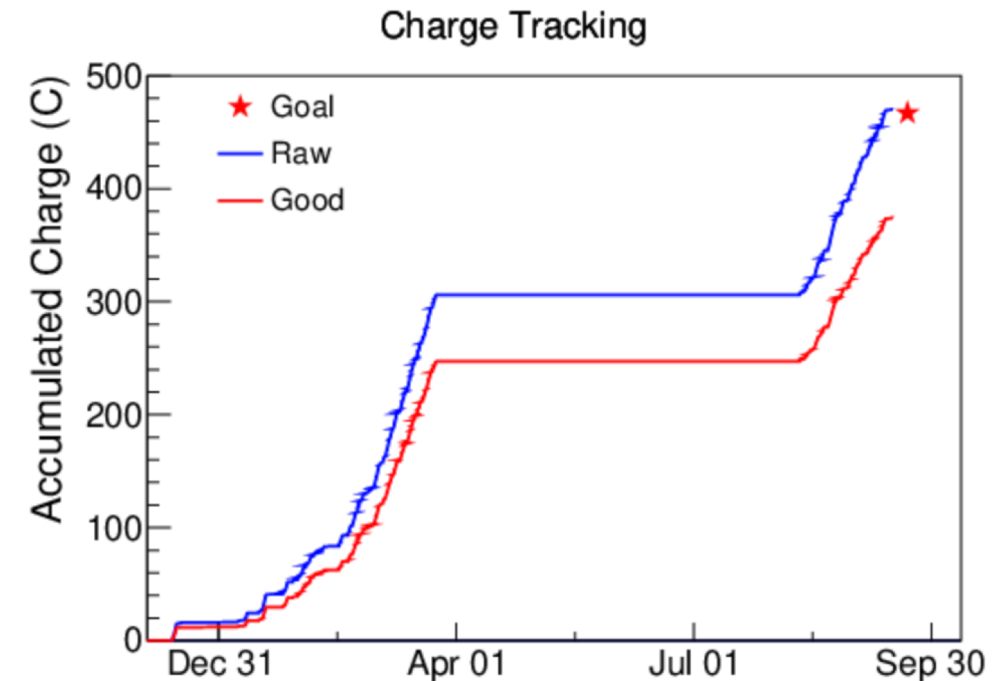
Day	Shift and Mode	Comments
Sat Sep 12 39.17% ABU in 24h	Owl - production	ROC6 died twice, rebooted twice
	Day - production	MCC – replace Klystron in 1L17-2
	Swing - production	
Sun Sep 13 40.83% ABU in 24h	Owl - production	Acc down 14h – Chopper problem, then Cavities dropped out of field
	Day – Counting	Recover Acc, switch to Counting Mode, 30 min of beam
	Swing – Counting	Q ² measurement, Energy measurement, Optics Run Plan
Mon Sep 14 22.92% ABU is 24h	Owl - Counting	Optics Run Plan completed
	Day – Counting/Integrating	Beam Studies in 2 stages; Blinding detectors study interleaved with BS
	Swing - production	Completed Blinding study, Compton e-detector is stuck, estimated to have a rusted motion mechanism (A. Camsonne); Beam recovery

Day	Shift and Mode	Comments / Plans ahead
Tue Sep 15	Owl - production	Beam to production ~3am; PITA scan, pedestal scans, UNSER scan
	Day - production	South Linac (SL) cryo trips, estimated to recover by end of shift
	Swing - production	
Wed Sep 16	Owl - production	
	Day - production	Moller measurement (Simona)
	Swing - production	Beam raster study (frequency and area)
Thu Sep 17	Owl - production	
	Day - production	
	Swing - production	CREX to END Fri Sep 18 at 6am!

Summary

- Run Plan for the remainder of the data taking is posted (and updated regularly) at <https://prex.jlab.org/wiki/index.php/CREXAuxiliaryMeasurements-Aug2020#Schedule>
- Hall and CREX equipment has been behaving over the past week
- Acc Up time has not been that great: ABU over the past week 36.75%
- Completed the Optics and Detectors Blinding Run Plan
- Auxiliaries left to do: one more Moller measurement and Beam Raster Study
- We have accumulated 374.11 C of good charge in production
- We have 80.1% of proposed charge on Ca-48

- We'd like to stay on stand-by over Sep 18 – 21 (during the scheduled Hall C 1st pass run) just in case C bails out of it and we can come back and take production on Ca-48, **can we?**
- The target can be HOME, no TO needed
- Magnets? Beam line?



**Thanks to all who
supported the CREX
Run!!!**