RC Update

Jason Bane University of Tennessee

Accelerator Status

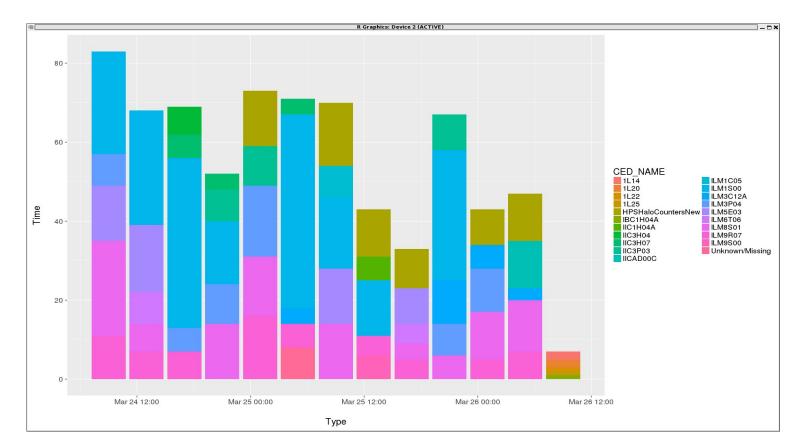
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12

Key 💌 Week 12 2018 🕨 Good Plan Tentative Plan Major Event **Incomplete Task** Lock Up Utility Interruption Radcon Group Special Support Scheduled Accelerator Down View ATLis Work Map Help Subset New/Changed LERF Z ATLis Task Login Auto Sun т W т F Sat М 19 20 21 22 23 24 2018-03-18 Owl PD: Suhring PD: Suhring PD: Suhring PD: Michaud PD: Michaud PD: Michaud PD: Michaud Strip line BPM tst Beam to 1R+ RF Control Script tst Day CHL AUX2 ready CHL1 2K Pumpdn **CEBAF Restore CEBAF** Restore **CEBAF** Restore **CEBAF** Restore IN INDOV 2

			OPS 24/7 INJ/NL INJ studies RF Push Magnets ON © SL Cryo walk	INJ/NL INJ studies & JLEIC INJ tst RF Push & XA/C FFB tsts & 1L13-6, 1L19-3 klystrons & 2L16 VIP card rails & MZAAS04 shnt mod Tunnel AC ON & XA dump diff card test XB target cooldn	9am INJ/BSY entry iocinX reset # RF Recovery # ITV TS ILMORD1 HV mismtch ITV4C00 indetr MBC6A28V Mismtch XC Target Cooldn # LAM3C tst & cert # LAM3C Funct Cert	1L23 drops 2L25 noise XC Target Cooldn XD target cooldn	Hall Staffing 24/7 e 2L07-7 Arc det e VIPAE00B TS e MBD2C00V TS XA target cooldn e End Stn cooling twr	
	Swing		INJ/NL INJ studies INJ Setup	INJ/NL INJ studies INJ Setup	Restore Start	Hall Lockups XABCD DC Pwr		
13		2018-03-25	26	(27)	28	29	30	31
	Owl	PD: Michaud	PD: Michaud	PD: Michaud	PD: Michaud	PD: Michaud	PD: Michaud	PD: Michaud
	Day	CEBAF Restore	CEBAF Restore	CEBAF Restore	Physics Start?	Physics	Physics Tour: ODU	Physics Placeholder tasks © RF Recovery © 1L04-4 HV fault © IN03B03 UPS PSS © 1A SLM © C100 probe filters © ITV TS © MBD2C00V TS © ITVAD00C © XC CW dump ITV
								Gun HV air press
	Swing							

Accelerator Status



Accelerator Status

RF separator has had issues since this weekend.

MCC planned access to address the RF separator during day shift.

High current test 85.5uA Total: 63uA to HC 22.5uA to HA



Permissions

Phase 3!!!!!!!!

CEBAF

Deeree			Credited				
Beam Destination	Approval	Beam Current Mode Limit		Comment	Expiration	Controls Status	
500KeV Dump (IDL1D00)	ŵ	CW	200 uA	CW beam authorized to the 500KeV dump.	07-May- 2018 06:00	4	
Inline Dump (SDL0R08)	4	CW	200 uA	CW beam authorized to the inline dump.	07-May- 2018 06:00	4	
BSY Dump (IBD4C00)	ŵ	CW	30 uA	Full authorization to all beam termination points in CEBAF/BSY	07-May- 2018 06:00	4	
Hall A (IBD1H05)	4	cw	25 uA	Hall-A Phase-III Tritium conditions invoked. Average target Beam current 22.5 (24 uA BELS).	07-May- 2018 06:00	<u> </u>	

Phase 3

In order to reach phase 3: need to complete TGT-PROC-012

7.1 ->Harp scan, https://logbooks.jlab.org/entry/3546454.

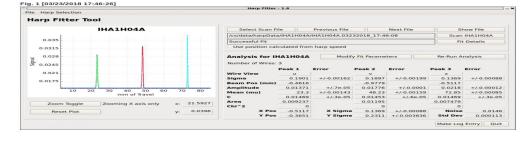


Fig. 2 [03/23/2018 17:50:16] File Harp Selection Harp Fitter Tool IHA1H04B Select Scan File Previous File Next File Show File 0.045 /cs/data/harpData/IHA1H04B/IHA1H04B.03232018_17:49:52 Scan IHA1H04B Fit Details 0.0405 0.036 Analysis for IHA1H04B Re-Run Analysis 0.0315 Number of Wires: 3 0.027 Peak 1 Erro Wire Vie 0.1034 0.1582 0.174 +/-0.00096 0.0225 Sigma +/-0.0046 Beam Pos -3.145 -2.507 2.546 Amplitude 0.02683 +/-9e-05 0.01783 +/-0.00025 0.01569 +/-6e-05 0.018 Mean (mu) 19.45 45.97 +/-0.00256 69.73 +/-0.0006 +/-0.00056 mm of Travel 0.01798 +/-3e-05 0.01791 +/-0.00023 0.01801 +/-5e-05 Area 0.009832 0.009999 0.006842 51.4955 Zooming X axis only Zoom Toggle ×: chi^2 0.0491 X Pos 2.546 X Sigma 0.174 +/-0.0009 Noise 0.01789 Reset Plot 0.4513 0.0001495 Y Pos Y Sigma 0.07379 +/-0.006699 Std Dev Make Log Entry Ouit

7.2 -> MCC completed the ion chamber functionality test with good results: logbook-> https://logbooks.jlab.org/entry/3546497

					FS	D Node IO	NHAO	1					_ 0
					FS	D Node I	ONHA	01					
					FSD_	ION / ver 2076	34 <u>C</u>	ED					
	Readout	Bias	Threshold	Max	Peak	Sum	int	Vlog	I.C. Current	Scale Fa	ctor	RADVHR	CHANNEL DEVICES Watchdog
M	1421	35000 35000	50000 50000	39321 39321	1906	4.679e+07	0	0.108	1.648e-10	6.667e+09	6.667e+09	1.098e+00	Moeller Target (IonChamber)
	1404	35000 35000	43690 43690	39321 39321	1428	4.608e+07	0	0.107	1.638e-10	6.667e+09	6.667e+09	1.092e+00	Target Upstream (IonChambe
M	1409	1500 1500	20000 20000	45000 45000	1802	4.615e+07	0	0.107	1.641e-10	6.667e+09	6.667e+09	1.094e+00	Target (IonChamber)
M	1396	1500 1500	16000 16000	45000 45000	1644	4.576e+07	0	0.107	1.633e-10	6.667e+09	6.667e+09	1.089e+00	Dump Left (IonChamber)
M	1384	1500 1500	16000 16000	45000 45000	1633	4.540e+07	0	0.106	1.626e-10	6.667e+09	6.667e+09	1.084e+00	Dump Right (IonChamber)

Fig. 3 [03/23/2018 20:14:15]

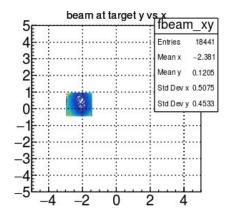
Phase 3

7.3 was postpone until Raster work was completed Monday morning

7.4 ->The beam was nice and centered. https://logbooks.jlab.org/entry/3546587

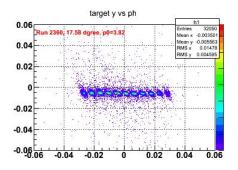
Bill Gunning completed work on the raster during our access Monday morning: <u>https://logbooks.jlab.org/entry/3548452</u> "After inspection a bad fiber optic cable running from the BRM to the FSD card was found and replaced. Status went back toy green. Replaced the other BRM boards fiber too since it looked very old too."

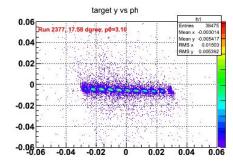
https://logbooks.jlab.org/files/2018/03/3548455/FADC_Tritium_2404.pdf

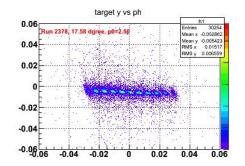


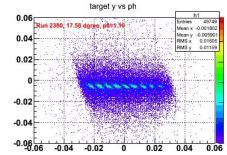
Hall Status!!

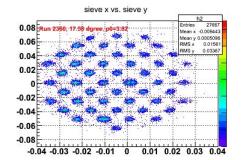
Took Optics over the weekend!

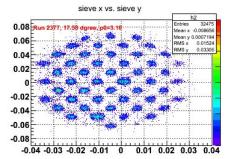


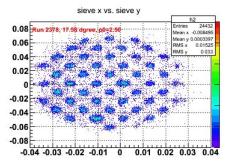


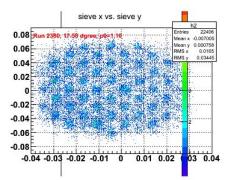












Plot by: Shuije Li

MARATHON

MARATHON has collected about 70% of their experimental Data!

Kin 16 (RHRS P0= 2.9GeV/c theta=36.1)

Good electron counts: Tritium -> 16.6k He3->17.4k D2->15.6k

Plan for the next few days:

Finish up positron contamination study.

Begin MARATHON physics for LHRS and continue RHRS kin16!