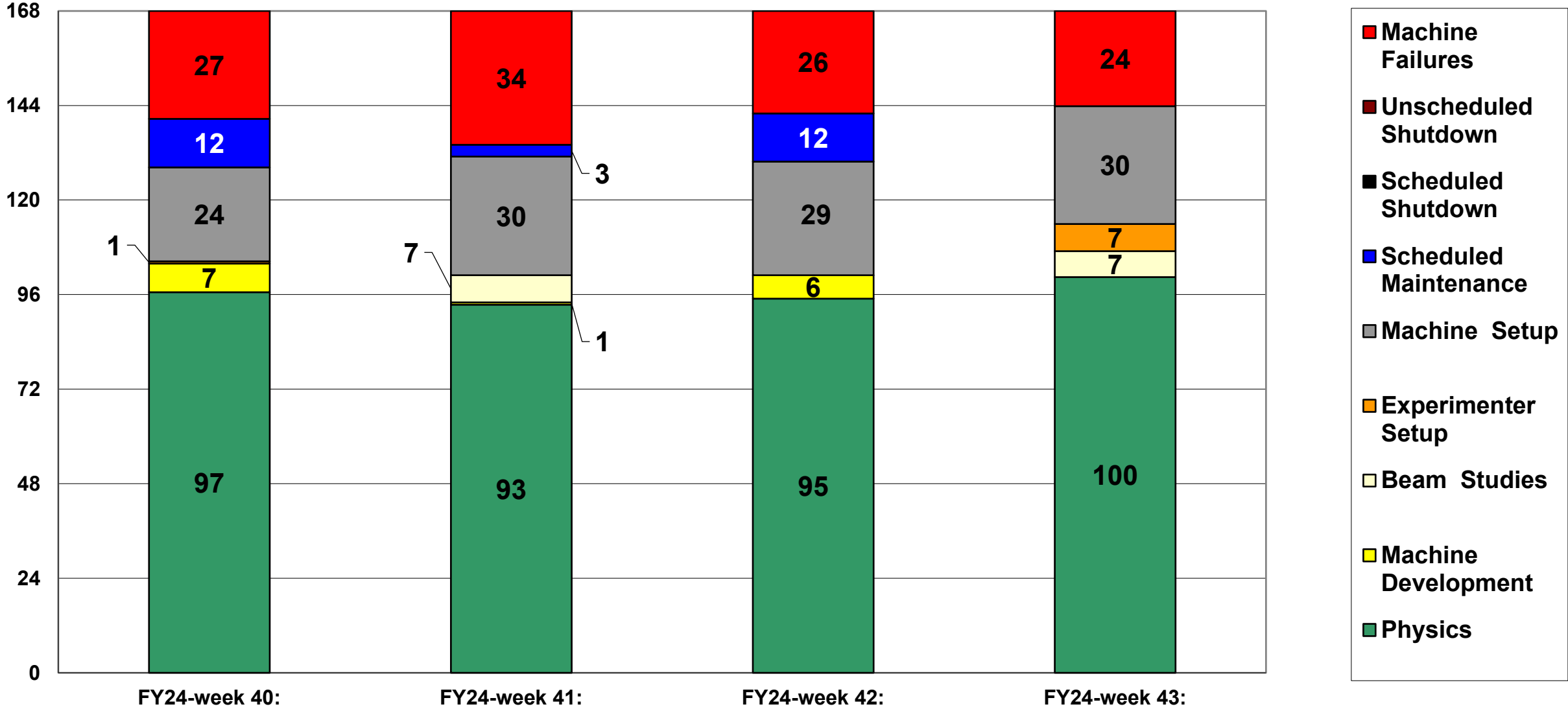
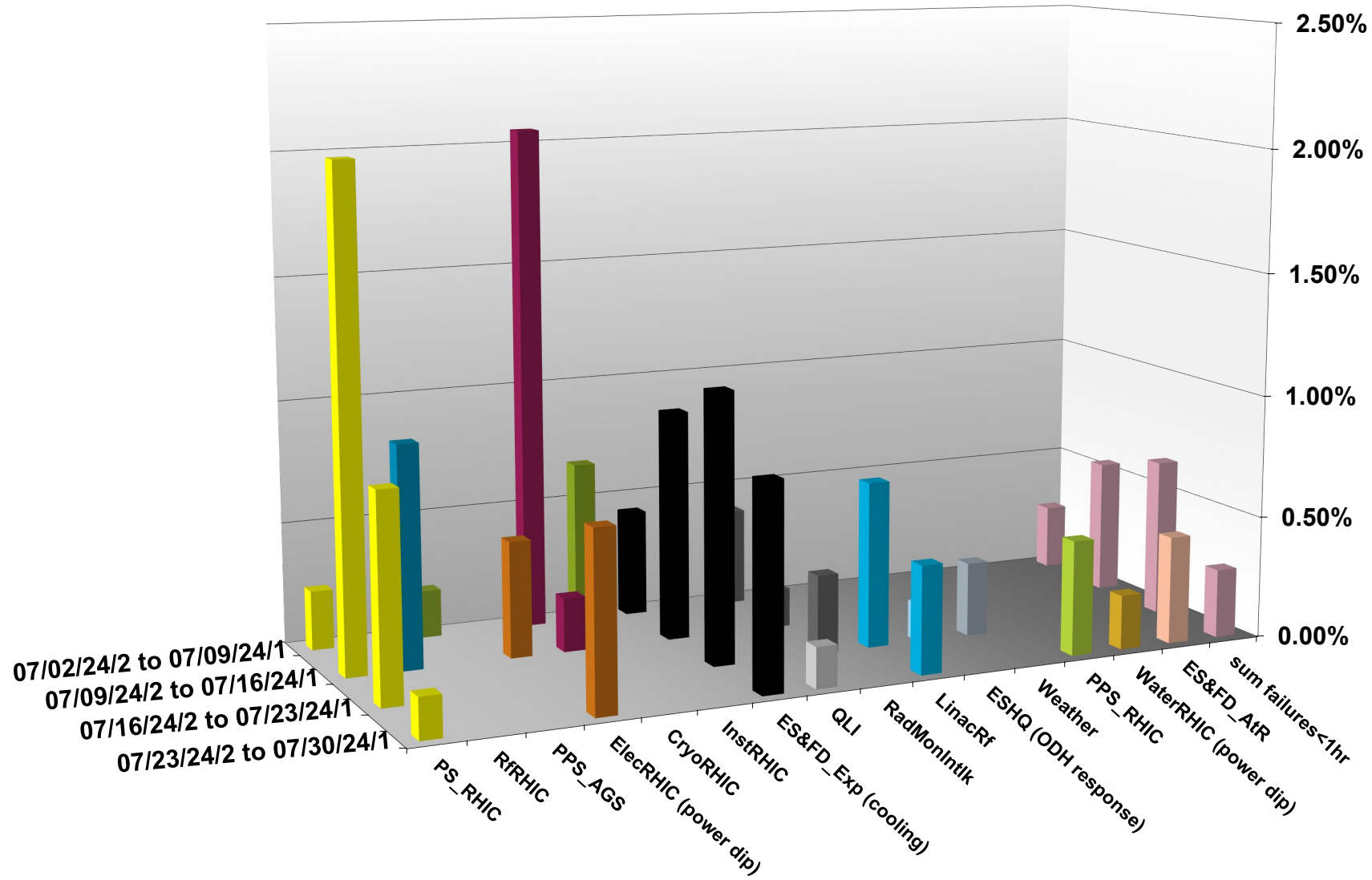


C-AD ACTIVITY July 2024



INTEGRATED FAILURES (GREATER THAN ONE HOUR) BY SYSTEM -- July 2024



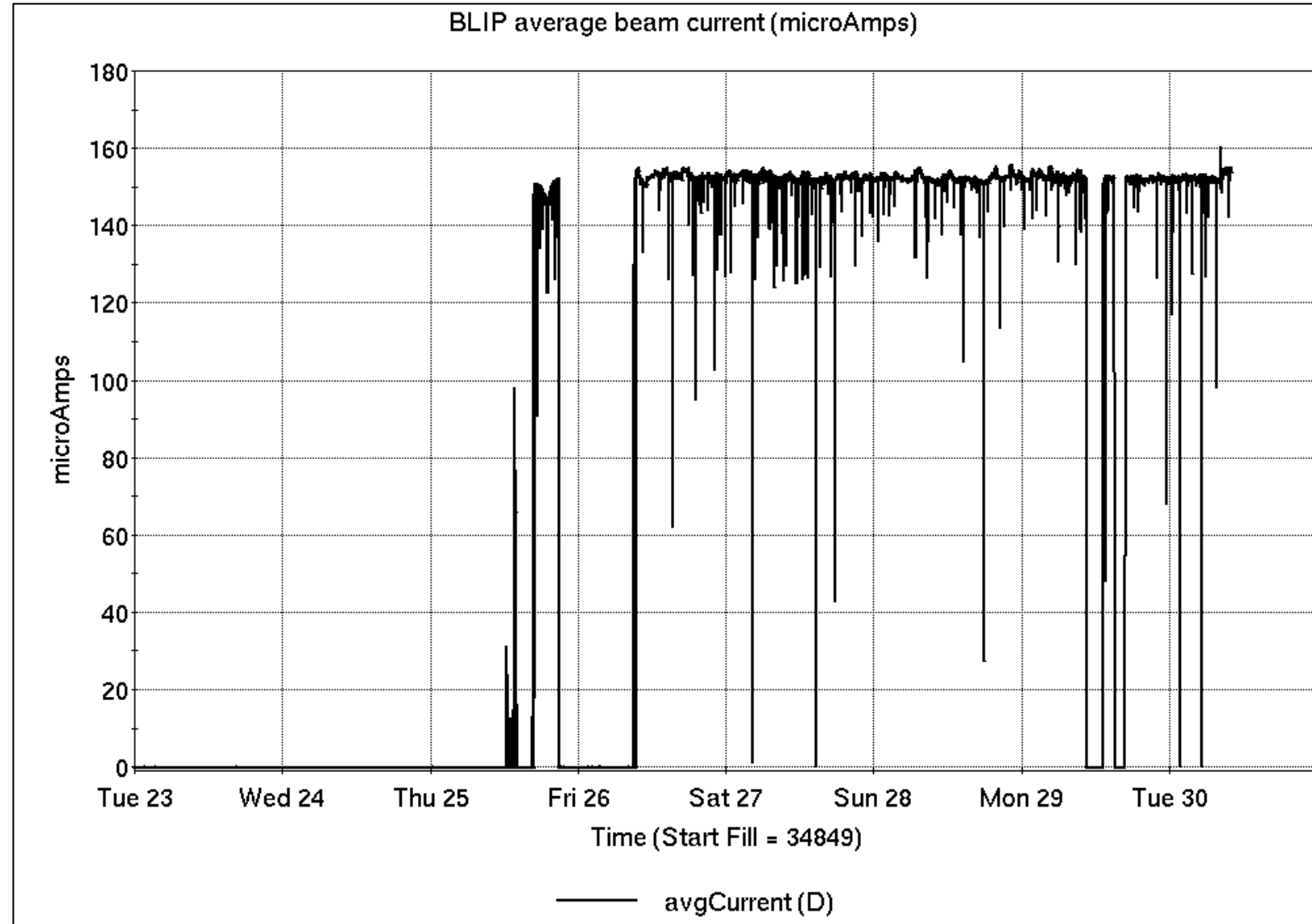
Operations for BLIP

7/23-30/2024:

200 MeV Th target production began Friday and continues through the week.

- 90.0 hr Production
- 4.33 hr Setup
- 4.6 hr Failure

Availability: 95.4%



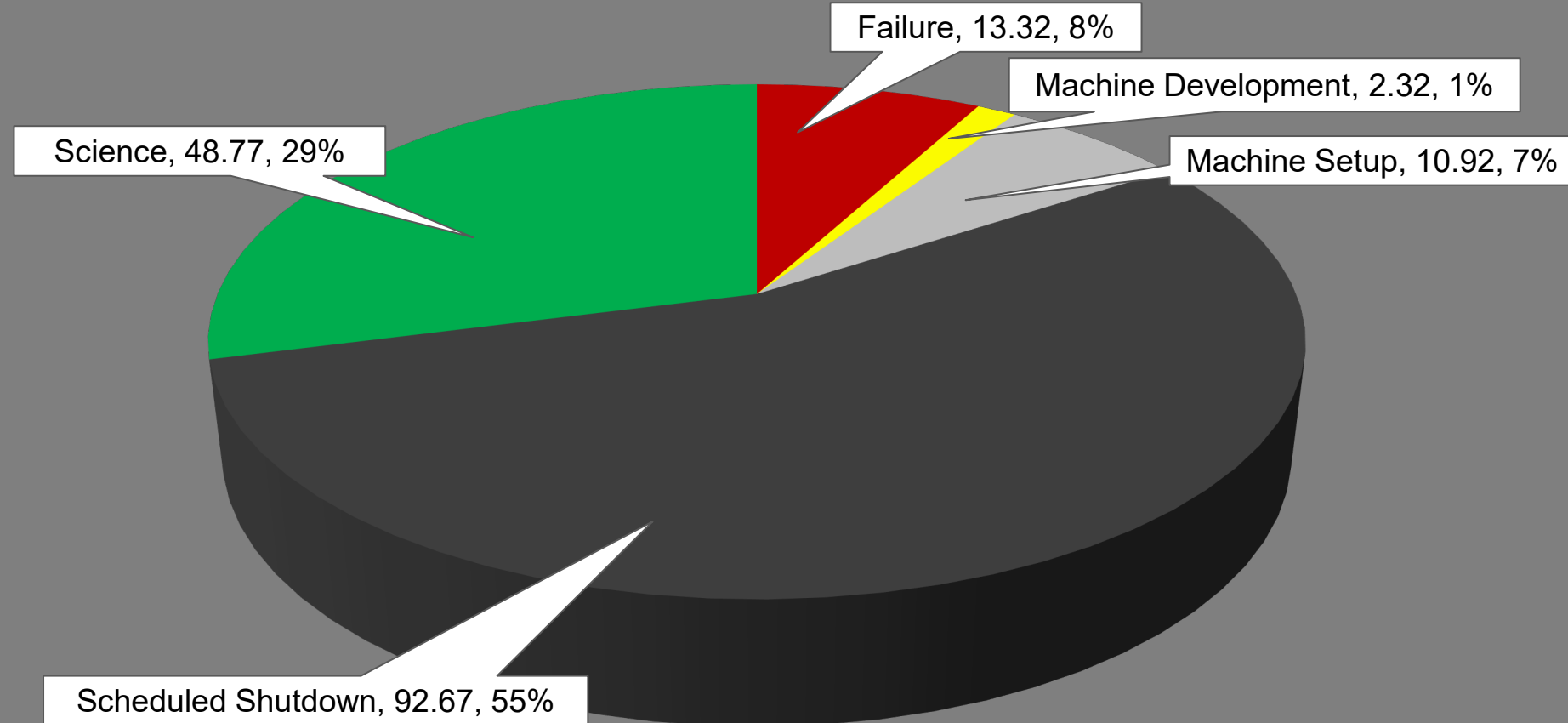
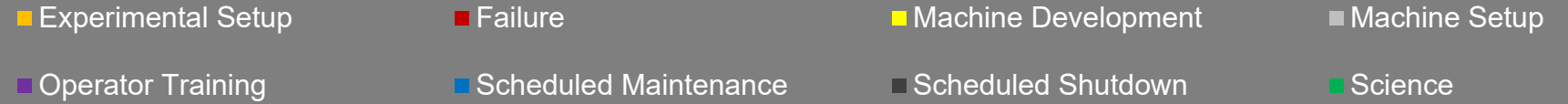
NSRL activity past week: 7/23-30/2024 (as of 0800)

NSRL continues running for multiple users.

Protons, 8 EBIS ions in use.
(Si, Ti, Fe, Nb, Ag, Ta, Bi, Au)

Running 24-C schedule since 22 May. Schedule posted, **updates into September** for beams & users up to November.

NSRL Hours



Notes from Operations

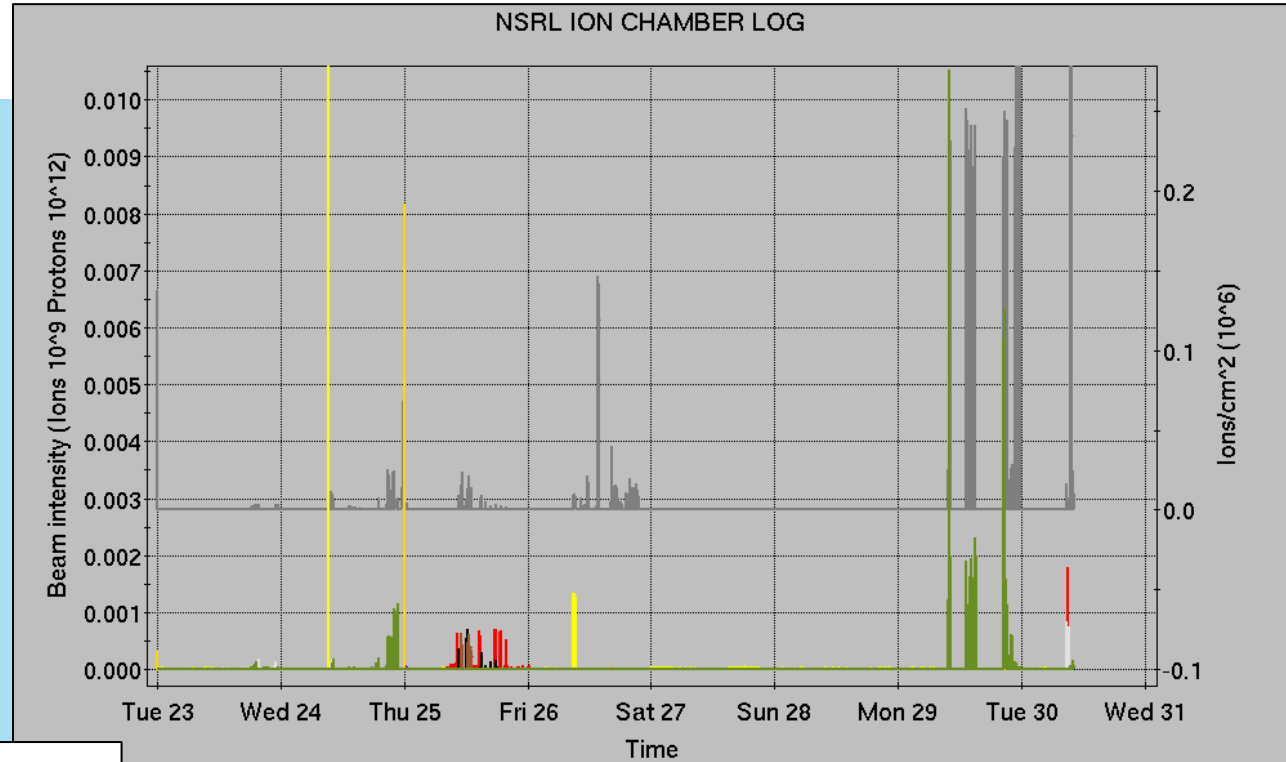
Notable failures (>1 hr)

- Linac Mod 5 failure (10x), repairs to many components
- Multiple storm-related power dips, affecting all programs and many systems
 - STAR cooling and chilled water extended failure time, in part
- Yellow abort and injection kicker issues, diagnosis ongoing for intermittent failure
- Booster D6 septum failure required multiple interventions
- QLI, ramping down helion test ramps
- Cooling system PLC failure trips RHIC RF
- Experiment accesses for failures

Other notes

- Booster circulating beam current transformer continues to exhibit intermittent noise issues
- Loss monitor interlocks, RHIC beam aborts (5x); other beam orbit issues
- Other misc EBIS, injector, RF trips, injector access

Some long repairs occur behind RHIC stores.



DailyAlarmSummary
 C-AD Message Service <opserver@bnl.gov>
 To: Marr, Gregory
 Total number of notifications: 1
 -----DailyAlarmSummary----- 2024-07-30T09:00:03
 /home/cfsd/morris/alarms/alarms/bin/DailyAlarmMessage
 Most recent daily alarm summary is from 2024-07-29-23:55:05
 See full list in /operations/app_store/AlarmDisplay2000/analysis

125 permit.958-vme.A:upstreamFailedM
 90 ulrClkDsk.2a-llrf-cec5.5:lockSta
 79 watch.Ado.MCR:lrm.29blip1M
 66 amn.control.level1StatusBitsM
 63 permit.958-vme.A:input1StatusM
 58 ebs-dt12.xb-ps.qf:statusM
 55 gpm.lrm.31_blip3-avg:dataM
 49 waterLeakMon.9a:statusM
 48 ebs-dt13-17.xb-ps.qf:statusM
 28 ulm1.1.charge:watchAlarmM
 28 ba6-cava-rfQloop:rOHM
 27 wfg.yi3-tv20-ps:ioErrorM
 27 ba6-cava-rfQloop:arcProtectM
 23 StarAlarm:ifeAirFlowAlarm
 19 PMServer:
 18 CF:cfe-930ebis-time2
 16 linacTank3DacPpc0:wndCmpStatusM
 15 wfg.yi3-th19-ps:ioErrorM
 15 power.svm:trackingM
 14 psctrl.trimWest.star:stateMismatch
 14 psctrl.trimEast.star:stateMismatch
 14 NM.236:doseRateHighM
 13 psctrl.trimWest.star:statusM
 13 linacTank6DacPpc0:wndCmpStatusM
 13 ba3-cava-rfQloop:rOHM
 12 psctrl.trimEast.star:statusM
 12 bta-gd5-ps:statusWordM
 11 rarc20-ps:statusM
 11 rarc20-ps:stateMismatch
 11 linacTank6AdcPpc0:comp1StatusFlag

Protons (Y1) Si/10 (Y1) Ti (Y1) Fe (Y1)
 Nb (Y1) Ag (Y1) Ta (Y1) Au (Y1)
 Bi (Y1) DoseRate (Y2)

Has it been repeating often?

Is it still alarming now?

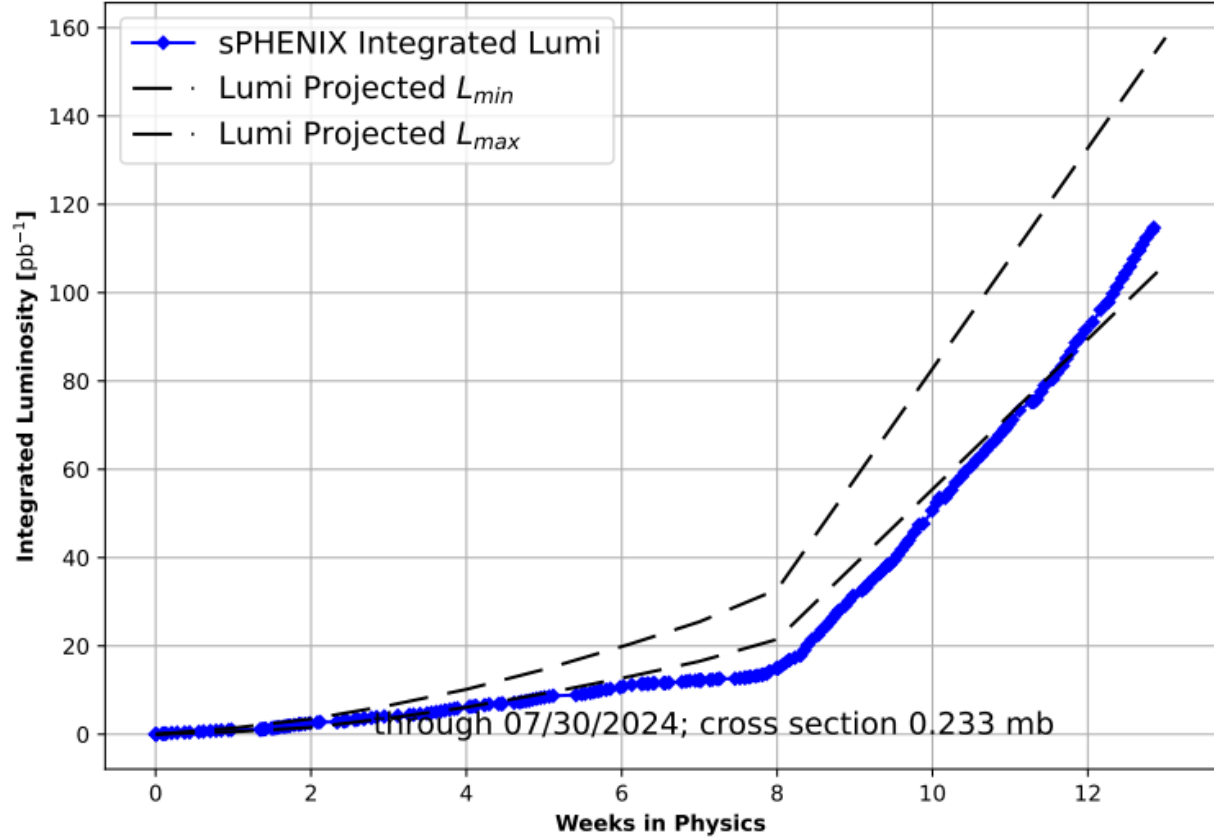
	Linac	Tandem	EBIS	Booster	AGS	ATR	RHIC	ERL	Other	Total
Total	2 (2)	1 (133)	3 (4)	6 (16)	6 (13)	18 (5)	74 (24)	0 (4)	33 (21)	143 (222)
RF	0 (0)	0 (0)	1 (0)	0 (0)	4 (0)	0 (0)	0 (0)	0 (0)	8 (10)	13 (10)
PS	0 (0)	1 (97)	1 (4)	1 (0)	1 (6)	13 (2)	16 (5)	0 (0)	2 (1)	35 (115)
Vacuum	2 (2)	0 (34)	0 (0)	5 (15)	0 (0)	0 (3)	2 (16)	0 (4)	10 (7)	19 (81)
Inst	0 (0)	0 (2)	0 (0)	0 (0)	0 (2)	4 (0)	1 (3)	0 (0)	2 (3)	7 (10)
Other	0 (0)	0 (0)	1 (0)	0 (1)	1 (5)	1 (0)	55 (0)	0 (0)	11 (0)	69 (6)

Reminder from Operations

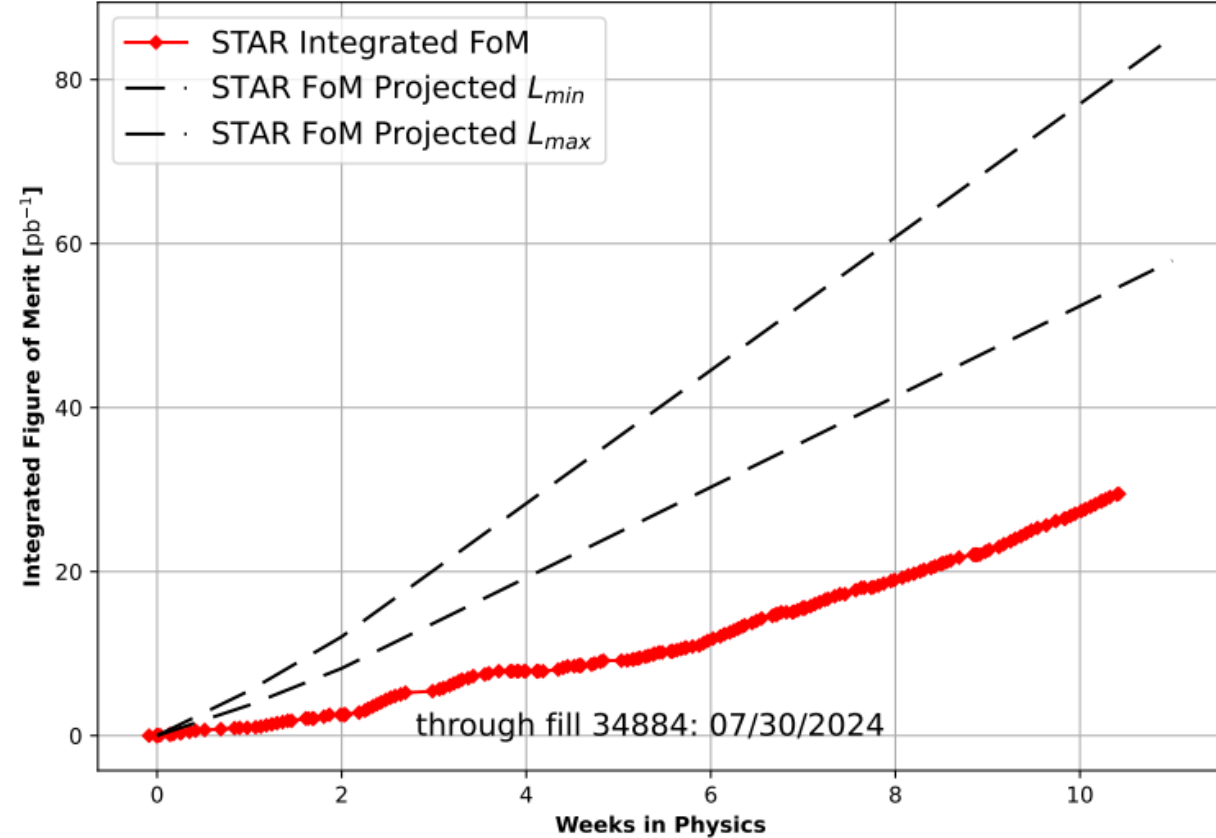
- MCR continues Operations for:
 - BLIP – continues until 1 August; **no further irradiations scheduled**.
 - NSRL – users scheduled to run Mon-Fri this week and next.
 - AGS/Booster setups continue, additional to RHIC physics.
 - Injector **Au setup as yet untested**. Tandem Au setup pending.
 - Injector h setup, **mode switching**.
 - Skew quad **testing, other polarized beam setups continue** as beam time allows.
 - RHIC beam for Physics stores.
 - Other MD, Maintenance, APEX as noted in schedule
- CHECK YOUR CALLIN LIST: **WCC** and **ECP** updates needed
 - **Initial failure response often involves ECP consult. Ensure your Group callin list contains this information.**
 - **Callin lists should be accurate in terms of personnel and time off.**
 - https://www.cadops.bnl.gov/Operations/personnel/call_in_lists/
 - Note: **Core Electrical contacts listed/managed on ESSHQ callin list**
https://www.cadops.bnl.gov/Operations/personnel/call_in_lists/call_in_list.php?group=esshq
- CHECK AND EDIT YOUR OWN CONTACT INFO
 - <http://directory.pbn.bnl.gov/>

Preliminary delivered Luminosity, Figure of Merit (LP²) data for RHIC

fy_24 Delivered Luminosity to sPHENIX
100 GeV p⁺ x 100 GeV p⁻



fy_24 Delivered FoM to STAR
100 GeV p⁺ x 100 GeV p⁻



Courtesy R. Terheide

Availability: RHIC Run-24



Mean Time Between Failure, Mean Time To Repair, Average Failure Hours per Day (cryo start to cryo end date)

