

FY27 SAM Scope of Work: CEBAF Accelerator

August 20th, 2026

Daniel Moser, CEBAF Operability Leader

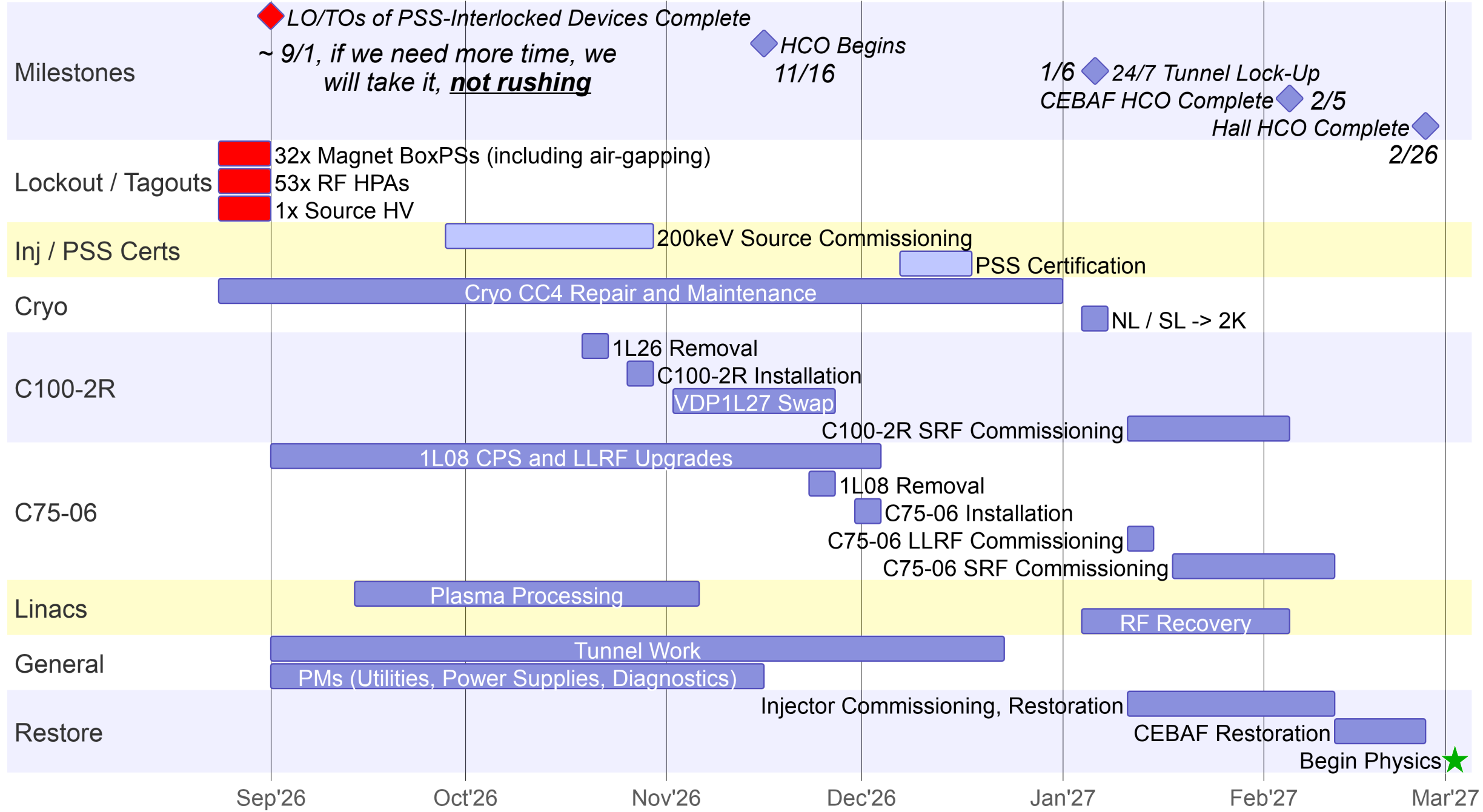
Jefferson Lab



U.S. DEPARTMENT
of ENERGY



FY27 Scheduled Accelerator Maintenance (SAM) *(preliminary Aug'26 schedule, subject to change)*



Long Poles in the FY27 SAM CEBAF Tent

- CHL2 2K Cold Box Cold Compressor 4 Repair
 - Cryo is reevaluating their planned SAM maintenance to incorporate this critical task
- 200 keV Source
 - Replace HV Ceramic and Cathode Electrode
- NL Cryomodule Swaps
 - 1L08 => C75-06
 - 1L26 => C100-2R
- East Arc Dipoles Overheating
 - Must determine why East Arc Dipoles are overheating, tripping thermal interlocks
 - Must correct the underlying problem
 - Likely will need to further flush affected dipoles

200 keV Source

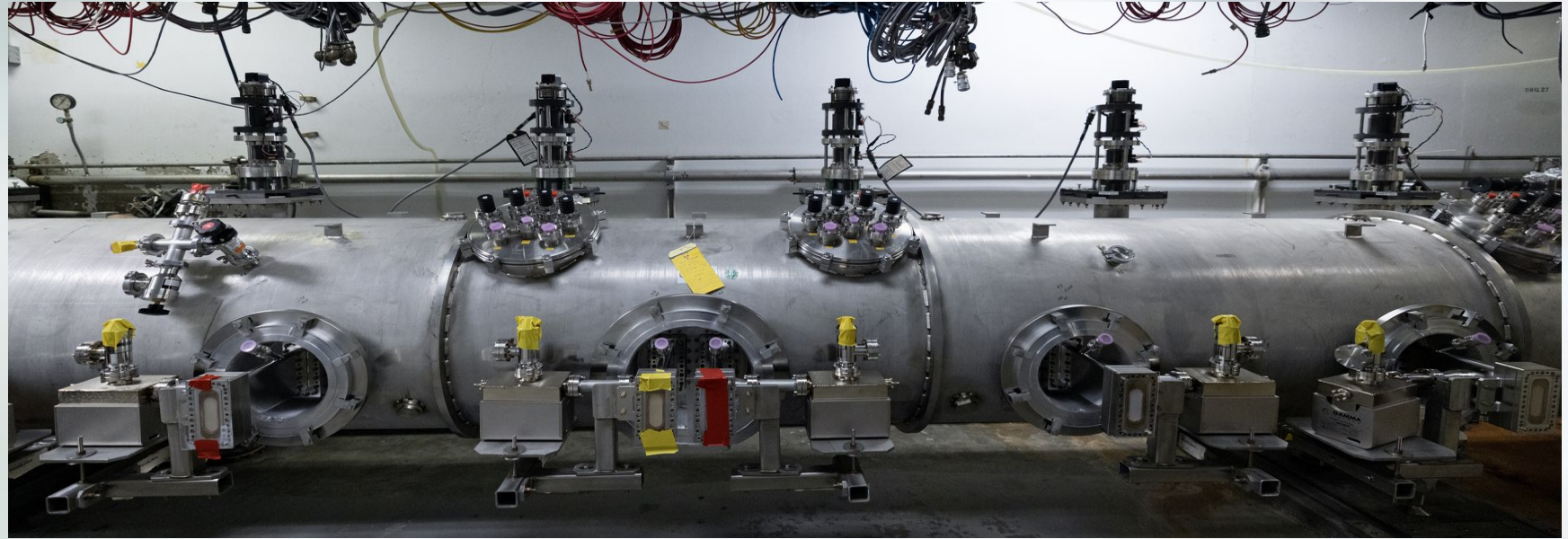
Key Dates for Wider Community

- Mo 8/31: Injector open for access
- Fr 9/11 – Fr 9/25:
 - Only **as-needed** Injector access
 - No work that creates dust or particulates
 - Week of 9/21: Mini-HCO to 1D
- Mo 9/28 – Fr 10/23: Injector locked-up weekdays Day + Swing shifts (~ 8AM – 12AM)
- Mo 10/26 – We 12/23: Injector mostly Open for access
 - Mo 12/7 – Fr 12/18: Locked Up ~ 2PM – 12AM for PSS Certs
 - Lock-Ups at other times seldom, but possible
- Around Mo 1/4/27, begin 24/7 Injector Lock-Up



NL Cryomodule Swaps

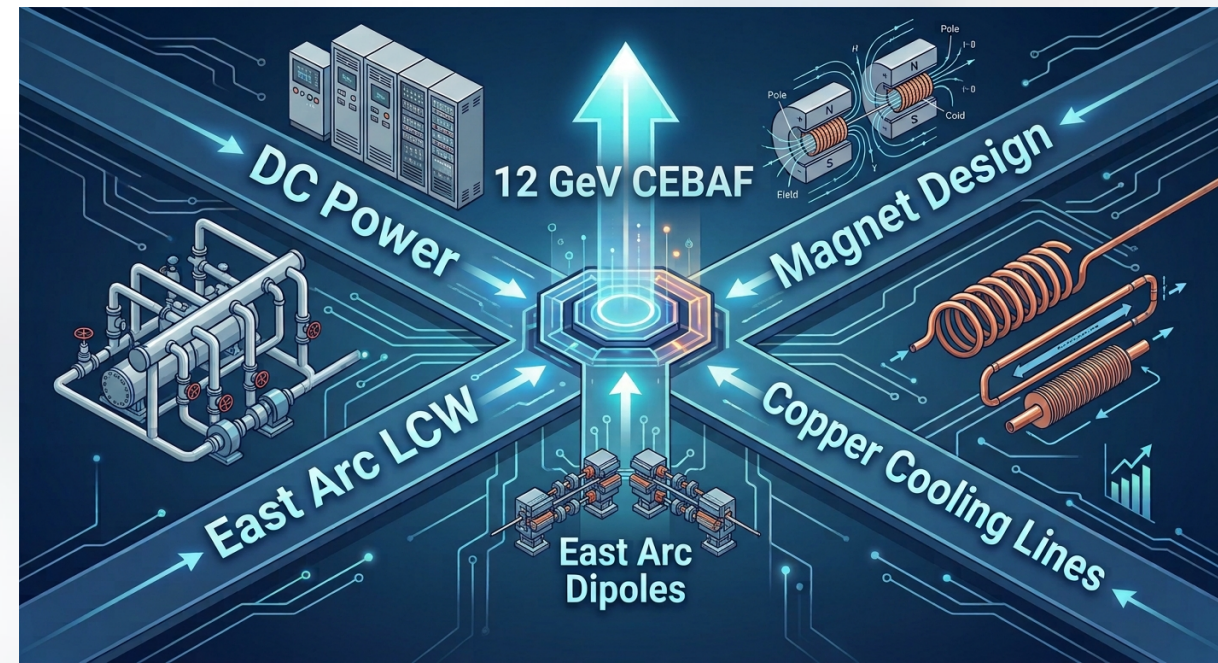
- C100-2R will go into NL26
 - No major changes to above-ground CPS or LLRF Controls
 - CMTF testing remains
 - Aiming for module swap in tunnel late October
- C75-06 will go into NL08
 - Further VTA and CMTF testing remains
 - 1L08 CPS and LLRF controls will be upgraded by AESRF beginning in September
 - Aiming for module swap in tunnel early December



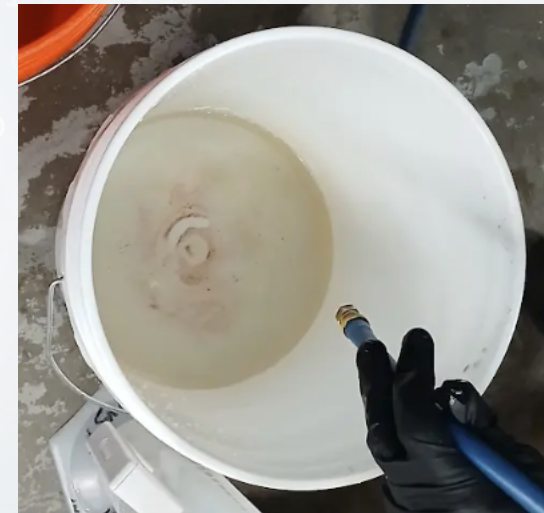
East Arc Dipoles Overheating

- During FY26 Physics Run, flushed **34 East Arc dipoles** (a couple twice), due to overtemperature trips or elevated thermal readings found before a trip occurred;
~750hrs of lost beam time to at least one Hall
- Repair Investigation Team formed to author an Repair Assessment Report (RAR): Chase Dubbe (lead, Engineering), Nate Andrews (F&O), Adam Cutler (F&O), Probir Ghoshal (Physics), Josh Ingersoll (Engineering), Carroll Jones (F&O), Joe Wilson (Cryo), and Robin Wines (Physics)
- Lots of progress and recommendations from team thusfar, but **root cause of dipole overheating still unknown**

Right: LCW samples taken from Arc5 dipoles after having been flushed and thoroughly rinsed.



*We, one JLab, **MUST** resolve this issue for CEBAF to reliably run.*



- ATLis is for CEBAF work planning, scheduling, coordinating, and tracking
- If the work affects the **operation** or **configuration** of CEBAF, an ATLis is required

- When in doubt, submit an ATLis

- Please link ePAS permits with ATLis tasks
- Approved ATLis + On-Issue ePAS PTW, MWP, or RRD = Complete Work Package for work at CEBAF
- Who can approve an ATLis?
 - Operability (x5089, moser @ jlab.org)
 - On-duty Crew Chief (x7045), cell: (757) 630 7050
 - Forgot the contact details?
 - Staff search “Operability” or “Crew Chief”

Flush Arc5 JC and Arc9 JA Dipoles

Update/Comment
Comments/History
ePAS Permits

The table below lists the information most recently retrieved from the ePAS server for permits and permit requests whose "Task Number" field associates them with this task's "Work Order Number". The date column indicates when it was last verified. **Crossed-out text indicates an expired permit.** Use the **Refresh** button to update the table with fresh data from ePAS. Use the **Create** button to create a new Permit Application in ePAS linked to the task. Clicking on the Permit/Request label will launch a new browser window where you may view or edit the Permit/Request.

Refresh
Create
☐ Show Completed Permits (20)

Permit/Request	Type	Status	Last Verified	Permit Title
JLab-PTW-11475	Permit To Work	Planning	2026-08-10 09:48	Magnet Flushing- Arc 5 JC's
JLab-PTW-11474	Permit To Work	OnIssue	2026-08-10 09:48	Magnet Flushing- Arc 9 JA's
JLab-PTW-11512	Permit To Work	PlanningComplete	2026-08-10 09:48	Magnet Flushing- ZA7S03

Status

Tasklist: ATLis
Task ID: 120604
ePAS Task #: ATLIS-120604
Status: ONGO
Time: 16 Hours
Estimate:
Required PSS: NA
Priority: Immediately
Created: 2026-07-04
Updated: 2026-08-10
Created For: MECH SYS SVCS
Responsible: Neil Wilson
Charge Code: RSRINS
Created By: N_Wilson (7265)

SAM Calendar

Systems

DC PWR

MSSG

MAGNET

RADCON

Areas

ENCLOSURE