

# Hall C Overview and Schedule

Hypernuclear ERR

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The logo for Jefferson Lab, featuring the text "Jefferson Lab" in a bold, sans-serif font. A red swoosh underline is positioned beneath the word "Jefferson".



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# Hall C Running in 2026

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- Accelerator will start at low pass energy of 345 per linac for compatibility w/PRAD
  - E12-22-001: N- $\Delta$  at low  $Q^2$
  - E12-23-001: VCS at low  $Q^2$ , 15 of 61 PAC days
- Two weeks for accelerator changeover to standard beam energies
  - Switchover is June 1 to June 15.
  - E12-06-104/E12-24-001: R-SIDIS (Part 2).
  - E12-06-107: Color Transparency via exclusive pion electroproduction.
  - Run period ends on Aug 31<sup>st</sup> 2026
- Testing of SoLID detectors will be done parasitically during the run period.

# Near future Hall C schedule

- Sept 1, 2026 to Jan 20, 2027 Scheduled Accelerator Maintenance (SAM)
  - Facilities scheduled to replace central air handling unit.
  - Target change out
  - Install detectors in SHMS for E12-24-007 (Elastic  $A_T$  on nuclei)
- Jan 20, 2027 to Sept 1 2027 ( Tentative 32 week schedule)
  - Low energy running ( $\sim 1.1$  GeV/pass) from Jan 20- Mar 1, 2027
    - E12-24-007 (Elastic AT on nuclei), R-DIS (E12-14-002), KAON LT ( E12-09-011)
  - High energy running ( $\sim 2.2$  GeV/pass) from Mar 14 to Sept 1 2027
    - VCS (E12-23-001), R-DIS (E12-14-002), KAON LT ( E12-09-011), E12-20-007, E12-25-007
- Sept 1 2027 to Jan 20 2029 (  $\sim 16$  months)
  - Install Hypernuclear experiments
  - Run Hall A,B and D from Jan 20 to Sept 1 2028

# Hypernuclear experiments

- Experiments had [ERR](#) in Nov 2024.
- Experiment PAC days. Total 149 PAC days. Assuming 50% efficiency that is 42 weeks. Two run periods.
- Funding for the new equipment is from COPS and Capitol project.

Experiment	Title	PAC Days
E12-23-013	An isospin dependence study of the Lambda-N interaction through the high precision spectroscopy of Lambda hypernuclei	55
E12-24-011	Study of a triaxially deformed nucleus using a Lambda particle as a probe	28
E12-24-003	Studying Lambda interactions in nuclear matter with the $^{208}\text{Pb}(e,e' K^+)^{208}_{\Lambda}\text{Tl}$ reaction	42
E12-24-004	Study of charge symmetry breaking in p-shell hypernuclei	24
Run Group	High-resolution spectroscopy of light hypernuclei with the decay-pion spectroscopy (ENGE magnet)	N/A

- MOLLER will be running in Hall A during the time that Hypernuclear experiments would run

