

Call for Scheduling requests

To : Spokespersons of Approved Jefferson Lab Experiments
Cc : Jefferson Lab Users Group
From : Nuclear Physics Experiment Scheduling Committee
Subject: Beam Time Requests for January 2018 thru December 2018
Link : http://www.jlab.org/exp_prog/experiments/scheduling.html

Commissioning of the upgraded 12 GeV Accelerator and Halls continued since the June 2015 call for experiment scheduling requests. Fall 2015 was dedicated to further understand and commission the upgraded Accelerator with no beam delivered to the halls for opportunistic physics. Hall D used this period to modify the cooling circuit of the GlueX superconducting solenoid. We encountered two major downtimes during Spring 2016 caused by contamination of the heat exchanger of one of the two 2K cold-compressors trains after a power outage, and insufficient beam separation from the 5th-pass RF separator for stable beam delivery to Hall A and D at five-passes. The beam schedule and program was adjusted to compensate for these downtimes. Overall however, Spring 2016 operations were very successful. The Deeply-Virtual Compton Scattering (DVCS) and the proton magnetic form-factor at high momentum transfer (G_M^p) continued taking data opportunistically in Hall A. DVCS has finalized one and nearly completed a second scan in momentum transfer while G_M^p has acquired several kinematic points. In Hall B, the Heavy Photon Search (HPS) experiment was able to take data at 2.2 GeV during weekdays nights and continuously over the weekends with work on the Hall B 12 GeV Upgrade project taking place during the day. The Hall D solenoid was operated without incident at 1200 A during the Spring 2016 run period. After the run period ended, the solenoid was tested to 1345 A. A power supply trip ended the test after six days. The cause of the trip has been identified and it is being addressed during the summer. Hall D has completed the engineering phase of the GlueX experiment, including the production of polarized photons from the diamond radiator. It is now ready to move on to the first experiment run. The Cryogenic Plants providing cooling to the Accelerator were then reconfigured for low-energy (< 6 GeV) beam operations during May and June. The newly installed Hall C beam line was then checked with tune beam and the Proton Radius (PRad) experiment in Hall B, also taking data weekday nights and weekends, was executed to completion. We have now executed 75 PAC days in “opportunistic” physics mode.

For period up to December 2017, we expect beam operations to move from “opportunistic” to regular research. Priority will remain on 12 GeV pre-operations to establish CD4B key performance parameters (Halls B and C) and on further accelerator understanding to establish robust operations for physics experiments of three or more simultaneously. Given the uncertainties of this transition period, this call for Scheduling Requests covers only a twelve-month period instead of the eighteen months envisioned in the future.

The requirements to be met before scheduling can be requested are given in subsection V of http://www.jlab.org/user_resources/PFX/NP-PFX/text.html. In short, you can only request scheduling when construction of all major components of the experiment are (near-)completed, as at this stage the experiment layout and components are considered frozen, and any design modifications will require a change control, approved by the Division Management. For now, we have had experiment readiness reviews fulfilling this requirement only for a very few initial engineering runs and/or experiments. Experiment spokespersons should also note that robust and reliable multi-Hall beam operations are still

subject to commissioning periods, so routine beam properties still have to be established. Please discuss with your Hall Leader if there are specific questions.

Under this condition, experiment collaborations requesting beam time for the January – December 2018 period (with the last 6 months tentative only) must deliver their requests to the Jefferson Lab User Liaison Office by close of business MONDAY, AUGUST 1. These requests will be reviewed by the Nuclear Physics Experiment Scheduling (NPES) committee, which prepares the combined accelerator and experiment schedule. See http://www.jlab.org/exp_prog/experiments/NPEScommittee.html for the composition of the NPES committee.

REQUEST INSTRUCTIONS

Beam Request Forms: There is a specific set of forms to be completed electronically. They can be found at http://www.jlab.org/exp_prog/experiments/beam_req.html

One-Page Summary: A one-page summary of your experiment is **required** to accompany your beam time request. The summary should provide a broad overview of the experiment and the questions it is addressing aimed at a general science audience rather than a nuclear physicist. This request is similar as was done for the 6-GeV operations era, and a list of one-page summaries for earlier Jefferson Lab experiments can be found online at http://www.jlab.org/exp_prog/experiments/summaries/.

Hall Leader Concurrence: All beam time requests and one-page summaries need to be approved by the Hall leader. The routing process is automatic but please make sure the Hall Leader is aware before hand of your particular requirements, specially if extensive testing and/or installation is involved. If you have any questions concerning this point, please contact the corresponding Hall Leader,

Halls A & C, Cynthia Keppel (keppel@jlab.org, 757-269-7580)

Hall B, Volker Burkert (burkert@jlab.org, 757-269-7540)

Hall D, Eugene Chudakov (gen@jlab.org, 757-269-6959)

Thank you for taking time to help ensure an optimal process for scheduling experiments at Jefferson Lab. The scheduling is of great importance to the Laboratory User community and the Laboratory and we appreciate your endeavors. If you have any questions or comments, please send them to users@jlab.org