

Jefferson Lab Weekly Briefs

October 10, 2007

Accelerator

The repairs on the transformer at LN1 were completed, and the unit was returned to service. However, the transformer has blown a fuse; troubleshooting has resumed and plans to obtain an additional spare are underway. The Cryo group continued with cooldown and was able to fill most of the cryomodules with cold helium. The End Station Refrigerator was cooled to 4 Kelvin, and all three experimental halls started cool down. Injector work continued. Beam was tuned to the 500 KeV region. Cleanup of the tunnels was started in preparation for beam operations. Restoration Coordinators have begun having daily meetings. The commissioning of the replacement cryomodules in the South Linac was completed.

Free-Electron Laser (FEL)

The continuous wave (CW) optics test stand is back up and running again, so work can begin on characterizing coatings under collaboration with Colorado State University. A flange began leaking slightly during reassembly of the surrounding components in the gun test stand. An easy fix was attempted; it's not known yet whether more drastic measures are required.

Theory Center

A paper just posted to the e-print server, [arXiv:0710.1101 \[nucl-th\]](https://arxiv.org/abs/0710.1101), has derived relations between spin-dependent nuclear and nucleon g_1 and g_2 structure functions, valid at all Q^2 , and in both the resonance and deep inelastic regions. The formalism is applied to the deuteron, which is often used as a source of neutron structure information, and comparisons are made of the nuclear corrections calculated using exact kinematics and using approximations applicable at large Q^2 . The analysis finds sizable nuclear corrections at low Q^2 , especially in the resonance region, which will be important to take into account when analyzing deuteron structure function data from several JLab experiments.

Environment, Safety, Health & Quality

The National Fire Protection Association has set Oct. 7-13 as National Fire Prevention Week. The NFPA continues to stress the prevention of home cooking fires. Some basic NFPA home cooking safety facts are:

- Three in 10 reported home fires start in the kitchen, more than any other place in the home;
- Unattended cooking is the leading cause of home cooking fires;
- More than 110,000 reported home fires annually are associated with cooking equipment
- these resulted in 290 deaths and over 4,000 injuries annually;
- Two out of three reported home cooking fires start with the range or stove;
- Electric ranges or stoves have a higher risk of fires, injuries and property damage compared to gas stoves, but gas stoves and ranges have a higher risk of fire deaths.

You can find additional National Fire Prevention Week information [online](#).

• **Unwanted Chemical Reactions** - DOE recently noted that its facilities had experienced 24 events caused by unwanted chemical reactions in the last five years. There were also 16 safety events related to shock-sensitive chemicals and potential mixing of incompatible chemicals. Mixing of incompatible chemicals can also happen at home. The DOE has an [excellent information source](#) on shock-sensitive chemicals on its website. Other sources of information on chemical compatibility include the JLab ES&H Manual's Chemical Hygiene Chapter [Appendix 6610-5](#), Specific Safety Guidelines, and Patty Hunt, x7039 or hunt@jlab.org.

• **JLab's Safety Numbers (Oct. 10, 2007)**

21 Days since Last Recordable Accident (JLab Record: 319)
340 Days since Last Lost Workday Accident (JLab record: 455)

Computing and Networking Infrastructure

• Calendar Server Upgrade

On Tuesday, Oct. 23, the calendar server will be offline from 5 p.m. until midnight for server hardware replacement, software upgrade and an upgrade to the web interface. *In an effort to increase performance and maintainability, all calendar records that predate Jan 1, 2007 will be erased.* If you have questions or for more information, contact Paul Letta, x5106 or letta@jlab.org.

• New Voicemail System

As part of ongoing improvements to JLab's infrastructure, a new voicemail system will soon be installed. The change is currently scheduled to take place on or around Oct. 23. While the old system will remain online during a short transition period, messages stored there will be lost when the system is decommissioned. Please start now to retrieve any information from those messages that you wish to keep. Additional information about the new system will be available in the coming weeks. If you have any additional questions, contact Walt Akers, x7669, or Dawn McGinnis, x7206.

• Wireless Network Maintenance

There will be a brief interruption of wireless network service ([jlab_secure](#), [jlab_guest](#)) on Wednesday, Oct. 10 at 5 p.m. to update the management software.

Announcements

• Thursday Traffic Tie-Ups

All drivers, please use extra caution: There will be a larger than normal amount of vehicle and pedestrian traffic at JLab on Oct. 11 (4-7 p.m.) for the DNP tour of JLab. Charter buses will be traveling continuously between CEBAF Center, the accelerator site and the Marriott. Traffic departing the main JLab entrance (Onnes Dr.) may be heavy at times as the buses make the left to get onto Jefferson Avenue. Also, the Counting House (Bldg. 97) and its parking lot/drive-through will be cut off to all vehicle traffic from 3:30-7 p.m.

• Radiation Training Update

Radiological work stand-down meeting [video](#) and [online document](#) now available. Radiation Control staff is in the process of pulling badges of rad workers who have not completed training.

• Flu Shots

Flu vaccine is now available at Occupational Medicine. JSA, DOE, and Commonwealth of Virginia employees may receive this vaccine. For an appointment, contact Johnnie Banks, x7539 or jbanks@jlab.org.

• Bill Rust Retirement Reception

A reception recognizing Bill Rust's 15 years as Systems Operation and Maintenance Manager at JLab will take place Wednesday, Oct. 17 from 2-3:30 p.m. in the CEBAF Center lobby. Join Facilities Management staff in recognizing Bill's many accomplishments.

• U.S. Representative Jo Ann Davis

Rep. Jo Ann Davis, Virginia's 1st District, died at her Gloucester home Saturday after a two-year battle with breast cancer. Service details may be found on [Insight](#).

• Oktoberfest

The 2007 Oktoberfest is scheduled for Wednesday, Oct. 24 from 3-6 p.m. Volunteers make this event a success. [Sign up](#) on the JLab website.

• New Stockroom Open

Check out the growing inventory available at the new Technical Stockroom - Building 90, Room 108. If you can't find what you need, check with the JLWs site manager or visit JLab's [WebStock](#) application. JLWs can get items that it doesn't currently have in stock.

JLab Calendar of Events

Oct. 10-13: [DNP 2007](#)

Oct. 24: JAG Fall Event: Oktoberfest

Oct. 26-27: Short-Range Structure of Nuclei at 12 GeV Workshop

Oct. 30: Science Series Lecture: Forensic Dentistry