

Contact: [C. Scholl](#)

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September2014

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## A WORD FROM THE:

Administration

Accelerator Div.

ES&F Div.

Acc. R&D Div.

Operations

▶ Arrivals/Departures

 Safety Stats

Quote of the Month: "Do the things you know, and you shall learn the truth you need to know" -  
Louisa May Alcott

## NOTE FROM OUR CHAIR: Thomas Roser



The preparations for the upcoming RHIC run are in full swing. RHIC is being prepared for collisions of protons and gold beams, a highly asymmetric configuration. To accommodate this mode all DX magnets, which combine and separate the beams on either side of the collision point, have to be moved sideways. Some of the magnets have already been moved and the rest will be moved after the initial symmetric proton-proton running period. The start of the 4K cool-down of this year's run is scheduled for January 20.

Recently, a new Long Range Planning (LRP) working group was formed to develop recommendations for the future of Nuclear Physics in the US. The working group's final meeting will be during April next year. The most important items for us are the continuation of RHIC operations until at least 2022 followed by the construction of the Electron Ion Collider eRHIC. During a preparation meeting of the QCD community, the part of Nuclear Physics community most interested in the physics at RHIC and eRHIC, recommendations for the continuation of RHIC running and the future construction of an Electron Ion Collider were both unanimously adopted. This is a good start of the long range planning effort and hopefully similar recommendations will be part of the final Nuclear Physics LRP next year. After that a decision will have to be made whether the Electron Ion Collider would be sited at Jefferson Lab or at BNL. We, of course, have the great advantage of the existing RHIC as the basis for eRHIC.

**VIEW [CONFERENCE PROJECTIONS FOR 2014: DUE ASAP -](#)**

**\*[CONFERENCES SHOULD BE PROJECTED THROUGH APRIL 2015](#)\***

## DID YOU KNOW??

*Check out who received an employee Service Award this year!* 2014 Collider-Accelerator Dept. employees who received a [Service Award](#). Last year Service Awards are listed [here](#). 2012 Service Awards are listed [here](#).

*Check out who received an employee [Spotlight Award](#) this year!*

## EVENTS/SEMINARS...



Check out the [BNL Calendar](#) for upcoming events & Seminars or the [Upcoming Conferences & Workshops](#) page for workshops and Conferences happening at BNL.

Nov. 11 - LAB HOLIDAY - VETERANS DAY

*Steve Bellavia captured a few pictures* ~ IC342 (Caldwell 5) in Camelopardalis. It is the 4th largest galaxy in the sky, 2/3 the size of the full moon, being passed in apparent size only by Andromeda, the Triangulum and the Pinwheel galaxies. It is often overlooked because of its faint surface brightness, but it makes a good long-exposure photographic object.



October 2nd ~ The Bubble Nebula (NGC 7635), "October Salt and Pepper" (M52) and NGC 7538



Nov. 13 - (Bldg 510 - LSR | 3:30pm) Particle Physics Seminar "The First Physics Result from DarkSide" Presented by Masayuki Wada, Princeton University

*Do you have to give a talk?*

**Public Speaking Techniques:**

**Verbal & Non-verbal**

*Presented by:*

*Theodore Sampieri Ext: 4894*

*12:00 – 1:00 Fridays*

CAD Building 911

*Large Conference Room: 2<sup>nd</sup> Floor*

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## IN OTHER NEWS...

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*Climate Tools Seek to Bend Nature's Path* ~ "The solution to global warming lies beneath our feet. [Read about it](#)

*Soyuz Spacecraft Returns Space Station Crew to Earth* ~ [...read about it.](#)

*USDA Approves Genetically Engineered Super Potato* ~

A Genetically engineered potato that is resistant to bruising and cuts down on a possible cancer-causing substance, though some food-safety experts aren't so excited about the super

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## WHAT'S GOING ON IN OUR NEIGHBORHOOD?

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*Interested in Cycling?* <http://www.bicyclelongisland.org/majoride.htm>

*Interested in Running or Walking?* Check out the [lirunning March Calendar](#) for the following events: 11/15 ~Matthew's Turkey Trot 5k (Bayville), 11/16-Turkey Trot 5K run/walk (Stoney Brook U.), 11/27 - Oyester Bay Turkey Trot 5K, 11/27 - Massapequa & Garden City Turkey trot 5k and more..

*For the Kids:* Harlem Globetrotters (Dec. 28) & Disney On Ice presents Princess & Heroes (Jan. 8-11) @ [The Nassau Coliseum](#).

### *Stony Brook Events:*

*Celebrate Black Friday* ~ Nov. 28(12pm ~4pm~)Kick-off the holiday season with an enjoyable walkabout in Stony Brook Village! This free family event with include Holiday Carolers, Balloon Animals, Wine Tastings. a petting zoo etc..

*Promenade Of Trees 2014* ~ Dec. 7-Feb. 1 (9am ~ ) Register your community group to create an amazing holiday tree along the cobblestone pathways of the village.

*35th Annual Holiday Festival* ~ Dec. 7 (1pm~6pm) Join the festivities as The Ward Heritage Organization hosts its 35th annual Holiday Festival. Enjoy Live music by WALK-FM, petting zoo, train display and more..

### *Nassau Coliseum -*

*Upcoming shows:* Cher D2k Tour (Dec. 8) & Trans-Siberian Orchestra (Dec. 18)  
*January* ~ Fleetwood Mac & WWE Live

*Check out Erik Forsyth's Travel's:*



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## DAY AT THE VINEYARDS...

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*Macari Vineyard* ~ [MATTITUCK] Cutchogue Holiday House Tour (Dec. 6); Greenport's Shellabration (Dec. 6 &7)

*Duckwalk North* ~ [SOUTHOLD] No Events Posted  
*Duckwalk South* ~ [WATER MILL]

*Castello di Borghese Vineyard & Winery* ~ [CUTCHOGUE] \*\*  
Vineyard Tours & Wine Tastings Every Thursday & Sunday @1pm & FREE Jazz Every Saturday (2-4) with Marguerite Volonts\*\*

*Jamesport Vineyards* ~ \*Live Music from 1-4pm every Fri, Sat & Sun\*

*Martha Clara Vineyards* - [RIVERHEAD] ~ \*\*Live Music every weekend\*\* NOV 28 Black Friday Concert ~ A Billy Joel Tribute \$20 in advance

*Palmer Vineyards* - [RIVERHEAD] ~ Live Music every Sat (12-4).

*Pindar Vineyards* - [PECONIC] ~ \*Champagne, Chopin & Caviar every weekend (2-3pm) Ends Nov. 23\*

*Baiting Hollow Farm Vineyard* ~ [CALVERTON] \*Music every Sat & Sun from (2-6)\*

*Paumanok Vineyards* ~ [AQUEBOGUE] Nov. 15&16 Barrel Tasting

## NOTE FROM OUR ADMINISTRATION: S. LaMontagne



The initial FY 2015 Initial Approved Funding Program (AFP) was based on H.R. 124, the Continuing Resolution through December 11, 2014. In anticipation of the CR, advance funding was provided in September for ATF operations, the Isotope Research and Development Program and NSRL. RHIC funding is flat with last year although carry forward should be sufficient to commence operations as planned.

Our plans are ambitious in both a programmatic and financial sense. Upgrades for RHIC, LINAC and ATF are in process; NSRL Operations began on September 30<sup>th</sup> and the RHIC cool down will begin on January 20<sup>th</sup>. With a flat budget a selective hiring freeze remains in effect and substantial reductions in purchases are reflected in the M&S dollars allocated to each group. Over the next few months it is critical that purchases be limited to no more than what is necessary to complete efforts related to modification of the electron lenses, the RHIC beam dump, the abort kicker, the RHIC pre-fire protection masks, the RHIC transverse dampers, polarimeters and LION, as well as installation of the 56 Mhz cavity. Overtime, too, should be limited to the extent possible.

## NOTE FROM OUR ACCELERATOR DIVISION: Wolfram Fischer



The NSRL run will end before Thanksgiving. Maintenance and preparations for Run-15 continue. The start date of the 4K cool-down has moved to 20 January 2014, with 22 cryo-weeks of operation anticipated. We will start with 9 weeks of polarized protons at 100 GeV, followed by proton-gold and possibly proton-aluminum collisions.

The list of upgrades for the next run includes: (i) the RHIC beam dump kicker, (ii) the RHIC beam dump, (iii) a new RHIC bunch-by-bunch damper, (iv) new pre-fire protection masks for the experiments, (v) the removal of the 56 MHz SRF HOM damper, (vi) RHIC polarimeters – both H-jet and pC, (vii) new electron guns and instrumentation for the electron lenses, (viii) modifications to one of the superconducting solenoids of the electron lenses, and (ix) upgrades to the laser ion source LION. In preparation of the proton-gold run the DX magnets in IR2 and IR4 were shifted.

The BLIP Raster Upgrade Project, headed by Rob Michnoff, completed a major milestone on schedule by installing new beam line components with instrumentation.

### *Upcoming events:*

- |                     |  |
|---------------------|--|
| 10-14 November 2014 | 54th ICFA ABD Workshop HB2014, East Lansing                    |
| 08-10 December 2014 | AD Machine Advisory Committee Meeting, BNL                     |
| 20 - January 2015   | Planned start of RHIC 4K cool-down                             |
| 12-13 January 2015  | DOE Review of LEReC Project (Low-Energy RHIC electron Cooling) |

## NOTE FROM OUR EXPERIMENTAL SUPPORT & FACILITIES DIVISION: Phil Pile



Last month a decision was made to delay the start of cool-down for the RHIC run until 20 January. This was in response to the needs of the PHENIX experiment to allow more time to install and commission their new MPC-EX detector systems. With this delay we still will be able to get in a 22 week run, with a week to spare, before the end of June. Further schedule delays are not expected at this time. Beams planned for next year include 100x100 GeV polarized protons followed by 100x100 GeV/n polarized protons on gold and ending with a short 100x100 GeV/n polarized protons on aluminum (a new beam for RHIC).

C-AD and Magnet Division personnel (mechanical, electrical, and cryogenic engineering) are preparations for the arrival of the sPHENIX BaBar magnet from SLAC. The shipment was delayed a bit but now seems certain to arrive at BNL this month. The magnet will be setup in building 912 on the floor adjacent to the ERL cryogenic plant and be connected to the cryo plant. Low current tests to check its functionality are planned. Last month Jim Mills agreed to leave his position with the lab Modernization Project Office (MPO) to take on the role of Project Engineer for the sPHENIX project...a loss for the MPO and a gain for C-AD. Jim had a long history supporting AGS experiments during the AGS fixed target era and with engineering support for RHIC construction before joining the MPO. Welcome back Jim! If all goes as planned we will remove the PHENIX experiment from the 8:00 IR during the 2016 RHIC shutdown and begin the transformation of the PHENIX experiment to sPHENIX.

BLIP and the TPL are preparing to begin operations in December. BLIP will come on with a new beam line with new beam instrumentation. The new beam line and instrumentation comes with the completion (still in progress) of the first phase of the beam Raster project, a \$4.5 AIP. The actual beam raster part (Raster magnet) will be added during the FY 2015 shutdown. The tri-lab (BNL/LANL/ORNL) project to develop Ac-225 into a viable radiopharmaceutical was reviewed by DOE in early October. The committee report has not yet been released but we understand the report will recommend a continuation of this effort. This project is a multi-year project that will be the main R&D focus for the Isotope Group for the next few years.

The Isotope Group just finished a follow-up cGMP QA audit by one of its Sr-82 customers – DraxImage. The last audit a year ago came with 7 “Major” findings with a result “Qualified with Restrictions”...a shot across the bow that we needed to improve on our compliance with our contractual obligation to strictly adhere to cGMP guidelines. This last audit was a follow-up and at the close-out the auditor indicated his pleasure at what he found and is going to recommend to DraxImage management that our “Qualified with Restrictions” result a year ago be lifted. This time he found no “Major” findings. My congratulations to the group as this has required heroic efforts during this past year (and will require continued efforts this and in out years!) to bring the program to a new level of operational excellence.

The NSRL began operation for Run 14C on 30 Sept. with a plan to run through 14 Nov. The next run will come next year in the spring, to be scheduled. A project to raise the maximum beam energy to 1.5 GeV/n for iron beams has been approved. This entails installing a modified Booster extraction magnet (the backup D6 dipole is being modified to allow a higher magnetic field) and an adding a third dipole in the 20 degree bend in the NSRL beam line. The plan is to do this during the FY 2015 summer shutdown.

## NOTE FROM ACCELERATOR R&D DIVISION: Ilan Ben-Zvi

**No updates for this month...**



## NOTE FROM OPERATIONS: Paul Sampson



With Shutdown FY14 past the halfway mark, work needed to meet the very aggressive schedule work continues. Major construction, upgrade and maintenance projects continue to make good progress while new jobs and complications continue to present a challenge for on time completion.

In RHIC, individual testing of the 500 MHz CeC cavities is complete and 112MHz SC gun test cavity is under way. Major system maintenance, upgrade and construction projects are progressing well. Focus on large projects continues including: e-lens upgrade and repair, PP-PP component installation, multiple DX magnet moves, "mask" collimator installation, bunch-by-bunch damper installation as well as Beam Dump and Dump Kicker repair and upgrades. At STAR and PHENIX, scheduled is progressing on or near schedule.

In LINAC, maintenance items are progressing well while EBIS is providing beams for NSRL running. The BLIP RASTER project is underway and will continue through startup in December. The Tandem is running for local users while providing protons to the Booster

for NSRL and maintain back up potential for EBIS.

The AGS remains opened and on Restricted Access. The AGS Cold snake pre-cool down has begun and cold tests will commence in in early December. Start up with beam will occur in mid December and setup will continue through the first RHIC injection later in January.

Scheduled power outages during the shutdown are displayed both on the CATV and on line. Use the "RHIC Broadcast" link below to view all scheduled outages and testing.

Shutdown project progress can also be viewed via the links below.

The CAD CATV system display includes daily updates including Testing, power disruptions and outages as well as important dates. This information can also be seen on the web at [RHIC Broadcast](#).

To view a list of the approved work for shutdown or maintenance, go the [Job Request System](#) and select the appropriate date. This link is behind the firewall and requires privileges to view.

For schedule updates see: [This Week, which can be viewed by all](#).

### **ARRIVALS: Welcome!**

James Mills (Principle Mechanical Engineer), working with Al Pendzick, started Oct. 21, 2014.

Gary Whitbeck (Senior Mechanical Designer), Working with Tony Arno, started Sept. 29, 2014

Kelly Roy (Senior Mechanical Designer), Working with John Skaritka, started Sept. 29, 2014

### **DEPARTURES: Farewell, you will surely be missed..**

#### **Guest Notices:**

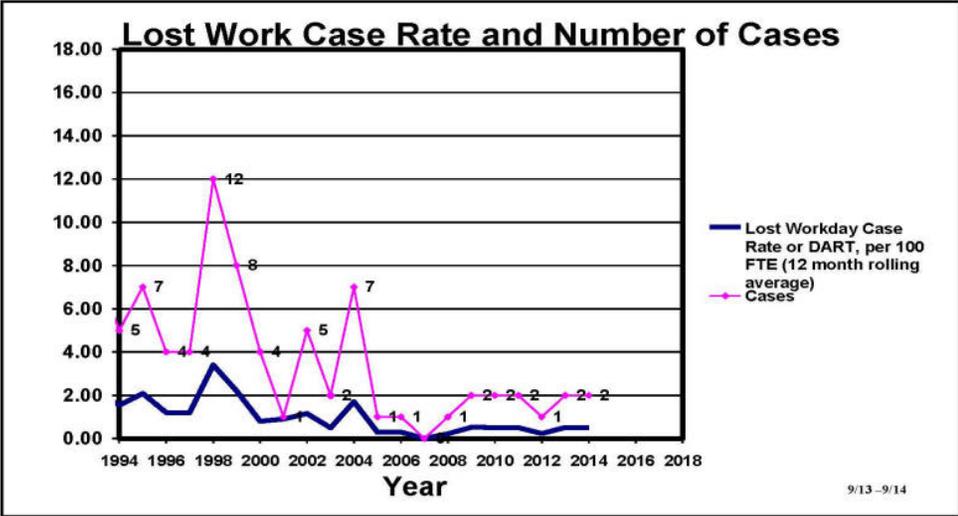
Takayuuki (pre-injector systems), End date was Oct. 31, 2014.

Danielle Chin, End date is Nov. 30, 2014

Vladimir Shiltsev, , End date is Nov. 24, 2014

Fulvia Pilat, End date is Nov. 18, 2014

# SAFETY STATS: Peter Cernigliaro



**C-AD Occupational Injury Statistics**

	For Year 2013	For Year* 2014
First Aid Cases	5	5
Recordable Cases	3	2
Lost Work Cases	2	1

\* Calendar Year through 9/14