

PHENIX WEEKLY PLANNING



June 26, 2014
Don Lynch

- Run 14 Continues
- Special access for DC repairs
 - Successful recovered 7 of 9 sectors
 - MPC-Ex change of FEM boards cancelled
- No scheduled access for remainder of Run 14?
- VTX/FVTX Shutdown work review meeting (Monday)
- Plan for 2014 Shutdown
- Tech Support for Run 14 as required
- Support for sPHENIX efforts as required
- End of run party tomorrow ~ noon



Next Week

- Run 14 winds up
- No scheduled access for remainder of Run 14?
- VTX/FVTX Shutdown work review meeting part 2 (Monday)
- Plan for 2014 Shutdown
- Tech Support for Run 14 as required
- Support for sPHENIX efforts as required
- 4th of July holiday Friday – lab closed

2014 planned Technical Support & 2014 Shutdown

PHYSICS SUPPORT NORTH

Support for run 14	2/3-6/30/2014
Procure & Fabricate parts for MPC-Ex North and South	1/1/2014-6/30/2014
Set up Physics lab for FVTX/VTX east	6/15/2014
End of Run Party	6/27/2014
MuID Efficiency Measurement (Itaru, requires cooling water & isobutane)	7/7-7/10/2014
Start of Shutdown Tasks (purge flammable gas, disassemble and stow shield wall, remove collars, move EC to AH, Move MMS south, etc.)	7/14 – 7/25/2014
Remove FVTX/VTX East to PHYSICS?, repair and reinstall	7/14 – 9/15/2014
Remove MMS east vertical lampshade	7/28-7/30/2014
Troubleshoot intermittent water leak in MMS	7/30- 8/8/2014
Other Maint. In MMS	TBD
Reinstall MMS east vertical lampshade	TBD
Summer Sunday prep AH, tours and restore AH	7/30-8/15/2014
Install scaffolding in Sta 1 South	7/28/2014
Remove MPC-Ex prototype	7/28-8/1/2014
MuTr Sta 1 South troubleshooting and repairs	7/28-8/1/2014
Maint. & Repairs for MPC South, BBC South, RPC1 South1	7/28-8/1/2014
Assemble & test MPC-Ex North, ready for installation	8/1-9/5/2014
Remove scaffolding from sta 1 south, Move CM South	8/4-8/5/2014
Install scaffolding in Sta 1 North	8/6-8/8/2014
MuTr Sta 1 & Sta. North troubleshooting and repairs	8/11-9/5/2014
Prep MPC-Ex North installation area	8/11-9/5/2014
Install new MPC-Ex North	9/8-9/26/2014
Assemble & test MPC-Ex South, ready for installation	9/2-10/3/2014

2014 planned Technical Support & 2014 Shutdown (cont'd)

PHENIX
 2014
 SHUTDOWN
 SUPPORT

Remove Sta 1 N scaffolds, Move CM North, Install scaffolding in Sta 1 S	9/29-10/3/2014
Install MPC-Ex South	10/6-10/24/2014
Other detector support	TBD
Infrastructure Maintenance and Improvement	TBD
Decommissioning of obsolete PHENIX detector equipment	TBD
sPHENIX Support	on-going
End of Shutdown Tasks (Move MS north, roll in EC , install collars, remove 10 ton cart, plates and manlifts, build shield wall, etc.)	10/27-11/26/2014
DC East & West maintenance & repairs	11/17-12/5
Pink/White/Blue Sheets	12/1-12/19/2014
End of Shutdown Party	????
Start Flammable gas flow	????
Close shield wall, install radiation interlocks and prepare for run 14	12/31/2014
Start run 15	1/2/2015

Muon Tracker Shutdown Work List – summer 2014

- testing as MPC-EX installed, particularly before closing Sta-1's
- fix North Arcnet – N.2.7.1, North Sta-2 Oct-7 Chassis-1 (bad cable?)
- fix packets that were disabled for Run14
 - 11035,36 – South Sta-1 Quad-4 Chassis-3
 - 11267,68 – North Sta-2 Oct-7 Chassis-2
- replace boards for most frequent FEM problems from run
 - 11195 - North Sta-1 Quad-3 Chassis-3?
 - might have already done this; check history (changed RX 3/14/12)
 - 11064 – South Sta-2 Oct-3 Chassis-3 - unreachable
- N341 HV trip problem?
- auto-reboots of ArcNet and iocondev's for calibration?

- Access needed:
 - South & North Sta-1
 - Inside North Sta-2 on bottom
- Main Issue – Manpower

Other Shutdown work:

Request from E. Kistenev for 1 FCal module for R&D

- can be removed from north or south FCal ?
- Difficulty ?
- WP needed ?
- Comments ?

Request From M. Chiu

There were quite a few MPC crystals which were blown out in the north. I think it's about 10 crystals. I think last time I said I'd need maybe 2 days to repair the north, but most likely I'll need a week now. We have to take out all the MPC crystals, have Sal replace the transistors, test them in the lab, and then put them back and test them in-situ.

Request fro M. Brooks

Just to keep everyone informed about shutdown wishes - you may or may not have heard that before HeAu running we lost a column of wedges on the north-WEST side of the detector. There is no light being transmitted on the associated bundle of fibers, and the current draw from that portion of the ROC is abnormally low. Eric has not identified any power issue so it seems likely that the ROC itself has had a failure (this occurred right before the beginning of the HeAu running, perhaps associated with the power-shutdown in the IR?). Long-story-short, it might be desirable to replace one ROC on the WEST side of the FVTX detector. But we will debug more once the run has ended.



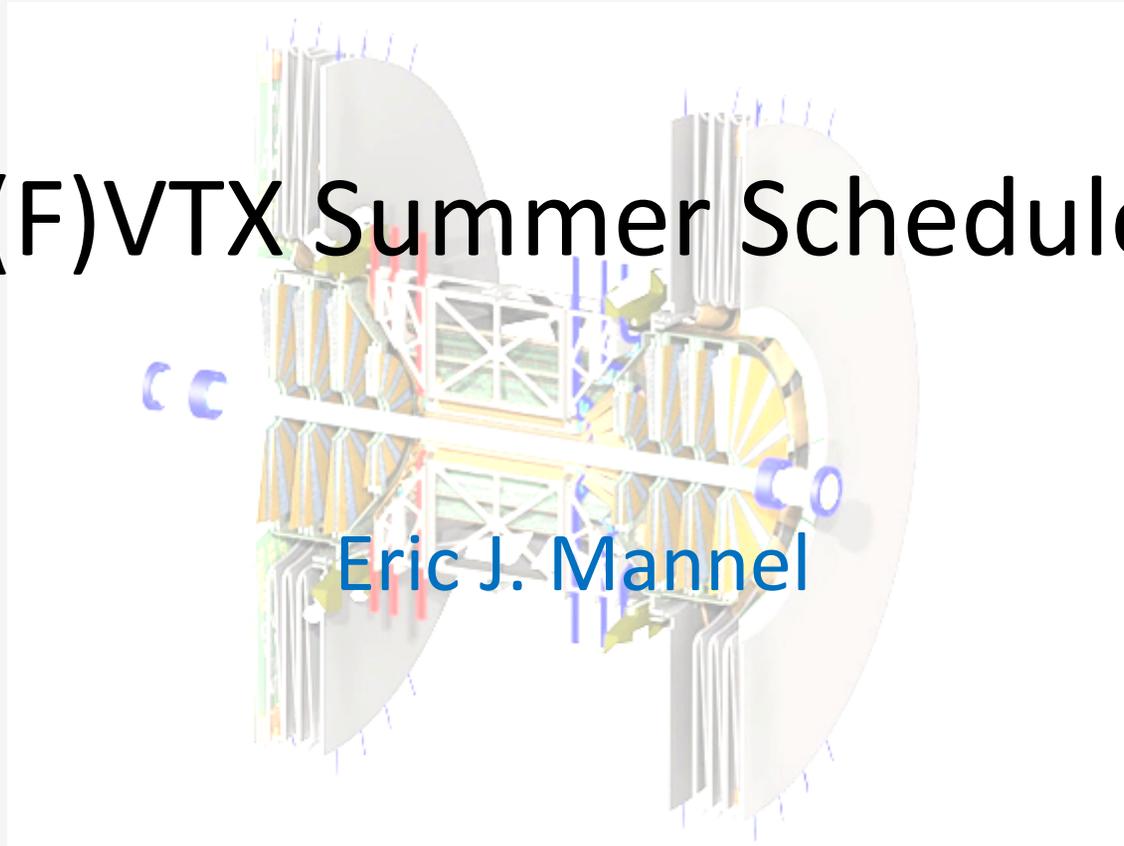
VTX/FVTX east repairs/upgrades required

West to remain installed ??

Need to get PHYSICS FVTX/VTX lab ready by ~ mid June



(F)VTX Summer Schedule



Eric J. Mannel

Nominal (F)VTX Schedule

- July 7-9:
 - Cold Tests- Chillers are 10C and 0C
- July 10-13:
 - Start chiller warmup
 - VTXS bias studies
 - Additional IR studies as needed
- July 14:
 - Prep East detector for move to Physics
 - Place West Detector in “safe” condition for summer

Nominal (F)VTX Schedule

- August 4:
 - Disassemble East Detector
 - Subsystem testing
- October 1:
 - All subsystem work complete
 - Prep East Detector for reassembly
- October 15
 - Reassembly complete
 - Final testing of assembled detector
 - Survey as required.

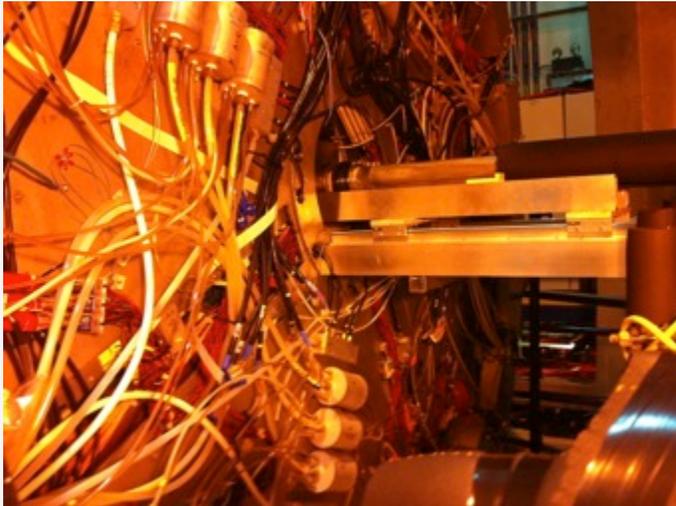
IR Schedule

- August-October
 - Upgrade cooling lines
 - Chiller maintenance

From Monday's VTX/FVTX planning meeting

- 1) Tentative schedule for (F)VTX related activities was posted on the agenda page: (as shown on previous pages)
- 2) Post-Run schedule seems reasonable, but there has been no indication from ORNL if time is needed to do any testing in the IR prior to removal of the detector to Physics . (F)VTX groups wants the shield wall to remain closed until after the warm bias testing of the VTXS bias. (F)VTX schedule calls for this to happen on 14-July-2014. Will relay this information to Don L and P.M.
- 3) Will know after warm testing whether or not to have West detector removed for work. Need to understand results of "warm" bias testing post-run.
- 4) FVTX group indicates that if ROC repair is required, then they will need most of September to complete ROC repair (outside vendor) and reinstall ROC boards before FVTX is ready for re-installation in the IR.
- 5) (F)VTX groups are hoping to expedite repairs in Physics to allow for an early installation into the IR to allow for more pre-run testing. Installation will be coordinated with D. Lynch. Current schedule call for reinstallation in the IR the first of November.
- 6) The VTX group would like to see the FVTX and VTXS subsystems placed on separate chillers. This requires the addition of 4th chiller, cooling lines and manifolds. Needs to be discussed with P.M.

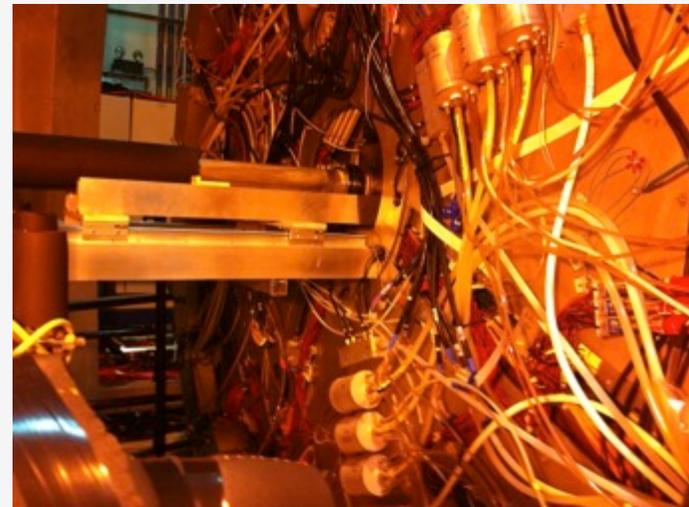
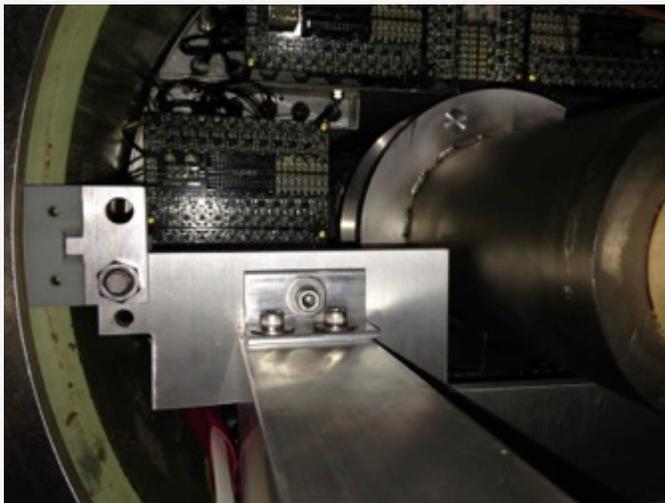
MPC-Ex N & S Final Installations This summer



Working on North BP support design

Tungsten plates received, QC acceptable

Additional parts ordered from CS due end of June



6/26/2014

MPC-Ex Project Summary

(1) Stony Brook in charge of MPC-EX testing

(2) Tom Hemmick is leading a test beam effort at SLAC June 20-30th: one MPC-EX hemisphere with 8 tungsten layers and 4X and 4Y carrier boards one micromodule on each layer, partial assembly to be returned to BNL by July 7.

(3) Current Parts Dispositions:

Sent to Stony Brook for tests:

- 8 (4 x and 4 y) carrier boards laminated to 'W' plates (new plates).
- 3 loose carrier boards for testing (one missing a connector)
- 50 brass spacer nuts
- 4 SS 1/4 - 20 x 4" studs
- 4 rapid prototyped spacers
- 1 micromodule

Mike Lenz office:

- 1 Assembly fixture
- 3 Delrin covers (in the shape of the 'W' plates)
- 6 'W' plates (new plates)
- 50 brass spacer nuts

At Central shops (due 6/27/14):

- 5 mounting tabs
- 50 brass spacer nuts
- 20 FEM mounting brackets
- 20 FEM mount Isolation Boards

Jim LaBounty's office:

- Installation assembly parts (to be itemized)

MPC-Ex Schedule considerations, Cont'd

Current Parts Dispositions (cont'd):

Sensors

Sensor testing at Yonsei is proceeding well, and we should have the remaining 200+ sensors from Yonsei by the end of June. We already have almost all the sensors we need for the south MPC-EX.

Micromodules:

450 ROC's ordered:

100 received and used in building initial micromodules

100 in transit to BNL

250 rejected by Sierra (bad solder mask) and being remanufactured expect shipment in ~ 1 week

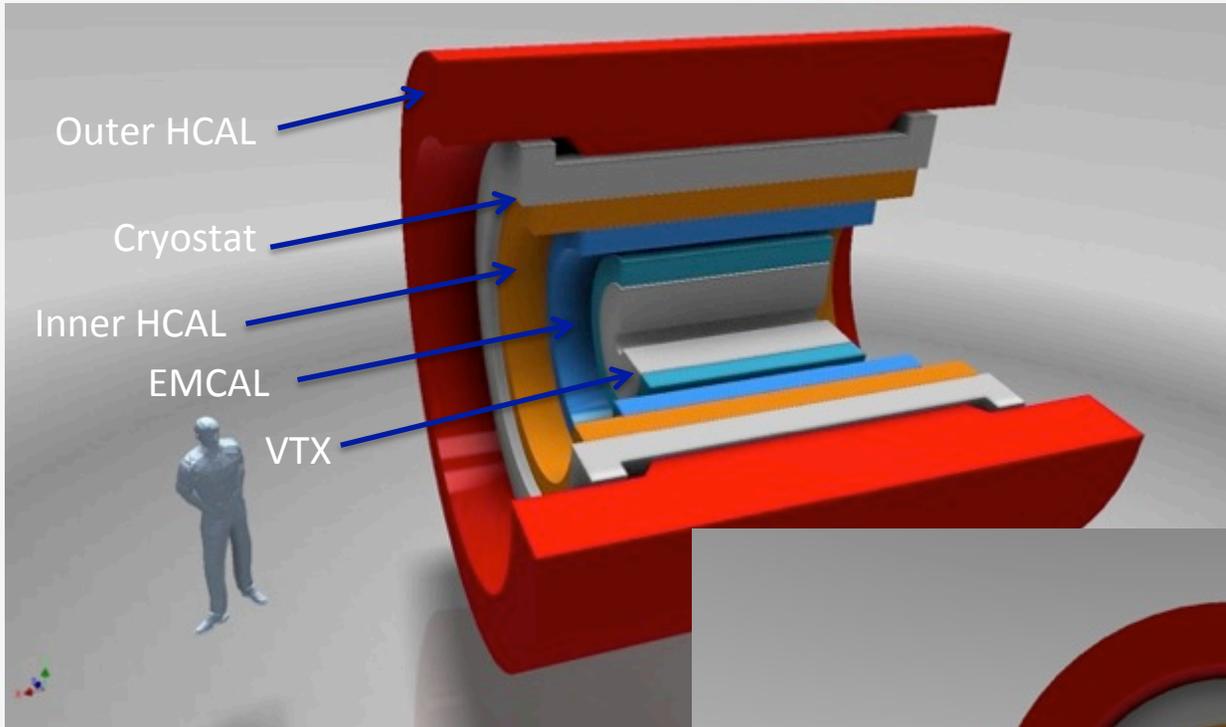
The electronics for the FEM is designed and at Sierra awaiting a BNL PO for manufacture and assembly. The FEMs have four readout inputs, so there will be eight FEMs per arm. two FEMs per box, four locations on the magnet for each arm.

(4) Assembly Plan

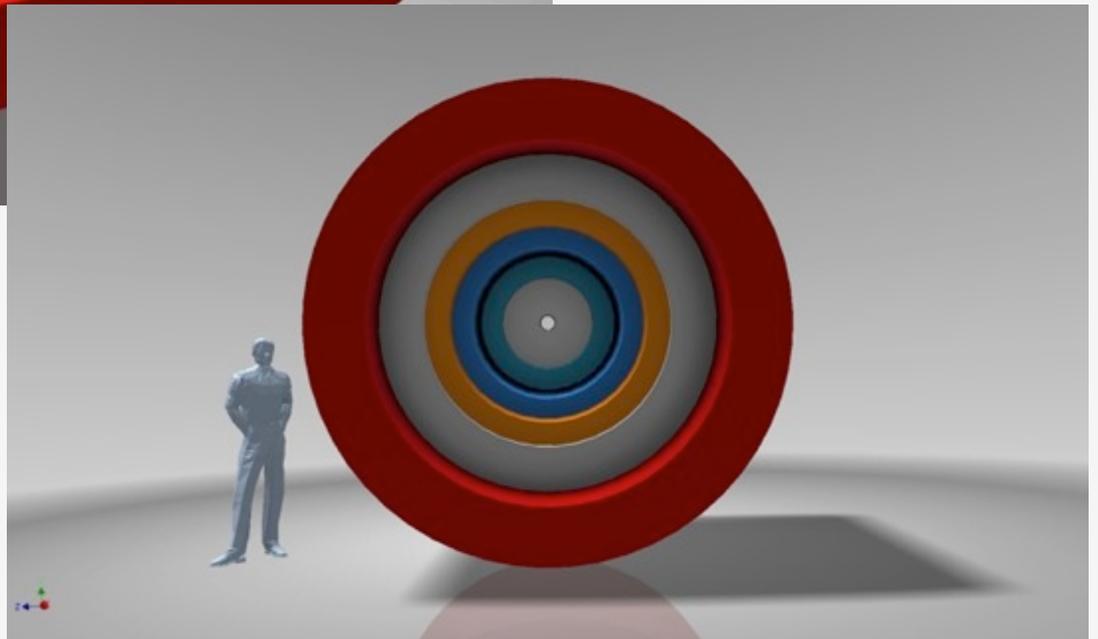
- After receipt at BNL, ROC's are inspected and sent to Quik Pak with SVX4 chips for wirebonding the chips to the ROC
- ROCs returned to BNL and inspected
- BNL wirebonds the sensors and assembles the micromodules
- Micromodules sent to Stony Brook for testing
- Final assembly into MPC-Ex N & S at Stony Brook, PHENIX tech to participate and assure QC
- Return assemblies to PHENIX for installation in accordance with current shutdown schedule

Work Permits for 2014 Shutdown

- Start of Shutdown - Done
- VTX/FVTX East
- MPC-Ex
- MuTr North station 2/3
- MuTr South station 2/3
- MMS South Water leak
- DC East/West
- MPC North
- RPC 1 North/South ?
- End of Shutdown

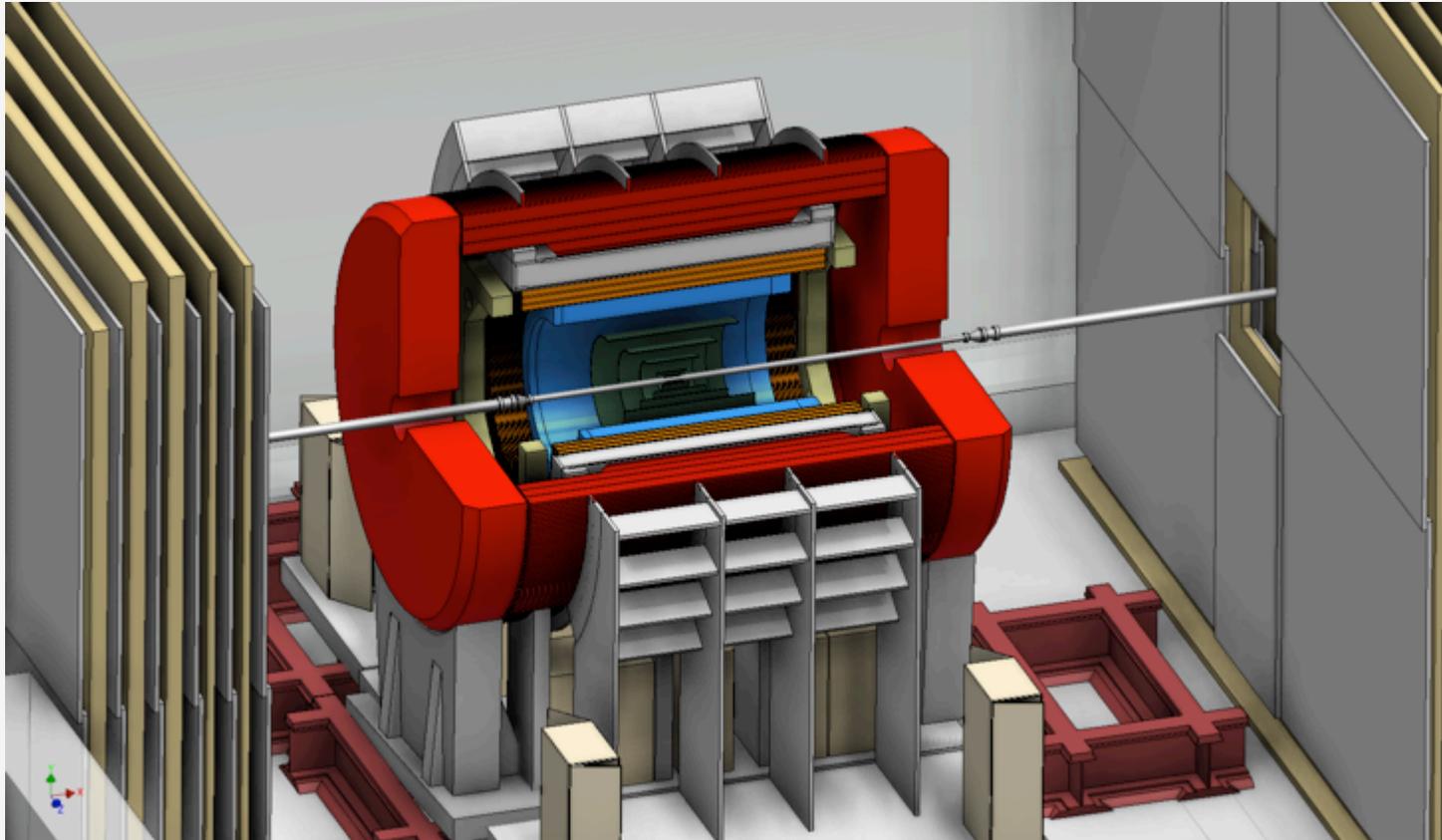


Getting Ready For DOE Science Review 7/1-7/2



Design efforts over the next few months will include several areas of emphasis:

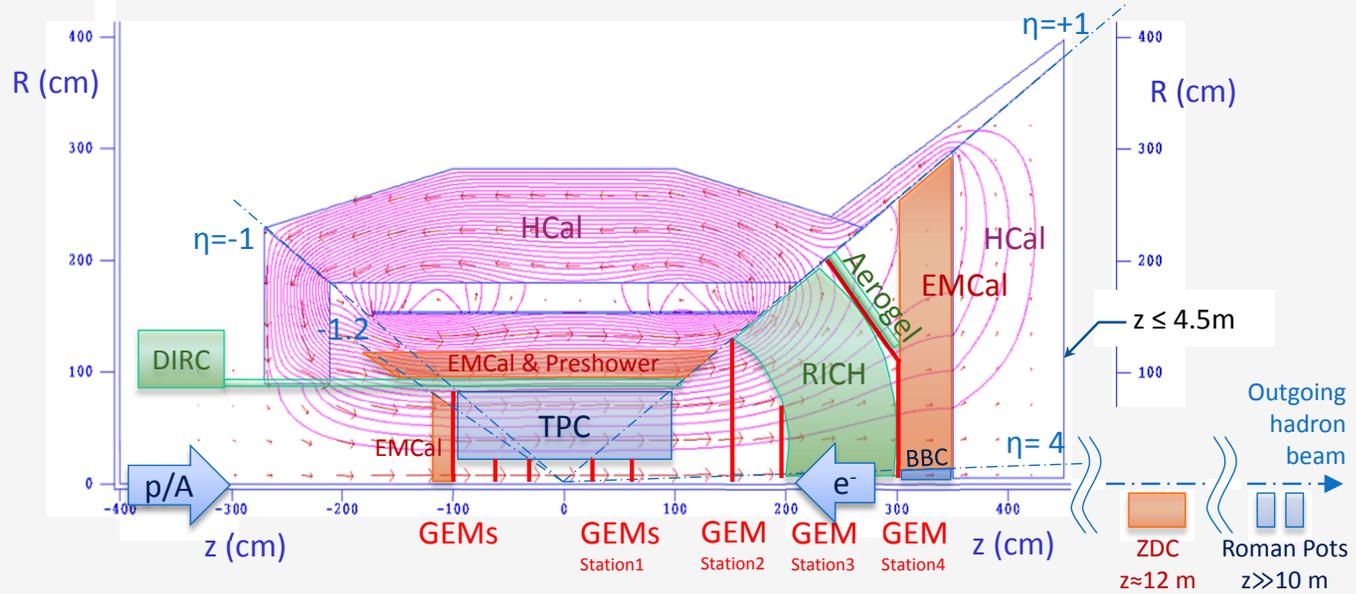
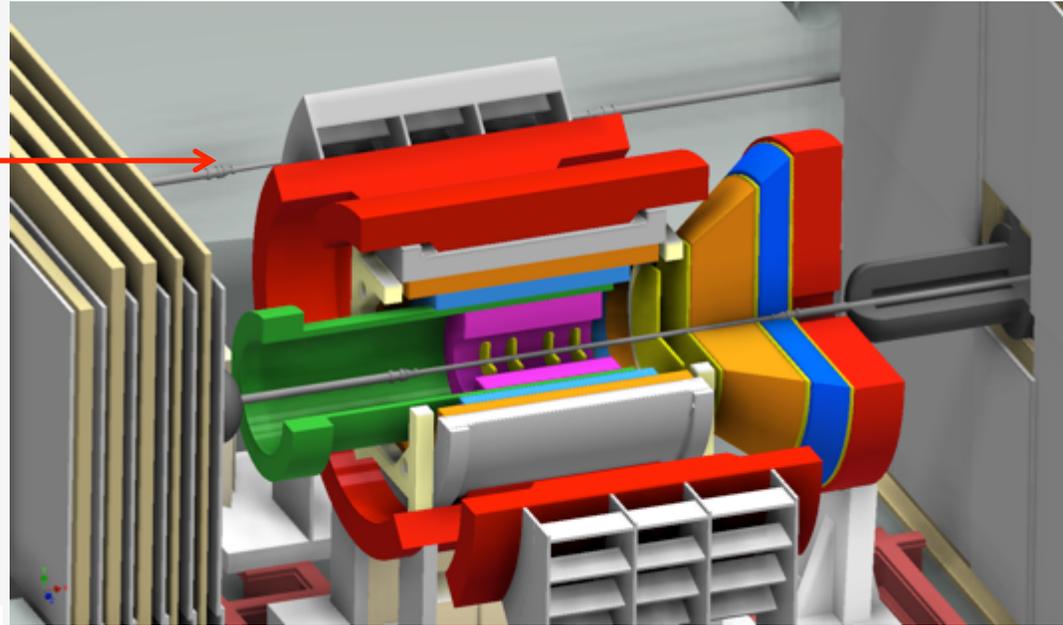
- (a) incorporating a more detailed flux return (cap) design



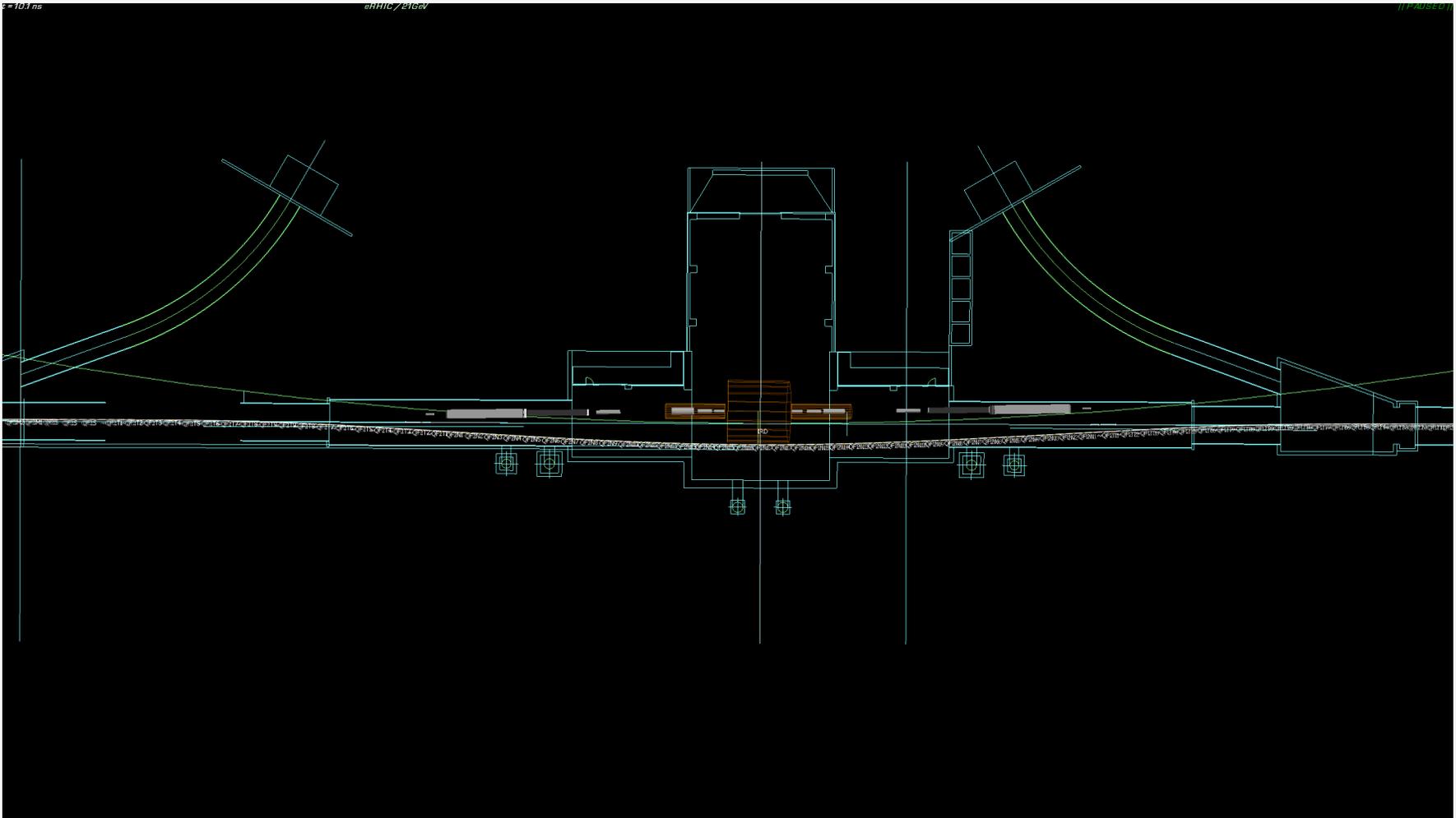
Basic sPHENIX model cutaway (updated)

2ft high x 1 ft wide
clearance needed
for e-ring
components

ePHENIX

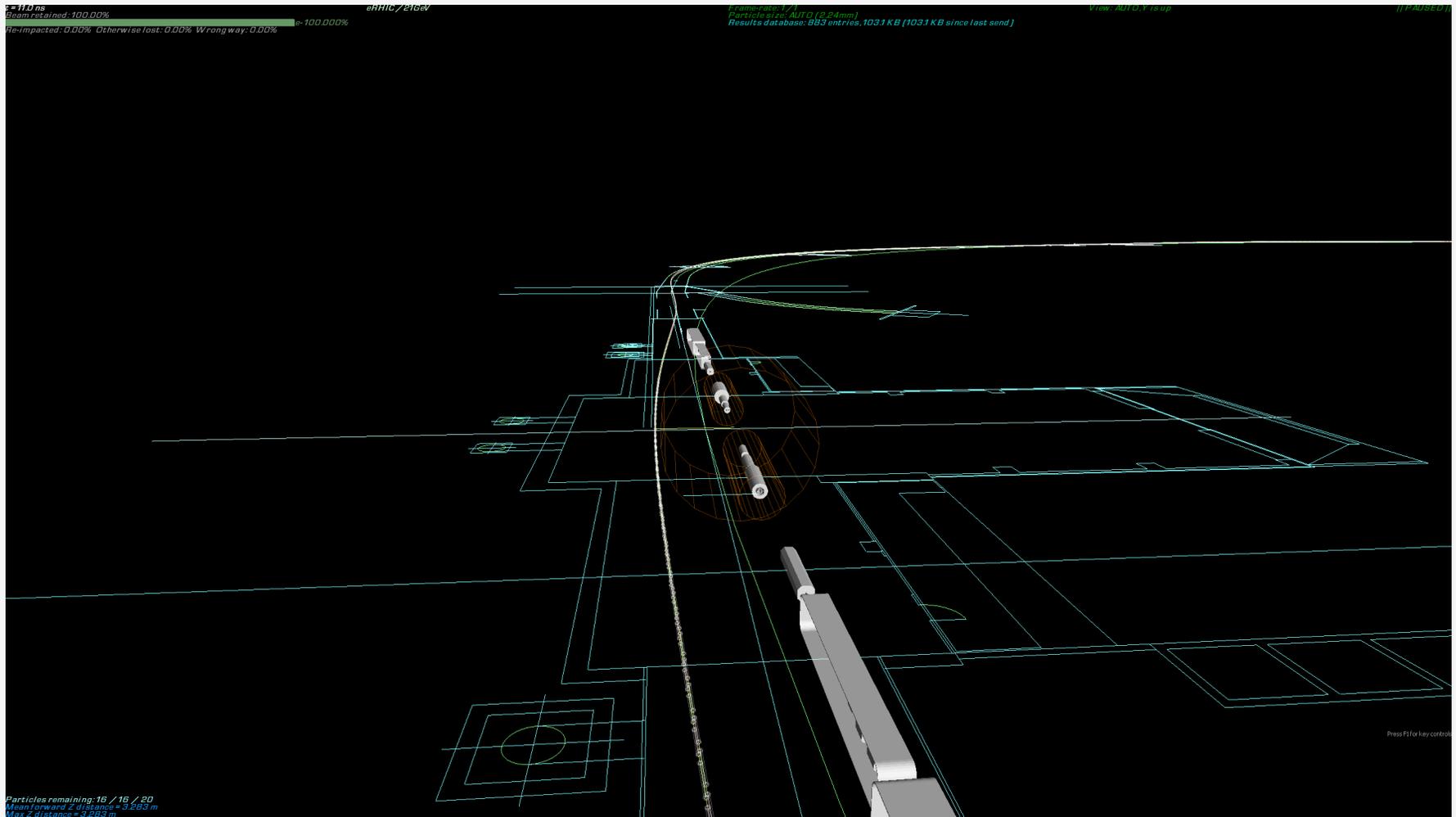


PHENIX
SCALLOP
NO. 14

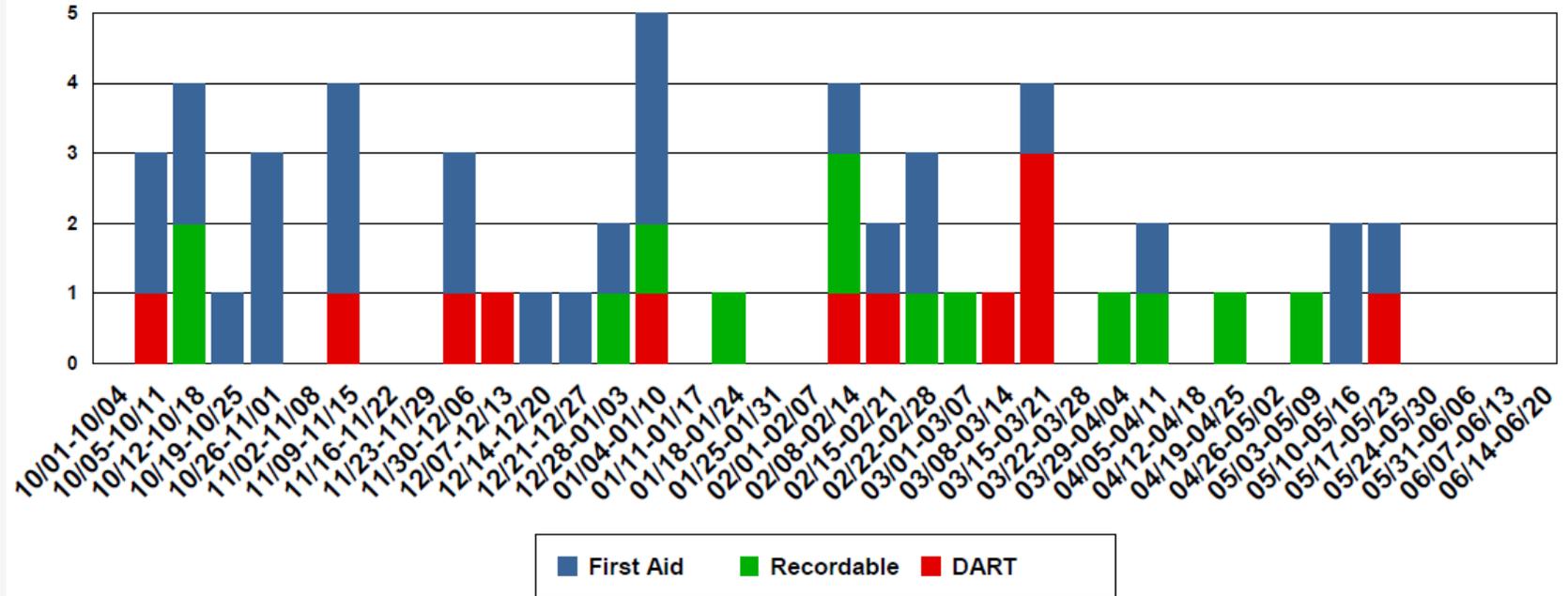


Requested more detailed information about eRHIC plans

PHENIX NORTH



Injuries Per Week (FY)
As of 6/20/2014



Injury Status:

FY14 YTD: DART – 12, TRC – 25, First Aid – 28

FY13: DART – 16, TRC – 38, First Aid – 53

FY12: DART – 19, TRC – 36, First Aid – 69

FY13 Injury Listing: <https://intranet.bnl.gov/esh/shsd/seg/Occlnj/BNLInjuries.aspx>

Recent Injuries

None



Recent Events		
6/19/14	Non-Reportable	The Fire Rescue Group responded to a smoldering cigarette butt can at the rear of Building 735. Fire Rescue applied water and the Site Resources Division was notified to remove the damaged can. (Event Link)
6/18/14	SC-4	A Fed Ex truck arrived at BNL for delivery of a Bio-Dex package from GE Health. During the incoming survey, RCD Personnel found contamination on the exterior of the shipping container. RCD Personnel performed additional surveys on both the driver and truck. Both were found to be clean of any radiological contamination. As per the Transportation Subject Matter Expert, this was found to be a violation of 49 CFR §173.443 Transportation Contamination control. The contamination limit in 49 CFR §173.443 is 220 dpm per centimeter squared. The RCD survey results were 31,000 dpm per centimeter squared. (Event Link)
6/16/14	Non-Reportable	A BNL dump truck was brought to the motor pool with damage to the mirror frame and door frame. The damage totaled \$1,800.00. There were no personnel injuries. (Event Link)
6/16/14	SC-4	A Work Control Coordinator (WCC) observed a Photon Sciences (PS) Vacuum Group with an ion pump cable disconnected in the ring at the X28 front end area. The worker was checking the center pin depth with a plastic tool. The WCC went up to the mezzanine to assure that the lockout/tagout (LOTO) for this connector had been applied properly, as he had discussed this LOTO procedure with the same worker last Friday, June 13, 2014. The WCC found the vacuum power supplies turned off, but the supplies were still plugged in and the cables were still connected to the back of the supplies. No LOTO locks or tags were evident. He immediately unplugged the cable and went back into the tunnel to discuss the problem with the worker. He then discovered that the worker had already cut off the faulty connector and replaced it with a new one. The WCC made the worker aware that this was not in compliance with the procedure, "Lockout/Tagout (LOTO) for NSLS-II Vacuum System High Voltage Cables" (PS-C-ASD-PRC-103). The WCC followed this up with an email to PS Environment, Safety and Health (ESH) and PS Vacuum Group supervision. PS, in conjunction with Safety and Health, are evaluating the potential voltage of the cable. (Event Link)



Where To Find PHENIX Engineering Info

*Run 14 Continues!
 Just over 1 week to go !*

35 years ago:

- Sony introduced the walkman
- Village People's YMCA hits #1 in UK
- Billy Joel wins Grammy for best song ("Just the Way You Are")
- Egyptian Peace Treaty with Israel
- Nuclear accident at 3 Mile Island
- Iran declares Islamic Republic and Takes US Embassy hostages
- 1st time in 3 years No Triple Crown in Horse Racing
- Monty Python's Life of Brian Premieres
- My Sharonna hits #1 and stays for 42 weeks
- Howard Stern begins broadcasting career
- President Carter creates Dept of Education
- Ronald Reagan announces bid for President
- Carter Biggs and John Tradeski, Jr. begin working at BNL

http://www.phenix.bnl.gov/WWW/INTEGRATION/ME&Integration/DRL_SSint-page.htm

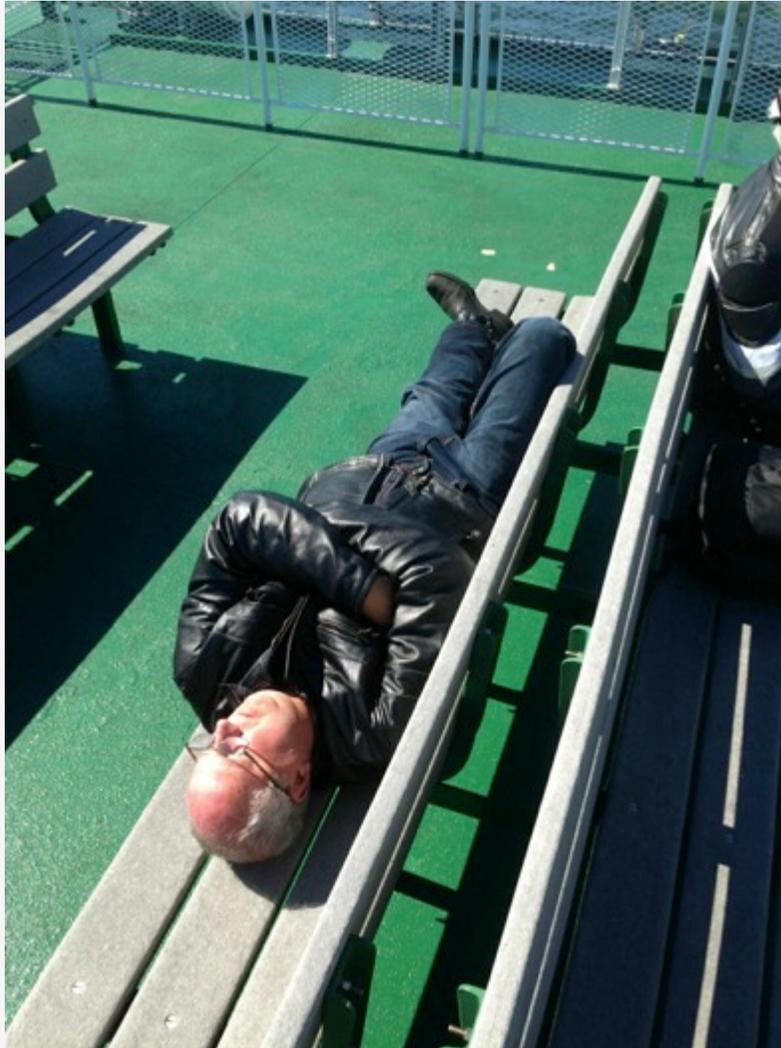


Carter will have 35 years on the job next week

10. Team Player



9. Efficient



8. Furniture Restorer



7. Mariner

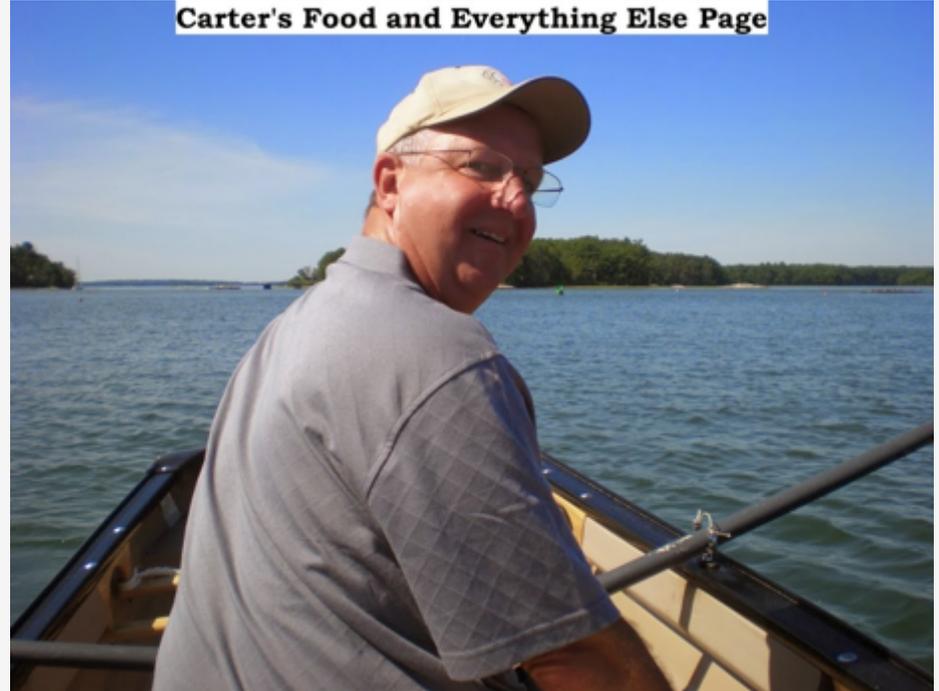


6/26/2014

6. *Internet Gourmet*

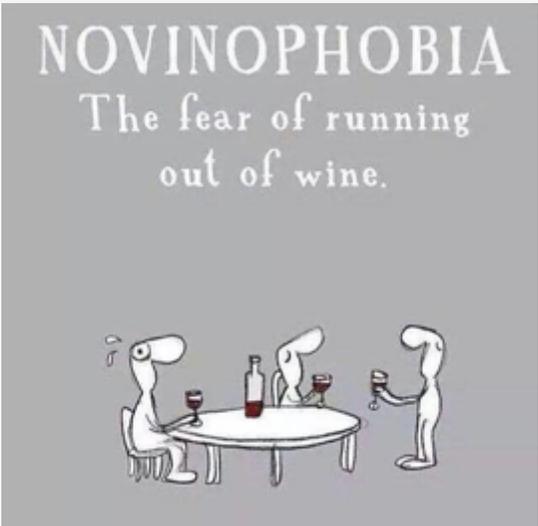
Food Blogger

(<http://cartersfood.blogspot.com>)



6/26/2014

5. Wine Maker



4. *Fire Commissioner*



3. Master of Fashion



2. Patchogue Cult Leader



6/26/2014



1. *Wild One*



6/26/2014

John will have 35 years on the job the week after next

10. Reliable



John will have 35 years on the job the week after next

9. Fire Commissioner



John will have 35 years on the job the week after next

8. Calm (Usually)



John will have 35 years on the job the week after next

7. Precise

We'll Grind it 'till it fits

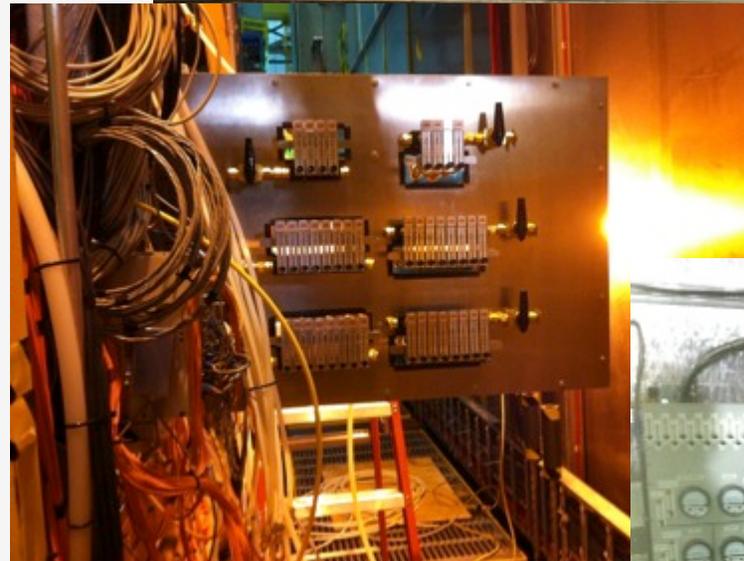


6. Hammer time

John's favorite tool



5. Plumber
Extraordinaire



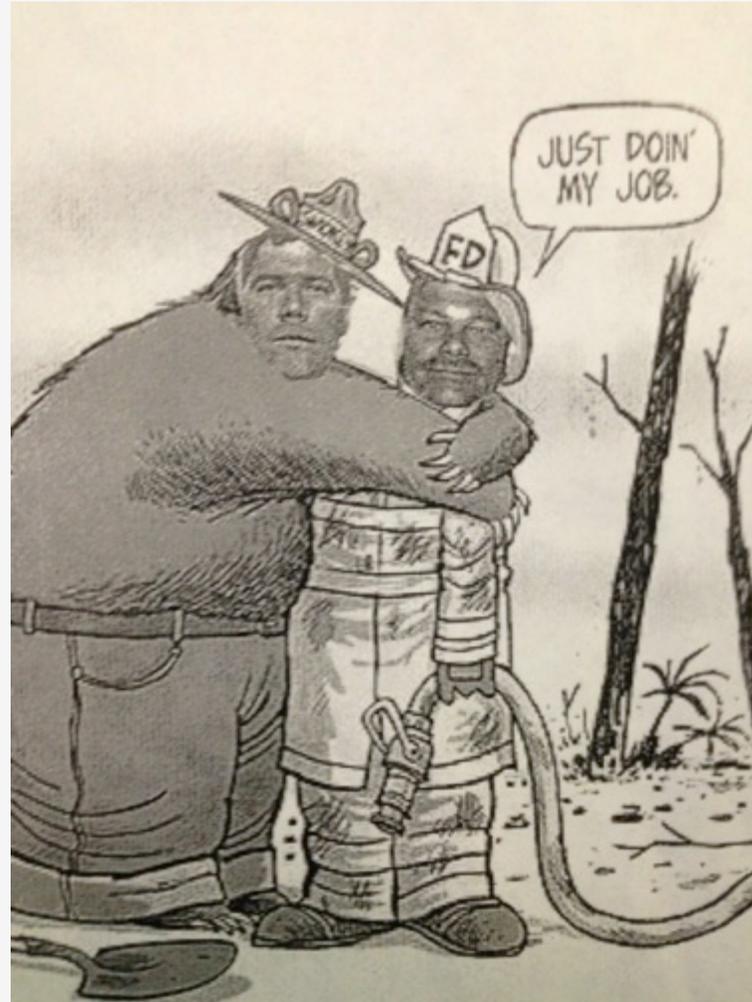
6/26/2014

4. Snow Plowman



6/26/2014

3. Friend of
Smokey



2. Cubby



1. Big John

