

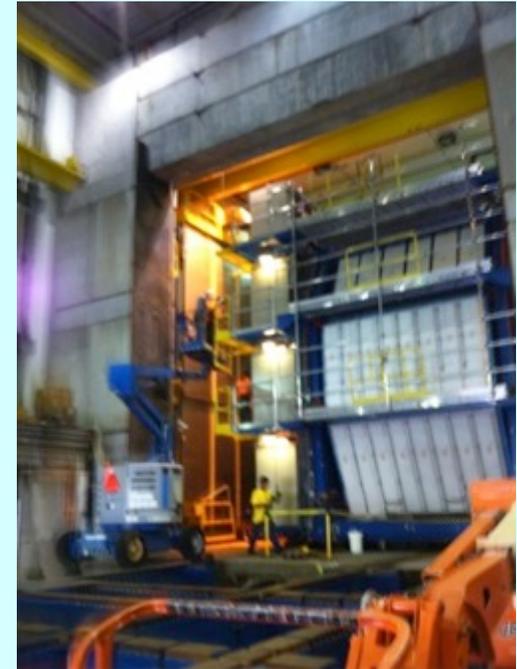
PHENIX WEEKLY PLANNING



6/20/2013
Don Lynch

This Week

- Disassemble Shield Walls
- De-cable VTX/FVTX
- Remove MuID Collars, place in IR holding spot
- Remove dumb waiter, EC ladder
- Fold EC platforms
- Prep EC for move to AH
- VTX strip pixel 1st article inspection/approval
- Begin building VTX strip-pixel staves
- Continue sPHENIX support
 - HCal prototype
 - EMCal prototype design continuing
- MPC-Ex design for run 14
- Future IR evolution modeling



6/20/2013

Next Week

- move EC to AH
- Move MuID collars to AH
- Move plates and 20 ton cart to IR
- Move manlift to IR
- Move VTX East to PHYSICS Lab
- Move VTX West To CHEMISTRY Lab
- CPR training for techs who need it
- Continue building VTX strip-pixel staves
- Continue sPHENIX support
 - HCal prototype
 - EMCal prototype design continuing
- MPC-Ex design for run 14
- Future IR evolution modeling

Major Projects This Summer:

- VTX repairs/upgrades/general maintenance (Mike L.) **Work permit approved**
- DC East Window Replacement (Kenny J.) **Work permit needed**
- MPC-Ex Initial (partial) Installation (Jim L.) **Work Permit needed**
- mRPC Tests in mRPC Test Lab (formerly RPC Factory) (Frank T.) **Procedures Done**
- sPHENIX Prototypes assembly & tests (All) **(need space allocation and work permit(s))**
- MuTr troubleshooting and Repairs (Chris P.) **work permits submitted for approval**
- Window Washer Winch upgrade (Jim L.) **need new work permit**

Other Mechanical (TBD)

Other Electrical Projects

- HVAC Controls Upgrade (Frank T.)
- Complete Window Washer Controls Upgrade (Frank T.)

Other Electronics Projects

- Additional upgrading of ADAM system to MODBUS (Sal P.)
- Electronics research in support of sPHENIX and RATCAP (Sal P.)
- Lecroy HV communications upgrade (Sal P.)

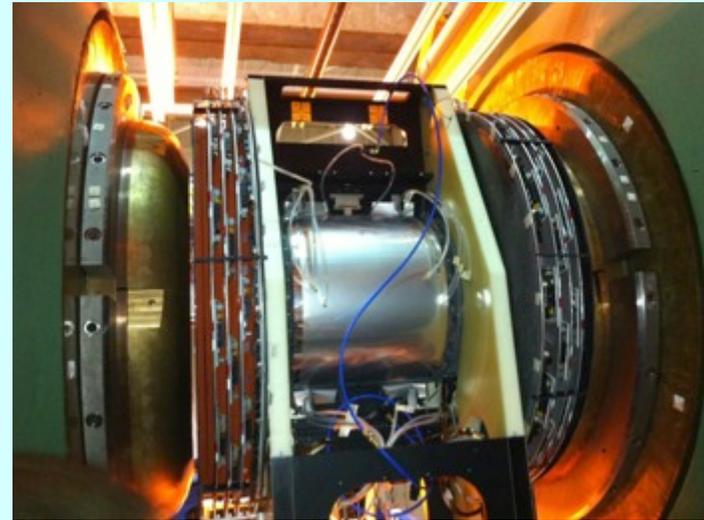
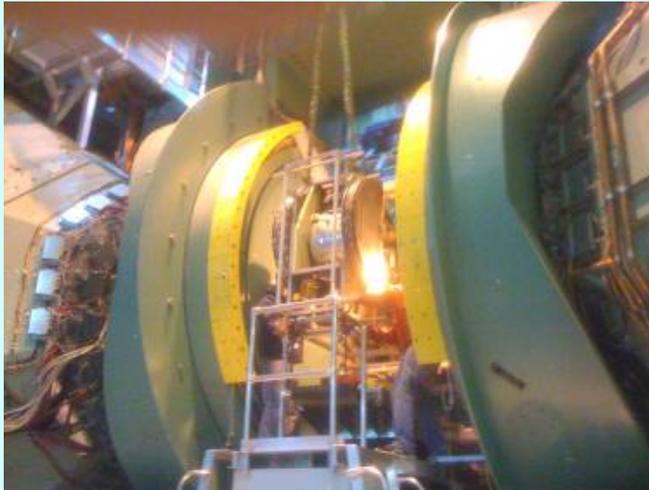
Other Gas System Projects (TBD)

- RPC Gas Recirc. Upgrade (John T.)
- Drawing and Config. Control Improvements (SULI Student)

Other Infrastructure Projects (TBD)

VTX/FVTX repairs/upgrades

PHENIX PRODUCTION



VTX & FVTX Summary of Tasks

VTX/FVTX Disassembly - After Start of shutdown tasks are completed (EC out to AH), coolant and N₂ lines, LV, signal and HV cables and fibers will be carefully removed and coolant drained. East and west detector halves will then be de-mounted and transported to Chemistry bldg for maintenance and overhaul.

At Chemistry lab - VTX, bigwheels and FVTX will be disassembled and all 4 FVTX stations will be transported to the FVTX PHYSICS Lab.

At PHYSICS FVTX lab -FVTX stations will be tested, faults will be isolated, repaired and re-tested.

Concurrently at Chemistry lab -VTX will be disassembled into individual barrels and bigwheels, new /reworked pixel staves will be installed, improved strip-pixel staves will be fabricated assembled and integrated with active components harvested from staves to be replaced, tested and reinstalled in their respective barrels. The VTX will then be re-assembled tested and re-surveyed.

FVTX transported to Chemistry building. FVTX Integrated into VTX. VTX/FVTX assembly surveyed

VTX&FVTX assembly transported to PHENIX and installed on rails.

Coolant and N₂ lines, LV, signal and HV cables and fibers will be carefully reattached.

Full detector re-surveyed in IR

DC East Repairs/Upgrade



Similar to the work done on the DC West last year, the DC East will have its window replaced to repair the wear that years of wire repairs rendering the DC East window a patchwork of tape and have elevated leak rates to the point where replacement of the mylar window is needed.

More input from DC Experts:

Need CO₂ + Ar (30%/70%) for electronics tests and P-5 (95% Ar / 5% CH₄) for window tests, and need HV, LV and DAQ operational. Electronics tests to begin 8/10, window replacement to begin 8/25. also want 2 manlifts?

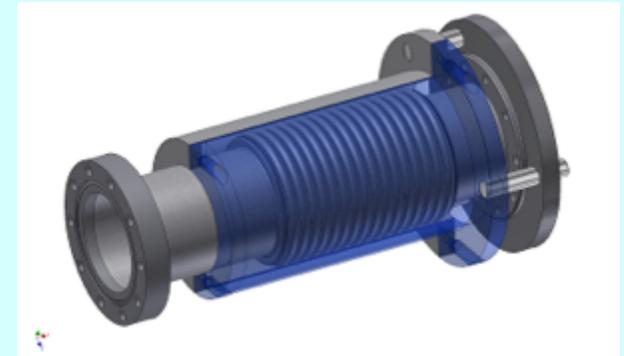
- East Carriage move to AH
- Design & Construct tent (similar to tent constructed for DC West last year) to prevent foreign material from entering DC East cavity while window is removed.
- CAD to provide wide vertical lift to allow DC experts to remove and replace window
- Get supplies and materials from Stony Brook for window replacement
- Electronics troubleshooting and repair
- Remove and replace window
- Isolate and repair leak under electronics card
- Leak test
- Operational tests
- Remove tent and manlift

MPC-Ex Initial (Partial) Installation

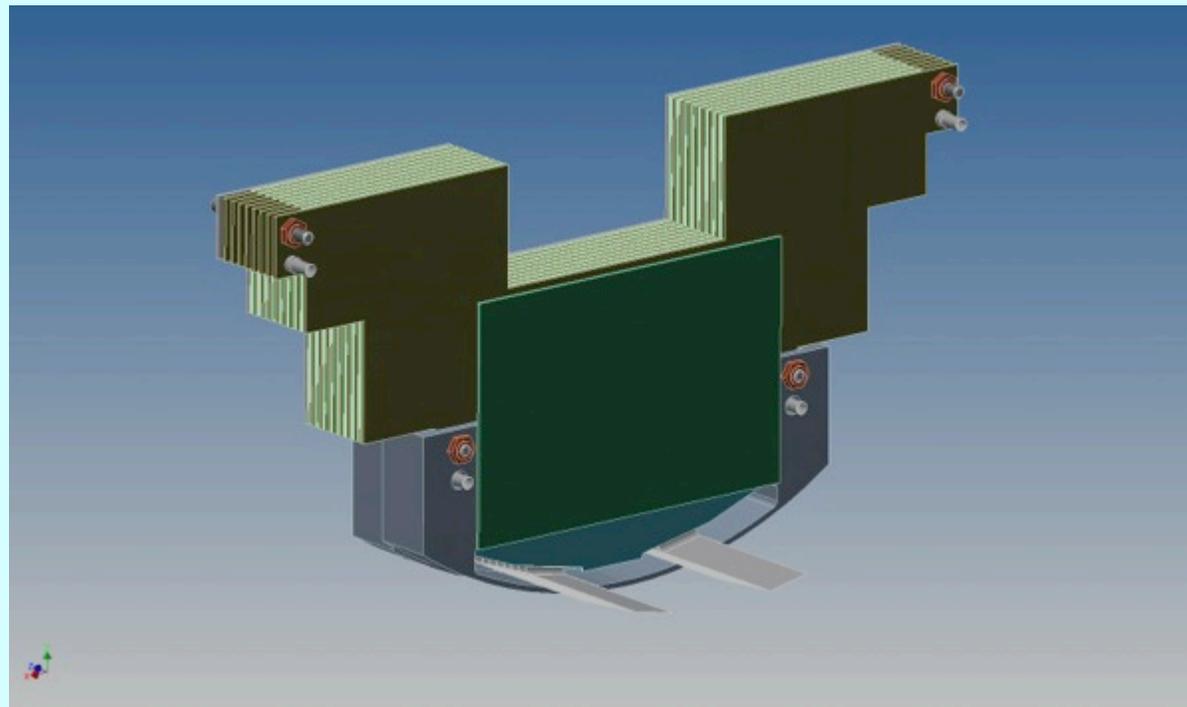
PHENIX
SUPPORT
TEAM



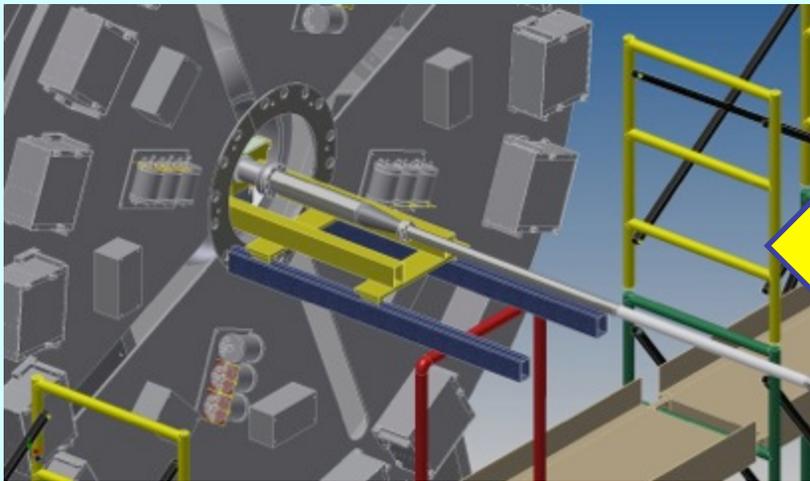
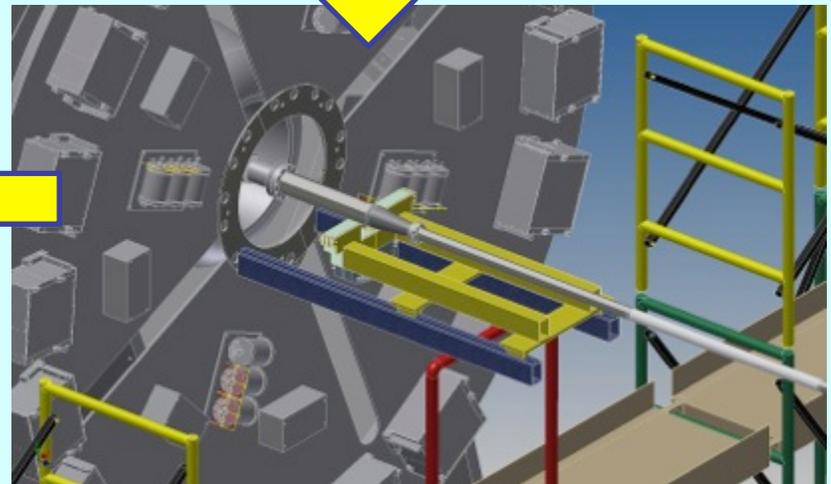
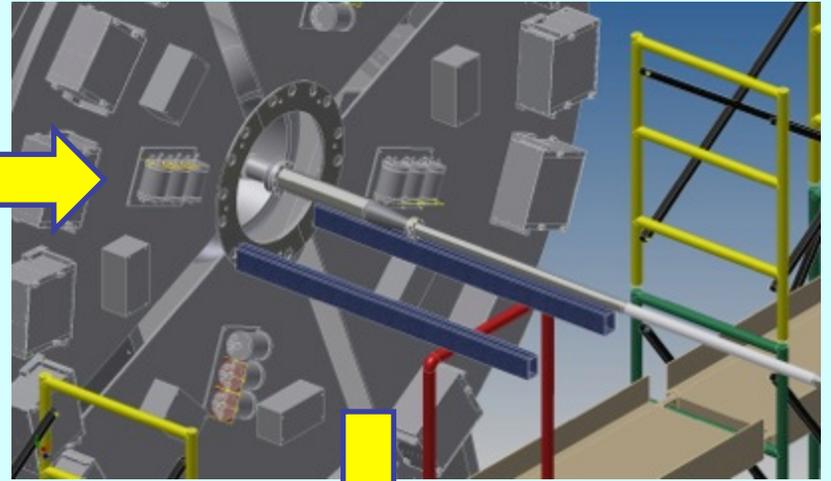
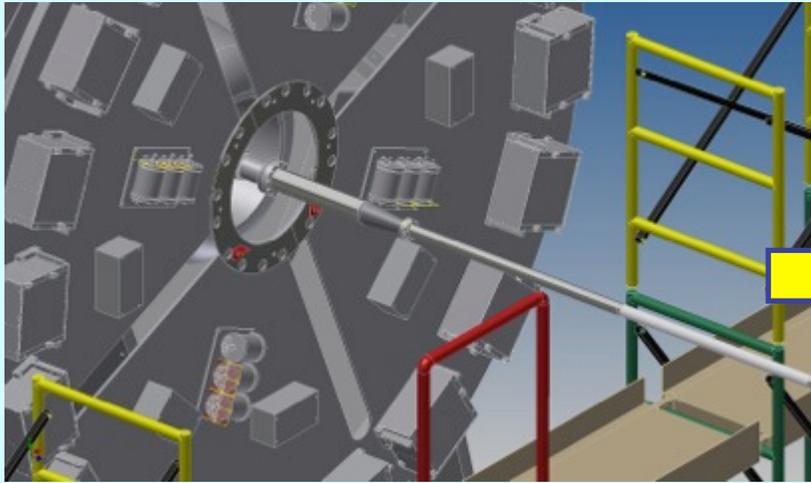
Existing vacuum bellows anti-squirm In MPC S Cavity



Design vacuum bellows anti-squirm in MPC S Cavity to accommodate MPC-Ex



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MPC-Ex Initial/Partial Installation Summary of Tasks

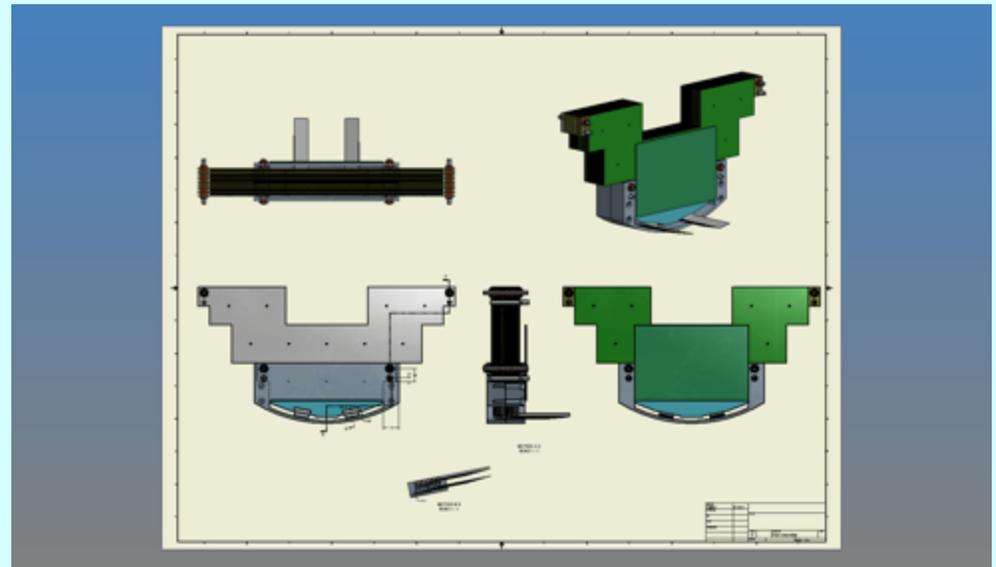
Determine extent of installation for 2013

Design assembly, support and installation fixtures

Assemble and bench test

Install

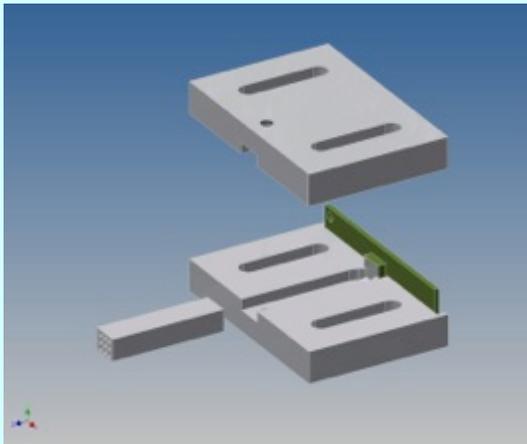
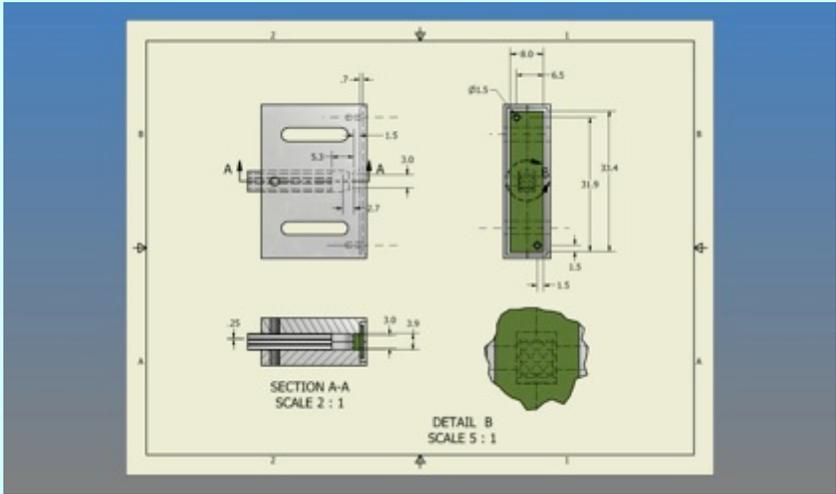
Performance tests



mRPC Test Lab Project

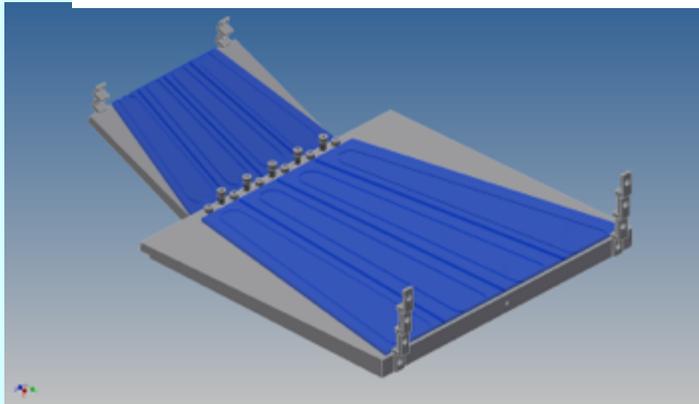
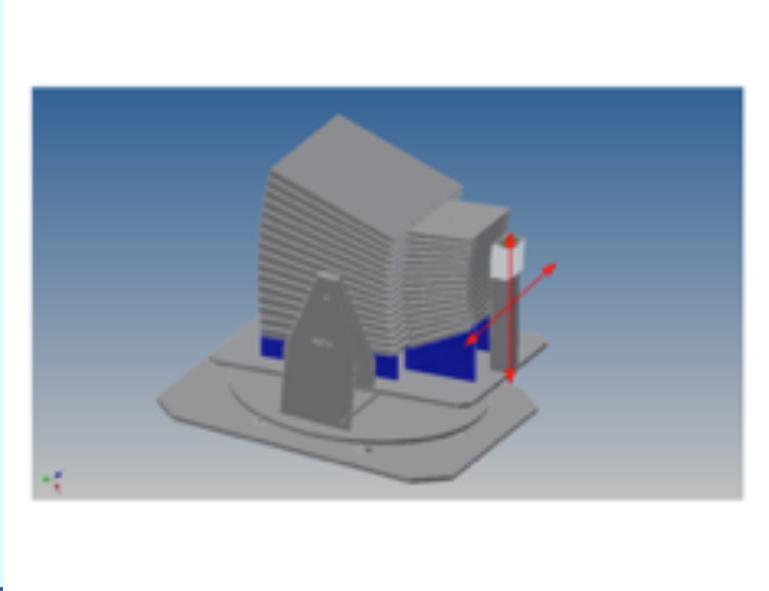


mRPC Test Lab Support
as required



Hcal prototype component procurement is underway:

Steel and scintillator procurements in progress



sPHENIX Prototype Assembly and Test Tasks

Design Hcal and EMCAL Prototypes and support components and shipping crates

Procure materials and detail parts

Receive and inspect parts

Assemble prototypes

Test assemblies for mechanical fit and function

Package and ship prototypes to FERMI Lab for performance tests

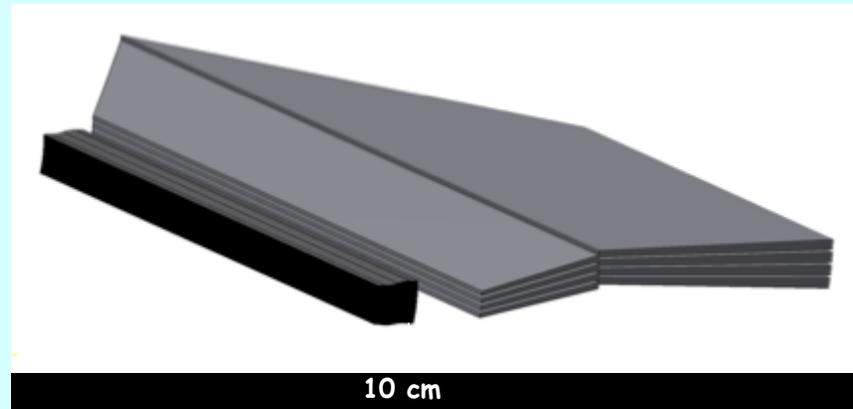
Test and Evaluate at Fermi Lab

EMCal Prototype

Prototype accordion plates with fibers produced as part of SBIR. EMCal for test beam will be flat tapered plates



Prototype "Egg Carton" light collection

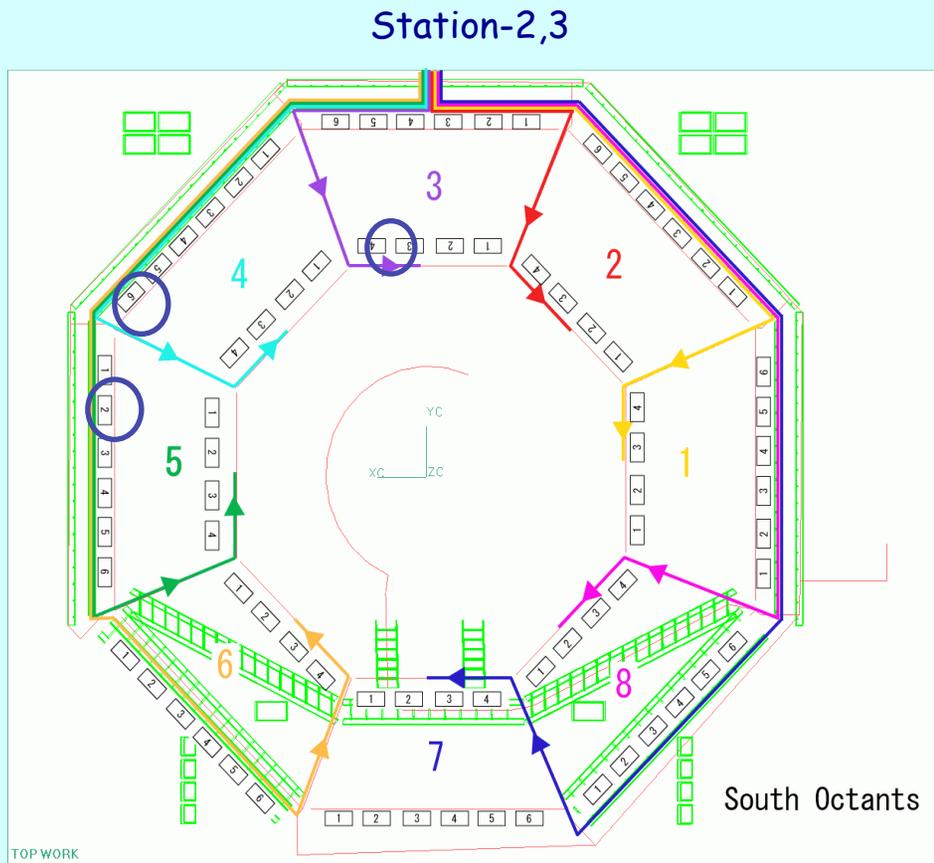


Proto-type EMCal in front of proto-type HCal

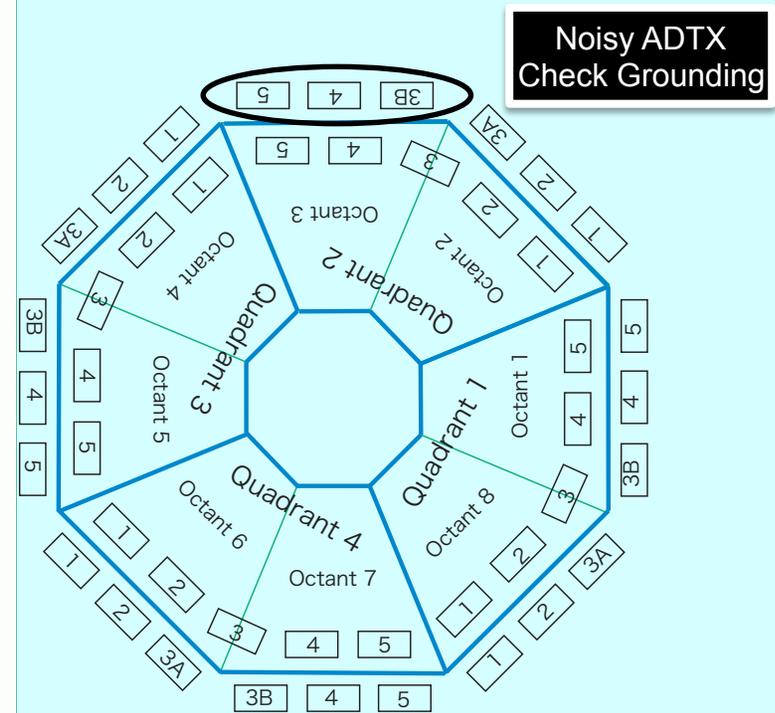
(Photos from Eric slides, from Craig and Sean slides)

MuTr South Arm Areas to be accessed

PHENIX SOUTH ARM

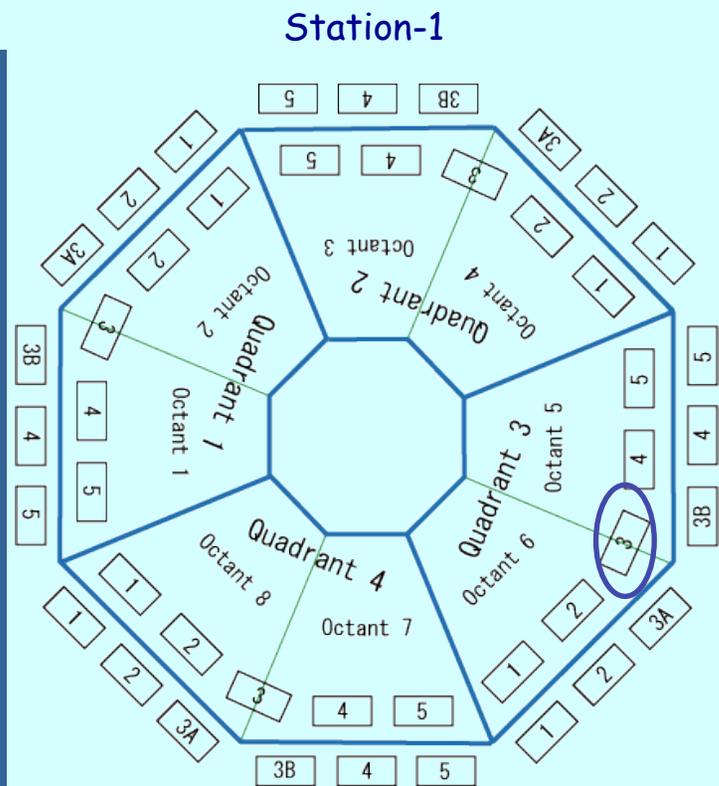
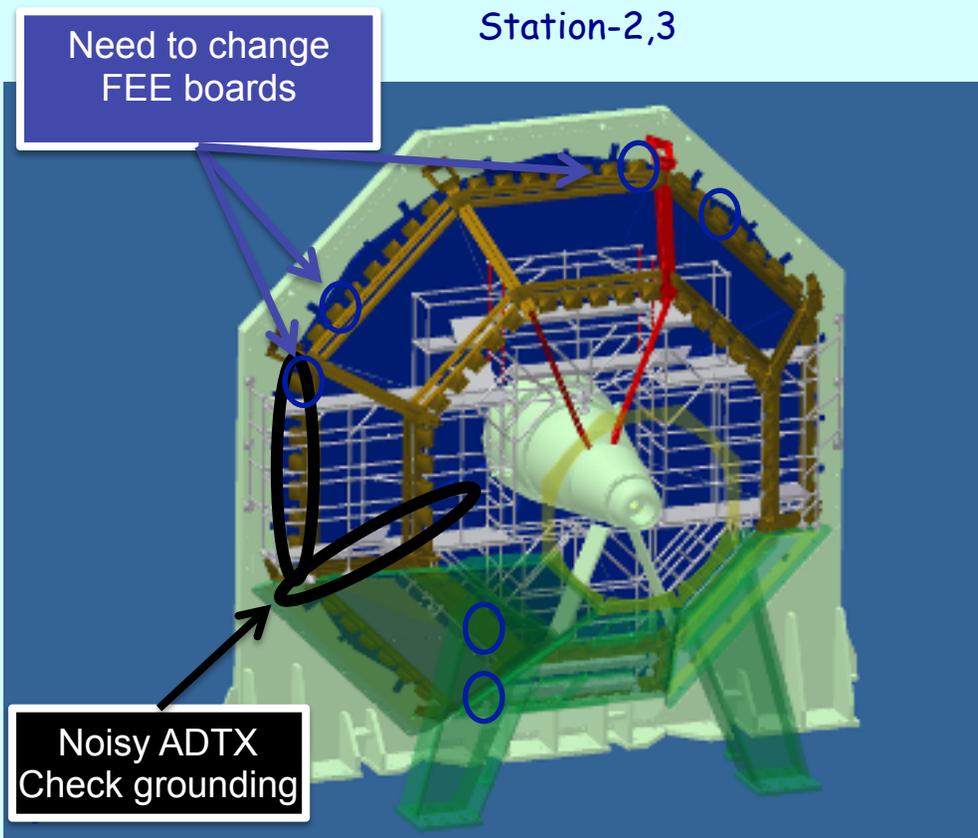


South Station-1 Chassis

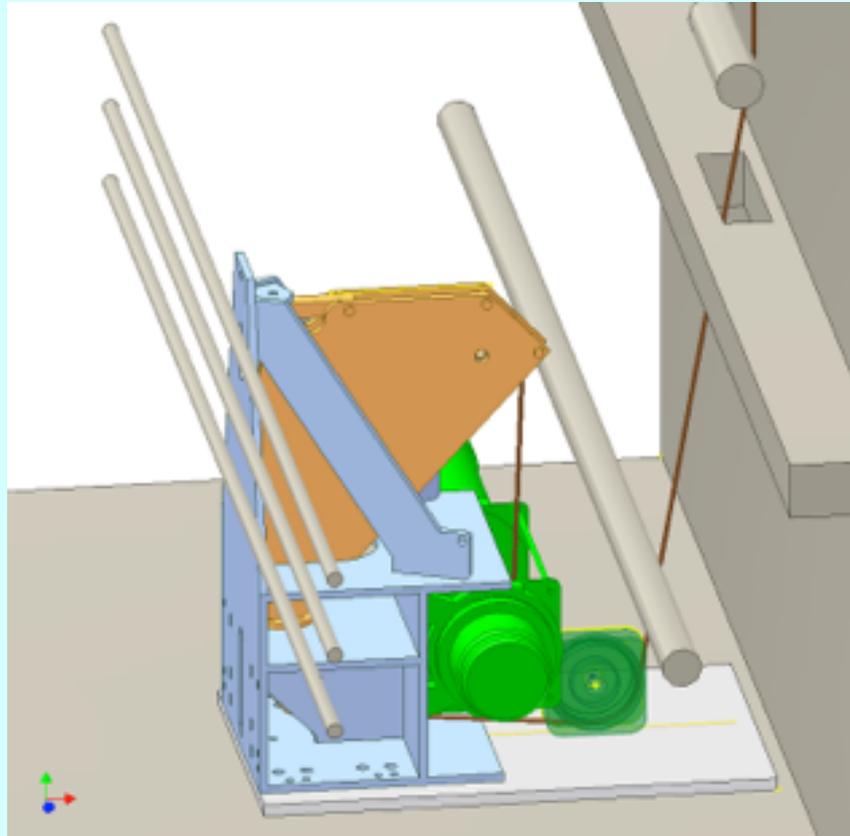


MuTr North Arm Areas to be accessed

PHENIX NORTH ARM



Window Washer Winch Upgrade



Winch is on Order

Window Washer Winch Upgrade Summary of Tasks

Specify and Order Winch & Sheave

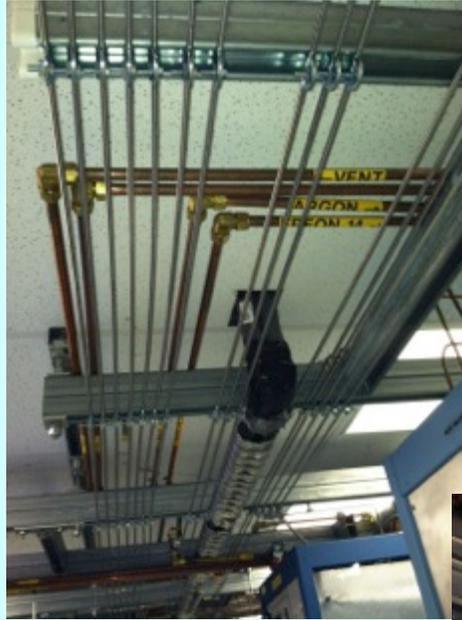
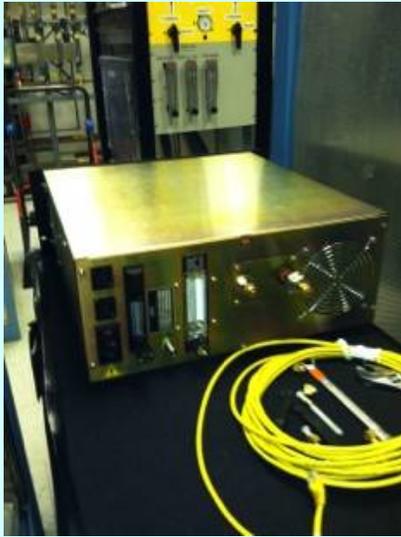
Receive and Inspect winch and components

Design and Fabricate Winch & Sheave Base

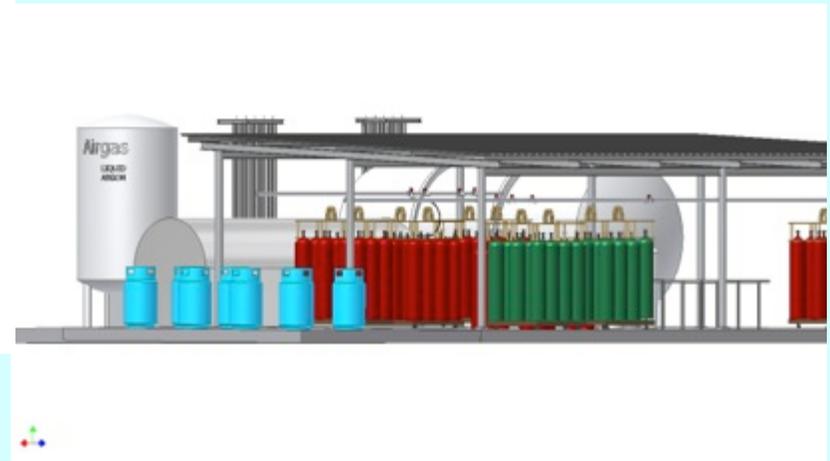
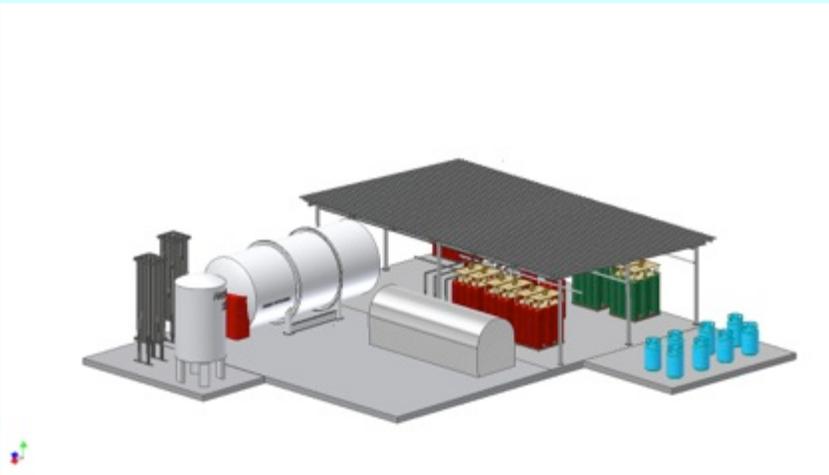
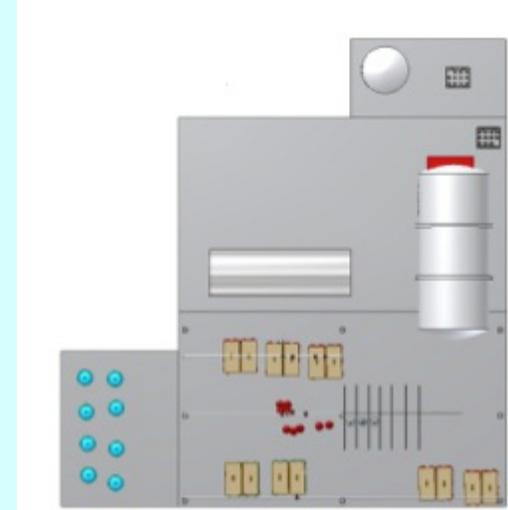
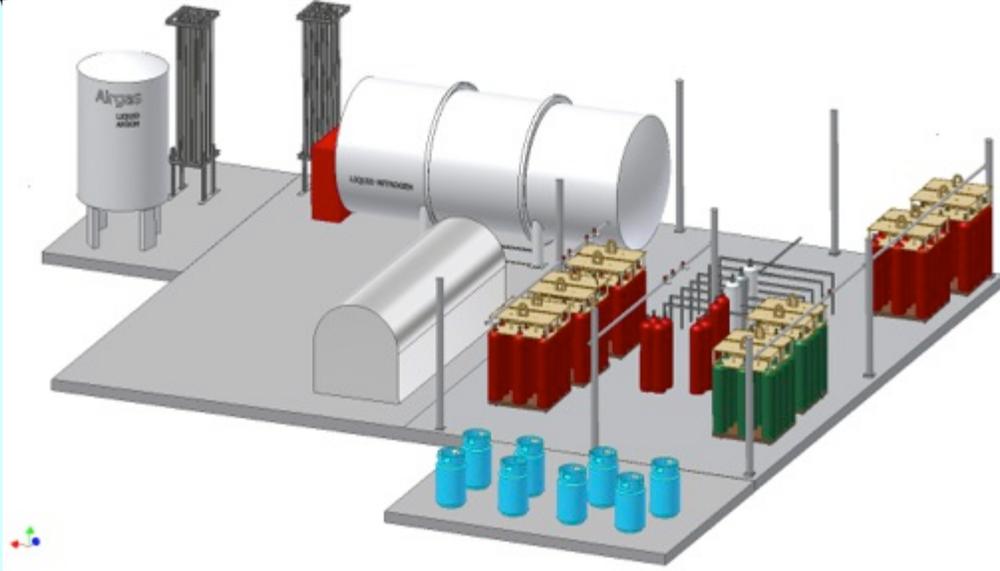
Install and test Winch, integrate with window washer hardware, controls and power

Final Inspection and approval of window washer upgrade

(Note: remote safety pin insertion and retraction was installed and has been in operation since the start of run 13.)



New Gas Analyzer Project (RPC recirculation and more)



Gas System CM and Model Updates

- ZDC Remove, Test, Recalibrate



- Event Builder Maintenance: removing and cleaning EB modules
- RPC Factory Decommissioning

RPC Group

Rusty Towell
June 20, 2013

Storage

Tent Clean-Up

Return Equipment

Storage of spare RPCs

- We need a place to properly store the spare RPC1 modules until they are needed (3-5 years?).
- 10 spares
- Cool, stable environment
- Wet nitrogen flow (30-50% RH)
- Where? Tent? 1008?
- Help monitoring gas?



Tent Clean-up

PHENIX
TENT
CLEAN-UP

- Recycling: how?
 - Cu, Al, Old wire?
- HEEP equipment?
- Show & Tell pieces?
(need to visit w/ Achim)
- Cables (lemo, BNC, HV)



Gas Panels?



Tools, Tool box, shelves, tables, ...



CAEN Power supplies

- Need to test spares (main frames & modules).
- Send broke ones back for repair.
- Replace the ACU PS in the tunnel with a repaired PS.

Shipping Equipment

- Proper approval?
- Shipping Crate vs. Van rental
- Shipping Crate construction?
 - Who, cost, ...

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Prep for 2013 shutdown	Done
Design, Fabricate MPC-Ex	
Define tasks and goals	
Analysis and design of fixtures, tools and procedures	
Fabricate/procure tools and fixtures	
Tests, mockups, prototypes	
Receive, fabricate, modify, finish installables	
Review and approval of parts, tools, fixtures and procedures	
Assembly and QA tests	
VTX Strippixel redesign	Done
VTX Strippixel 1 st article stave assembly	Done
VTX Strippixel 1 st article qualification/performance tests	Done
VTX strippixel stave production	5/20-9/20/2013
VTX Strippixel sensor reclamation	4/1-8/20/2013
VTX Strippixel ladder assembly & Test	7/15-9/27/2013
Pixel Ladder repairs	4/1-9/20/2013
Run 12 Ends	Done
Shutdown Standard Tasks	6/11-7/19/2013
• Open wall, disassemble wall, Remove MuID Collars	
• Move EC to AH, etc.	
VTX/FVTX Post run tests	Done
Disassemble VTX/FVTX services	6/17-7/3/2013
July 4 th Holiday	7/4-7/2013
Remove VTX/FVTX and transport to Chemistry Lab	7/8/2013
Remove Lampshade MMS, East Vertical	7/8-12/2013
Assemble, Test and Install MPC-Ex (Partial, location TBD)	7/22-10/1/2013

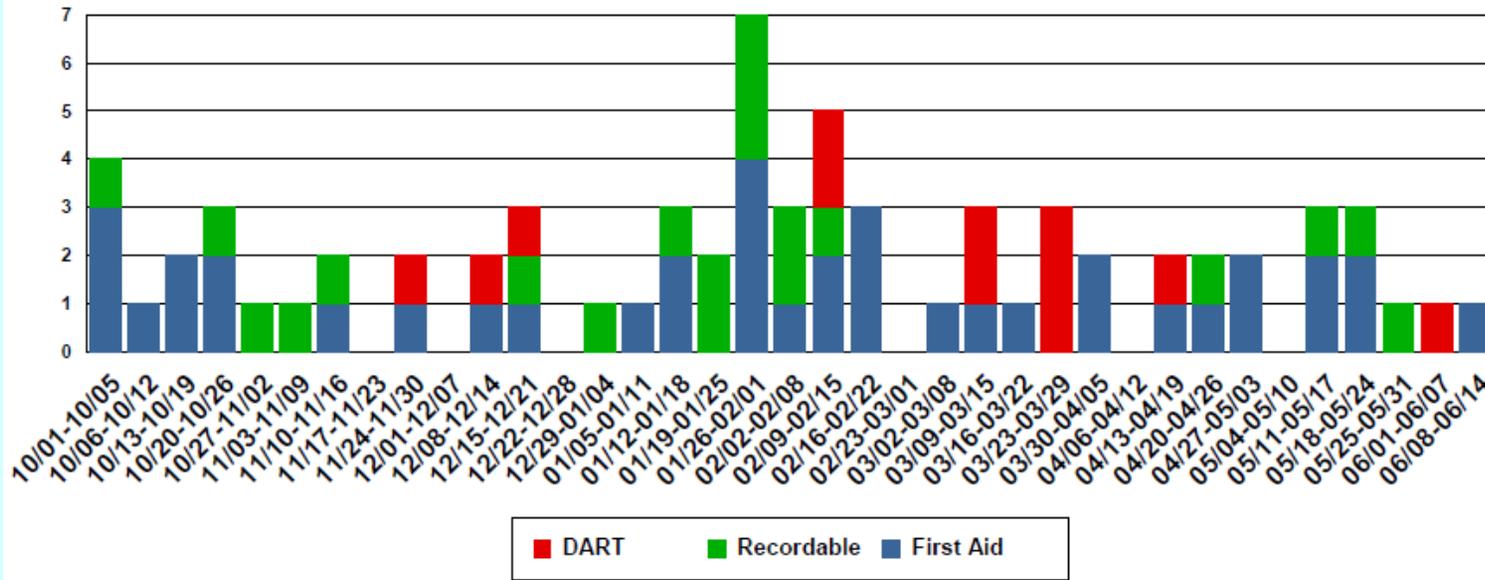
PHENIX
 PRODUCTION

MuTR Troubleshooting, maintenance and repairs	7/22-9/27/2013
Summer Sunday (8/11) Prep and teardown	7/29-8/6/2013
Summer Sunday (RHIC)	8/4/2013
DC East Window Upgrade and Related Repairs	8/19-9/27/2013
sPHENIX HCal Prototype Assembly/test	8/19-10/15/2013
Labor Day Holiday	9/2/2013
Re-assemble VTX/FVTX halves	8/19-10/14/2013
Test, survey (at Chemistry and IR) and re-install VTX/FVTX	10/14-10/21/2013
Install & Survey VTX/FVTX in 1008 IR	10/21-11/18/2013
VTX Commissioning	11/18-12/9/2013
Other detector maintenance as required	As required
Infrastructure maintenance as required	As required
TBD prototype tasks	As required
Pre-run commissioning and prep for run 14	11/1-12/31/2012
Veterans Day, Lab Holiday	11/11/2013
Prep for EC roll in	11/1-11/9/2013
Roll in EC	11/10-11/12/2013
Prep IR for run	11/1-11/30/2013
Thanksgiving Holidays	11/28-29/2013
Pink/Blue/White sheets	12/14-12/31/2013
Christmas Holiday	12/24-25/2013
New Year's Day Holiday	1/1/2014
Start run 14	1/2/2014

1. The RHIC tunnel and service buildings are no longer posted for an ODH hazard during this summer shutdown.
2. B1005S basement has been deposed for radiation so no TLDs are needed to enter the RHIC tunnel for ~50 ft on either side of the 1005S basement entrance into the RHIC ring. The rest of the RHIC ring is still posted as a Controlled Area - TLD Required.



Injuries Per Week (FY) As of 6/14/2013



Injury Status:

FY13 YTD: DART – 12, TRC – 32, First Aid – 39

FY12: DART – 17, TRC – 35, First Aid – 70

FY11: DART – 30, TRC – 44, First Aid – 45

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

Recent Injuries		
6/13/13	First Aid	An employee strained a hand and arm while lifting. At the OMC, first aid was given.
6/5/13	DART	A subcontractor injured a finger while using a power tool. At the ER, prescription medication was given, making this a recordable injury. The worker is to see the contractor doctor before returning to work. UPDATE: This is now a DART case.
5/21/13	First Aid	An employee developed hand injuries from mopping activities. At the OMC, first aid was given.

Recent Events		
6/14/13	Non-Reportable	Fire/Rescue responded to an odor in B902. IH was requested to respond. B902 was checked with multiple types of meters and no problems were detected. It was determined that a carpenter started up a personally owned leaf blower outside. The exhaust went into the building from a door that was chocked open. The building was not evacuated and no further action was taken by the FD. (Event Link)
6/12/13	SC-BNL	A C-AD employee from RRPL in B801 transported three low level sources (less than 10% of accountable thresholds) from B348 to B801. The sources were no longer needed at B348 and were offered to B801 for their use. The requirements of the Movement by Vehicle of Hazardous and Radiological Materials On-site Subject Area were not fully followed. There was B348 leak check data showing source integrity of these sources but this data was from January 2013, not when the sources were moved. The sources were given to the employee in a plastic bag by B348. He gave the sources to the RCT in B801 when he arrived. The sources were transported in a government vehicle. There was no contamination released or radioactivity lost. A Radiological Awareness Report will be written to determine corrective actions to prevent recurrence. (Event Link)
6/12/13	Non-Reportable	At 0445 there was a water main break at the corner of Upton Road and Michelle Lane. The road was barricaded from Upton Rd to Bell Ave until repairs allow re-entry. Repairs are underway. (Event Link)
6/8/13	Non-Reportable	The water tank (B49) by Police Headquarters developed a leak at the center riser. This is potable water. F&O is currently work planning to isolate and repair. (Event Link)
6/6/13	Non-Reportable	It was noticed late on 6/6/13 that a drop ceiling in a room of the CFN was beginning to collapse. Room access was prohibited until carpenters inspected the problem which took place on 6/7/13. Current conclusion is that design of ceiling tile edge mount may be inadequate and IFM is having all drop ceilings in B735 inspected for extent of condition. (Event Link)

Where To Find PHENIX Engineering Info

Congratulations! We have just about made it to the summer!

Summer 2013 begins tomorrow at 1:04 AM (EDT)



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

6/20/2013

