

PHENIX WEEKLY PLANNING



6/11/2009

Don Lynch

PHENIX WEEKLY PLANNING

Yesterday's Controlled Maintenance Access Day

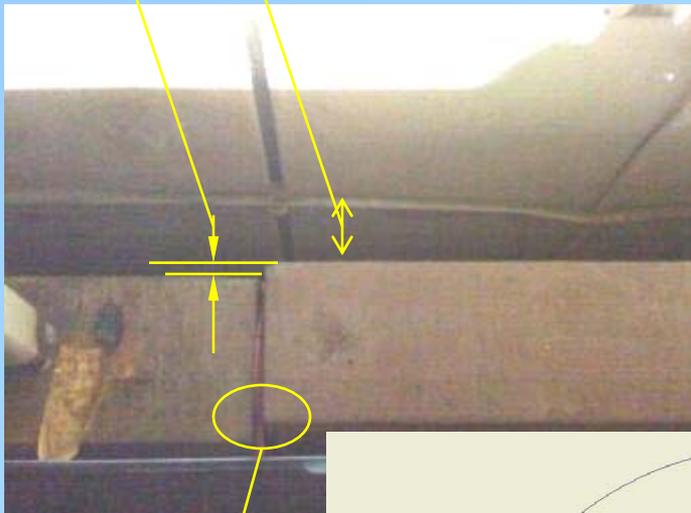
- RPC3N Measurements
- HBD Troubleshooting - Results?
- IR AC's Repaired !



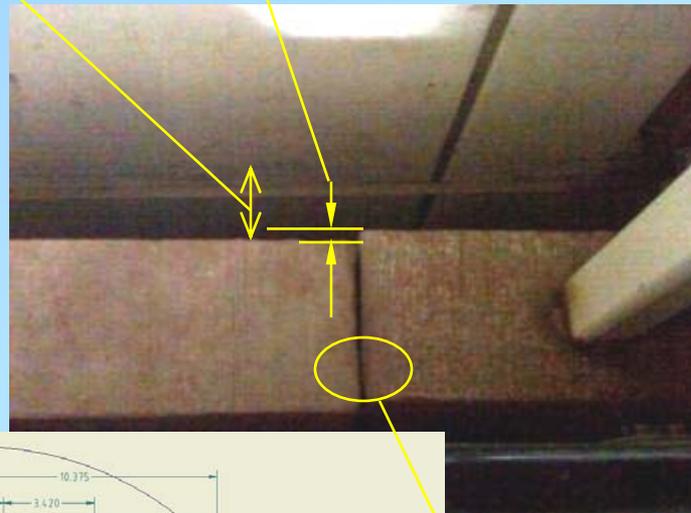
Next Maintenance Access Day - June 17 (Last Maintenance Access Day before end of run?)

Anyone wishing to access the Tunnel either north or south of the IR should inform the RC at least 2 days ahead of time to coordinate with C-A-D. If you require technician assistance inform me as well.

0.375" 9.75"

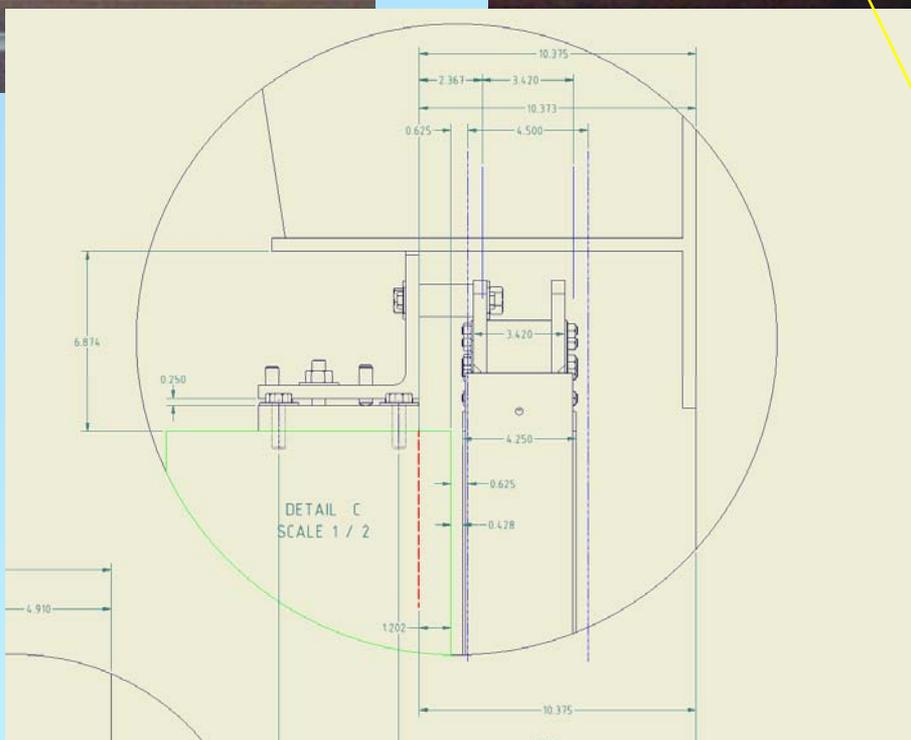


10.375" 0.625"



Center steel is 0.75" higher than west steel

Center steel is 0.75" lower than east steel



Shutdown '09 Major tasks (expect 5 month shutdown):

- EOR party June 19/2009 shutdown Begins July 6
- End run, remove wall, MuID collars down, EC to AH (3 weeks)
- RPC Factory Operations (in progress and continuing beyond Shutdown '09)
- RPC Station 3 North (entire shutdown)
- Install Station 1 South scaffolding (1 week)
- Install Station 2/3 scaffolding (2 weeks)
- Install stations 1, 2 and 3 south MuTrigger FEE's (12 weeks)
- MuTr decapacitations: station 3 south (3 weeks)
- PC1 East repair (4 weeks)
- Mechanical/Electrical Plumbing installation of (4) new DCM racks
- Add Ar Dewar and expand gas pad to add storage (12 weeks)
- Prep for future upgrades/existing equipment maintenance & Repair (as necessary)

Expected IR Configuration During Shutdown '09

- 7/1 - 7/17 Run configuration EC and WC can be moved east/west ~3 ft
- 7/17-7/24 MMS moved south, CM in run position EC & WC can be moved east/west ~3 ft
- 7/24-10/1 MMS south, CM in run position, EC in AH WC in west position (against wall), scaffolding in station 1 and station 2/3 south
- 10/1-11/1 MMS, CM & WC positions TBD, EC in AH
- 11/1 - 12/1 MMS & CM in run position, EC and WC can be moved east west ~3 ft

These dates are approximate and subject to change

Shutdown Prep Now to July 6

TECHNICAL SUPPORT NOON

Task	Complete By
RPC Installation parts & Tools Design	June 12
CAD Shutdown tasks for PHENIX Tasks defined and assigned	June 12
MuTrigger FEE Cable Management plan	June 15
RPC3 N Cable and Piping relocation Plan	June 15
RPC Electronics Rack Prep	June 20
RPC parts and Tools Fabrication	July 6
MuTrigger FEE Parts and Tools ready for install	July 13
RPC Factory Tools complete and commissioned	July 7

End of Run, Start of Shutdown

TECHNICAL SUPPORT NOON

Task	Completion Date
• End of Run Party	6/19
• End of Run 9	7/4
• Flammable Gas Purge	7/7
• Open Wall and Disassemble	7/9
• MuID Collar Removal	7/15
• Move MMS South	7/17
• Test RMC Higher comm speed on EC before disconnecting	7/22
• Disconnect EC and move to AH	7/24
• Move MuID Collars to AH	7/27
• Install IR floor plates, rolling cart & manlift in IR	7/29
• Reconnect EC for shutdown mode	7/31
• Remove East/West vertical & Upper Bias MMS lampshades	7/31

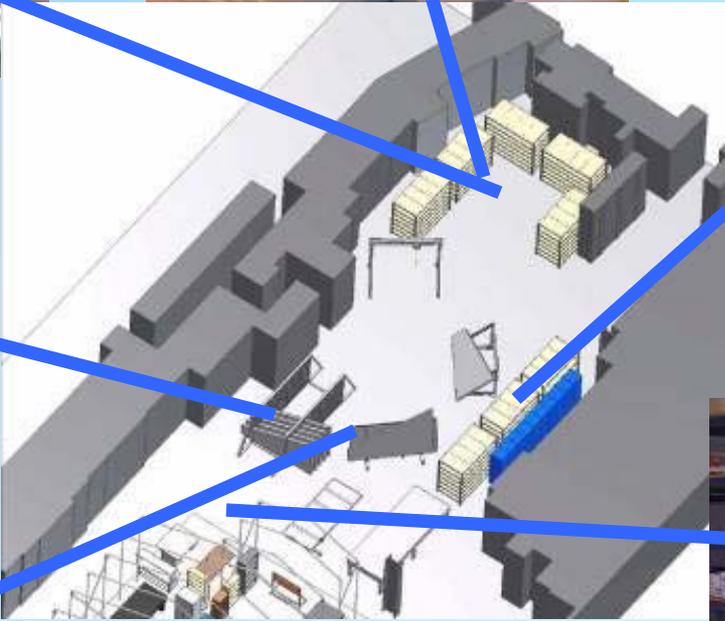
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- Gap and Module assembly and testing (continues through shutdown) in-progress
- Gap and Module Storage with humidity control (need to get permanent elec., 2nd humidity controller & covers for last 3 storage racks) Nearly complete
- Tilting transport Table (need to field fit stability clamps and tilt assist springs/drives) Nearly complete
- Burn in test stand (Bike rack section) Done
- Burn-in test stand gas system and controls (ready for 1st half octant) 6/29
- Assembly of half-octants for station 3 north 6/1-9/1

RPC Factory

PHENIX

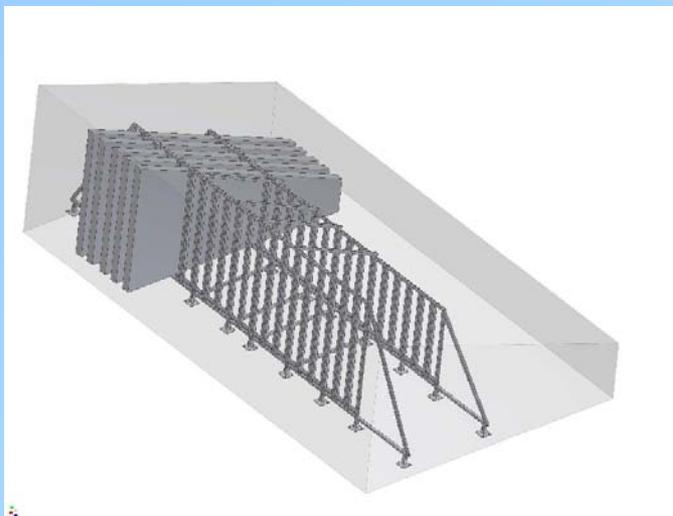
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DEPARTMENT



6/11/2009

RPC Factory Burn In Test Station For Octant and Half Octant Burn-in Tests

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Environmental control cover,
gas and HV distribution
needed to complete



RPC3 North Design Priority

- | | | |
|-----|--------------------------------------------------------------------------------------------|------------------------------------------|
| 1. | Base Translating Support | - Design done, drawings at CS |
| 2. | Interconnecting blocks | - Design done, drawings at CS |
| 3. | Central translating clamp
East and West X-Y translating
clamps & tie-rods | - Design Done, drawings
being checked |
| 4. | Installation drawing for 7 unistrut
guide rails & 2 vertical guide rails | - Design Done |
| 5. | MuID steel drilled hole pattern
Upper support brackets (4)
with E/W & U/D adjustment | - Design Done |
| 6. | Base Locking/Installation Fixture | - Design started ~ 6/12 |
| 7. | Lifting Fixture Drawings | |
| 8. | Survey Fixture | - 6/12 |
| 9. | Revise Illustrations | - 6/19 |
| 10. | Adjustable cradle | - 7/10 |

RPC3 North Installation Schedule

Task	Completion Date
Installation Concept Finalized	Done
Half-Octant Brackets, Connecting Blocks, under detector translating support design	Done
Installation Fixturing and Tooling Design	June 12
Redesign crystal palace/IR Gas Barrier	June 12
End of Run 9	July 6
Fixturing/Tooling, Brackets/Block/support Fabrication	July 6
Move Shielding/Remove Crystal Palace	July 6-July31
Move cable trays and piping in gap 5	July 6-July 31
Simulated (practice) installation with new fixturing/tooling	July 13-July 31
Install, level & survey support structure	Aug. 3 - Aug 14
Half Octant Testing and Assembly Complete (1 st half Octant ready by Aug.17, 16 th by Sep.18)	Aug. 17- Sep. 18
Mechanical Install Align & survey RPC3 N	Aug 17 - Sep. 30
Install 3 elect. Racks, all cables & gas system	Oct. 1 - Oct. 30
Commissioning	Nov. 1 - Nov. 30
Install new crystal palace/IR Gas Barrier & Shielding	Nov. 1 - Nov. 30
Start Run 10	Dec. 1

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1/2 Octant structural components assembled. There is some question concerning assembly tolerances. These are due to ship from UIUC



This rail to be removed

PHENIX
 9000-1702075-SCAPORT-NOOR



Access to area above MuID steel. We want a ladder/platform to bridge from aluminum platform over MMN to 1st MuID steel. Ladder is 30" wide and 42" high. Platform is 30" wide and 52" deep. Appropriat handrails on both sides

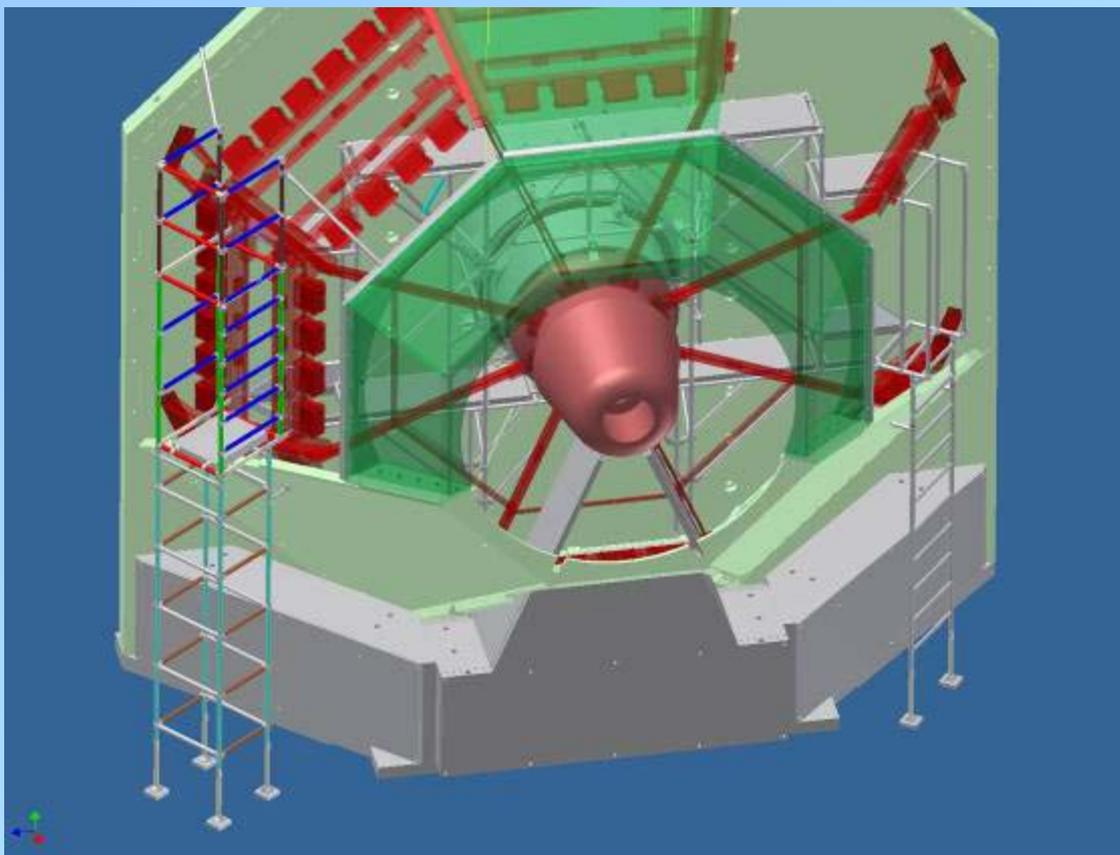
On top of MuID steel we want 3 platforms for techs to work on each 43" wide by 72" long



Location of MuID top access ladder/platforms

Task	Completion Date
• Install station 2 & 3 cable mngment	?
• Install Station 1 South Scaffold (carpenters)	7/31
• Install Station 1 cable management	8/7
• Install station 2/3 scaffolding (Techs)	8/14
• Install station 1 FEE's & Electronics	8/28
• Station 1 plumbing	9/11
• Install station 2/3 FEE's & electronics	9/25
• Station 2/3 plumbing	10/9

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Concept approved at
C-A Design Review

Met with Donna Dowling to discuss
Bargaining Unit negotiations

MMS scaffolding

Designed for MuTr
installation. Approved in
2000 for use. Stress
analysis done for worst
case. Current design has
minor modifications.



MuTr Decapacitations

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Task	Completion Date
Station 2/3 Decaps	8/14-8/28
Testing/verification	9/4

MuTr 2009 Shutdown Work Planning

Main Jobs:

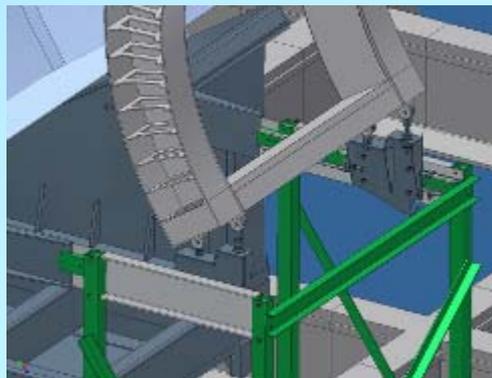
1. Decapacitate top half of South station-3
 - Need South interior scaffolding (Aug 14th?)
2. Revisit decapacitation of South station-1
 - Need South station-1 scaffolding (July 31st?)
3. Repair FEE problems in South arm, especially those up high inside
 - South interior scaffolding
4. Recondition North HV transition box in Rack-2
 - Accessable anytime during shutdown
5. Check operation of FEE and HV as RPC installed in North and muTrig upgrade installed in South

General needs:

- HV operation (servers, power, etc.) - south & north
- Standalone RC & calibrations for FEE repairs/board changes

*** dates for scaffolding being ready "subject to change"

<u>Task</u>	<u>Completion Date</u>
• Design Repair support fixture	Done
• Review and approval	Done
• Fabrication	7/1 (order placed)
• Replacement module evaluation	7/1
• Prep for Summer Sunday	8/7
• Restore order after summer Sunday	8/12
• Install support fixture	8/14
• Remove cables and plumbing	8/28
• Roll out DC/PC1	9/4
• Replace failed PC1	9/11
• Roll DC/PC1 in	9/18
• Restore cables and plumbing	9/25
• Test/commissioning	10/2



Task	Completion Date
• Proposal	Done
• Review and Approval	5/1
• Design	6/1
• Site Preparation	7/1
• Install Empties racks	8/1
• Install Ar Dewar	9/1
• Test and Commission	10/1



New DCM Rack Plumbing

(Not Scheduled Yet)

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4 new DCM racks need cooling water plumbing

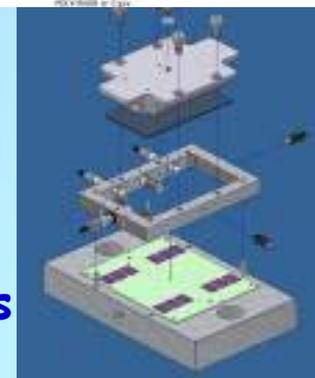
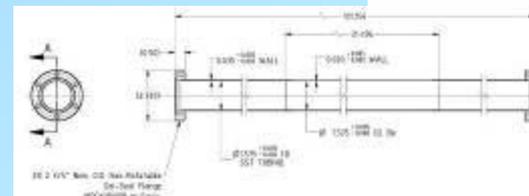
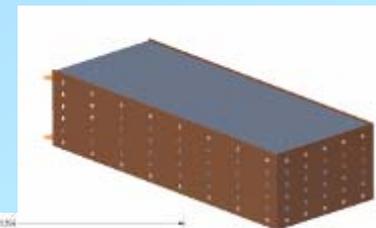
Upgrades Support:

- New Beampipe sections (non-Be)
- New Beampipe supports
- FOCAL prototype design support
- VTX fabrication tooling design
- VTX installation design
- FVTX design/eng'g support

Summer Sunday Prep

- TBD Existing Detector Maint & Repairs
- Maintenance & Overhead Tasks
- Rack Room Reorganization
- Fan Tray replacements

C-A-D AC, Water System, Electrical system work which may impact shutdown schedule: *Tasks, schedules, priorities TBD*



- Roof leaks in utility bathroom at northwest corner behind tech offices and over door between rack room and assembly hall.
- Heat wrap tape for trailer bathroom toilet drains to prevent freeze/clogging in winter.
- Improved Rack Room AC performance (This item has been addressed time and again but unsatisfactorily. Currently the AC fails periodically and is repaired only to fail again. On-condition maintenance is not adequate...an engineered solution is needed.)
- Icy conditions at mixing house north stairs
- Mixing House loose board ?



1. Interesting Occurrence at BNL

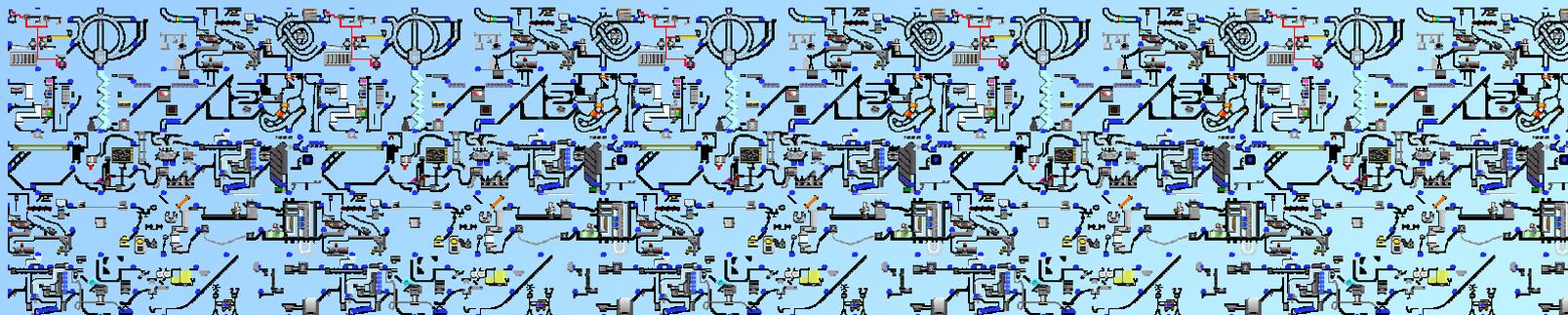
At BNL last month during work on the Graphite reactor cleanup, a subcontract worker wearing fall protection while working on a beam. A supervisor suggested that he relocate to a safer location. He reacted spontaneously and defiantly to the suggestion and commenced immediately to leave the work area. While doing so, he disconnected his fall protection lanyard before he moved from his vulnerable position to reach a ladder to step down into the inside walkway. He reacted so quickly there was no time to correct him or to prevent his violation of fall protection. Therefore, between the time he disconnected the lanyard and the time he stepped over to a safe position, he violated the fall protection system. The worker was balanced in his movements. No injury occurred, but for a short period of time he placed himself in a vulnerable position without the lanyard attached.

The worker was immediately terminated.

2. PHENIX Key Tree key usage (some confusion yesterday)

- key #1 - PLUG key and IR access RFID
- key #2 - #6 IR Access RFID
- key #7 and #8 Tunnel Access and IR Access for 7GE1, 8GE1, and 8GE2 only tunnel trained individuals can receive these.

Where To Find PHENIX Engineering Info

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The Summer Shutdown Schedule is Full. Specific Subsystems will be inaccessible for extended periods of time. If you need to do maintenance on your subsystem, let me know so we can schedule it.

PHENIX Technician help will most likely be unavailable or very limited for unscheduled maintenance.

Links for the weekly planning meeting slides, archives of past meeting slides, long term planning, pictures, videos and other technical info can be found on the PHENIX Engineering web site:

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