

PHENIX WEEKLY PLANNING

7/24/06

Don Lynch

PHENIX Shutdown Overview



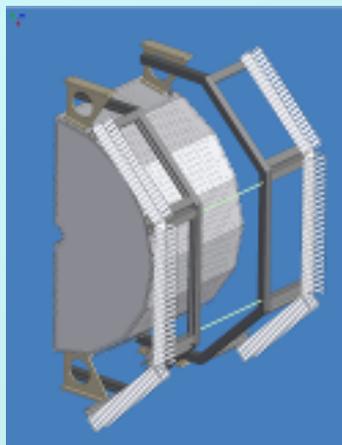
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Task_Name	Duration	Start_Date	Finish_Date
PHENIX Shutdown '06	145 days	5/1/2006	11/17/2006
Pre Shutdown Tasks	60 days	5/1/2006	7/21/2006
End of Run 6	0 days	6/27/2006	6/27/2006
Shutdown Preparations	16 days	6/27/2006	7/18/2006
Detector Upgrades	47 days	7/19/2006	9/21/2006
Planned electrical power outage	5 days	7/24/2006	7/28/2006
Subsystem maint/repair tasks	47 days	7/19/2006	9/21/2006
Building and infrastructure tasks	113 days	5/1/2006	10/4/2006
E carriage roll in & setup	14 days	9/22/2006	10/11/2006
RHIC Cooldown Begins	0 days	10/16/2006	10/16/2006
Run Prep	25 days	10/16/2006	11/17/2006
Shutdown Concluded	0 days	11/17/2006	11/17/2006

Prior To Shutdown

TECHNICAL SUPPORT 2006

Pre Shutdown Tasks	60 days	
Mechanical design For RXNP	4 wks	Complete
HBD cable mangement	4 wks	Complete
Receive TOF West detectors from VU	0 days	Complete
TOF West pre-installation tests (hi bay)	4 wks	Complete
Design mounting/install'n for MPC N	6 wks	In Progress
Order/fabricate parts for RXNP/HBD/MPC N	12 wks	In Progress
Modify TEC connectors	2 wks	In Progress
Design piping route for Bridge water	1 wk	TBD
Work Permits	1 wk	In Process
End of Run 6	0 days	



Shutdown Prep

TECHNICAL SUPPORT + 2006

Shutdown Preparations

- Purge gas from all detectors
- End of Run party
- DAQ tests (no Flam. Gas)
- Open up & prep
- Open rolling door
- Remove rolling door plug doors
- Take down ECR
- Prepare EC for move
- Remove bearing
- Move MMS from north and re-
- Retract and re-extend EC
- Install 12 ton
- Move beam pipe
- Install decking



	16 days	6/26/2006	7/18/2006
Purge gas from all detectors	2 days	Done	Done
End of Run party	0 days	Done	Done
DAQ tests (no Flam. Gas)	3 days	Done	Done
Open up & prep	1 day	Done	Done
Open rolling door		Done	Done
Remove rolling door plug doors		Done	Done
Take down ECR		Done	Done
Prepare EC for move		Done	Done
Remove bearing		Done	Done
Move MMS from north and re-		Done	Done
Retract and re-extend EC		Done	Done
Install 12 ton	1 day	Done	Done
Move beam pipe	1 day	Done	Done
Install decking	1 day	Done	Done

complete



Detector Upgrades

TECHNICAL SUPPORT 2006

TOF W	13 days	7/17/2006	8/4/2006
Prepare installation Fixtures	1 day	Done	Done
Mockup test installation	1 day	Done	Done
TOF Mechanical installation	3 days	7/20/2006	7/28/2006
Electrical Outage	5 days	7/24/06	7/28/06
TOF Electrical Installation	5 days	7/31/2006	8/4/2006
RXNP	15 days	7/31/2006	8/18/2006
Prepare for installation	5 days	7/31/2006	8/4/2006
Mechanical installation	5 days	8/7/2006	8/11/2006
Electrical installation	2 days	8/14/2006	8/15/2006
Prepare for Summer Sunday Tours	3 days	8/16/06	8/18/06
HBD	15 days	8/14/2006	9/1/2006
Prepare for installation	2 days	8/14/2006	8/16/2006
Mechanical installation	5 days	8/21/2006	8/25/2006
Electrical installation	5 days	8/28/2006	9/1/2006
MPC North	18 days	8/28/2006	9/20/2006
Move CM south	2 days	8/28/2006	8/29/2006
Prepare for installation	5 days	8/30/2006	9/5/2006
Mechanical installation	5 days	9/6/2006	9/12/2006
Electrical installation	5 days	9/13/2006	9/19/2006
Move CM North	1 day	9/20/2006	9/20/2006



Subsystems

TECHNICAL SUPPORT + 2006

Task	Duration	Start	End
Subsystem maint/repair tasks	109 days	5/1/06	9/28/06
Prepare EC for subsystems work	1 wk	7/19/06	7/25/06
Magnet subsystems tasks	0 day	None	None
Aerogel tasks	0 day	None	None
BBC tasks	50 days	7/21/06	9/28/06
Remove BBC South	2 days	8/21/06	8/22/06
Replace PMT's	13 days	8/23/06	9/12/06
Reinstall BBC South	2 days	9/13/06	9/14/06
Remove BBC North	2 days	8/28/06	8/30/06
Replace PMT's	5 days	8/31/06	9/6/06
Reinstall BBC North	2 days	9/7/06	9/8/06
DC			
HV/LV Patch panel	2 wks	Started	7/29/06
DC West wire repairs	1 week	9/15/06	9/19/06



Subsystems (continued)

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Task	Duration	Start	End
Subsystem maint/repair tasks	109 days	5/1/06	9/28/06
EmCal tasks (EC)	7 days	Done	Done
EmCal tasks (WC)	5 days	Done	Done
FCAL tasks	1 day	None	None
MPC S repairs	2 wks	7/19/06	8/1/06
MuTr tasks	42 days	Done	Done
Remove lampshade(s)	1 day	7/19/06	7/19/06
Repair HV	8 wks	7/20/06	9/13/06
Reinstall lampshade(s)	1 day	9/14/06	9/14/06
MuID tasks	1 wk	10/2/06	10/6/06
PC tasks	1 day	None	None
RICH tasks	1 day	None	None
TEC tasks			
(General Maintenance)	9 wks	7/19/06	9/19/06
TOF E tasks (1 day	None	None
ZDC tasks (TBD)	1 day	None	None
Subsystem Survey	3 wks	7/31/06	8/18/06
Misc Subsystem tasks (TBD)	6 wks	8/9/06	9/19/06



Infrastructure Work



Building and infrastructure tasks	113 days	6/26/2006	10/4/2006
AH infrastructure tasks	0 days	None	None
Nothing planned	0 day	None	None
IR infrastructure tasks	17 days	7/17/2006	8//2006
Repair water lines to Bridge	1 day	7/17/2006	7/17/2006
Replace emergency fan louvres	1 wk	7/18/2006	7/24/2006
Rewire/add IR Ceiling lights on emergency power	1 wk	7/25/2006	8/1/2006
Move WC away from Wall	1 day	8/2/2006	8/2/2006
Replace WC sliding platform hoisting cables	1 wk	8/3/2006	8/9/2006
Gas Pad	0 day	None	None
Nothing planned	0 day	None	None
Gas Mixing House	3 wks	8/14/06	9/1/06
Exhaust fan maintenance	3 wk	8/14/06	9/1/06
Rack Room	0 day	None	None
Nothing planned	0 day	None	None
Counting House	0 day	None	None
Nothing planned	0 day	None	None
all other PHENIX infrastructure	113 days	6/26/2006	10/4/2006
New raw materials storage container – painting & doors needed	4 wk	6/26/06	7/21/06
Repair roof leaks	113 days	6/26/06	9/22/06
Install bridge access platforms from EC & eyebrow	2 days	Done	Done

EC Roll-in

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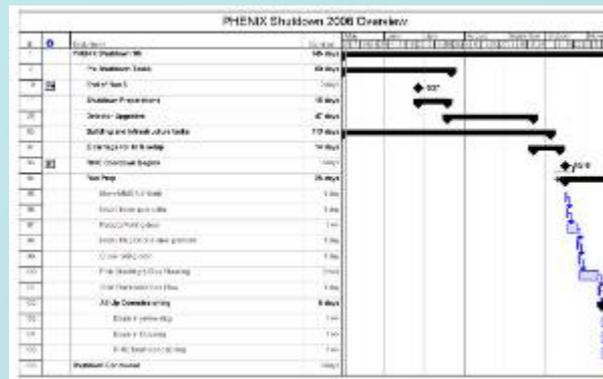
E carriage roll in & setup	14 days	9/22/2006	10/11/2006
Prepare EC for move to IR	1 wk	9/22/2006	9/28/2006
EC Roll in	2 days	9/29/2006	10/2/2006
Connect EC services	1 wk	10/3/2006	10/9/2006
MuID Commissioning	1 wk	10/2/06	10/6/06
Install EC Ladder	1 day	10/10/2006	10/10/2006
Install EC rear access & ext.	1 day	10/11/2006	10/11/2006
RHIC Cooldown Begins	0 days	10/16/2006	10/16/2006



Prep for Run 7

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RHIC Cooldown Begins	0 days	10/16/2006	10/16/2006
Run Prep	25 days	10/16/2006	11/17/2006
Move MMS full North	1 day	10/16/2006	10/16/2006
Install beam pipe collar	1 day	10/17/2006	10/17/2006
Rebuild Rolling door	1 wk	10/18/2006	10/24/2006
Install Plug Door & steel platform	1 day	10/25/2006	10/25/2006
Close rolling door	1 day	10/26/2006	10/26/2006
Pink Sheeting & Blue Sheeting	2 wks	10/27/2006	11/9/2006
Start Flammable Gas Flow	1 day	11/10/2006	11/10/2006
All Up Commissioning	5 days	11/13/2006	11/17/2006
Beam in yellow ring	1 wk	11/13/2006	11/17/2006
Beam in blue ring	1 wk	11/13/2006	11/17/2006
RHIC beam conditioning	1 wk	11/13/2006	11/17/2006
Shutdown Concluded	0 days	11/17/2006	11/17/2006



Shutdown 2006

key dates

- MPC North & RXNP Safety Reviews June 22 [Done]
- Run ends June 26 [Done]
- End of Run Party June 29 [Done]
- Open Shield wall June 26 [Done]
- Prep and move EC July 10 [Done]
- **Install TOF W (start) July 17**
- Planned electrical outage July 24th-28th (1 week)
- Install RXNP (start) July 31
- Install HBD (start no later than) Aug 14 (possibly as early as Aug 1)
- Summer Sunday tours Aug. 20
- Install MPC North (start no later than) Aug 28
- Start EC roll in Sep. 22
- Start RHIC Cooldown Oct. 15
- Start of Run Party [Date and Time TBD]
- Start Physics data taking Nov. 17

Subsystems: Get requests for maintenance in early to get on the schedule

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Last Week



- Shutdown prep concluded
- MMS East vertical lampshade removed
- HBD prototype removed delivered to HBD group at Physics
- TOF W tests end, modification decisions made, modifications completed, detectors moved to 1008; W1 mechanical installation complete W1 electrical installation started
- RXNP assembly and testing continues
- RXNP fabrication nears completion
- HBD fabrication continues
- MPC fabrication continues
- Start assembling HBD support parts

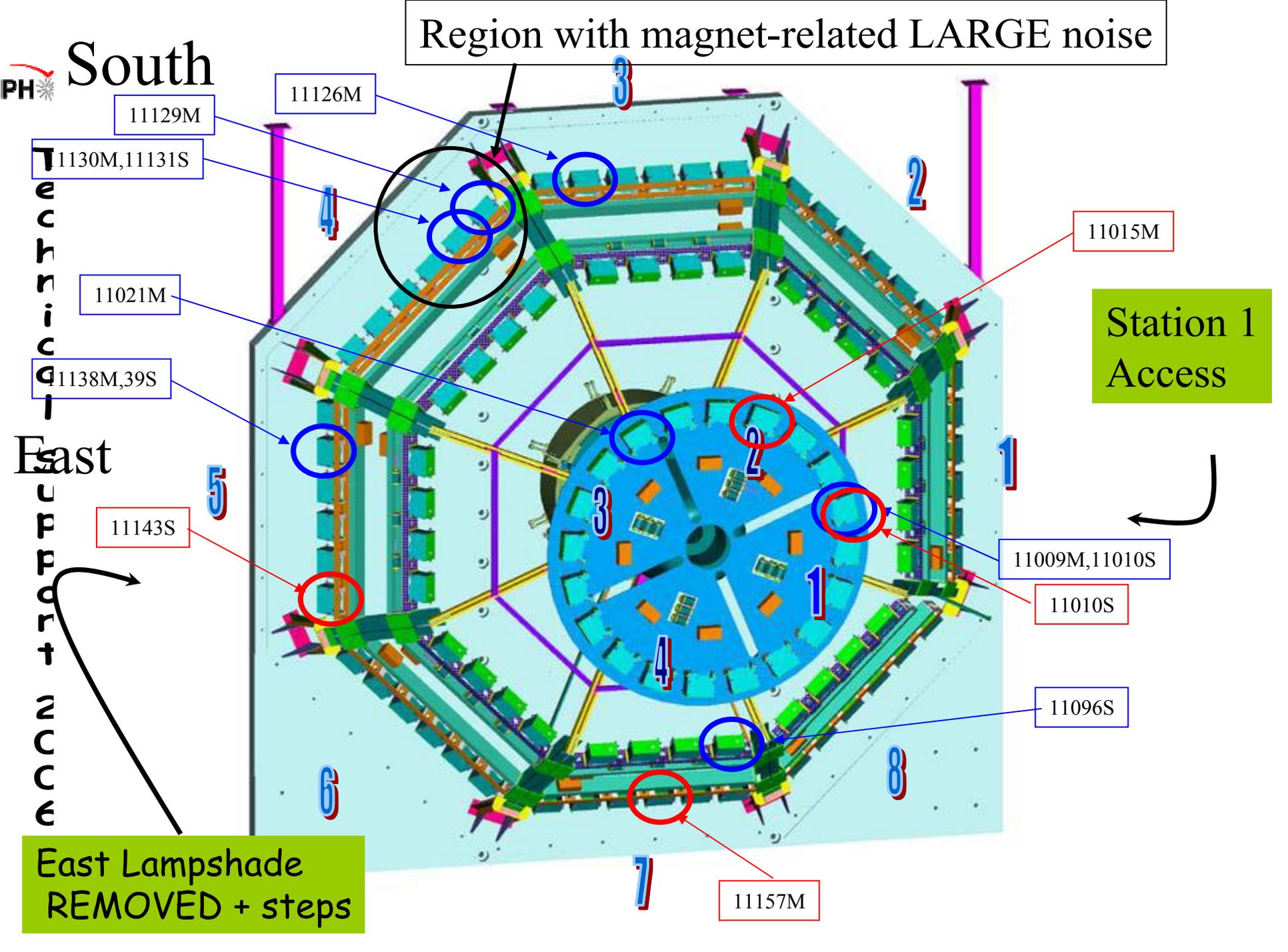
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This Week

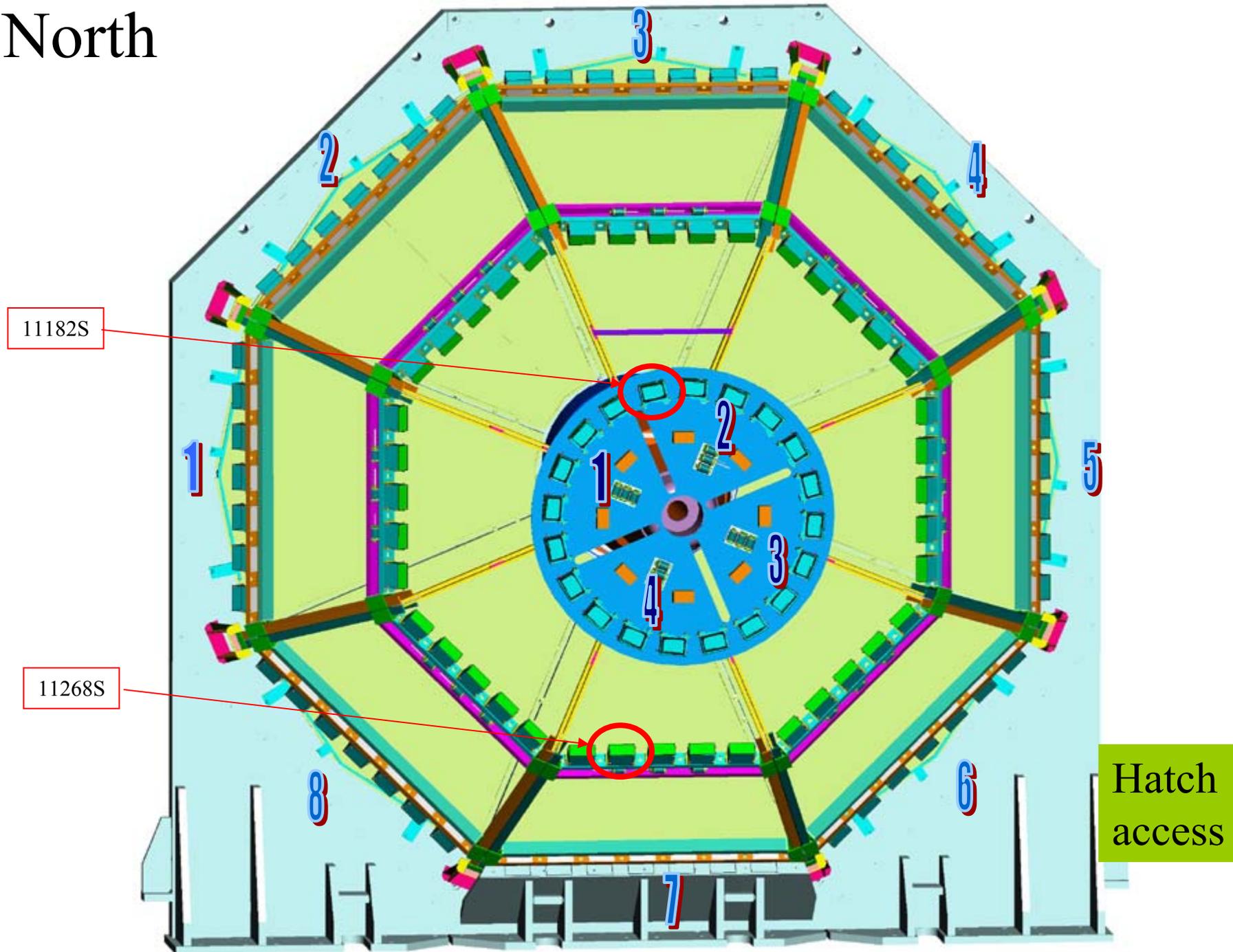
- 1008 Electrical Outage
- RXNP assembly and testing continues
- RXNP fabrication nears completion
- HBD fabrication continues rework mounting gusset
- MPC fabrication continues
- Start assembling HBD support parts (in Hi Bay)
- Complete TOF West Mechanical installation

Next Week

- RXNP assembly and testing continues
- RXNP test fit up and prepare for installation
- HBD fabrication continues rework mounting gusset
- MPC fabrication continues
- Continue assembling HBD support parts (move to 1008)
- Complete TOF West Electrical installation
- MPC South rework
- MuTr tests and repairs



North



TOF W

TECHNICAL SUPPORT 2006

- Hi-Bay tests concluded
- Modification decisions made
- Modifications to rails and I-beams complete
- Installation Fixture installed
- Mockup test installation complete
- W1 detector assembled
- Mechanical installation complete



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TOF W



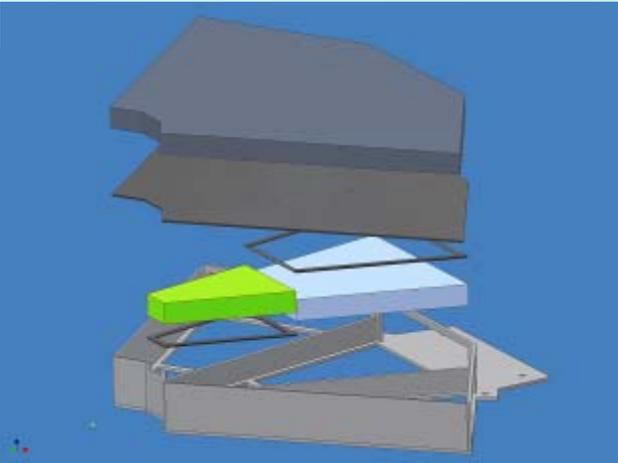
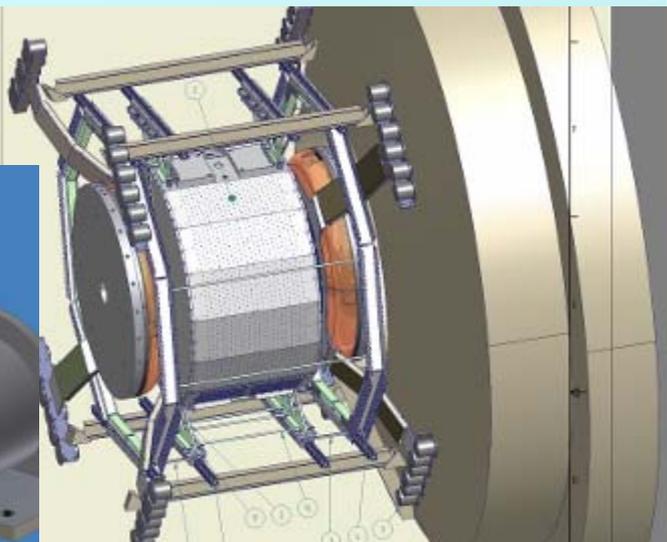
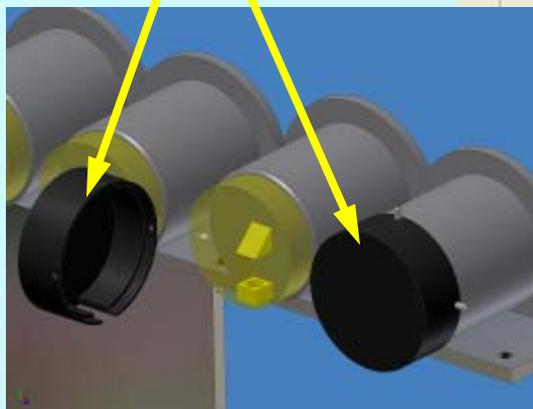
- W2 Installation later this week
- Electrical installation and commissioning next week and beyond



RXNP

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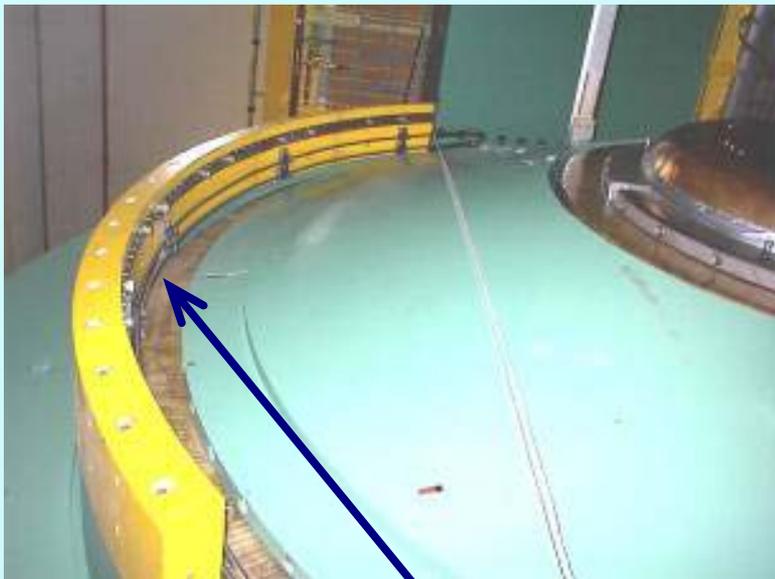
Prism holders ordered



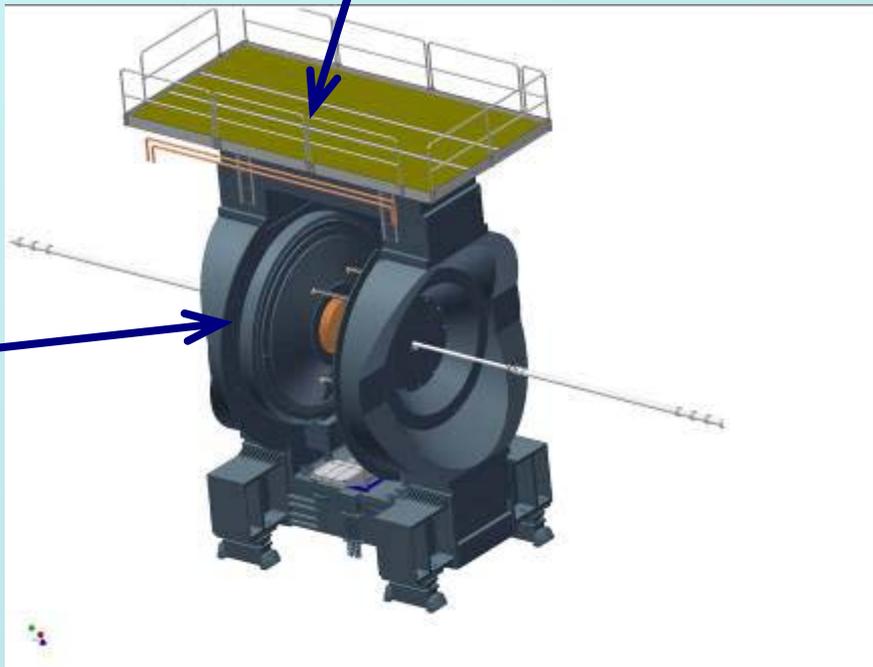
LED Box location?
Most parts complete
Fit up complete -

Minor rework of trays
and spacers completed.

RXNP



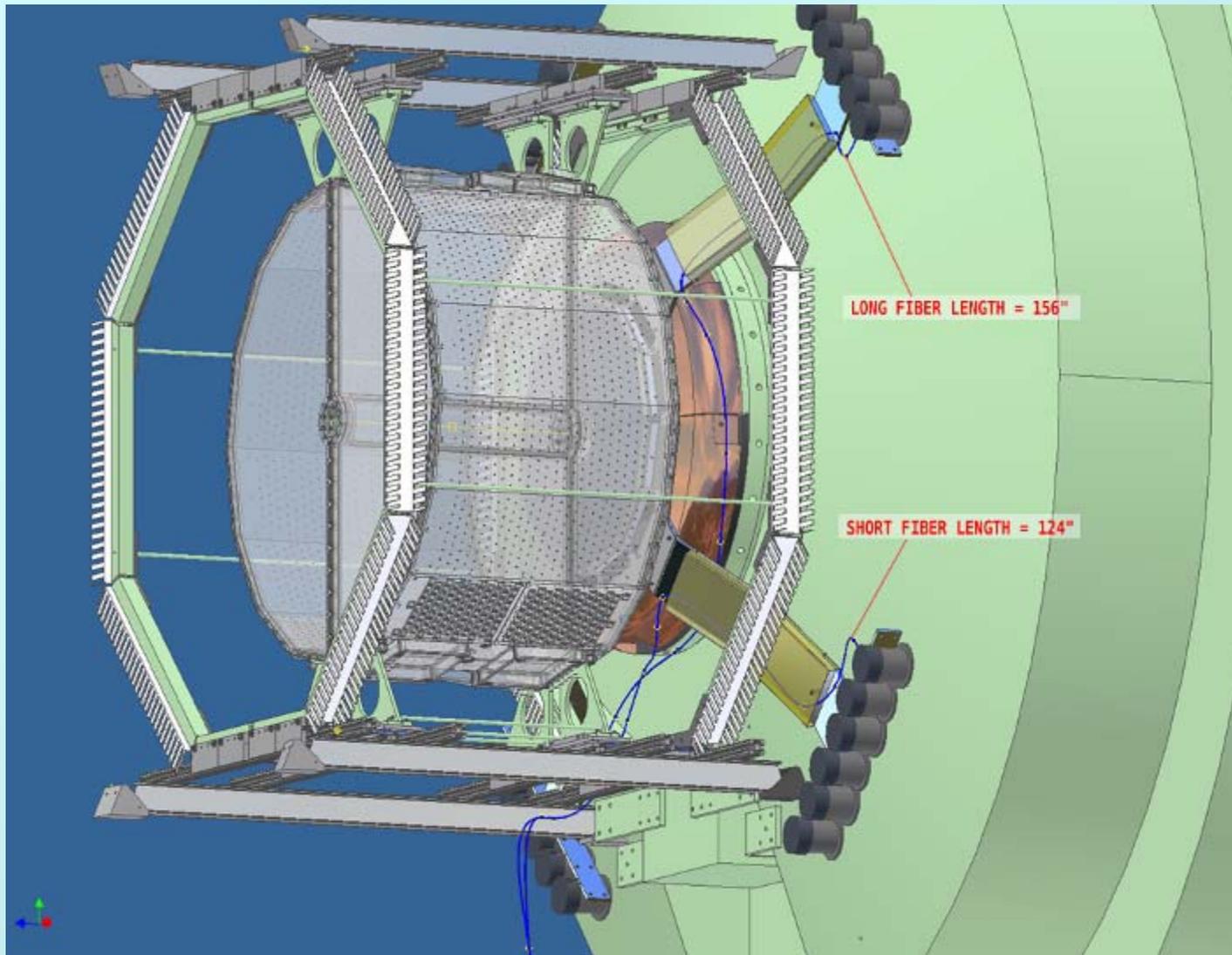
RXNP Rack to be located on Bridge



Cable Trays to be routed on inside of lead bricks at OD of CM pole faces

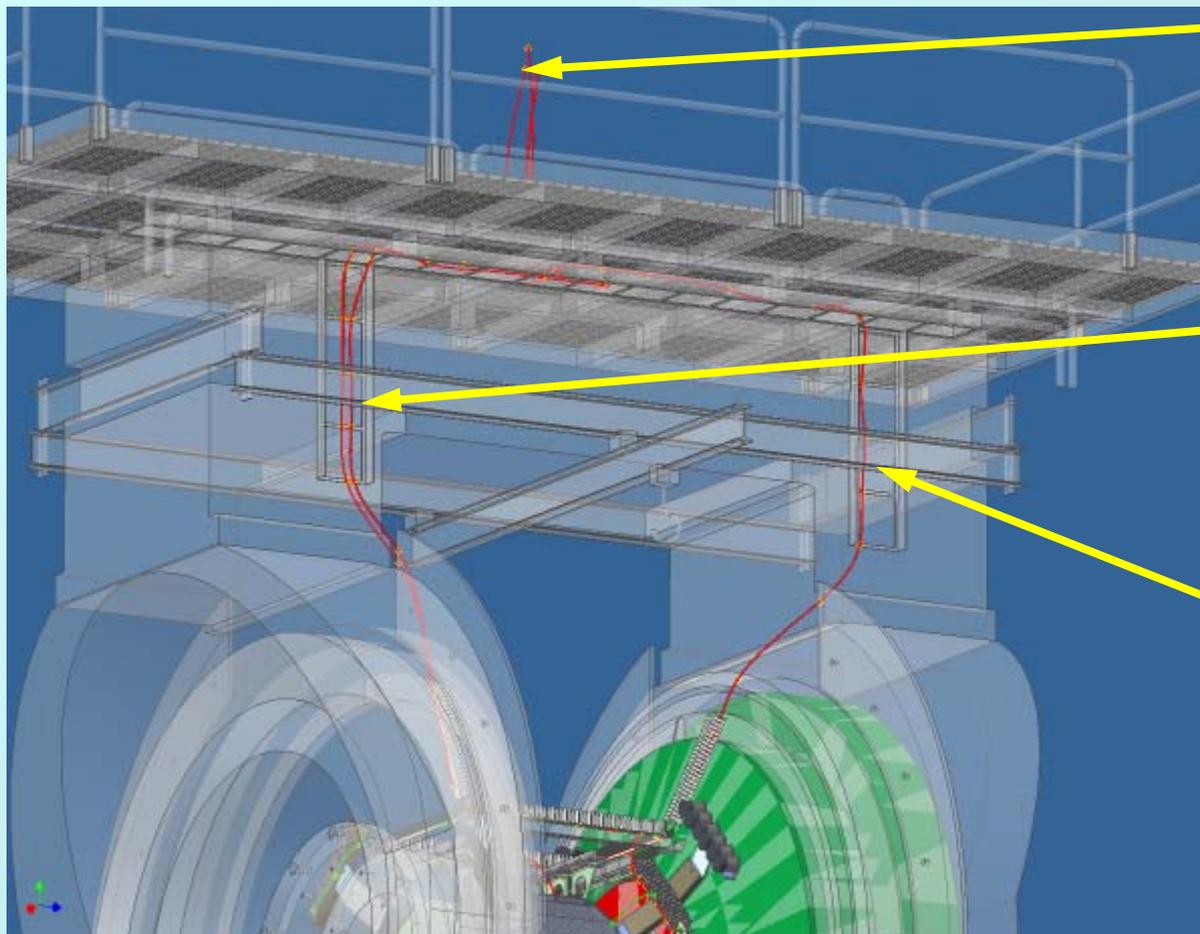
Cable routing plan to be finalized

60022 + 30206 - 90351 - T



RXNP & HBD Cable Routing 1

TECHNICAL SUPPORT NOON



HBD HV & RXNP racks on Bridge near center

HBD HV Cables routed on southeast face of CM flux return

RXNP cables routed on northeast face of CM flux return

RXNP & HBD Cable Routing 2

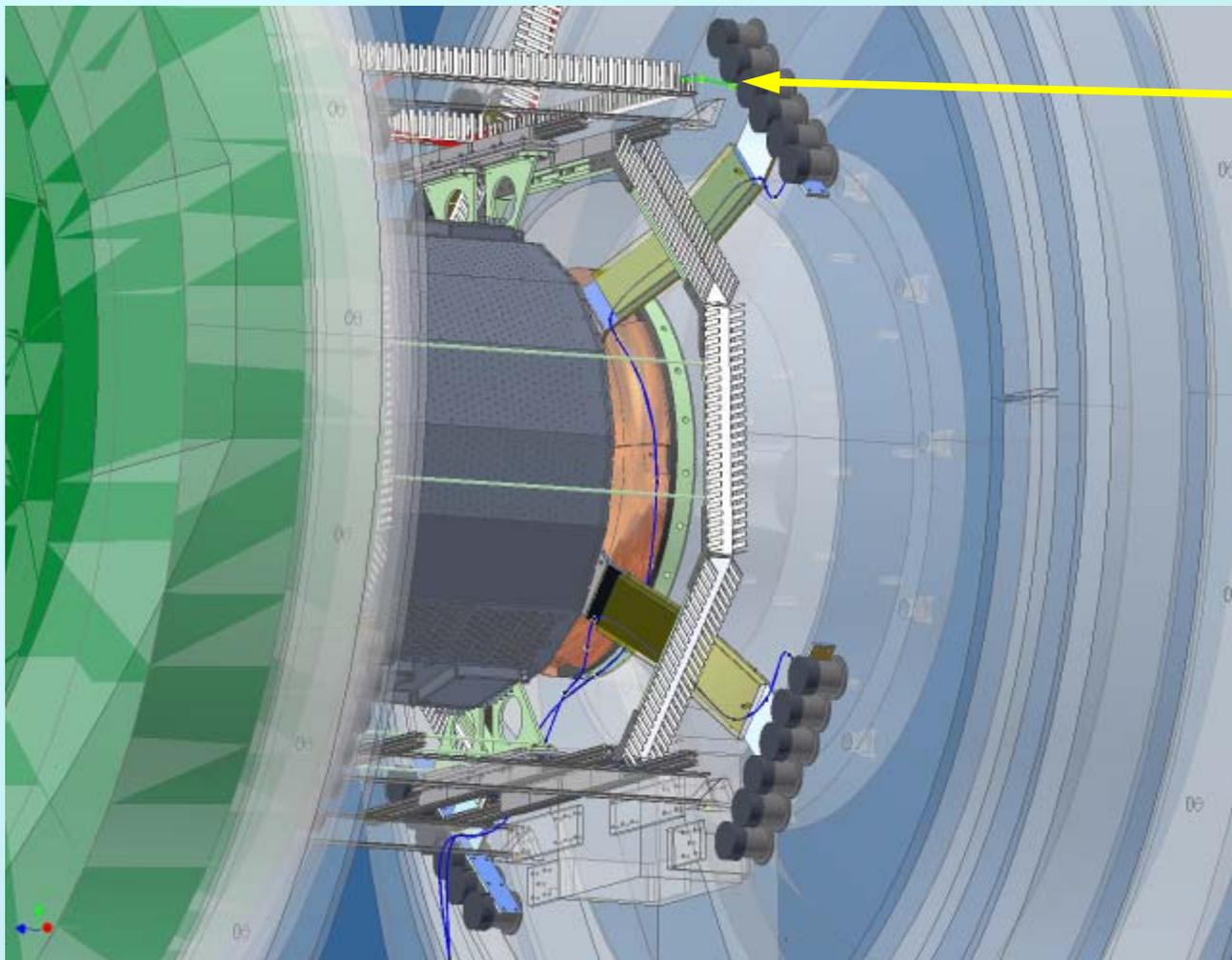
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RXNP cables come down from top of CM north pole face to east upper i-beam, $\frac{3}{4}$ cross over to west upper i-beam and $\frac{1}{2}$ cross to south pole face

HBD HV cables follow opposite route (from top of CM south pole face to west upper i-beam, $\frac{3}{4}$ cross over to east upper i-beam and $\frac{1}{2}$ cross to north pole face)

RXNP & HBD Cable Routing 3

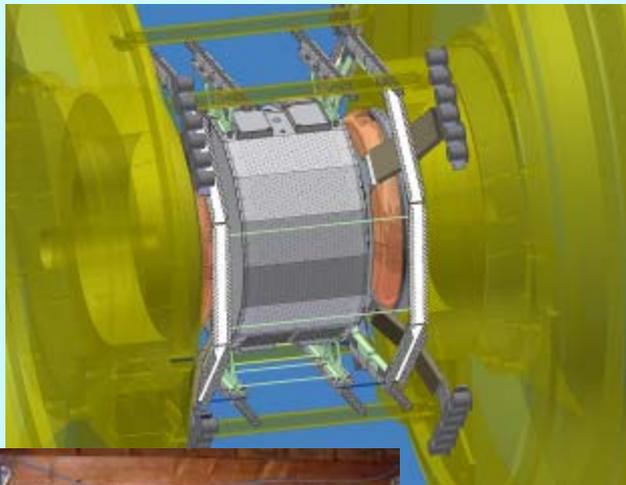
600N + 30P00 - 9035 - 10000



RXNP Cables from i-beam take short route to PMT's

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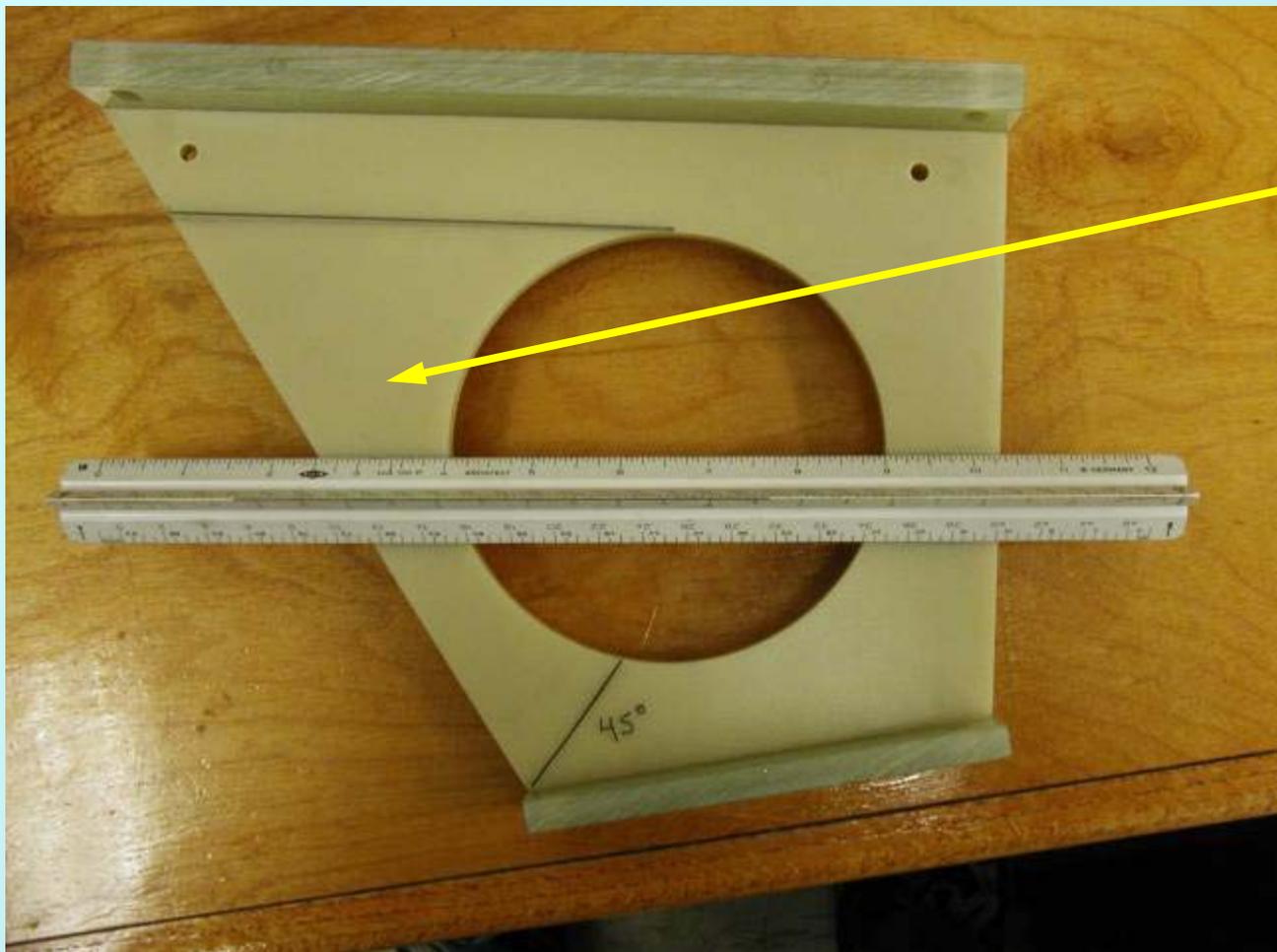
Purchasing List done

SB Road Trip

both detector boxes now at SB

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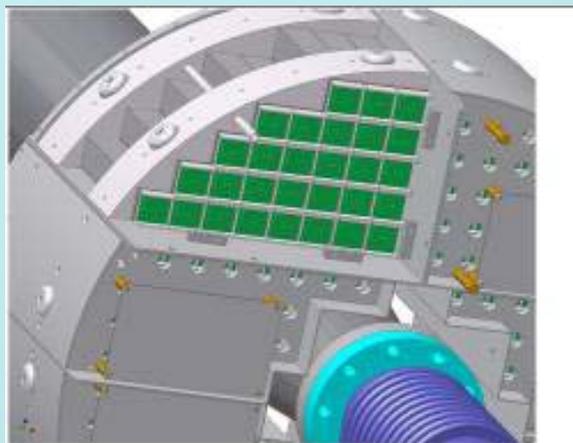
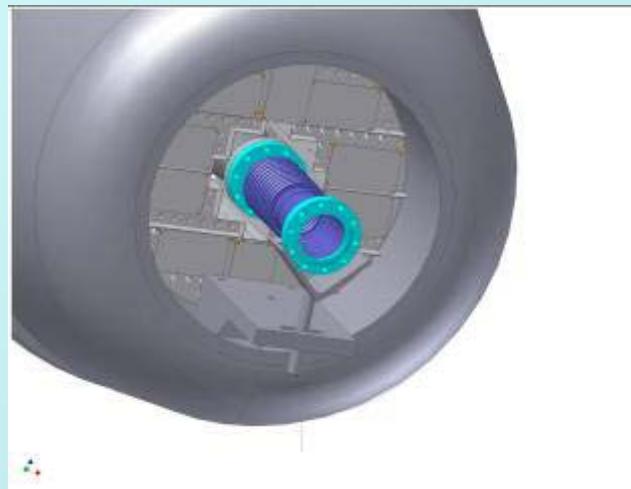


Modification to HBD support needed to accommodate 3-way gas valve

MPC North

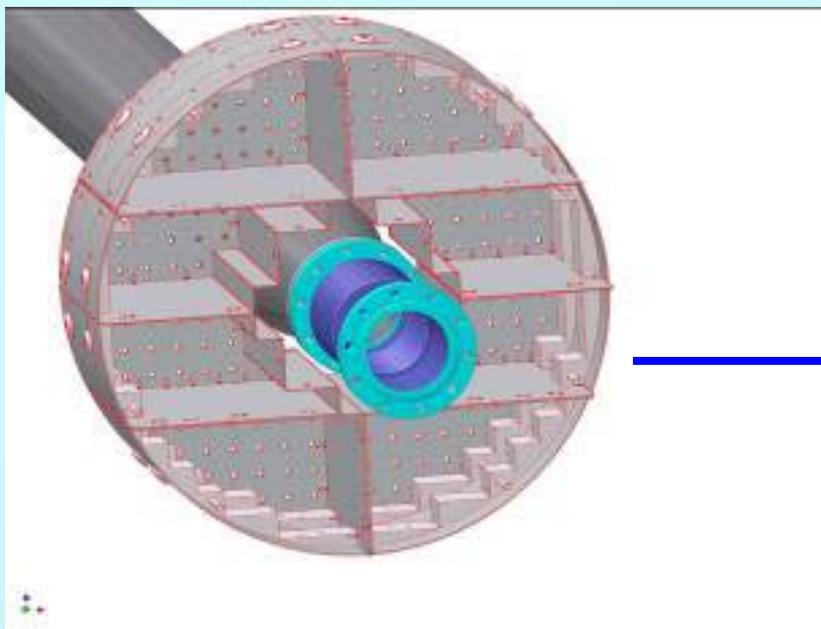
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- Model rec'd
- Manufacturing/Assembly drawings
- Rack final location?
- Cable routing plan
- UI techs assist in installation?

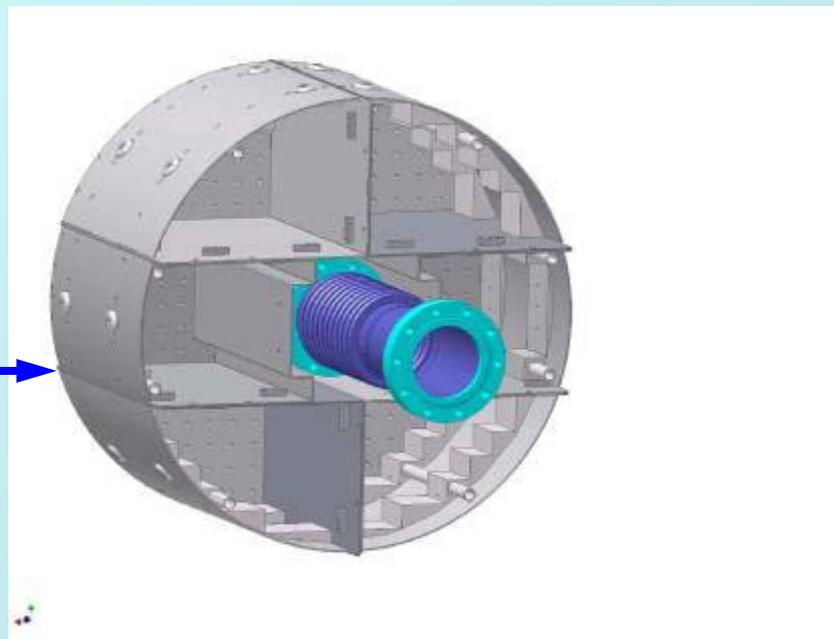


MPC North

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Version 1



Version 2

MPC North

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MPC N rack to be mounted on top of MUID rack in NW of IR (on floor near west side of MMN)



*Other locations are being considered
Specifically the side of the MuID cabinet*

Or

High up on east side of NMM

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Optional location #2 for MPC N rack
(side of MuID rack)

Need to relocate this cable tray

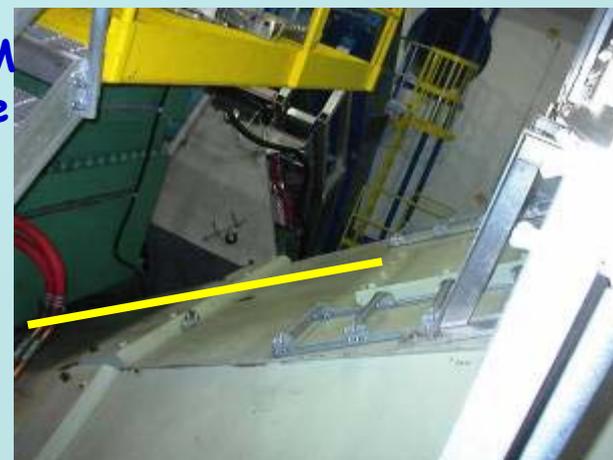
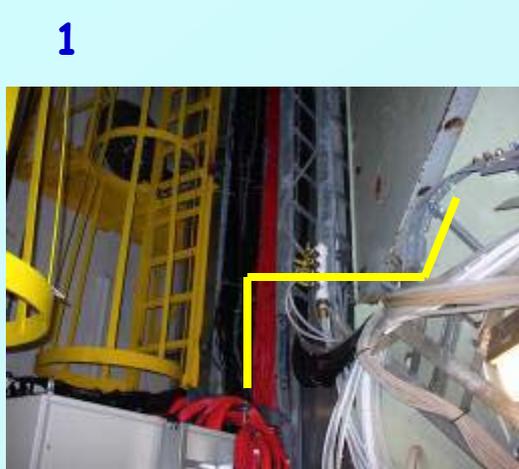
Optional location #3 for MPC N rack
(above Northeast NNM)



MPC North

Cable Routing

TECHNICAL SUPPORT 2006



1. From MuID rack to NMM
2. Up NMM vertical I/shade
3. Over top of NMM to center, then down
4. Under scaffold platform
5. down top lampshade (like MPC S)

Other Projects

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Muon RPC

- Meeting at 1008 last week
- met with engineers. Many technical obstacles to be overcome

Beampipe design

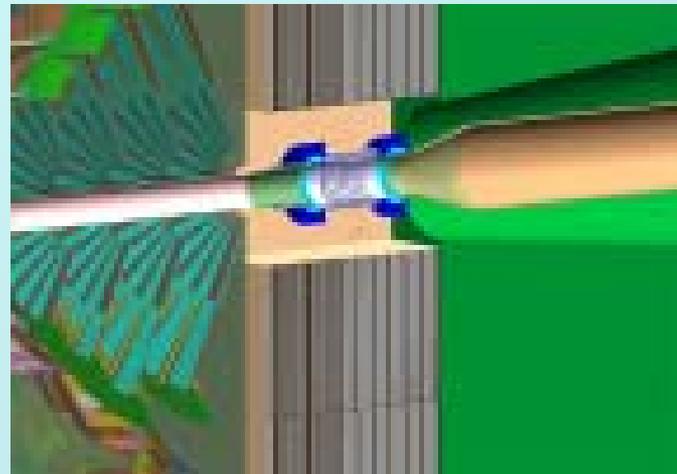
- Nothing new design concept in progress

New CM Crane

- C Pearson caution concerning interference with bridge utils.

Engineering Documentation

- Nothing new



Survey

TOF West - Skipped need to make our own measurements

RXNP - Pre installation and post installation

HBD - Pre installation and post installation

MPC S & MPC N - South we're on our own, North?

EMCal - Partial for location

MuID - Check for movement

Comprehensive - next shutdown?

Need to coordinate with Frank Karl and schedule in advance



Work Permits

New Detectors

- TOF West same as last year, update and submit [DONE]
- RXNP Need to finalize procedure [working on it]
- HBD (Med-low-low) [working on it]
- MPC N similar to last year, update and submit [working on it]

Maintenance

- MuTr - combine N & S confined space permit [DONE]
- DC Low-low-low? PHENIX permit/procedure [DONE]
- BBC Low-low-low? PHENIX permit/procedure [DONE]
- MPC S Low-Med-low? PHENIX permit/procedure [Done]
- EmCal Low-low-low? PHENIX permit/procedure [DONE]
- TEC Low-low-low? PHENIX permit/procedure [DONE]

Other Work

- No permit requirements identified?

Breaker Safety

Update on breaker analyses and equipment upgrade plans:

Fuse Issues

Siemens Allis Low Voltage Air Circuit Breaker



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Current Tasks

- General run support/building services
- New storage trailer needs doors (paint?)
- Fix roof leaks
- HVAC troubleshooting/repair

Tasks for Shutdown 2006

- See Shutdown schedule



Where To Find PHENIX Technical Info

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Links for the shutdown schedule as well as weekly planning meeting slides, long term planning, pictures, videos and other technical info can be found from the web site:

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