

# PHENIX WEEKLY PLANNING



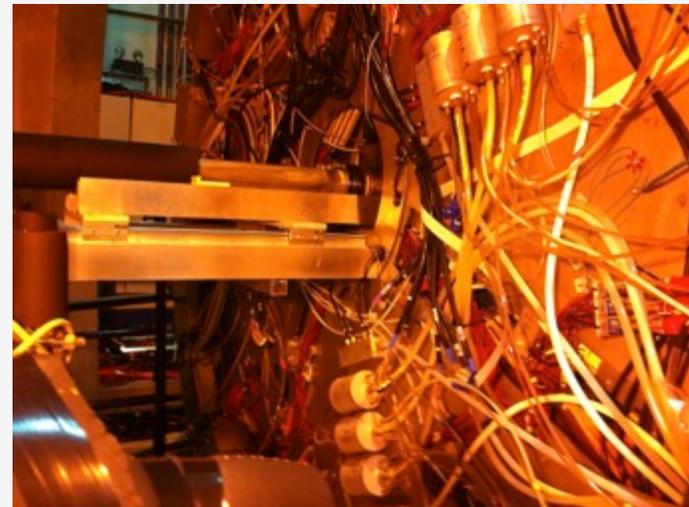
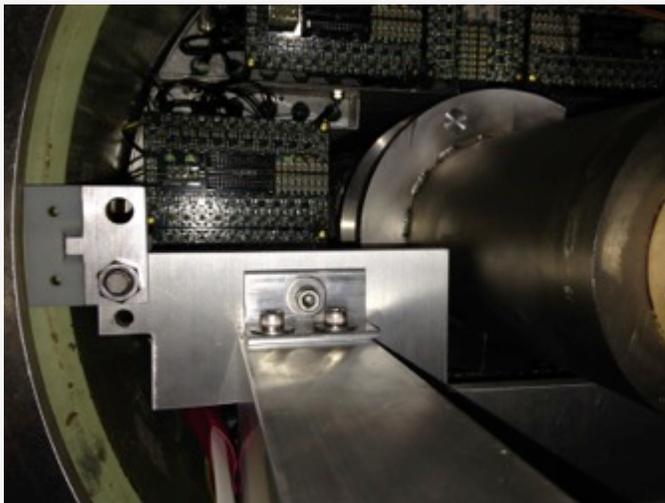
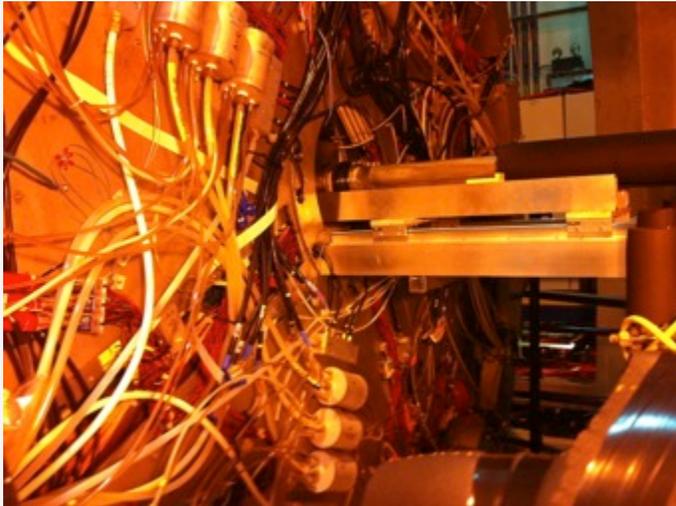
May 1, 2014  
Don Lynch



## Next Week

- Run 14 Continues
- No access next week, next access 5/14
- Plan for 2014 Shutdown
- Tech Support for Run 14 as required
- Support for sPHENIX efforts as required

MPC-Ex N & S Final Installations This summer



5/1/2014

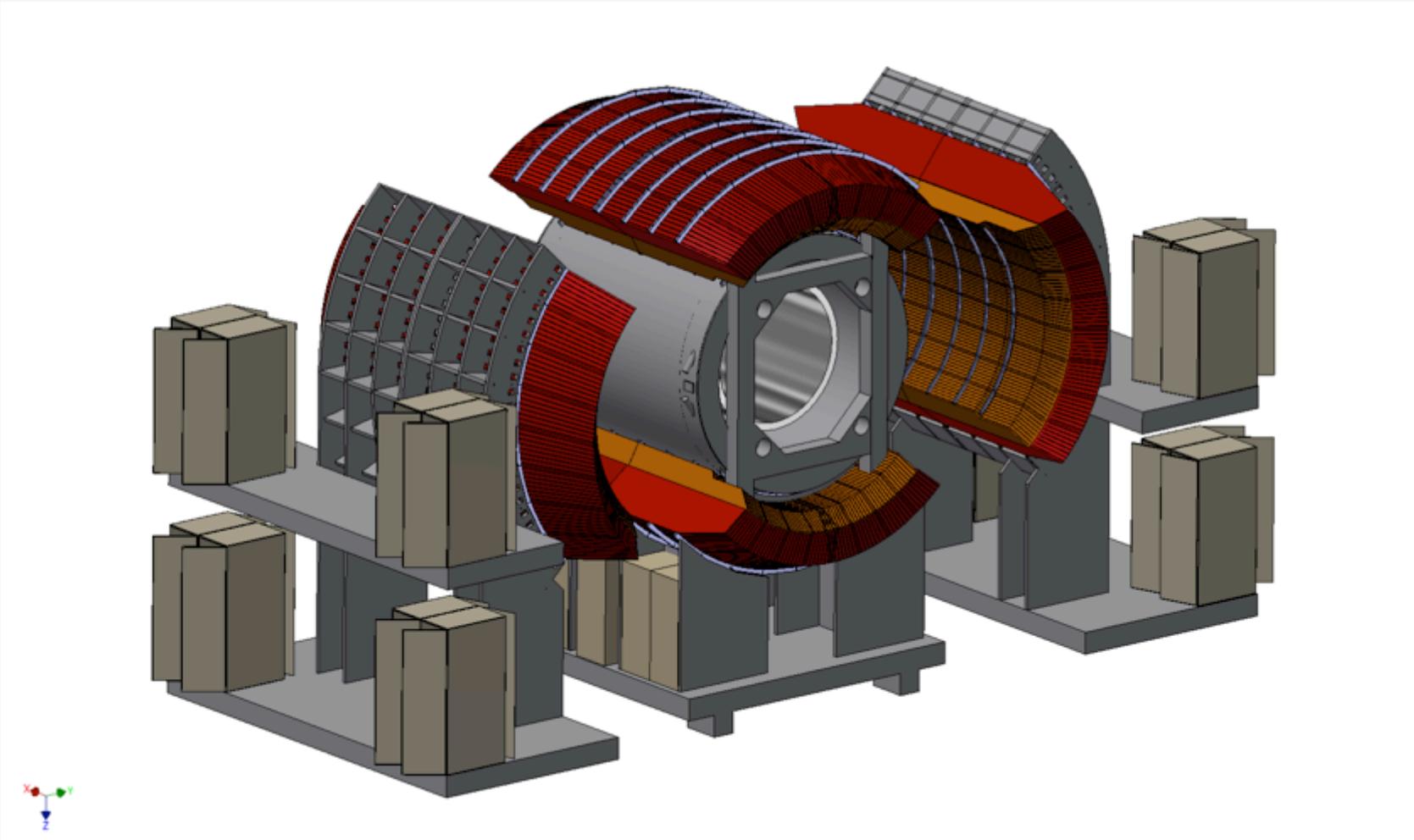
## 2014 planned Technical Support & 2014 Shutdown

PHENIX DETECTOR 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
Assemble & test MPC-Ex South, ready for installation	3/1-7/1/2014
End of Run Party (Move to 7/7 or 7/8?)	7/11/14?
MuID Efficiency Measurement (Itaru, requires cooling water & isobutane)	7/7/14
Assemble & test MPC-Ex North, ready for installation	7/1-9/25/2014
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, Install new MPC-Ex South	7/28-8/22/2014
Maint. & Repairs for MPC South, BBC South, RPC1 South, MuTr sta 1 South, as necessary	7/28-8/22/2014
Remove scaffolding from sta 1 south, Move CM South	8/25/2014
Install scaffolding in Sta 1 North	8/26-8/29/2014
Prep MPC-Ex North installation area	9/1-9/26/2014
Install new MPC-Ex North	9/29-10/17/2014
Remove Sta 1 North scaffolds, Move CM North	10/20-10/24/2014
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
Pink/White/Blue Sheets	1/17/2014
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

sPHENIX "Outie" Concept

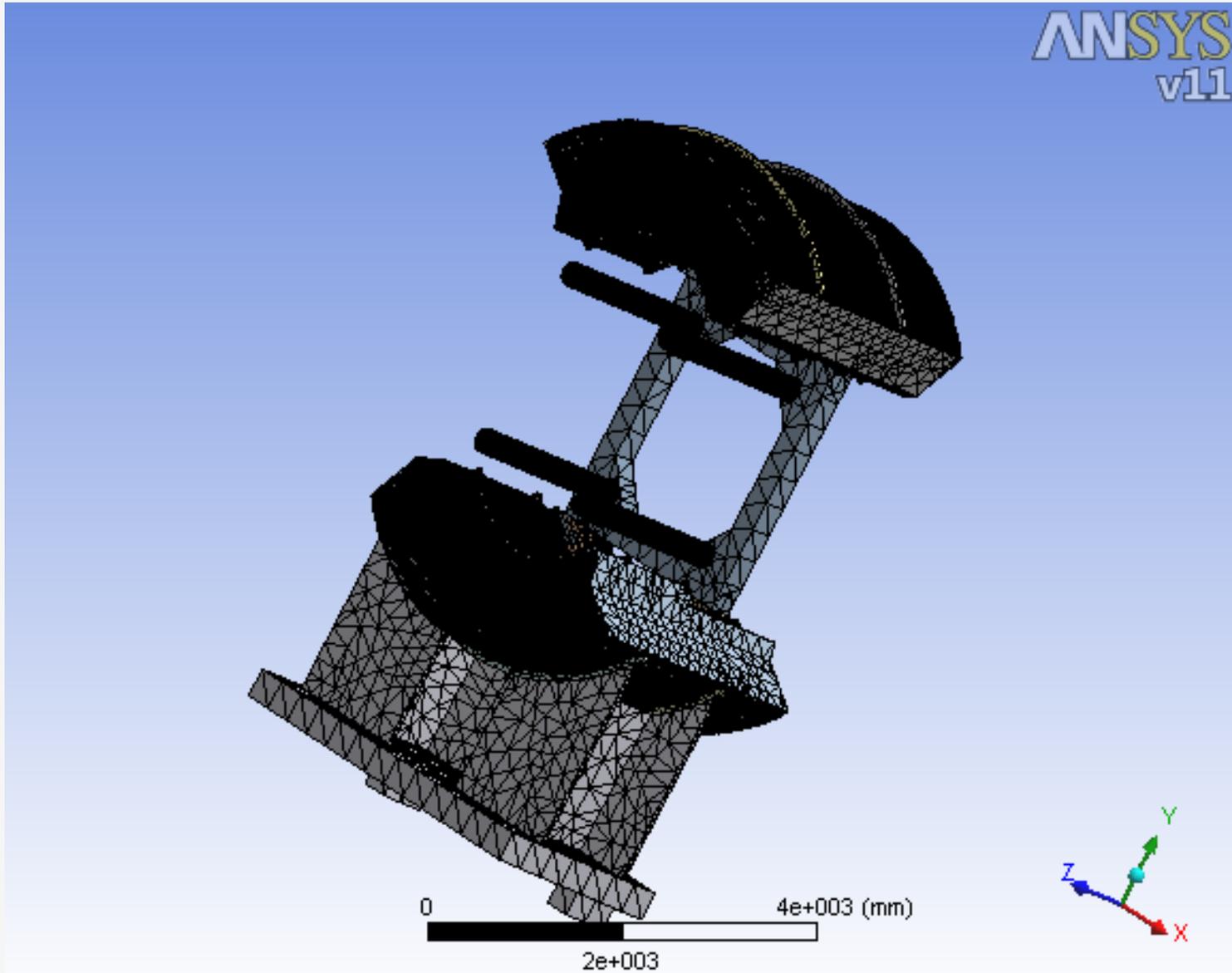
PHENIX LABORATORY NORTH



This is the design we will continue to pursue until if and when a final decision directs us to the "innie" option



HADRON CALORIMETER SUPPORT STRUCTURE



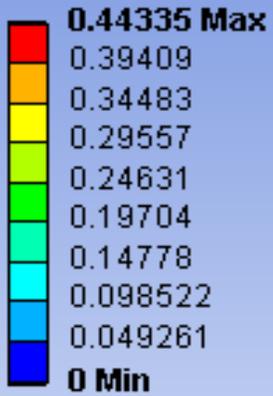
May 1, 2014

sPHENIX Mechanical Design

# sPHENIX HADRON CALORIMETER 90 degree Support Structure Analyses ANSYS MODULE. DEFORMATION

PHENIX HADRON CALORIMETER 90 degree Support Structure Analyses

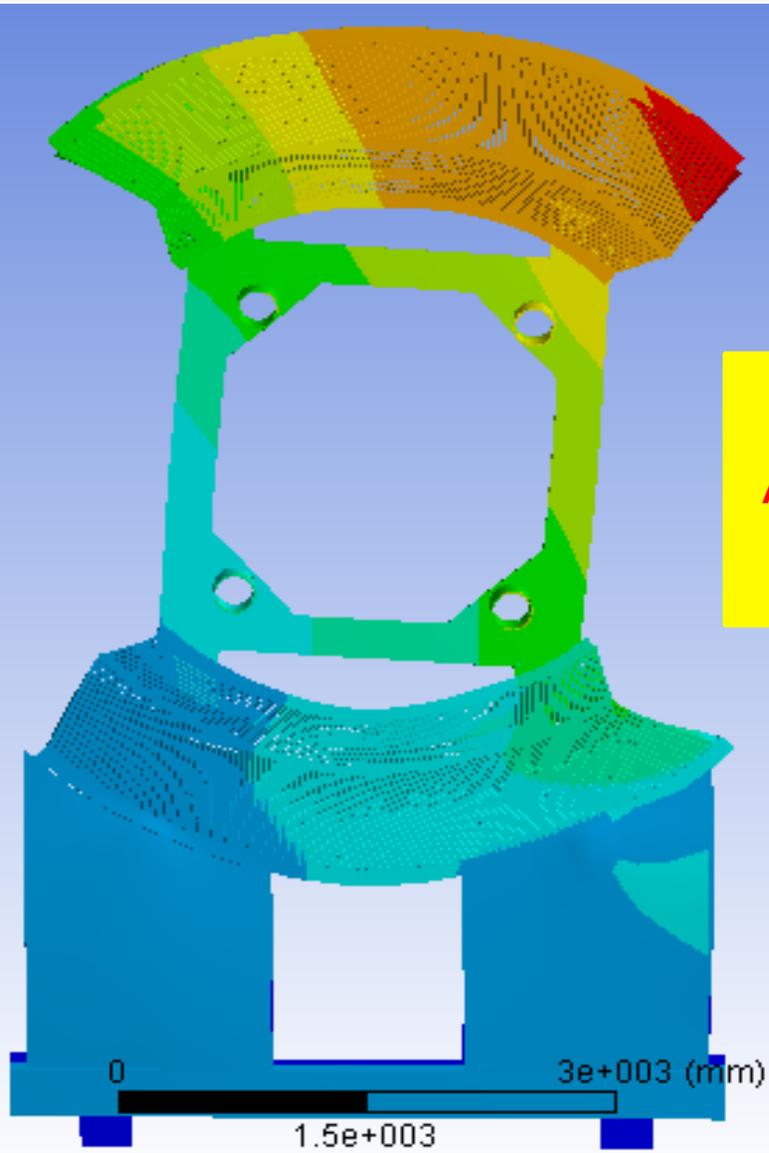
**Total Deformation**  
Type: Total Deformation  
Unit: mm  
Time: 1  
4/30/2014 8:56 AM



ANSYS  
v11

**DUE TO NOT SYMMETRICAL ABSORBER STRUCTURE MODULE INCLINED TO ONE SIDE**

**1 mm = 0.03937"**



May 1, 2014

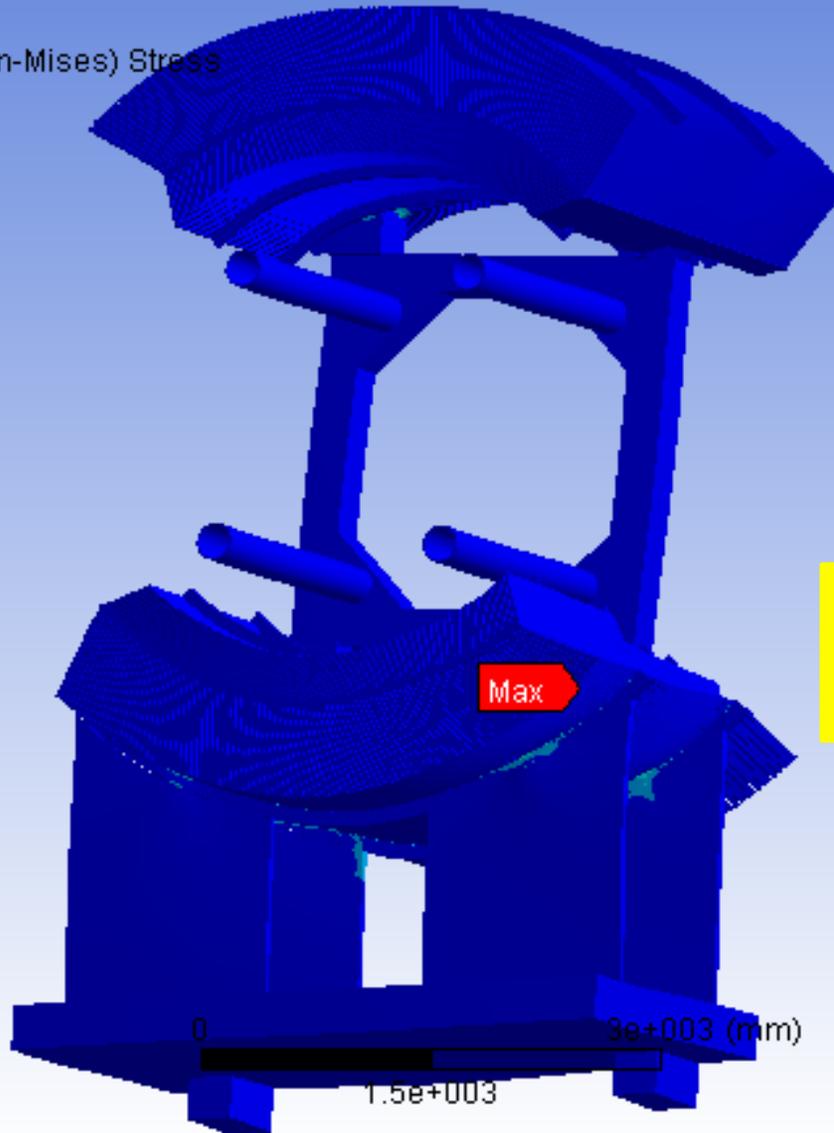
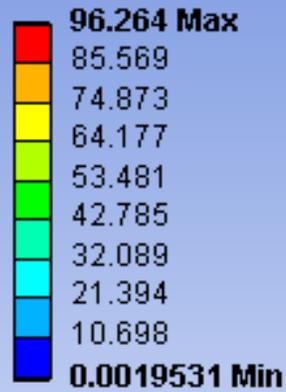
sPHENIX Mechanical Design

# sPHENIX HADRON CALORIMETER 90 degree Support Structure Analyses ANSYS MODULE. EQUIVALENT STRESS

PHENIX HADRON CALORIMETER 90 DEGREE SUPPORT STRUCTURE ANALYSIS

**Equivalent Stress**  
Type: Equivalent (von-Mises) Stress  
Unit: MPa  
Time: 1  
4/30/2014 9:33 AM

ANSYS  
v11

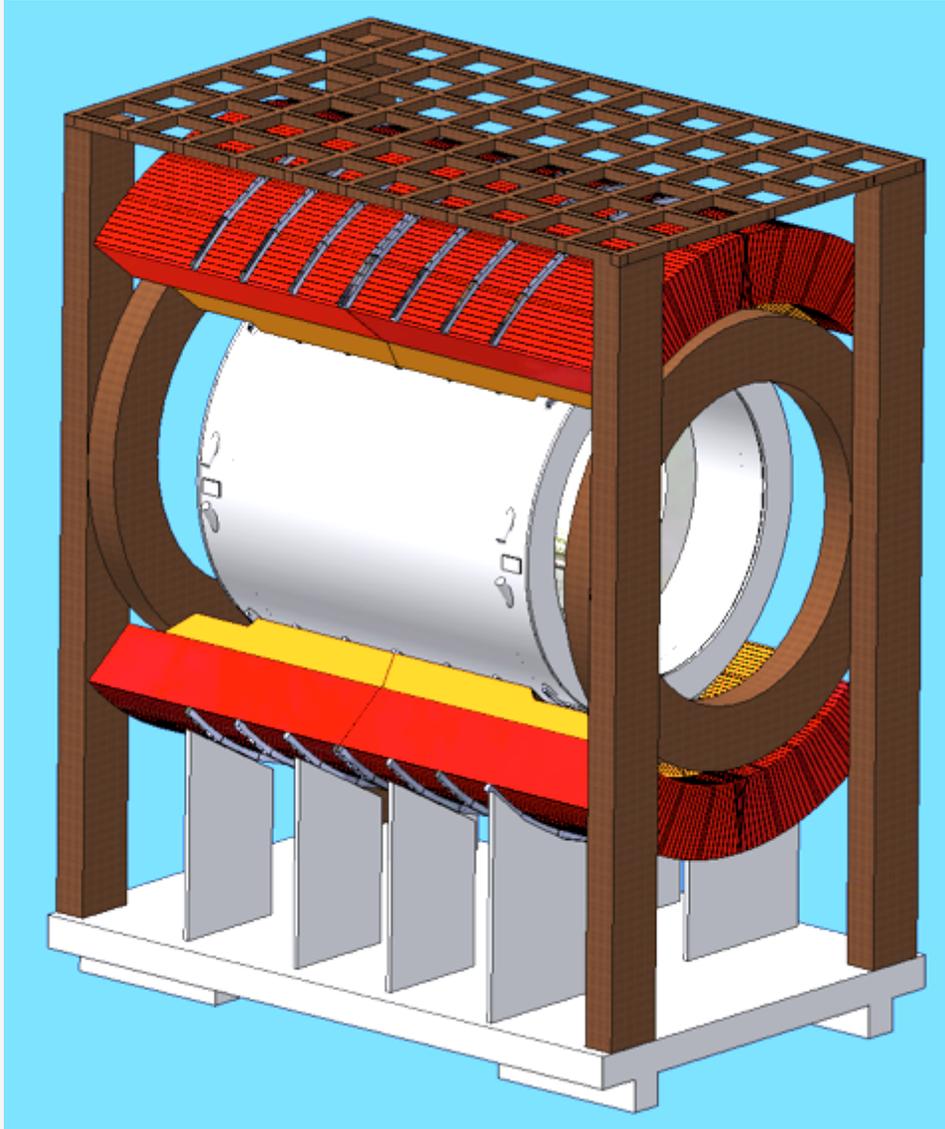


1 MPa = 145.038 p.s.i.



May 1, 2014

sPHENIX Mechanical Design



Additional Support Concepts

sPHENIX Engineering:

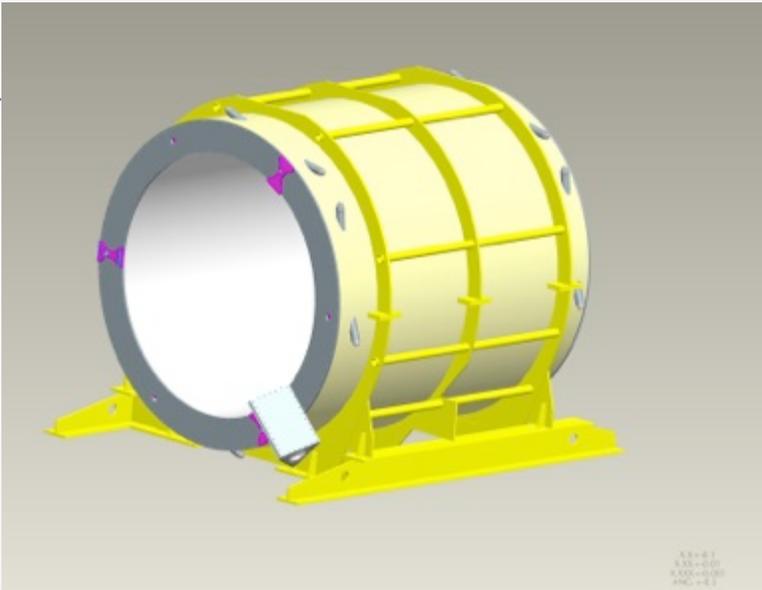
Major Subsystems/Subtopics:

- Magnet (BABAR) (Magnet Div) start 2/1/14 - 12/31/2018
- Hadronic Calorimeter (HCAL) (PHENIX) start 2/1/14 - 12/31/2020
- EM Calorimeter EMCal (PHENIX) start 2/1/14 - 12/31/2020
- VTX (RIKEN) start 2/1/14 - 12/31/2020
- DIRC (?) start ? - 12/31/2020
- VTX additional layers (RIKEN) start ? - 12/31/2020
- Carriage Support structure (PHENIX) start 2/1/14 - 12/31/2020
- Readout Electronics (PHENIX) start 2/1/14 - 12/31/2020
- Infrastructure (PHENIX ++)
- Electrical Power Services (PHENIX) start ? - 12/31/17
- Instrumentation Support start ? - 12/31/2020  
    (Signal trays & Racks) (PHENIX)
- Cryo Services (CAD) start 2/1/14 - 8/1/18
- Cooling water (CAD) start ? - 12/31/2017
- Safety Systems (PHENIX ) start ? - 12/31/2020
- Work Platforms and Access/Egress start ? - 12/31/2017  
    Structures (CAD)
- HVAC (CAD) start ? - 12/31/2017
- PHENIX Decommissioning start ? - 6/30/2017  
    (CAD, PHENIX)
- System Integration (PHENIX) start 2/1/14 - 12/31/2020
- Testing (PHENIX) start 2/1/14 - 12/31/2020
- Installation (PHENIX, CAD) start 2/1/14 - 12/31/2020
- Commissioning (PHENIX) start 2/1/14 - 12/31/2020

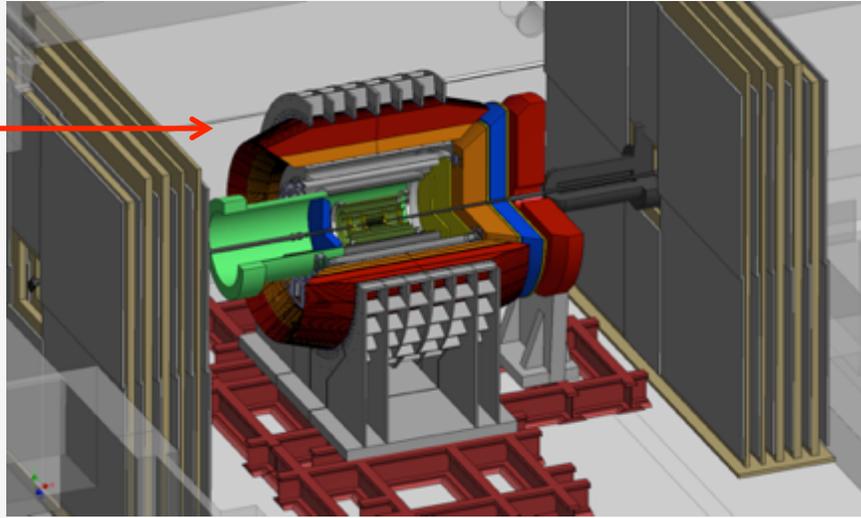
PHENIX  
 REPORT  
 4-10-14

Magnet (BABAR) (Magnet Div)

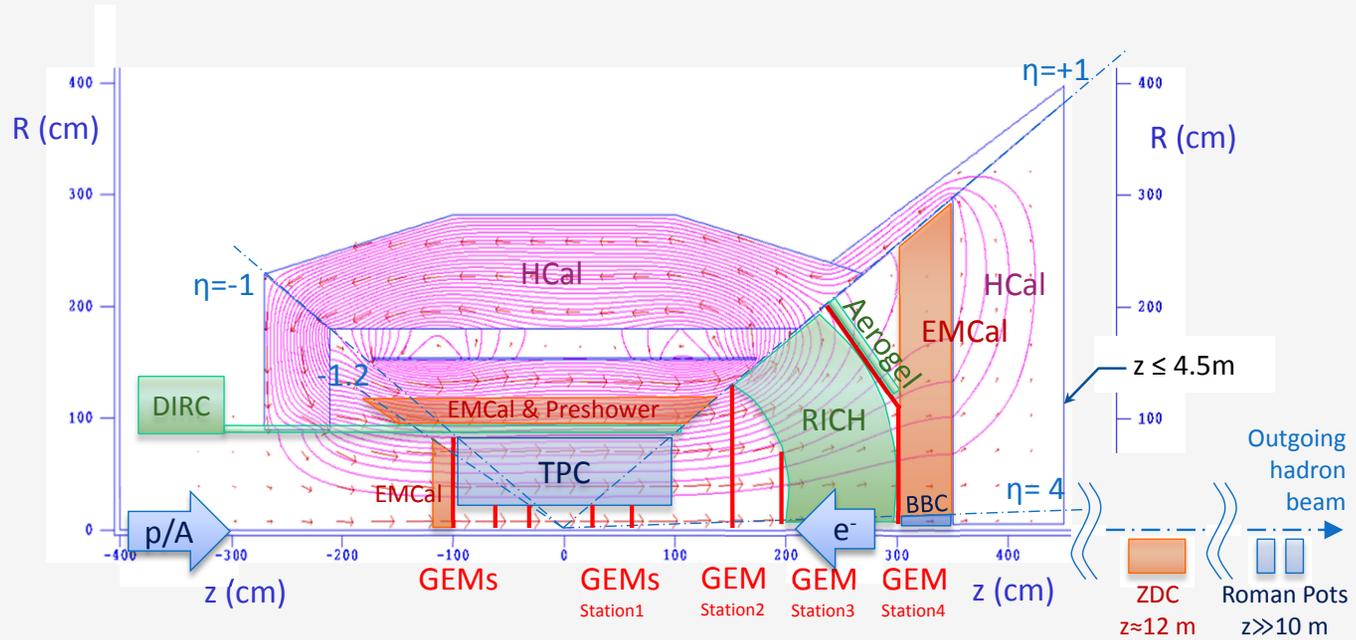
- Acquire rights Done
- Evaluate Transport 5/1/14
- Design Transport fixtures
- Fabricate Transport Fixtures 6/1/14
- Evaluate BNL test facility requirements 6/1/14
- Prepare test facility 8/1/14
- Install Transport fixtures
- Transport to BNL 9/1/14
- Install in test facility 10/1/14
- Design tests/test equipment 10/1/14
- Fabricate/procure test equipment 1/1/15
- Run tests 6/1/15
- Design Magnet modifications 12/1/14
- Fabricate magnet modifications 6/1/15
- Install magnet modifications 8/1/15
- Evaluate final installation 9/1/15
- Design installation support equipment 12/31/2016
- Fabricate/procure support equipment 7/1/2018
- Transport to IR 7/1/2018
- Install 10/31/2019
- Test 11/31/2019
- Commission 12/31/2019



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



ePHENIX



## Safety and Security

From Ray Karol:

Anyone need ladder training?



Recent Events		
4/23/14	Non-Reportable	Minor Government vehicle damage identified prior to use. An employee was performing a pre-use inspection on a C-AD operated vehicle when minor damage was noticed. The damage was roughly a 2" by 2' scrape to the paint. The employee notified his supervisor and called the BNL Police group to document the incident. ( <a href="#">Event Link</a> )
4/18/14	Non-Reportable	At approximately 3PM BNL Fire Rescue reported that it had responded to a oil based spill that was approximately 2 gallons from an unknown source. The spill was contained and mitigated. The scene was then turned over to BNL Environmental for cleanup. ( <a href="#">Event Link</a> )



# Where To Find PHENIX Engineering Info

## Run 14 Continues!



### Classic Mint Julep



4 fresh mint sprigs  
2 1/2 oz bourbon  
1 T simple syrup  
crushed ice

Kentucky Derby This Week!

Have a mint Julep

And

Watch the horses run.

Favorites:

- California Chrome (PP 5, 5-2)*
- Hoppertunity (PP 11, 6-1)*
- Wicked Strong (PP 20, 8-1)*

My long shot picks:

- We Miss Artie (PP 7, 50-1)*
- and Wildcat Red (PP 10, 15-1)*



[http://www.phenix.bnl.gov/WWW/INTEGRATION/ME&Integration/DRL\\_SSint-page.htm](http://www.phenix.bnl.gov/WWW/INTEGRATION/ME&Integration/DRL_SSint-page.htm)

