

# PHENIX WEEKLY PLANNING

TECHNICAL SUPPORT



10/27/2011  
Don Lynch

## This Week

- RPC1 North QA testing continues
- RPC1 survey, beampipe survey completed
- Continue installing MuTr station 2 & 3 North work platforms in MMN
- Begin installing MMS station 2/3 work platforms
- Continue assembly & QA of RPC1S octants at RPC factory - completed
- VTX repairs/upgrades/reassembly continues
- FVTX assembly continues - Move FVTX west to Chemistry
- FVTX rack assembly continues
- Begin FVTX/VTX Integration
- Install BBC North
- MPC North troubleshooting
- Continue design and procurement for RPC3 shielding, Hodoscope, AH Crane upgrade & repairs, and R134A shed

## Next Week

- Complete RPC1 North QA testing, begin commissioning
- Continue installing MuTr station 2 & 3 North work platforms in MMN
- Begin installing MMS station 2/3 work platforms
- VTX repairs/upgrades/reassembly continues
- FVTX assembly continues - Move FVTX west to Chemistry
- FVTX rack assembly continues
- Continue FVTX/VTX Integration
- Install BBC North
- MPC North troubleshooting
- Remove Station 1 north scaffolding
- Re-install BBC rack
- Move CM North, ready to start RPC1S installation
- Continue design and procurement for RPC3 shielding, Hodoscope, AH Crane upgrade & repairs, and R134A shed

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- Remaining Work Permits needed: End of Shutdown WP 11/1
- South BP protection Design Done
- Reinstall BBC North 10/28
- MPC N troubleshooting 10/31
- CM alignment stops 11/14
- Reinstall BBC South 11/14
- MPC S troubleshooting 11/21
- Upgrade AH crane 10/15-11/30
- DC/PC1 East/West troubleshooting as required 10/8-11/15
- Undefined detector subsystem maintenance and repairs 7/25-11/7
- RPC3 Shielding 11/21
- RPC Hodoscope 11/21
- Prep for EC roll in, reinstall MMS lampshade 11/28-12/2
- Roll in EC 12/5
- Prep IR for run 12/5-12/9
- VTX, FVTX and RPC1 Services and QA tests 9/16-11/30  
(including 4 new racks)
- BP Survey (initial survey done, next after CM moved north,  
final after VTX/FVTX installed) 10/17-12/12
- EC prep & roll-in, IR run prep, Pink/Blue/White sheets 12/5-12/23
- New and upgraded full detector commissioning 9/15-1/16/2012
- Run 12 cooldown 1/17/2012

TECHNICAL SUPPORT 2011

- VTX pixel/strip pixel repairs 10/28
- VTX re-assembly 11/2
- VTX QA tests 11/4
- VTX (w/o FVTX) survey 11/4
- FVTX procurement & Assembly 10/28
- FVTX QA tests 10/28
- VTX+FVTX integration to start 10/31
- Final VTX+FVTX Integration & Survey in Chem Lab 11/11
- VTX+FVTX move to 1008 11/14
  
- VTX/FVTX Installation at 1008
  - Build 2 FVTX racks 7/1-11/4
  - Install VTX/FTX, Re-connect VTX services, Install FVTX services, survey and QA tests 11/14-11/23
  - VTX/FVTX Commissioning & Contingency 11/23-1/16/2012
  - Chiller leak/contamination improvements 11/23

# VTX Status

- **West Side:**
  - Recovered ladder with glue on Hirose connector.
  - Mating pixel and strip barrels today, 27 Oct, 2011.
  - Functional testing of Strips Friday, 28 Oct, 2011.
  - Install Pixel Big Wheels Monday, 31 Oct, 2011
  - Test fit FVXT dummy cage Monday, 31 Oct, 2011
  - Test Pixel barrels Tuesday-Wednesday 1-2 Nov, 2011
- **East Side**
  - Working on re-bonding one ladder, BNL Instrumentation
  - Waiting for new ladder from Japan, Customs in Japan is the delay
  - Will start reassembly once west side testing is complete

# FVTX Milestones, Status



## ROC Boards

- First 6 ROC boards ship to BNL
- Second 6 ROC boards received shipped to BNL
- Third 6 ROC boards shipped
- 4 more shipped
- Last shipped

Sept 16

Oct 5

Oct 11

Oct 20

Oct 31?

## Cage Assembly

- Assembly of first ½ cage
- Assemble second ½ cage
- Send first two ½ cages to Chemistry
- Assemble remaining two ½ cages and test
- Send last two ½ cages to Chemistry

COMPLETED

COMPLETED

COMPLETED

Oct 14 – Nov 1?

1<sup>st</sup> week of Nov?

## Some Questions

- What is expected schedule for cable routings, do you have information you need to carry it out?
- When can we test fit an empty cage into VTX (with cables dressed)?
- Would like to get ethernet, GTM, etc. going to real FEM rack/crate so we can use it in 1008 testing rather than cobbled together crate
- Is FVTX survey in Chemistry scheduled and ready to go?

TECHNICAL SUPPORT NOTES

### MuTr North Station 1 work

- Clean/install new parts and upgrades (MuTr (3 weeks, At RPC Factory) Done
- Re-install chambers and FEE plates (1 week) Done
- Re-install north section of bridge Done
- Re-cable, re-hose and test (3 weeks) in progress
- Move CM north ~11/2

### MuTr Station 2 N (from sta 1 side) terminators and Dry air header mod

- Station 2 Maintenance/upgrade through access opened by station 1 removal Done

### MuTr North & South Station 2 & 3 Re-cap clamps

(No internal work platforms to upper octants)

- Install new capacitor clamps and terminators in lower octants (In Progress) 7/25-12/31
- Re-install MMS east vertical lampshade 11/28

RPC Tasks

TECHNICAL SUPPORT NOTES

- Assembly at QA tests at RPC Factory 10/31
- Build 1 new rack, upgrade existing RPC1 prototype rack Done
- Install north RPC1 (including both racks & services) Done
- RPC1 North HV Tests, gas system calibration 9/23-11/2
- Move Station 1 work platforms to south station 1 11/4
- Install south RPC1 11/7-11/23
- Remove all scaffolding and hanging platforms 12/5
- RPC1 north and south commissioning 9/6-12/5
- RPC3 HV Distribution modifications, gas distribution modifications, PS calibration HV and services testing 7/1-12/5

TECHNICAL SUPPORT NOV

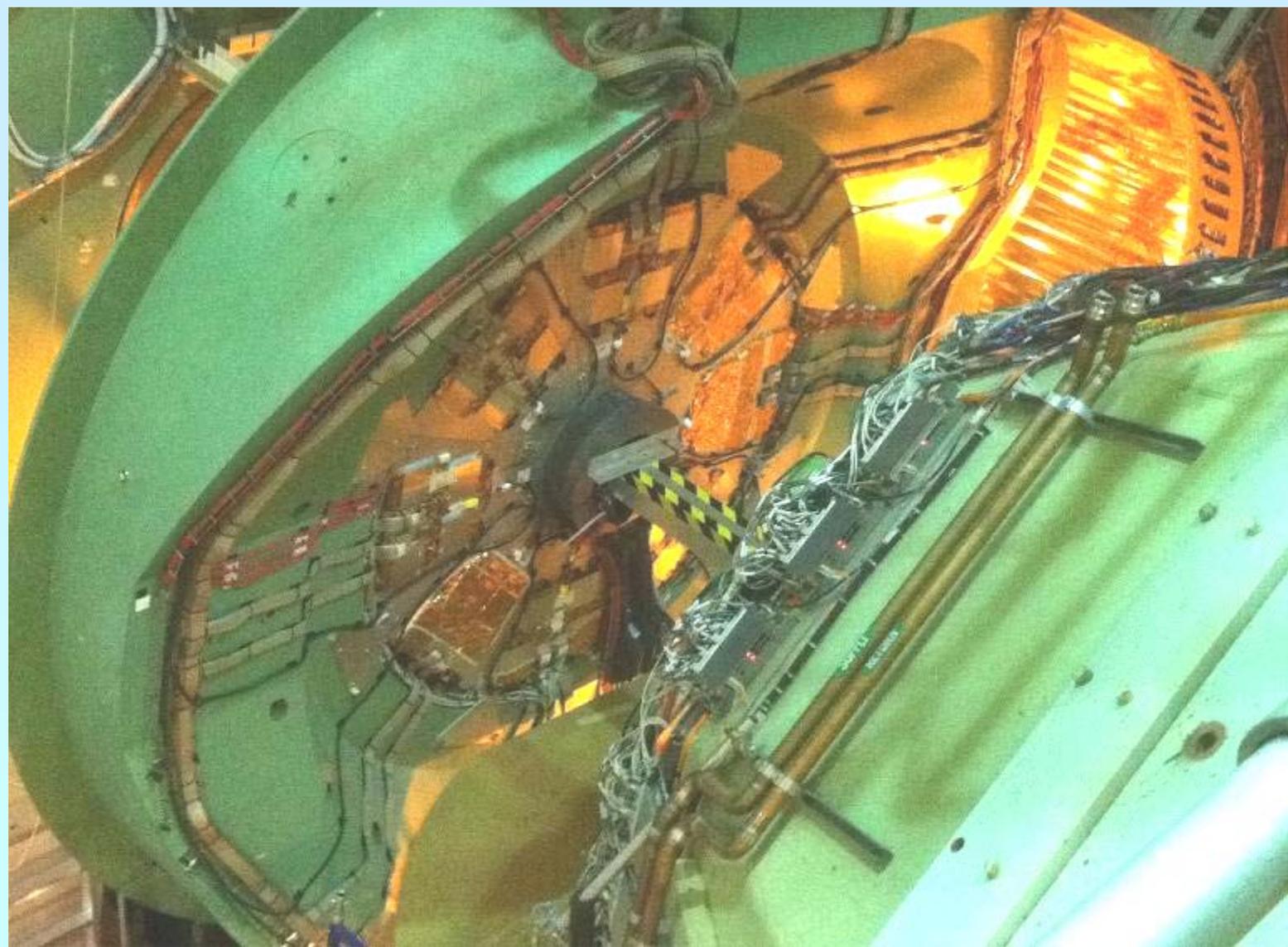
- RPC1
  - HV Cables *Installation in progress*
  - Signal cables *Installation in progress*
  - LV cables *Installation in progress*
  - Racks
    - Assembly *Done*
    - Install on bridge *Done*
- RPC3 additional HV boxes *Ready for installation*
- FVTX
  - Bias cables *pigtails are Here; extensions due next week*
  - LV cables *Wedge cables are here, dist to mapper due next week ROC LV Cables to be terminated in-house*
  - Fiber *Control & trunk fibers and patch bays ready*
  - Mapper boards *ready to install*
  - CMT3 and CMT4 FVTX racks
    - Assembly *10/31*
    - Install on bridge *11/4*
- VTX Modify thermocouple connections *Design & procurement done, programming needed, ready for installation*
- PC Board Designs
  - PbSc terminator board production *here*
  - New LV Dist front panels *here*
  - GL1 6X1 Multiplexer assemblies *design finished, quotes are in*
  - New MPC junction board *prototype in layout phase*
  - Dual SVX board for E. Kistenev *next in line*
- West carriage ADAM system performance upgrade *2 new Modbus servers under test in 1008*
- LeCroy HV control retrofit testing *Still Waiting for doc. from Debrecen Inst*

### Miscellaneous Gas & Cooling System Tasks

TECHNICAL SUPPORT NOTES

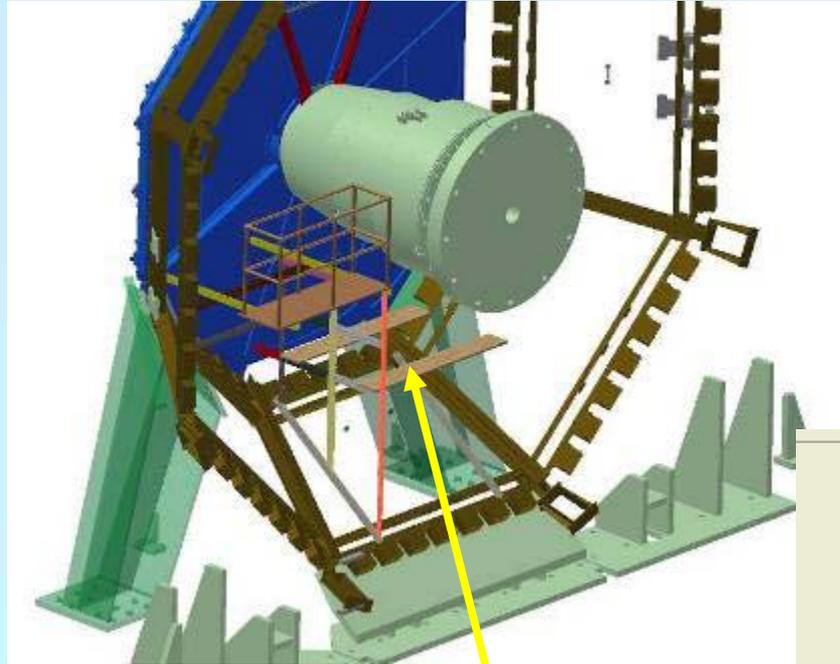
- Redo bypass line on VTX/FVTX spare chiller to remove kink 7/1-12/31
- Move RPC R134A tanks nearer to GMH, install cover, insulated lines 7/1-12/31
- Replace MuTr flowmeters (north and south) 7/1-12/33  
north done
- RPC  $\frac{1}{4}$ " copper line from RPC rack to CM Done?

PHENIX USA ONLY NO--

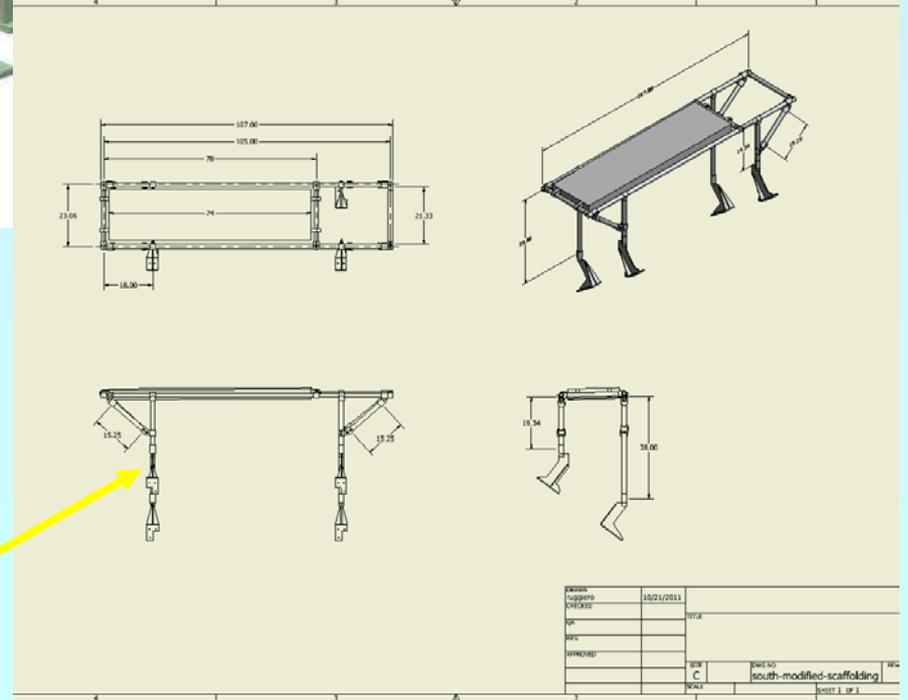


TECHNICAL SUPPORT

Station 2/3 S/N  
Access



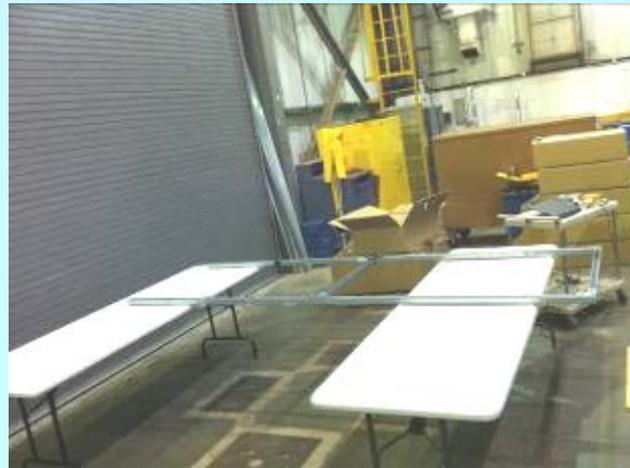
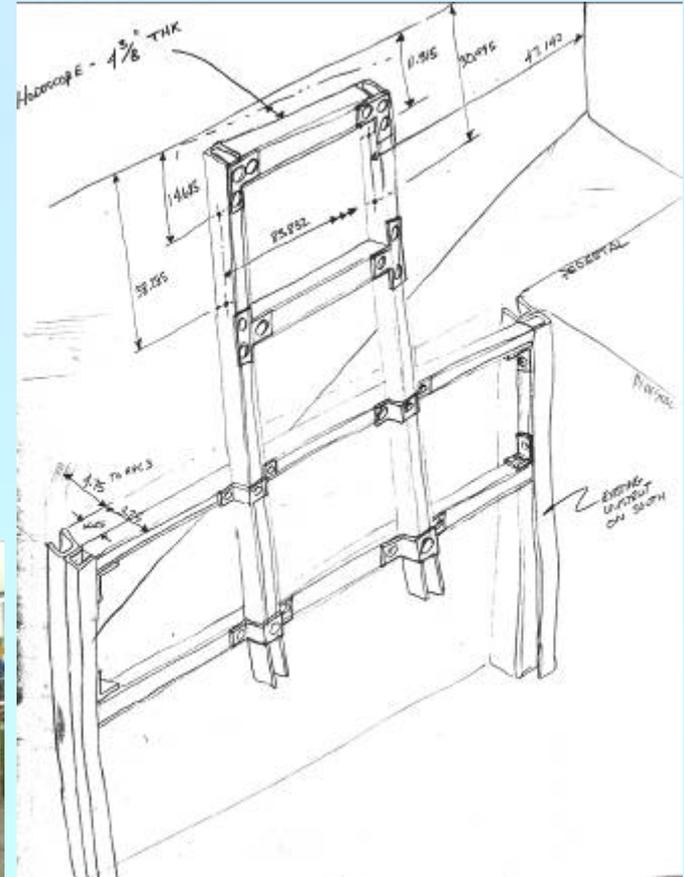
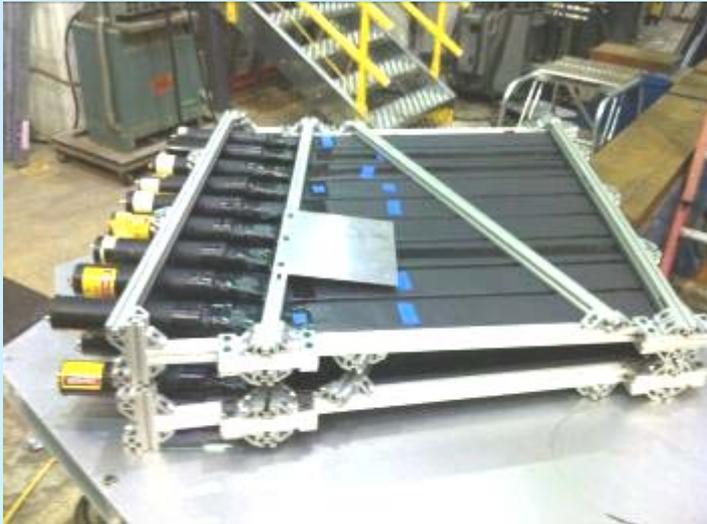
North Magnet Platform



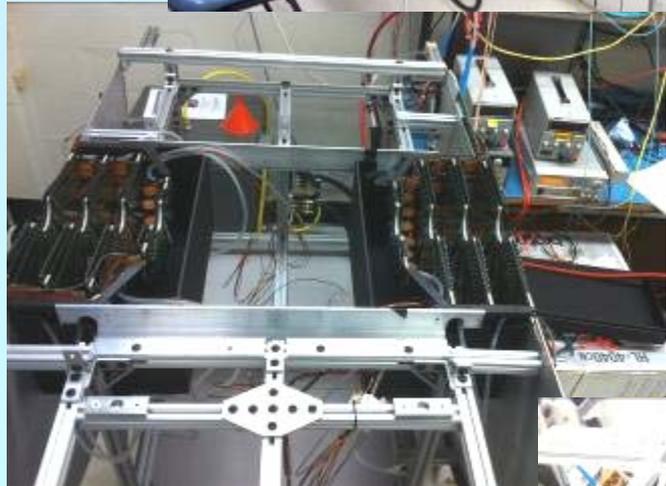
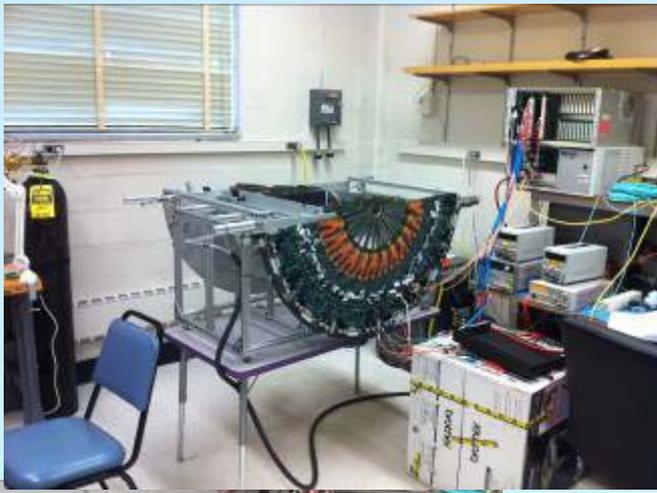
South Magnet Platform

# RPC Hodoscope

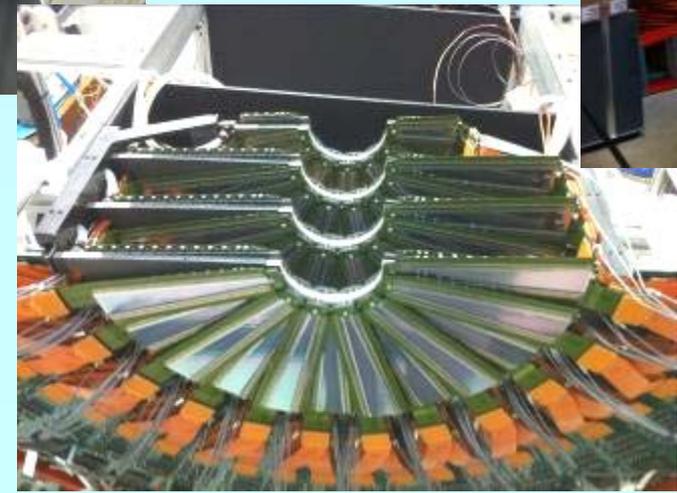
TECHNICAL SUPPORT NO. 1



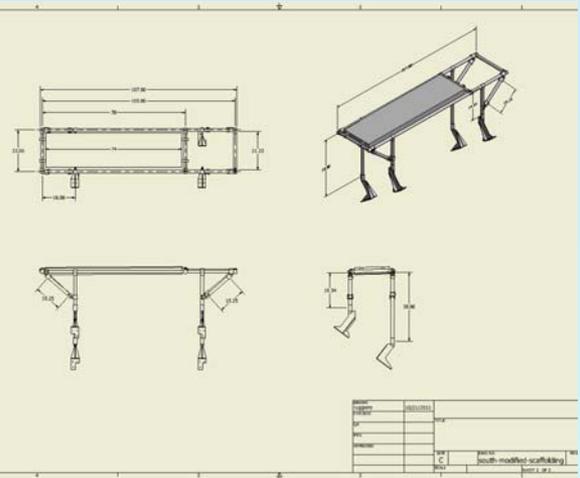
TECHNICAL SUPPORT



FVTX



TECHNICAL SUPPORT NO. 1



# Infrastructure Issues

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- Roof leaks in utility bathroom at northwest corner behind tech offices, over door between rack room and assembly hall, over door between control room and elect. ass'y room, southeast corner of IR and laser room.



- Flooding in AH/ Driveway heaving

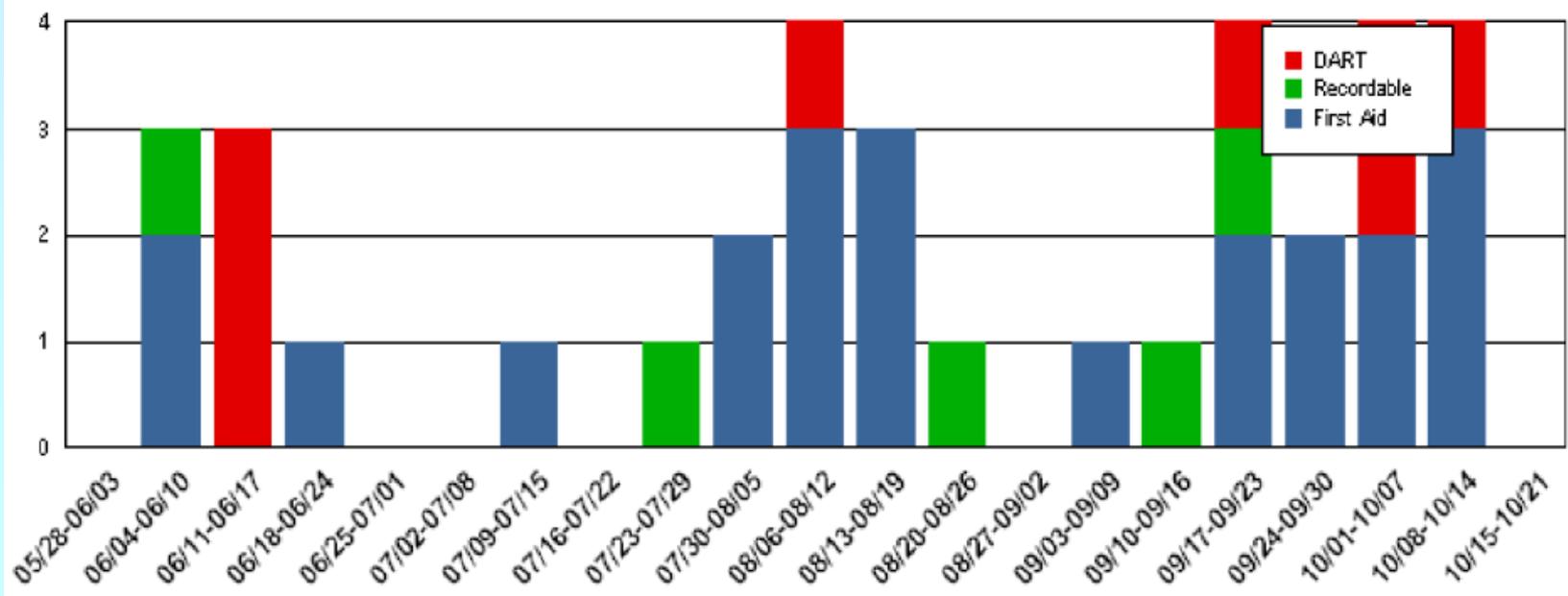


- Electronics test/assembly room-to-parking lot door (does not open/close/lock properly - needs to be replaced)

TECHNICAL SUPPORT NO. 1



Injuries Per Week  
As of 10/21/11



1. Reminder of vacation carry over: must get down to 20 days by Jan 20<sup>th</sup>. (Includes vacation accrual through Dec 31<sup>st</sup>.)
2. Rad worker 1 requal: only if you took class, challenge exam is still OK.
3. VTX/FVTX ESR Safety Procedure for work on VTX/FVTX at Chemistry
4. CA OPM 9.2.1 rev 12 (Procedure for Reviewing Environmental, Health and Safety Aspects of an Experiment) - This revision was made to emphasize that ESRC must consider if the proposed system change or addition could involve an unreviewed safety issue when a change is made to a previously reviewed system.

Also modified are C-A-OPM 9.5.10, rev 04 (C-A Site Specific Sealed Source Inventory Procedure) and C-A-OPM-ATT 9.5.10.b, rev 05 (C-A Site Specific Source User Training). See documents for info.

# Where To Find PHENIX Engineering Info

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

