



PHENIX WEEKLY PLANNING

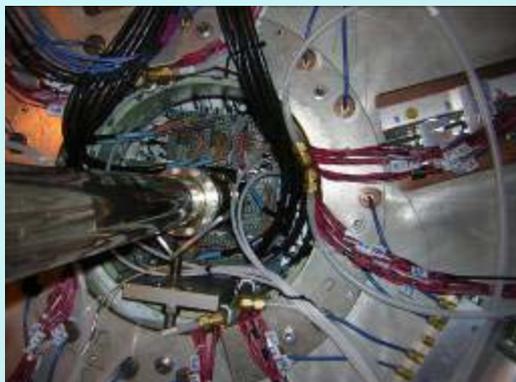
10/25/2007

Don Lynch



Run 8 Prep Schedule

<u>Item</u>	<u>Start</u>	<u>Finish</u>
MPC South Installation	Done	Done
Elec. Cooling Water upgrade (CA)		
(under EC)	In progress	?
(elsewhere in IR)	In progress	10/29
CM Move to Run position	Done	Done
More decapacitor removals	Done?	Done?
Close out all shutdown '07 open		
work permits	10/18	11/1
RPC Tent preparation	On Going	11/30
(see slides)		



TECHNICAL SUPPORT NOON

Run 8 Prep Schedule (cont'd)

TECH-SUPPORT + 2007

Item	Start	Finish
EC Roll In	Done	Done
Move MuID collars to IR	Done	Done
Remove Plates, cart & move Manlift	Done	Done
Roll in-to IR and North to run pos.	Done	Done
PHENIX techs reconnect water, elect., gas, fibers	Done?	Done?
Carpenters restore scaffolding, Re-install lift & ladder, re-connect gas sniffers	Done?	Done?
Mike Rau re-install lift wiring, Re-connect TOF blower	Done	Done
Blue Sheet/Pink sheets	Pink Done	Blue in progress



Run 8 Prep Schedule (cont'd)

TESTING - Q1 SUPPORT + 2007

<u>Item</u>	<u>Start</u>	<u>Finish</u>
DC East & West repairs (permits done)	10/11	10/31
Pre-run Commissioning	10/1	10/31
Assemble shield wall	10/22	11/1
Move MMS to run position	10/29	10/30
Install MuID collars	10/30	10/31
Shield wall roll in	11/1	11/5
Start of Run 8 (Cooldown)	11/1	11/1
Start 2 person watch shifts	11/6	11/6
Install FPGA box (mech. Same as 2006)	?	?
Blue ring cold, start d- beam (Access during day, beam at night)	11/7	11/7
Yellow ring cold, start Au beam (beam all day, little or no IR access)	11/12	11/12
Start of Physics	12/1	12/1



Run 8 Prep Notes

Electronics cooling water project has leaks.. Need ~ rest of week to fix. Will hold up Vlad and DC east/west work 'til Monday 10/29.

Finished the leak test for the TEC and Muid both OK

There is a problem with the TEC flow-controller. Carter is sending it out and should be back next week.

Some work is still needed on the DC rack to get it working after removing the recirculation parts. Leonid may look at it next week, or I will do it when I get back from vacation on the 5th. We have all the drawing so it shouldnt take long

Pink sheeting..

Frank really took the lead on getting this done this year..We finished 99% of it by this morning. All that is left is the Fcal racks and doing the solenoid test which should go fast once we get water... -

Safety Systems/ UPS

- Pink sheeting - completed
- Blue sheeting has started (preliminary calculations)
- Temporary UPS installed last Friday
- New UPS due date ???
- HSSD system status
- Other Issues



Hose Failure

T E C H N I C I A N S P O R T S 2 0 0 7



Leaking from fitting after water turned on for EC.
Bad line Replaced by John T.

Some (minority) of hoses use less reliable type of synflex. These are susceptible to leak through fittings due to delamination of inner sleeve. We don't use it any more.

Q: is this a random failure or a precursor of more to come?

Q: preventive or on-condition maintenance?

Q: Criticality of failure during run?

Q: is failure likely in operation or only when change of state?

Q: can we identify by inspection?



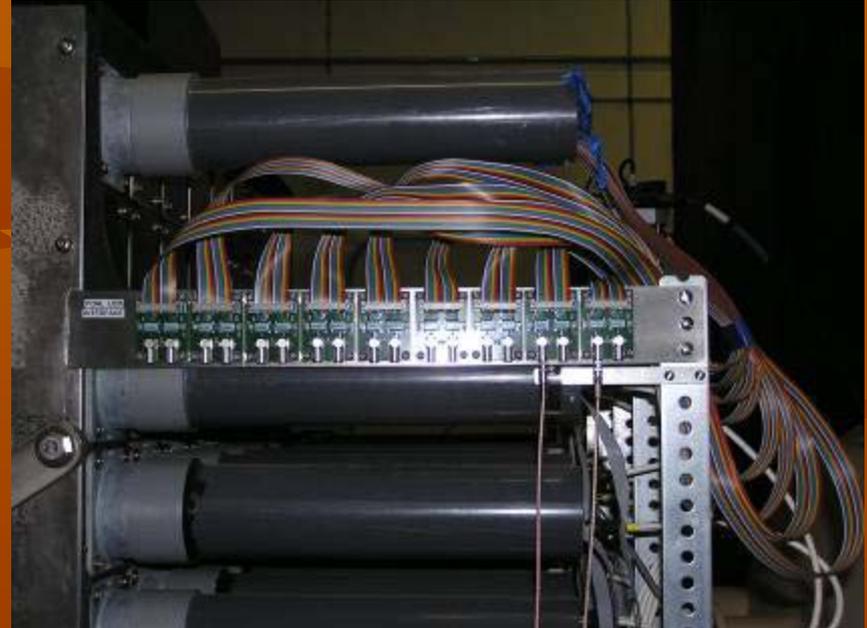
PHENIX Run 8

Electronics Preparation

- *FCAL LED Pulsers*
- *HBD Protection*
- *Back to The Future: Space Wars*

FCAL LED Pulsers

- North LED interface installed, need parts for South interface.
- Ordering more Lemo cables – due next week.



FCAL Racks

- Rearranged North rack electronics to fit NIM crate and fan tray.
- J.Newby and A.Glenn are here testing the electronics.
- They plan to modify South rack.



HBD LeCroy HV Trip System

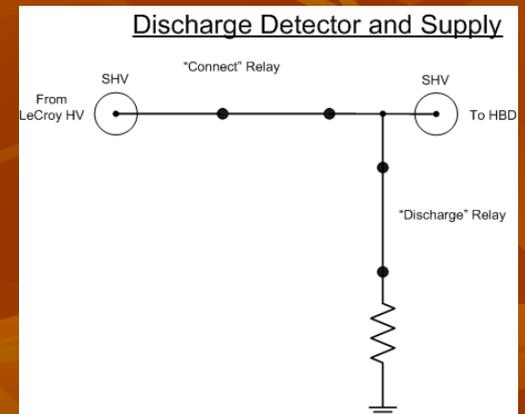
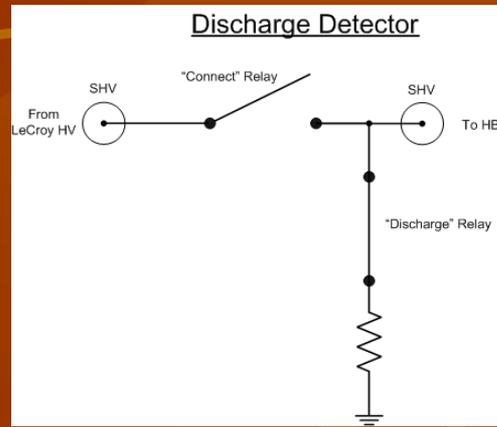
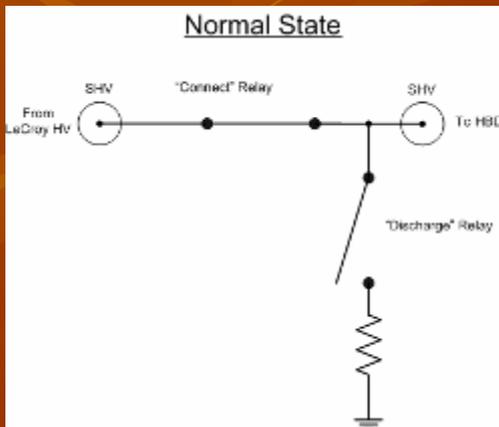
(City of Atlantis Flood Prevention System)

- Prototype Trip Detector and Relay Module complete.
- Basic system test complete.
- Relay Module panels and further testing / safety approval needed.
- M. Proissl will add some functions and do more testing.



How It Works

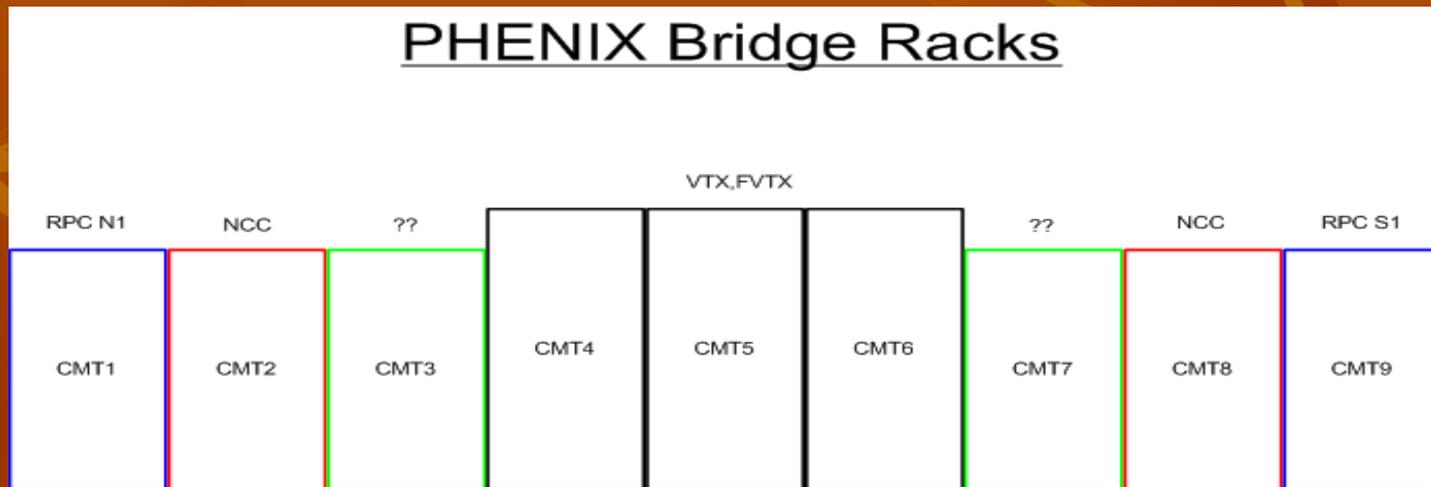
1. Lecroy HV module trips and ceases HV drive phase signal.
2. Trip Detector senses loss of phase and sends command to state machine in Relay Module over RS485 at 2.5Mb.
3. State machine opens "Connect" relay for that channel and closes "Discharge" relay to bleed charge off of HBD GEMs for several seconds.
4. State machine then closes "Connect" relay to bleed remaining charge in the LeCroy and assure that it remains tripped off for a period so it does not self-restart (see testing by T.Hemmick).



Space Wars

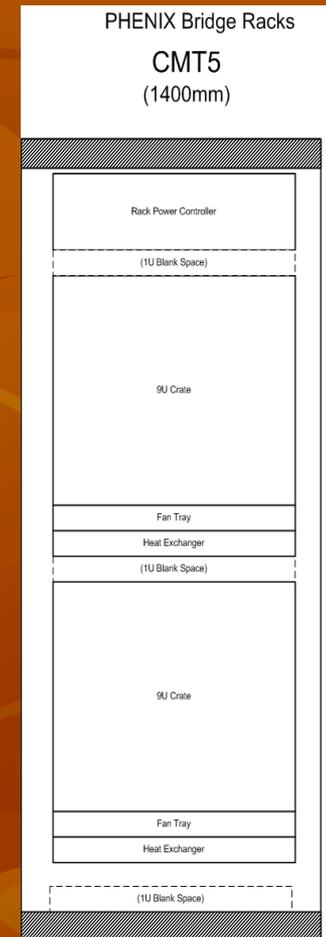
(Upgrade Racks)

- Upgrade rack space allocation on the Bridge still being determined.
- We currently have only 3 1400mm racks. Vendor now only makes 1200mm. Paul is looking into other vendors / options to get more 1400s.
- RPC Station 2 and 3 racks will have to be in tunnels. Placement and electrical feeds etc to be determined.
- New row of racks will be needed for DAQ electronics in CH rack room.



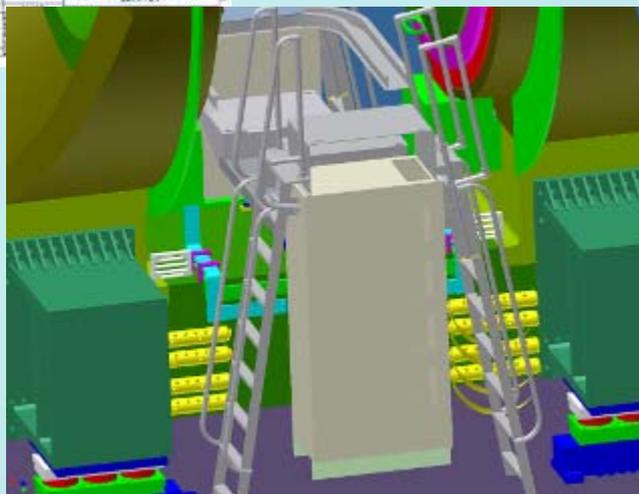
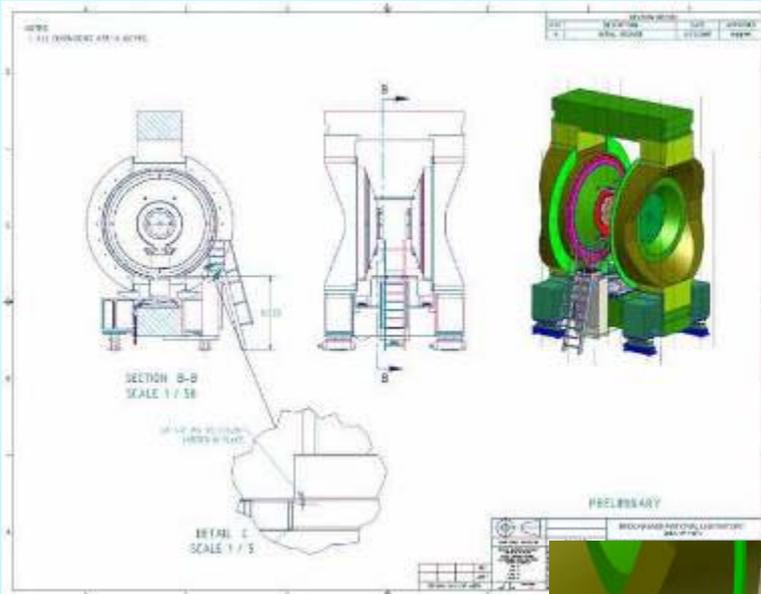
Example Bridge Rack Capacities

- 1400mm rack can fit two 9U crates.
- 1200mm rack can fit one 9U and a NIM.



CM Ladder/Stair Shutdown Access

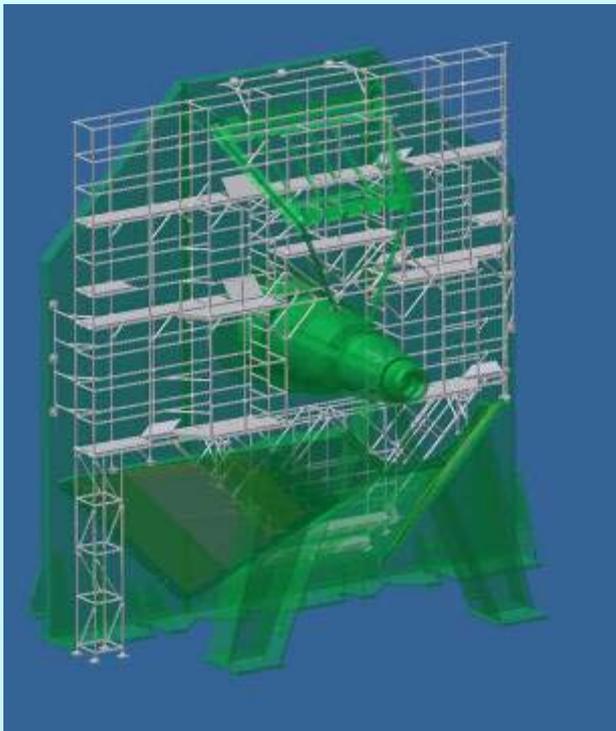
TECHNICAL SUPPORT + 3000 + 2000



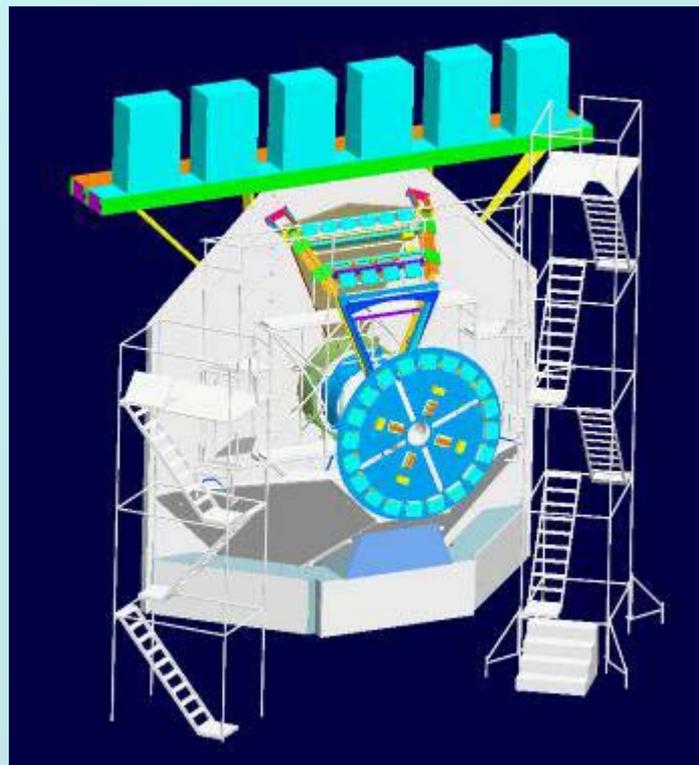
- PO pinned
Waiting for delivery
- Purchasing
SNAFU causes delay
- Delivery ~10/15

Station 1 , 2, 3 access plan

TECHNICAL SUPPORT + NOON



Work to begin on these items after prep for run 8 is finished



RPC Factory Issues

TECHNICAL SUPPORT + NOON



Electrical - Racks will be energized tomorrow then we will be ready for Walkthru. Still to be done: heaters, safety system rack including UPS, UPS (from PHOBOS) for tent computers.

Need to move phone/internet jack on outside of tent in tech area to inside tent for security reasons.



Gas System: Nearly approved; to be formatted and formalized.



RPC Factory Issues, cont.

TECHNICAL SUPPORT 2007

Equipment - Kenny working on Cosmic ray test stand. John working on piping. Shelving next. Young Jin providing specs and location. RPC group will provide specs for the gap transportation cart (vertical high and low lifting requirements, horizontal/ vertical orientation, table top dimensions, max load capabilities, etc.) PHENIX will design and fabricate. RPC group will provide specifications for gap and module storage racks. PHENIX will design, fabricate and install.



Work plan - existing work plan covers work to be done between now and factory start up (Factory startup is when production testing and assembly of modules and half octants begins) Work allowed now includes set up of gas system including all components and N2 testing for leaks (use of gases other than N2 requires approved gas operation procedure and full working safety system- see above). Electrical setup testing of prototypes, instrumentation and related equipment in preparation for factory operation may commence as soon as a final walkthru by C-A experimental safety group is completed and any action items generated by walkthru are addressed to the satisfaction of the experimental safety group.



Security - Locksmith scheduled for Monday 20th. All window doors are to be closed when not in use. Equipment cabinets inside tent to be secured when materials arrive. RPC group to review C-A policy (3 tier requirement as required by C-A procedure 1.20) RPC group will prepare a one page description of how they intend to comply with this requirement. This will be reviewed by C-A.

RPC Factory Issues, cont.

Tent air quality/ air exchange: Ali checked with C-A HP and was told we need: 10-15 air exchanges per hour (seems excessive, Ali will double check)

Tent volume = 16,796 cu ft.

Typical average infiltration/exfiltration for an residential room with one exterior door is 1 air exchange per hour (ASHRAE Guide). So we may need forced ventilation for 14 air exchanges/hr

14 air changes/hr = 235,144 cu ft/hr = 3919 cu ft/min.

I would argue that our tent is a lot less tight than your average room, but our volume is also significantly higher.

RPC Factory Issues, cont.

Remaining Action Items from C-A safety review:

- Gas monitoring equipment to be calibrated and tested per BNL requirements
- Equipment is manufacturer calibrated. Will be tested with mini blue sheets check out.
- Gas schematic/ procedure needed - Finish this week
- Max flow rates incl. chambers in storage for all gases to be forwarded to M. van Essendelft - still needs to be done before factory startup
- Electronics to be approved installation and use (including NTRL equivalence approval) - Done, walkthru needed.
- Any chemicals to be purchased through BNL to assure compliance - Will be complied with
- Adequate ventillation to be designed into tent - (see above)
- Approved security apparatus to protect against theft - see above

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- Empty (except clean metal waste) and discard old container



Work Control Coordinators should attend one of the classes given by BNL on the revised Work Planning SBMS Oct 19, 29 & 30 Bldg 555 Hamilton Seminar room.

PHENIX floors (counting house, trailer offices, mixing house) to be cleaned this weekend. Please get everything off the floors before you leave Friday.

Check your training. Anything that expires in 2007 should be attended to.

- 2007 HBD Repairs, DC (minor) repairs), MPC N&S upgrade, MuTr FEE upgrade prototype, infrastructure upgrades & repairs, misc. subsystem work
- 2008 MuTr FEE upgrades 1 octant 1&2 S, Cu absorber test, start RPC3 S, infrastructure upgrades & repairs, misc. subsystem work
- 2009 Scaffolding in MMS and MMN, MuTr FEE N&S stn. 2 & 3, finish RPC3 S, MuTr N&S stn. 2 & 3 repairs, RPC2 S&N, RPC3 N, Cu absorbers, infrastructure upgrades & repairs, misc. subsystem work
- 2010 Remove HBD & RXNP, remove beampipe, DC West upgrade, VTX barrel, RPC1 N&S, MuTr FEE stn. 1 N&S, MuTr stn. 1 N&S repairs, infrastructure upgrades & repairs, misc. subsystem work
- 2011 NCC S, FVTX, infrastructure upgrades & repairs, misc. subsystem work
- 2012 NCC N, upgrades contingency & wishlist, infrastructure upgrades & repairs, misc. subsystem work

** Years refer to the shutdown year and follow the run with the similar number (i.e. work in 2007 is to be done in the shutdown that follows run 7, and so on)*

Where To Find PHENIX Technical Info



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After Halloween
It's time to start
the run !

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



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