

PHENIX WEEKLY PLANNING



Chilly!

1/15/2009
Don Lynch

Freezing!

IR Configuration for remainder of shutdown

TECHNICAL SUPPORT NOON

October 5 12 19 26 <DONE>
 November 2 9 16 23 30
 December 7 14 21 28
 January 4 11 18 25

Run Position 10/20 - 10/31
 (CM & MMS moved north WC west)

Station 1 south access 11/3-12/12
 (MMS moved south WC west)

<DONE>

Station 1 north access 12/15-12/31
 (CM moved south, WC west)

<DONE>

East Carriage Install 1/2-1/15
 (CM moved north, EC & WC opt.)

<Current>

Run Position 1/16-1/19
 (MMS moved north, EC & WC opt)

↔

Ready for run 9 1/19-2/1
 (MuID Collars Installed, EC & WC opt.)

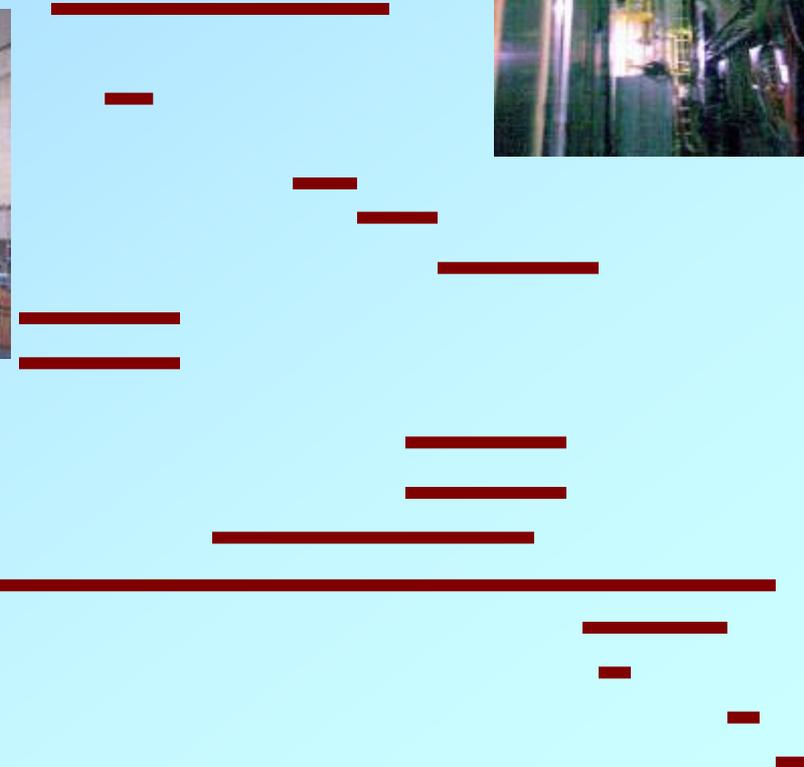
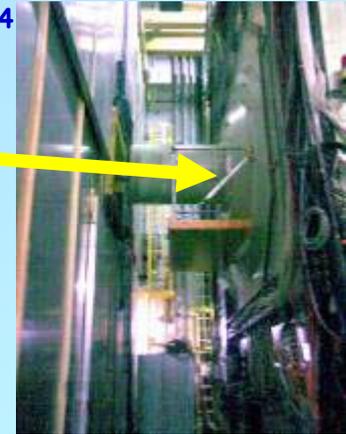
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January 2009

TECHNICAL SUPPORT TROOP 2009

- IR Prep
 - C-A carpenters fold EC platforms <DONE>
 - Move MuID collars to IR <DONE>
 - Remove Plates, cart & move Manlift <DONE>
 - Disconnect EC shutdown connections <DONE>
 - Roll in-to IR and North to run pos. <DONE>
 - PHENIX techs reconnect water, elect., gas, fibers
 - C-A Carpenters restore EC platforms, re-install lift & ladder
 - Move MMS North to run pos.
 - Install MuID collars
 - Magnet Tests (MMN & CMI)
 - re-connect gas sniffers
 - Mike Rau re-install lift wiring, Re-connect TOF blower
 - Magnet Tests (MMS and CMO)
- DC East & West repairs
- Blue Sheet/Pink sheets/White Sheets
- Pre-run Commissioning
- Assemble shield wall (1/26-1/29)
- Start watch shifts (1/27)
- **Start of Run Party**/Shield wall roll in (1/30)
- Start of Run 9 (Cooldown) (2/1)

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24



Other On going Tasks

Fan Tray Maintenance (fill in)

RPC3 Prototype install (11/15-1/31)
(Remaining tasks: run HV, signal and gas lines.)

RPC Factory Support (continuing)

Dark Current test stand

Storage Racks with humid. Cntrl

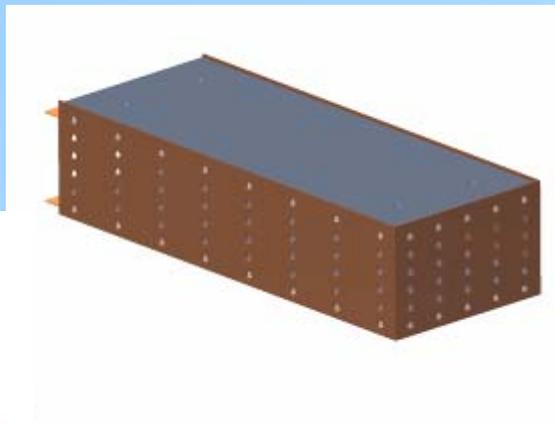
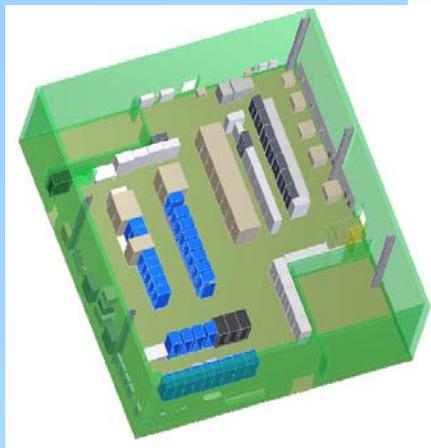
Burn-in test stand

Tilt & Elevating transport table

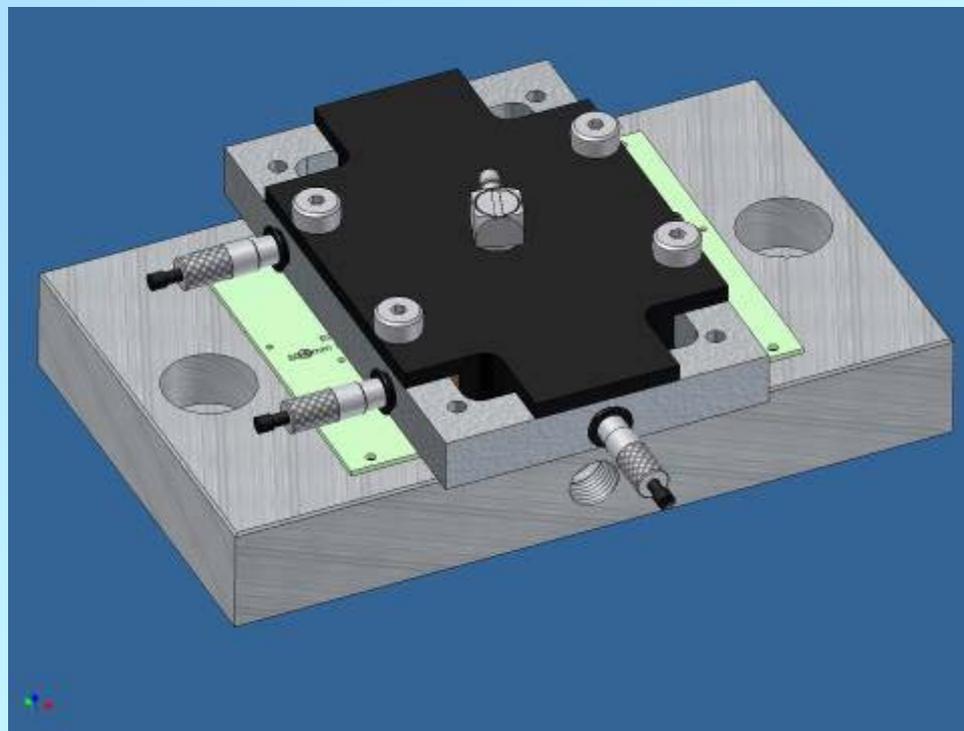
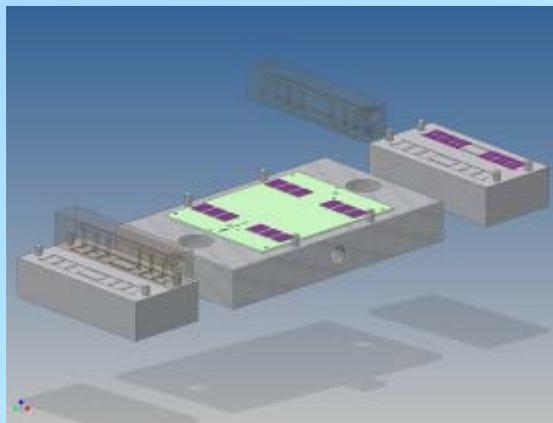
Prep for 2009 Shutdown
(as time permits)



'09 Technical Support



Rack room electronics, etc.
NCC prototype design support
VTX fabrication tooling design
VTX installation design
FVTX design/engineering support



Here is a list of the important items required to be completed E&FI:

- **PHENIX Notifier Fire Alarm System** - Tie in two wire communication network cable into the five (5) new racks (IR Muon Trigger racks North & South, 2 Rack Room Muon Trigger racks, Tunnel rack for RPC. Program the fire alarm panel to recognize these new racks). Frank & Paul-**IN PROGRESS - Expected completion after East Carriage is in place.**
- Energize the **HBD heater and temperature monitor system** - Re-test & verify heater control and pre-amp temperature readout points for HBD East and West. Frank, Paul & Mike Lenz-one day. **Pre-amp temp point readout is functioning. Heaters not energized. Need authorization from HBD Group to test heaters.**
- Connect the **Remote Monitor & Control (RMC - ADAM System) communication cable** into the five new racks. Pre-test control and readout functions for these racks prior to "PINK" sheet testing. Frank & Steve Boose- **IN PROGRESS Expected completion after East Carriage is in place.**
- Perform a full "dry" run of all **SMCS logic actions** prior to performance of the CAD witnessed "BLUE" sheet test. Frank & Paul-two days. **Start pre-test next week. Need East Carriage installed.**

Lower priority

- Troubleshoot and repair **Muon Trigger optical data cables.** **Not complete.**
- Install and test temperature and flow interlock instruments for protection of the new **Control Room Duct Heater.** **Temperature interlock not required until summer. Vendor flow interlock is functional. Heater is now in service. Temporary heater should remain as backup for next few weeks.**

RPC:

- RPC LV, HV cabling. -> completed?
- Signal cabling. The 1500' order (5 300' spools) is delayed until Jan 28th so emergency ordered several 100' spools to complete RPC3. If we can't wait for RPC2 we'll have to order more 100' spools. All connectors ordered.
- Install SRPC1 trunk fibers in patch bay and install patchbay and fibers on CH end. Location to be established.
- Purchase and install ethernet-fiber converters in SRPC1 and CH.
- Add ADAM TC modules to read out thermocouples.
- Large grommets in crystal palace for all cables?

HBD Hall Sensors:

- Produce Hall sensor host boards.
- Calibrate the probes in Instrumentation.
- Produce two custom fanout cables.
- Install amplifier box and ADAM modules on bridge for readout.

Tunnel Scintillators/Scalers:

(John has been working on this. We will get some things together and hand it over to Anselm.)

- Modify G-link breakout CPLD logic for clocks.
- Install two NIM bins in SRPC1.
- Locate necessary blue logic.
- Install the TCP ADAM in SRPC1

Electrician Work

- Walk down PHENIX Electrical Distribution Panels/Breakers and update changes on the electrical one-line drawings. *Complete by 1/31.*
 - Install power and signal cable tray (ceiling suspended) for new DCM rack row - north of existing DCM racks. *To Be Scheduled*
 - Assist in signal and LV cable installation for MuTr/RPC upgrades as necessary. *In Progress*
- The following items are Lower priority; not required for run 9, to be scheduled when manpower available and operations & projects inconvenience are minimized*
- Upgrade power capacity of Central Magnet power distribution for future bridge rack loads.
 - Remove existing 15KVA transformer and install 45KVA unit.

1008 Building Maintenance Issues

PHENIX
1008
BUILDING
MAINTENANCE
ISSUES

- Roof leak in utility bathroom at northwest corner behind tech offices.
- Roof leak over door between rack room and assembly hall.
- Trailer bathroom slop sink (for Custodians).
- Heat wrap tape for trailer bathroom toilet drains to prevent freeze/clogging in winter.
- New duct heater (This item is in progress and should be completed soon)
- 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.)

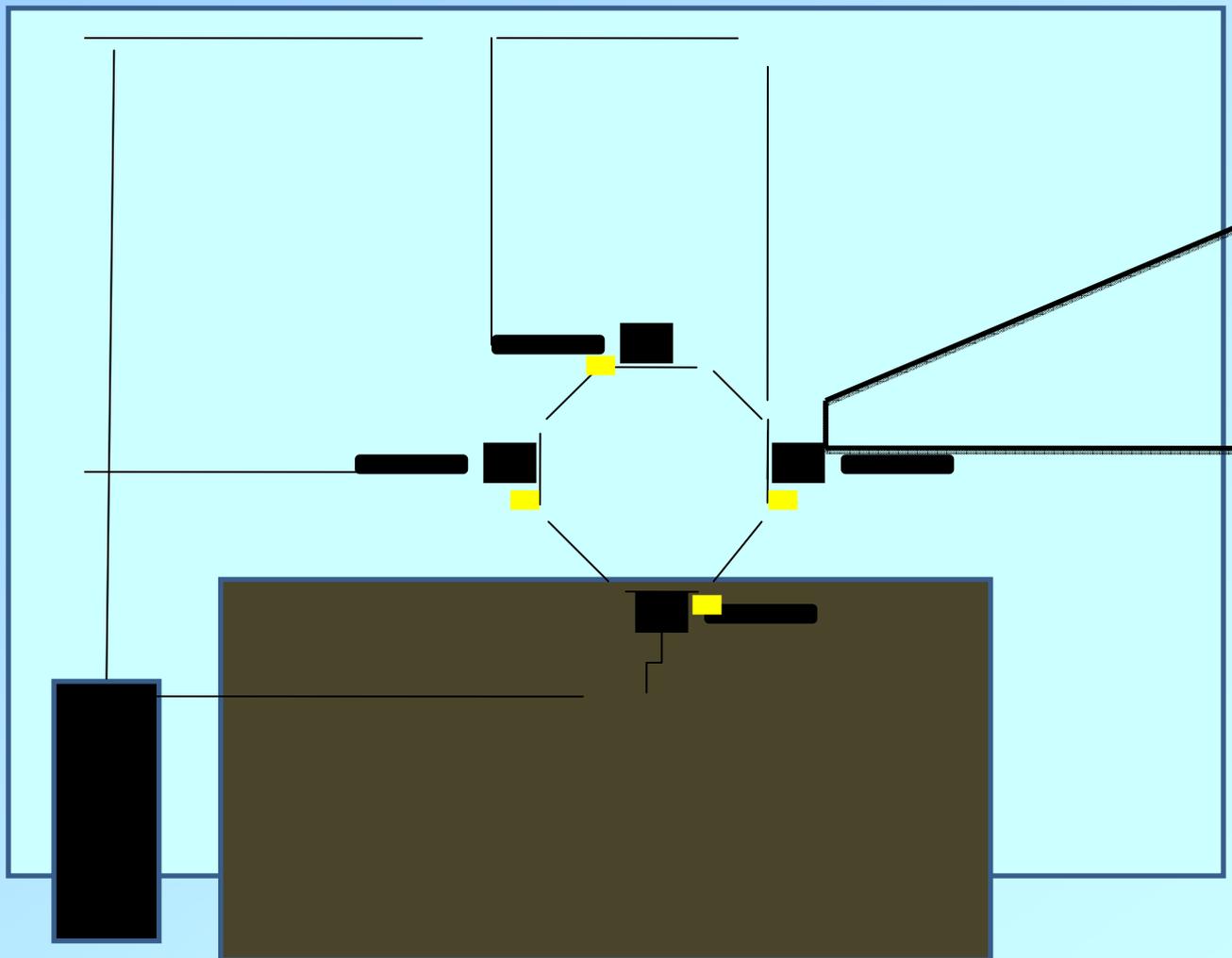


RPC3 Prototype Installation



RPC3 Prototype
scintillators

PHENIX SCALING



RPC3 Prototype Installation: Scintillators

- 4 pairs of scintillation counters
- each pair consists of 2 ~1" thick scintillators; active area ~ 2" x 2" ; Length ~10" with phototube and shielding; light guide cylinder ~ 1" dia. With 1" dia PMT's; Weight is ~ 4 lb per pair.
- TLD's: Change and read weekly (quantity and location TBD)
- To be positioned in South tunnel uniformly distributed around the beam pipe at approximately 3, 6, 9 and 12 O'clock at a radially convenient location which overlaps the RPC3 prototype
- Z location is south of RPC3 as close as possible but at most 12" away (for the 3 O'clock pair, others to match z-position)
- Detectors require 2.5 kV to be run from IR.
- 16 channel signal, also to be run from IR
- Rack support is TBD

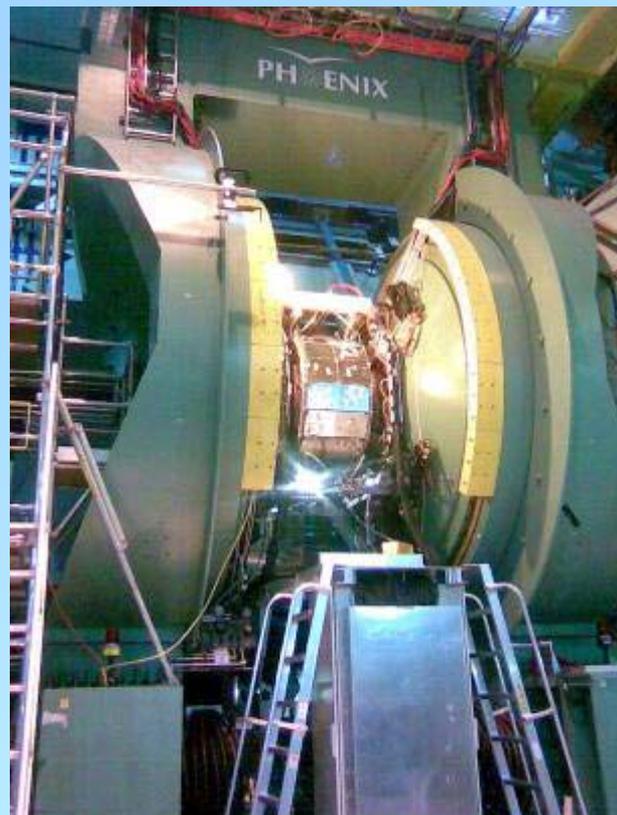
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Repairs to be performed during '09 Shutdown

New Idea for
Dealing with this
problem



PHENIX TECHNICAL SUPPORT NOON



Commissioning Underway

RPC Factory Change in Scope

Received Minutes & Action Items:

Factory work permit revised draft submitted for review.

Revision to Gas Ops - Rob

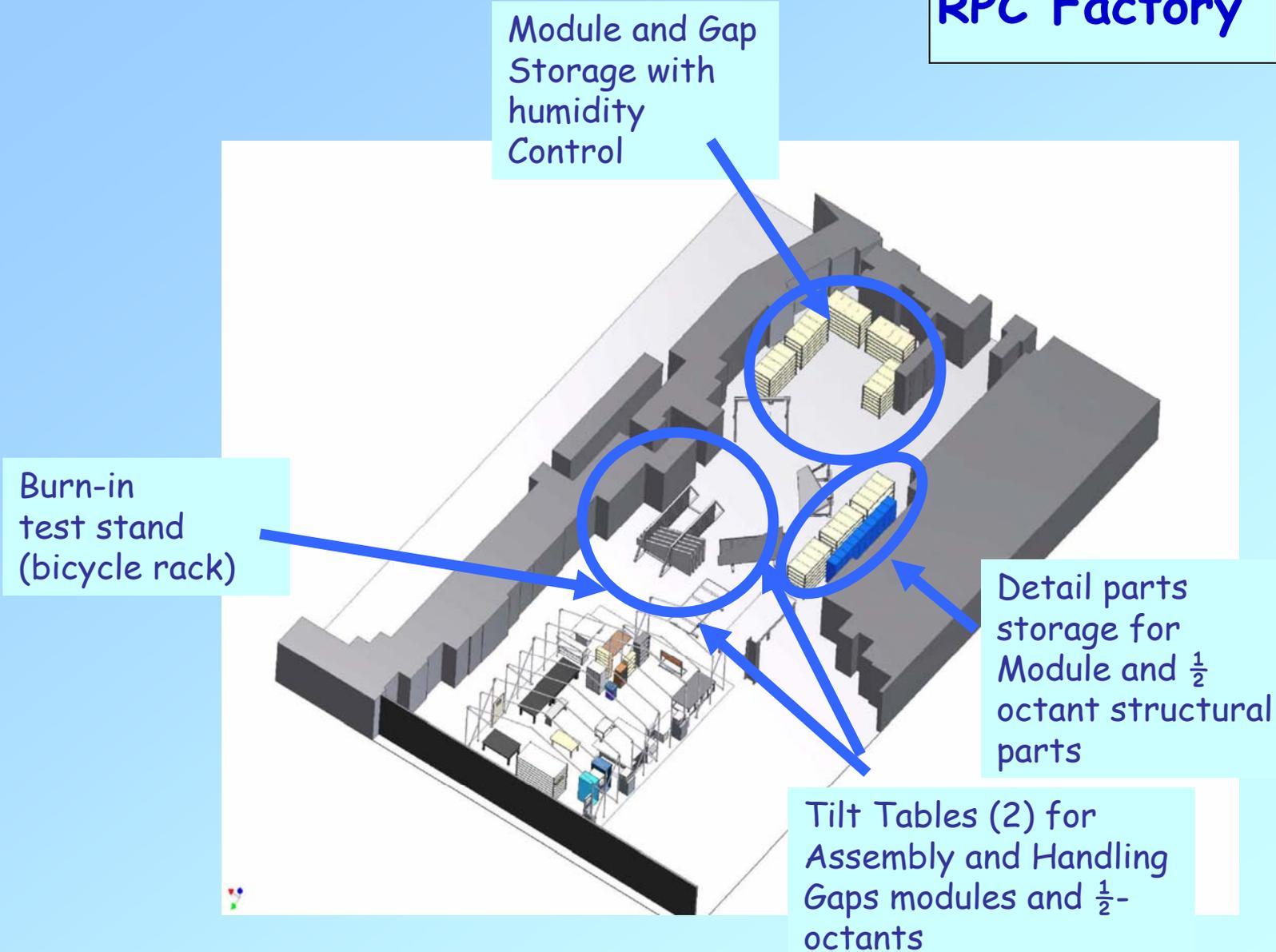
Revision to HV & LV Ops - Paul

Revision to safety system checkout - Paul

Revision to assembly and test plan - Don

Revision to $\frac{1}{2}$ octant, module & gap storage plan - Don

RPC Factory

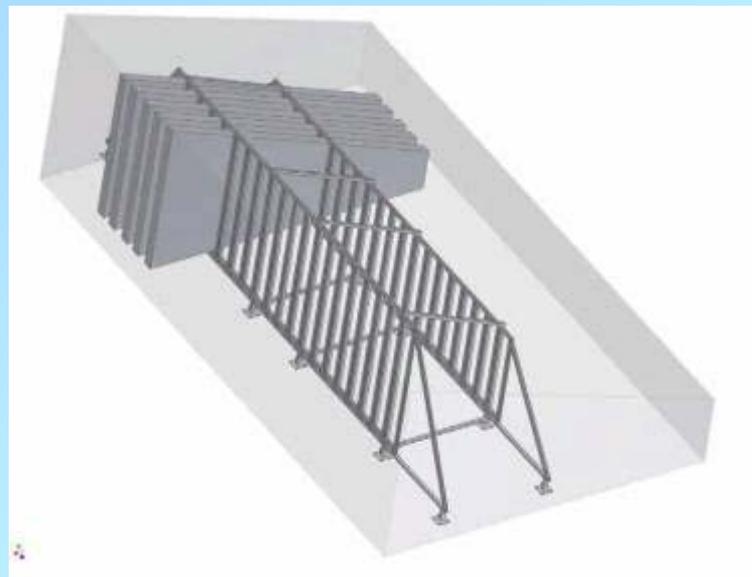


Dark Current Test Stand
under construction



Also working on:

- a burn-in test stand for $\frac{1}{2}$ octants



- additional storage for gaps modules and structural detail parts
- transport table/cart

TECHNICAL SUPPORT

MuTRG-FEE Status

RIKEN/RBRC

Itaru Nakagawa

- Status -> Fibers Fixed
- Short Term Commissioning Schedule
- South Arm Preparation

Itaru Nakagawa

Jan.12 ~ End Run09



Yoshi Fukao

End of Jan. ~ End of Run09

Tsutomu



Next Mon. ~ End of Run09

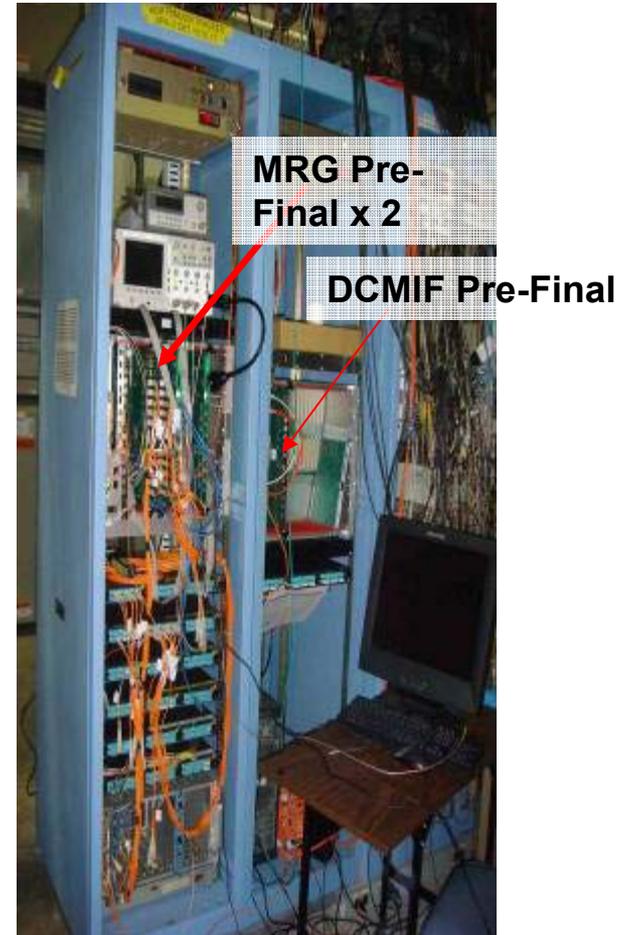
Katsuro Nakamura

Mid. Feb. ~ End of Run09

Short Term Schedule

- MRG/DCM-IF
 - Production (Jan. 6 ~ Feb.6)
 - Test at KEK (~ Mid. Feb.)
 - 1008 Installation (~ End. Feb.)
- Data to LL1
 - 2nd round MRG-LL1 test (Jan 19~)
 - Synchronization of multi-fibers from MRGs
 - New optical transceiver module on the LL1 baseboard
 - Establish the operation procedure to maintain synchronization
 - Monitor trigger bits on the LL1 tile (as had been done for MuID LL1)
 - Data taking of the LL1 trigger bits for accepted events
 - Comparison with emulated trigger bits from MuTRG-DCM data
- Data to DCM
 - DAQ livetime ~13% (MuTRG standalone DAQ) needs to be improved.
 - Most likely due to a lot of screen dump on the icondev terminal from DCM.
 - Implementation of zero-suppression in the DCM.
 - Study of trigger rate/pattern vs live time
 - The 5-event buffer

- 3rd VME Crate Shipped from KEK



Tasks to be done in early 2009

- Slow control
 - Integration to VxWorks environment
 - Implementation to
 - Feed (MuTr's subcategory)
 - ADTX configuration (threshold setting, LED/CFD)
 - Run controller
 - MRG/DCMIF configurations
 - Expert utilities
- Full-scale chain test
 - Big partition (MuTRG+PHENIX)
 - Participate the cosmic ray run (run9 dry run)
 - Establish recovery procedures
 - Power failure
 - Unexpected beam abort
- Installation of remaining MRG/DCMIF boards to cover whole North arm
 - Immediately after production and QA. End of Feb?
- Prep. for south arm infrastructure
 - New VME racks
 - 3.3V 120A →200A



South Arm Preparation

What Needs to Be Done During Run09

- Chassis Production w/ minor modification
- ADTX Production
- ADTX-FEE Cable Production
- Shipping & Onsite QAs
- Prepare Infrastructures
 - Cables Order, Test, Label, Bundle (\$30k from JFY08)
- Mapping Tables
- Make installation plan well in advance and arrangements

Production Schedule

- Feb.~March: Chip Production
- Beg. April: Public Announcement (ADTX Boards, Chassis)
- Mid. April: End Bidding, Start Production
- End of May: 105 Chassis Delivery
- Mid. June: 1st ADTX Delivery (60)
 - + 2weeks (60)
 - + 2weeks (60)

1. New ODH1 Rules for RHIC tunnel

TQ-ODH1

Practical POM and Escape Pack training

OMC Form filled out

2. Latest Injury reports (DART, Recordable and First Aid

Lab protection office - splinter from hammer - first aid

Staff Services - closed van door on hand - first aid

Site Services - plowing snow, hit pothole, chipped tooth - recordable

CAD - slipped on icy grass, fell down hill, medication - recordable

Physics - slipped on injured ankle, hands and knee - first aid

Light Source - leaning against rack with running fans fan blade cut finger - first aid

Procurement - slipped on icy ground struck head - first aid

Lab protection - lifting heavy sign into truck, injured arm, medication - recordable

Staff Services - slipped on ice in parking lot, broke hip - recordable

Labwide Fiscal YTD:	First Aid: 15	Recordable: 13	DART: 7
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Labwide Target:	First Aid: N/A	Recordable: 16	DART: 6
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3. PHENIX Annual Safety Review this morning How'd we do?

Shutdown '09:

Major tasks:

- 2009 shutdown Begins July 1, 2009
- Install stations 1, 2 and 3 south MuTrigger FEE's
- MuTr decapacitations: station 3 south
- RPC Station 3 North
- PC1 East repair
- Prep for future upgrades

PHENIX TECHNICAL SUPPORT NOON

Where To Find PHENIX Engineering Info



MARTIN LUTHER KING, JR. 1929-1968

Martin Luther King, Jr. was born on January 15, 1929, in Atlanta, Georgia. His birth name was Michael but was later changed to Martin. He was a leader of civil rights for African Americans. One of his most famous speeches was "I Have a Dream" which he gave at the Lincoln Memorial in Washington, D.C. Martin Luther King, Jr. admired Mahandas Ghandi and went to India to learn more about him.

Happy Martin Luther King Day !
Enjoy your holiday.

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

We are proud to present you
the winners of our contest:

SAFETY AT WORK

17th place

The delivery man



16th place

The grinder



15th place

The mason

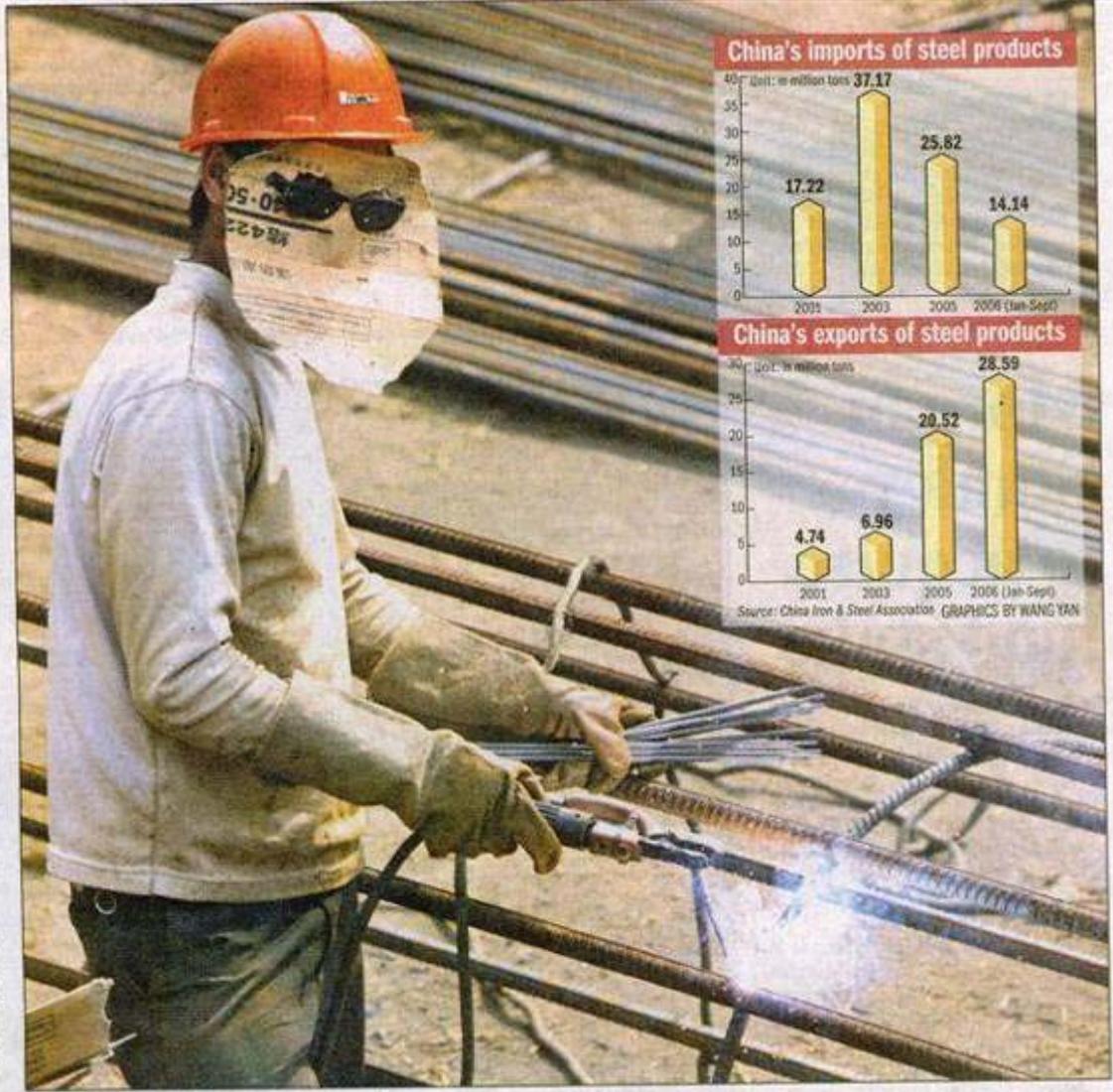
Legge 626: Laurea ad Honorem



1 4 t h p l a c e

The welder

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A worker welds at a construction site in Nanjing, the capital of East China's Jiangsu Province.

FILE PHOTO

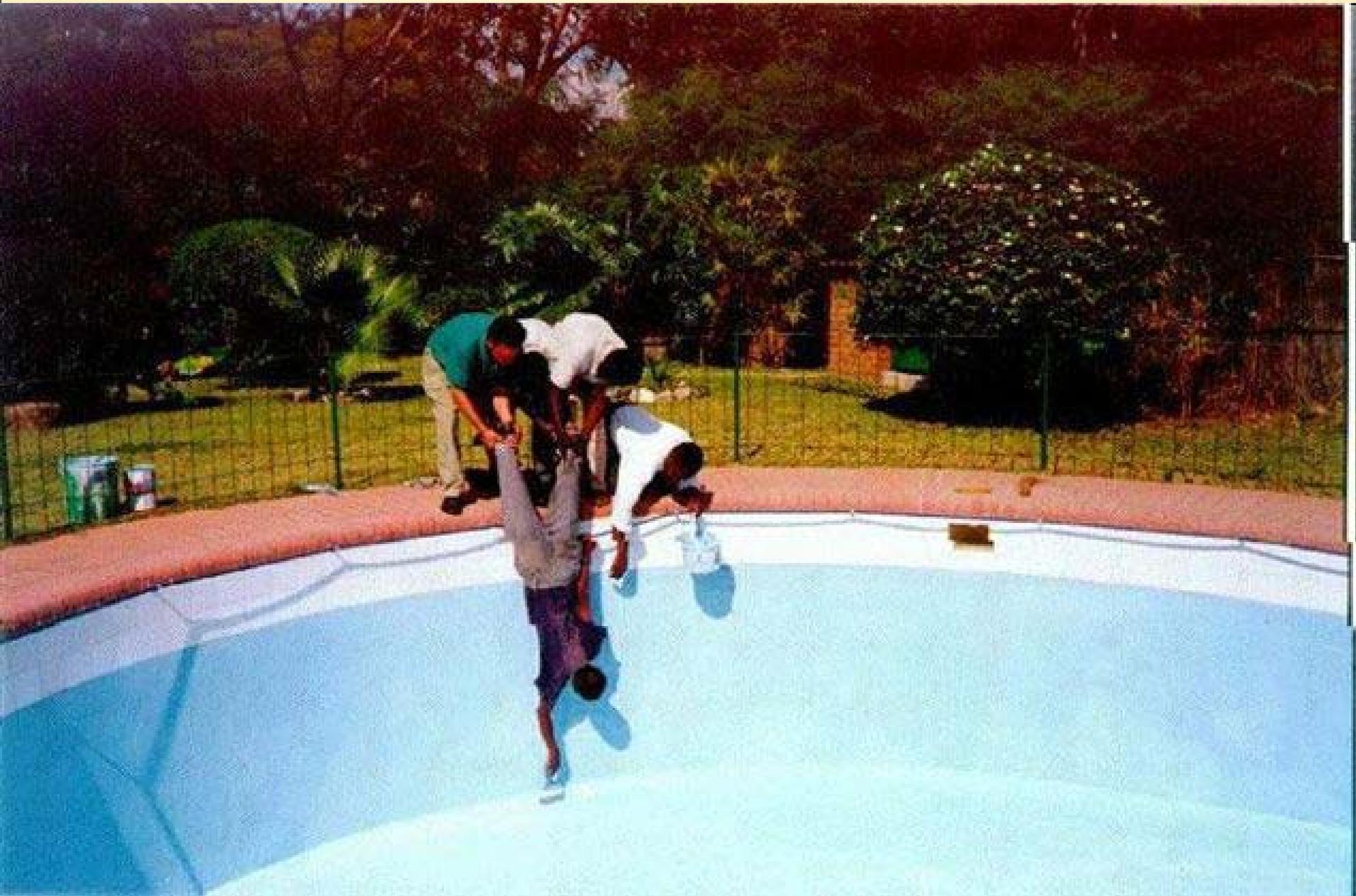
13th place

The luggage handlers



1 2 t h p l a c e

The painters



1 1 t h p l a c e

The shipyard mechanics



19 2 2006

1 0 t h p l a c e

The air conditioner installer



9 t h p l a c e

The construction site worker



8 t h p l a c e

The expert in biological weapons



7 t h p l a c e

The WMD warehouse manager



6 t h p l a c e

The car mechanics



5 t h p l a c e

The electrician



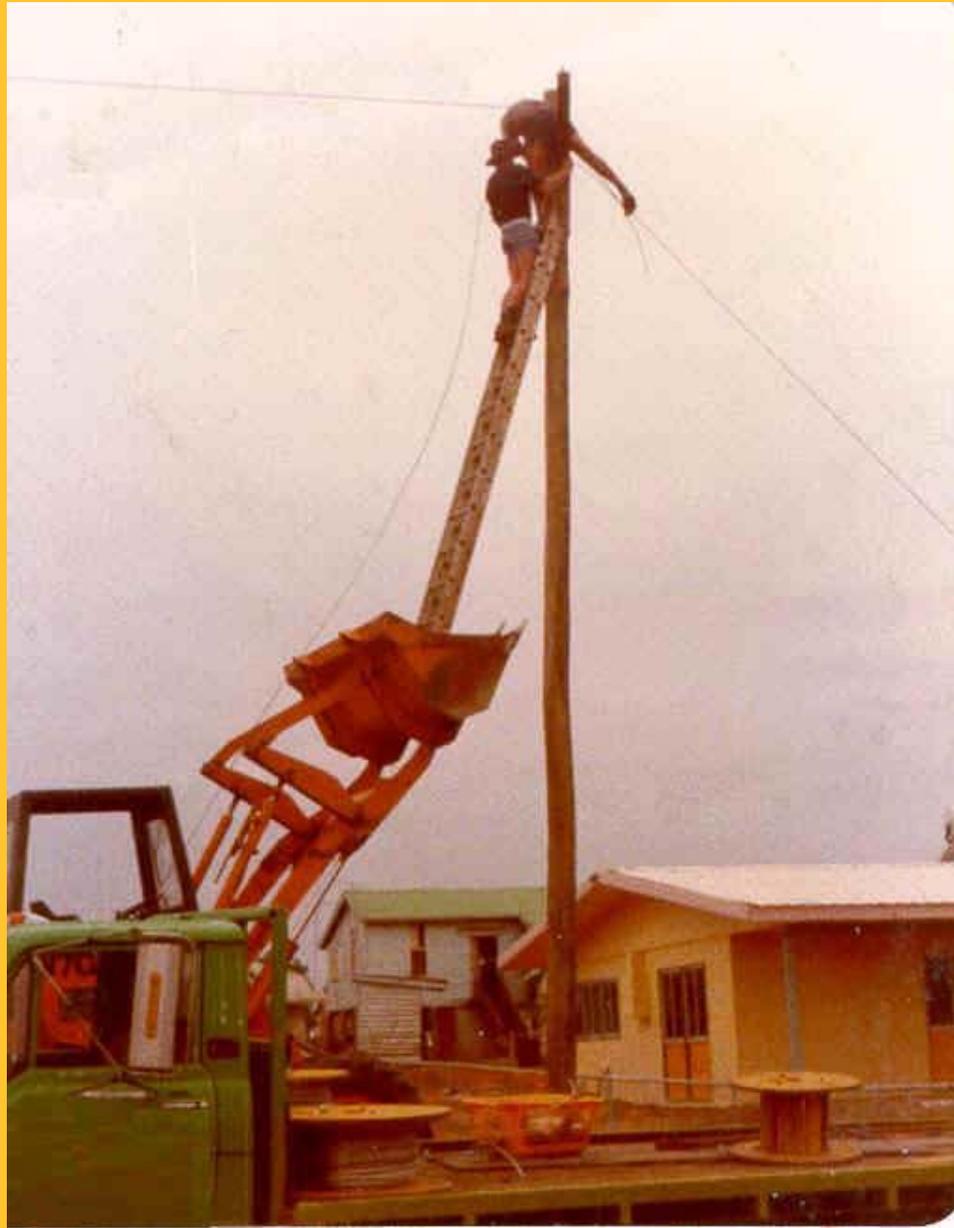
4 t h p l a c e

The erection team



3 r d p l a c e

The power cable installers



2 n d p l a c e

The aircraft mechanic



A n d t h e w i n n e r i s

The city council maintenance team !



A n d f i n a l l y , a
s p e c i a l p r i z e t o :

The shooting gallery assistant



Legge 626: L'apoteosi