



NORTHERN ILLINOIS
UNIVERSITY

D0 Status Report

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All Experimenters' Meeting
12 June 2006



Data Taking

Day	Delivered Lum (nb ⁻¹)	Recorded Lum (nb ⁻¹)	Efficiency (%)	Comment
5 Jun	0.00	0.00	0	
6 Jun	0.00	0.00	0	Access to fix Cal BLS power supply
7 Jun	0.00	0.00	0	Two shift access for Cal noise investigation
8 Jun	0.00	0.00	0	Access to replace PDT board
9 Jun	8.40	0.50	6	
10 Jun	21.70	15.30	71	
11 Jun	0.00	0.00	0	Access to install modified Muon PDT board
5-11 Jun	30.1	15.8	52	



Controlled Accesses

- 6 June
 - Replace Failed BLS power supply in preparation for long access
 - Replace Muon PDT Board and repair Muon MDT
- 7 June
 - Open detector
 - Investigate coupling of A Layer PDT readout clock to Calorimeter.
 - Fix A layer PDT
 - Attempt to fix Cal Preamp PS
 - Reprogram A layer PDT control boards for remote testing
 - Replace broken fan belts
 - MDT readout cable repair
 - Re-program SMT sequencer



Controlled Accesses

- 8 June
 - Replace PDT control board
 - Replace Cal SCA card
- 11 June
 - Replace AFE power supply
 - Install a 53 Mhz PDT control board for testing



Cal Noise

- During the Wednesday two shift access the Cal noise was studied.
 - The detector was opened and the noise goes away
 - This illustrates the capacitive coupling of the detectors.
 - The A-Layer PDTs were reprogrammed to allow a clock frequency of 53 MHz or 45 MHz.
 - The west side of the detector was then closed and the noise did not reappear.



Cal Noise

- The detector is currently closed and the A-Layer PDT's clock can be remotely switched between 45 or 53 MHz, but they only read out at 45 MHz.
 - A method has been developed to program the PDTs so that they can be clocked at either frequency but read out at 53 MHz.
 - This will allow us to read out the PDTs and not induce significant CAL due to from the PDT's readout.
- We are currently testing this firmware in a PDT.
 - Once we are satisfied that this works as desired, we will request an access to reprogram the A-Layer PDTs appropriately.



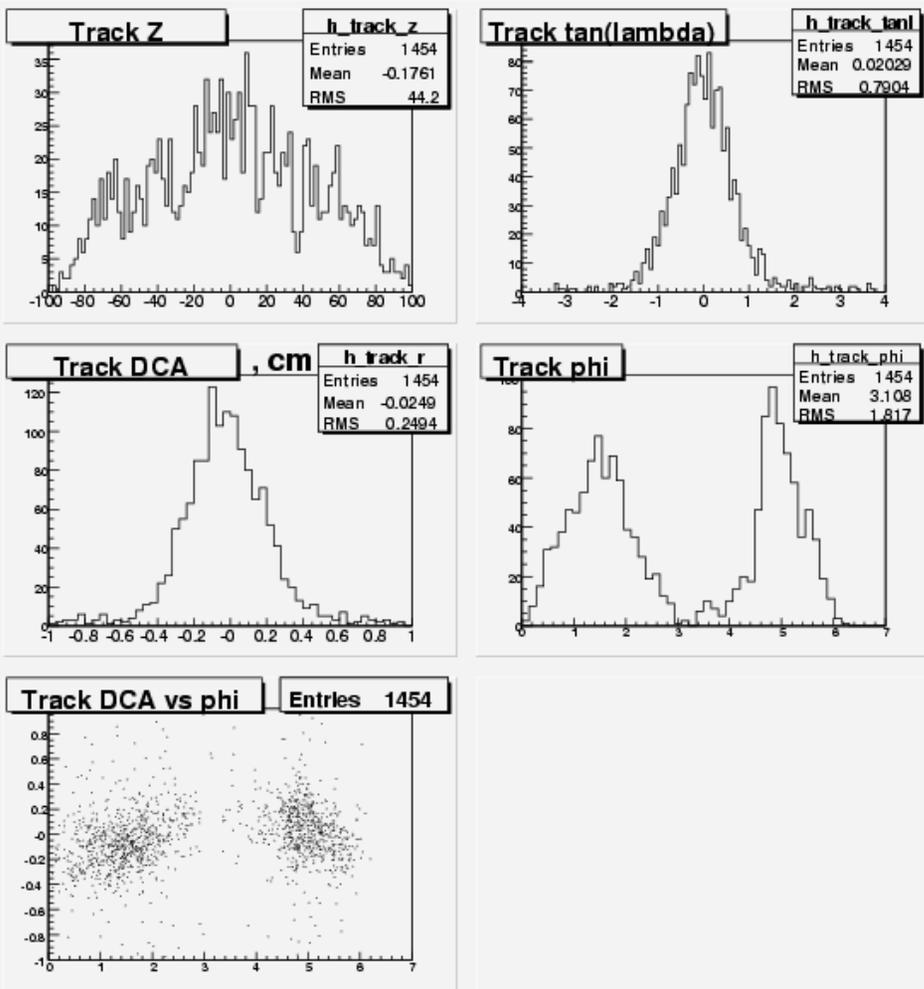
First Store

- Thanks to the Accelerator Division for providing this useful store so soon after the end of shutdown.
 - D0 was running within a half hour of the start of the store.
 - All crates were being read out (including Layer Zero).
 - The upgraded L1CTT and L1Cal were providing trigger terms and participating in trigger decisions.
 - The first portion of the store was used to investigate the L1 and L2 trigger rates.
 - The rest of the store was used to gather alignment data for the detector both with and without the D0 magnets.



Layer Zero Cosmics

All GTracks(401) found in 29000 events



All L0 Clusters found in 29000 events

