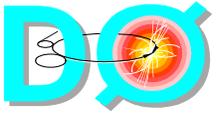


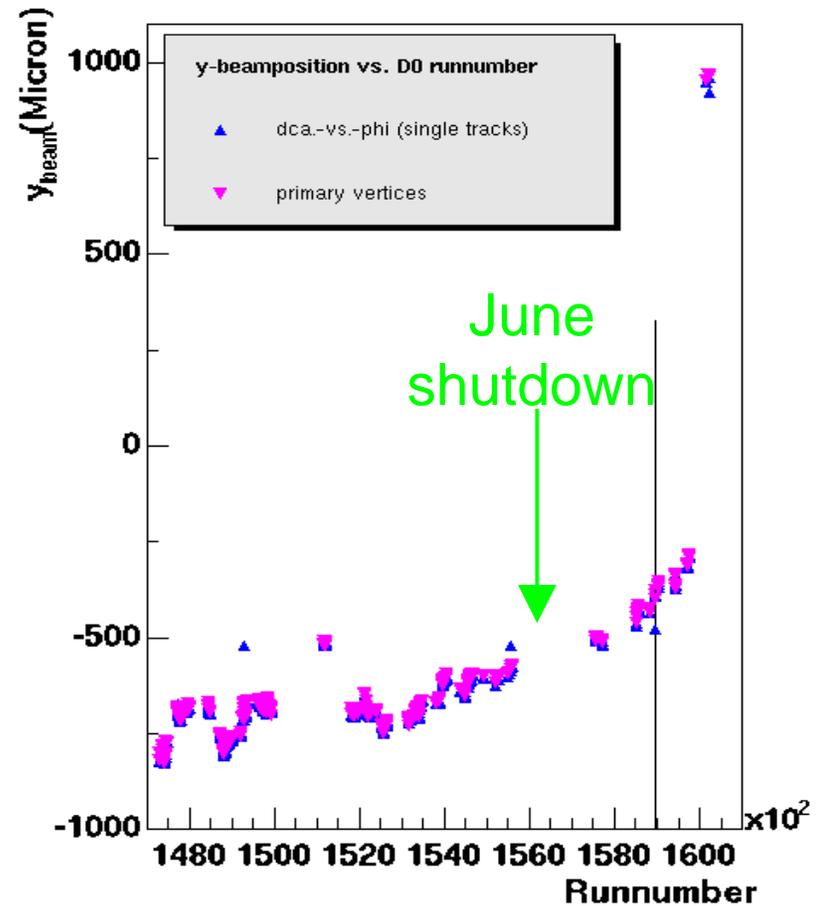
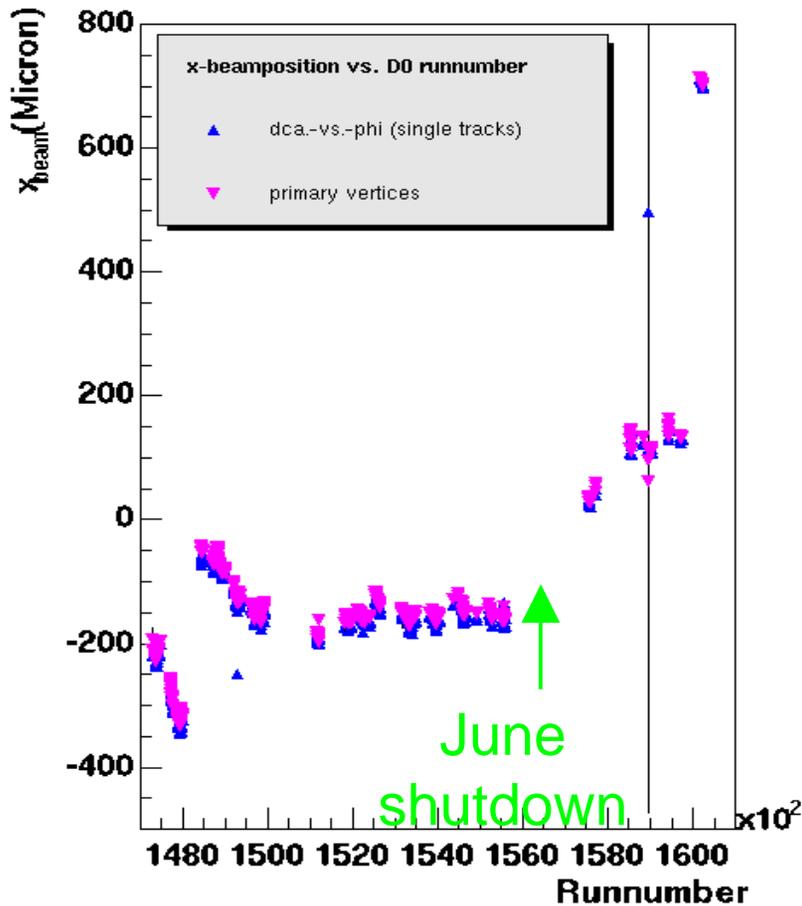
Week of July 29 to August 5 D0 Summary

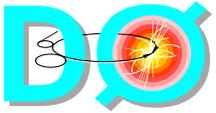
- Delivered luminosity and operating efficiency
 - ◆ Delivered: 2.1pb^{-1}
 - ◆ Live: 1.1pb^{-1} (~53%)
- Major reasons for observed efficiency numbers
 - ◆ better
 - ▲ speed up of Level 2 trigger (less monitoring, faster program)
 - front-end-busy is down to ~4%
 - ▲ no major hardware/software problems
 - ◆ special runs
 - ▲ muon
 - ▲ DAQ tests
 - ◆ worse
 - ▲ muon readout code crashes
 - up to 300 errors per shift
 - related to Level 2 code speedup and new trigger version 8.0
 - attacking problem in 3 ways
 - minimizing number of front ends in readout
 - analyzing dumps for failed events
 - bringing expert back from vacations
- Beam halo rates are stable



Beam Position

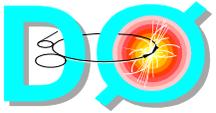
Beam position is stable since July 20th jump. Numbers for correction of beam location are agreed upon with BD. To be corrected on 08.06.02.





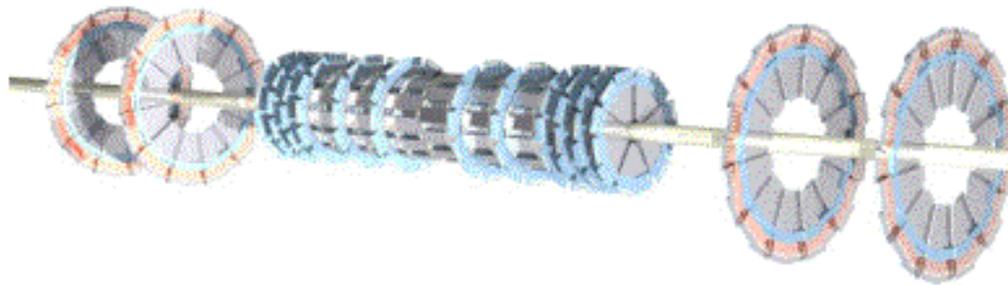
D0 Detectors Status

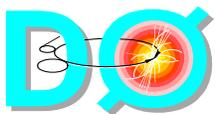
- Luminosity detector
 - ◆ Stable operation
- Silicon detector
 - ◆ Power supplies are running well
 - ◆ Noises stable
 - ◆ Rad. doses estimated
- Calorimeter
 - ◆ Stable
 - ◆ Calibration of Level 1 trigger energy scale
 - ◆ Optimization of readout zero suppression cut
- Muon
 - ◆ single major problem - readout code crashes
 - ◆ VME LVPS failures analysis
- Forward proton detector
 - ◆ inserting pots during most stores
 - ◆ would like to be notified every time CDF pots are moved in
 - ▲ increase in D0 pots counting rates are observed



SMT Radiation Dose

- Dose estimate is based on “finger counters”
 - ◆ diodes located inside silicon detector volume
 - ◆ calibrated using mip response and TLD badges
- For inner silicon layer located at ~3cm from beam axis
 - ◆ dose per pb-1
 - ▲ 0.4-0.6 krad
 - ◆ total for ~70pb-1 delivered
 - ▲ ~35 krad from collisions
 - ▲ ~3 krad from shot setups
 - ◆ total dose
 - ▲ ~40krad (~6 krad at radius of 8cm)
- For expected Run II a luminosity of ~3fb-1
 - ◆ ~1.5Mrad expected (at 3cm)
 - ◆ reasonable number as D0 silicon can handle 1+ Mrad

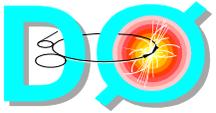




Muon LVPS Failures

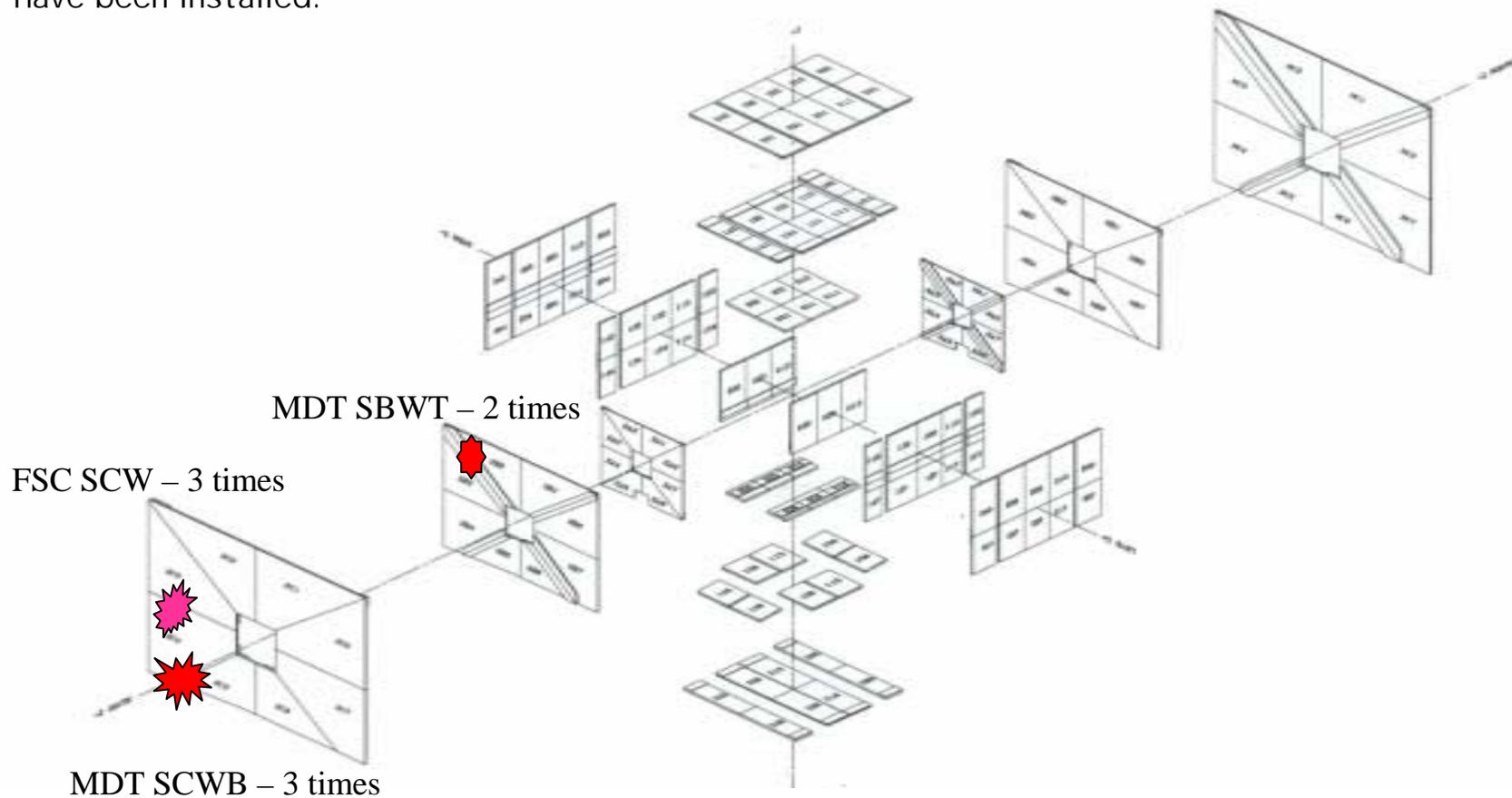
- There are 44 VME crates used to readout muon detectors located in different locations in the collision hall
- We observed rare, but steady failures of LVPS in the muon crates
 - ◆ about once a month
 - ◆ requires ~2 hours access to replace failed supply
 - ◆ usually wipes ~25% of muon coverage for the store LVPS failed

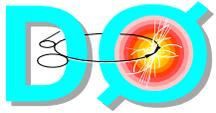
Date	Crate	LVPS Module
15 February 2002	MDT SBWT (MDSB2)	+5V Slave
27 February 2002	MDT SBWT (MDSB2)	+5V Master
20 March 2002	FSC SCW (299)	+5V Master
1 April 2002	MDT SCWB (MDSC3)	Mainframe: E/D Control
26 May 2002	FSC SCW (299)	-5V Master
6 June 2002	MDT SCWB (MDSC3)	-5V Master
15 July 2002	FSC SCW (299)	Mainframe: E/D Control
19 July 2002	MDT SCWB (MDSC3)	+5V Master



The Mysterious Corner

- * All failures concentrated in one corner (!?)
- * Nothing specific in terms of temperature, humidity, etc.
- * Failure rate is at least ~5 higher then Vicor expectations.
- * While higher does are not expected in this area, TLD badges have been installed.





Summary

- DØ detector is progressing with physics data taking
 - ◆ no major problems with detectors
 - ◆ trigger list 8.00 is running on-line well
 - ◆ muon readout crashes issue is been addressed by experts
- Silicon detector radiation doses look reasonable for Run II a goals
- Muon VME crates LVPS failures are under constant monitoring/investigation
- Expecting beam position adjustment on Tuesday, August 6
- No access requests as of today