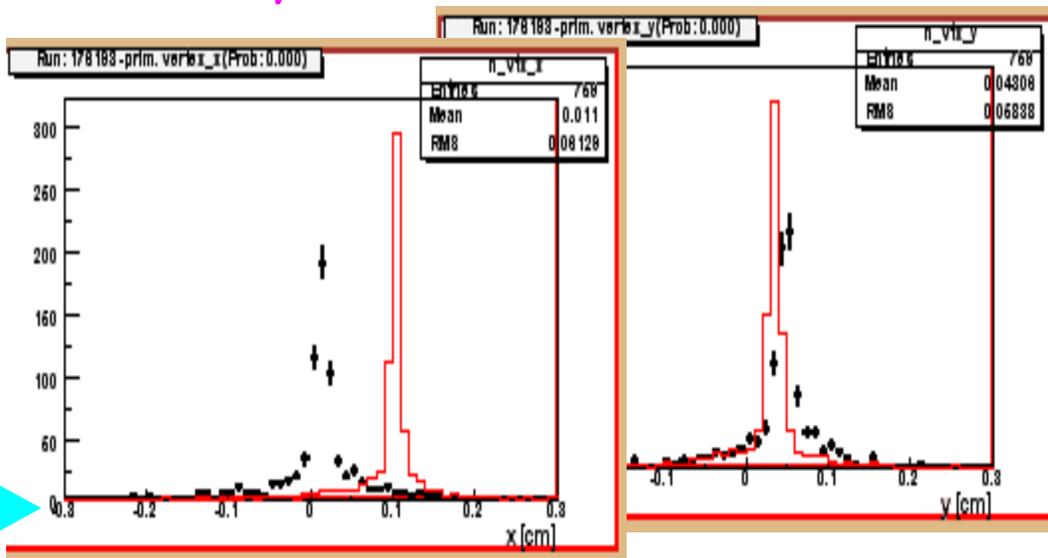
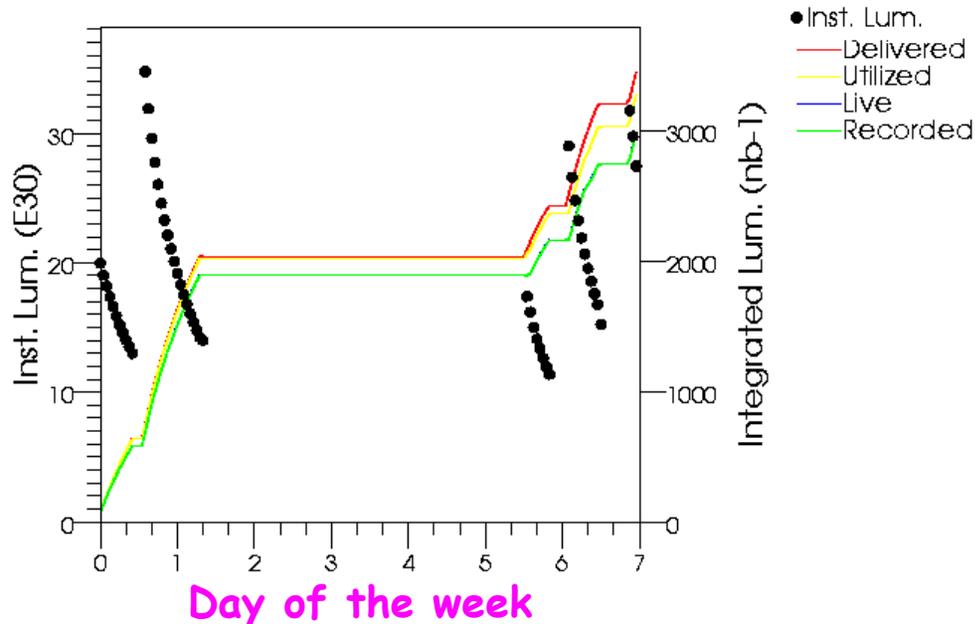
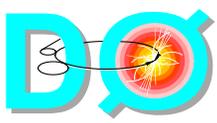


DO Weekly Summary: April 21th to April 27th

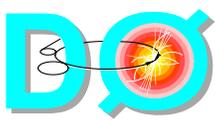
- Luminosity:
 - ◆ Delivered 3.46 pb^{-1}
 - ◆ Recorded 2.99 pb^{-1} (86.4%)
- Early in the week
 - ◆ smooth running
- After 4 days without store:
 - ◆ Failure of
 - ▲ 2 Muon LVPS
 - ▲ 1 Cal BLS LVPS
 - ◆ 1 hour controlled accessed on Sunday day shift to fix them
- Total number of events collected
 - ◆ 7.3 Mevts
- Beam halo
 - ◆ Usually stable and within specs. An instance of high losses on Saturday, though.
- Beam position
 - ◆ Moved by 1mm in x towards the center of DO (good!) 





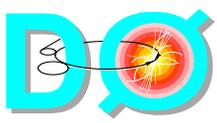
Work Done During Thursday 24th Long Access

- Took the opportunity of this CDF access to fix what needed to be
- Access started at 6 am
- Opened detector
- Calo:
 - ◆ Changed 1 preamp primary power supply which failed the previous Sunday (had been running OK on secondary power supply since)
 - ◆ Changed 3 preamp box cooling fans
- Muon:
 - ◆ Changed 1 front-end board
 - ◆ Geometrical survey after detector closing. Analysis in progress.
- Fiber Tracker:
 - ◆ Swapped 7 AFE boards which had minor problems
 - ◆ Track Trigger work. Continue Physics commissioning
- Searched and Secured by 6pm



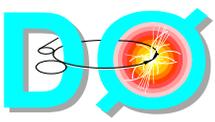
D0 Trigger Rates

- Run II specs are
 - ◆ Level 1 trigger 5-10kHz
 - ◆ Level 2 trigger 1kHz
 - ◆ Level 3 trigger 50Hz
- Current capabilities
 - ◆ Level 1 ~1.2kHz
 - ▲ Limited by increase in front-end busy in tracking crates
 - 5% maximum spec for front-end busy for now
 - ▲ Task force organized to address this issue
 - ▲ Not limiting high Pt D0 physics capabilities (yet)
 - ◆ Level 2 ~0.8kHz
 - ▲ Basically within Run II specs
 - ▲ Couple of minor issues in tracking/muon crates when resolved will push this limit to 1kHz
 - ▲ Not limiting D0 physics data taking
 - ◆ Level 3 50Hz
 - ▲ Could write up to ~60Hz to tapes stably



DO Silicon Microstrip Tracker

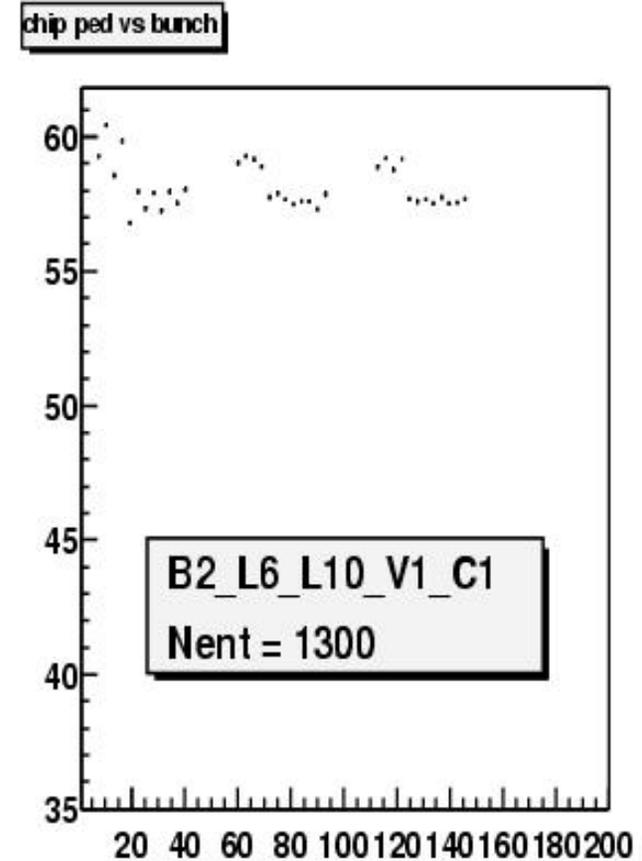
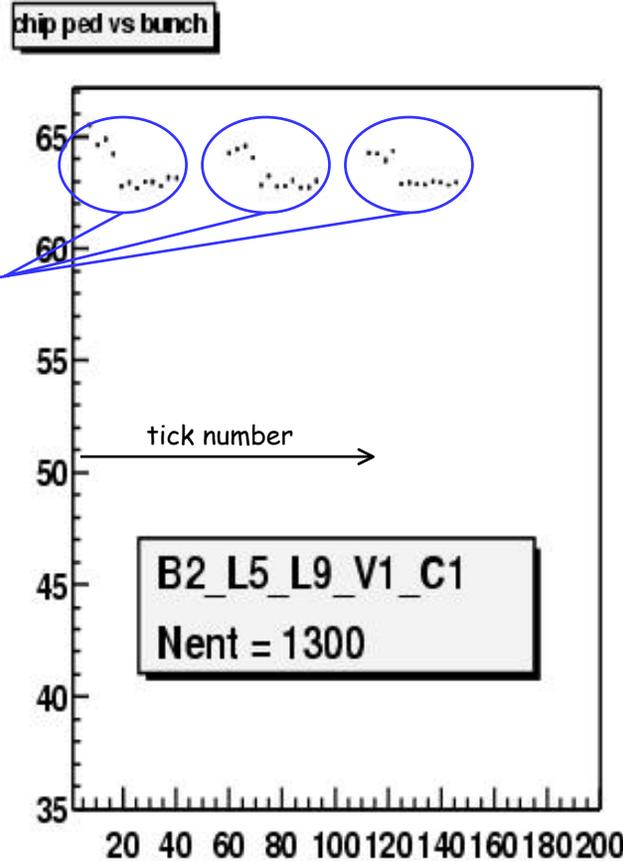
- Up and running rather smoothly
 - ◆ 88 to 90% of channels enabled at all times
 - ▲ 2% of unstable channels need to be enabled/disabled frequently
- Current work
 - ◆ Minimize our occupancy to reduce L1busy
 - ▲ Understand and try to fix:
 - Pedestal shift vs beam crossings
 - General coherent noise
 - ▲ If worst comes to worst: enable HDI readout truncation
 - ◆ Follow the behavior of the Micron F-wedges
 - ▲ 'grassy noise' affecting ~30% of the wedges at different levels

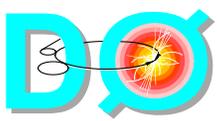


DOSMT: Pedestal vs Beam Crossings

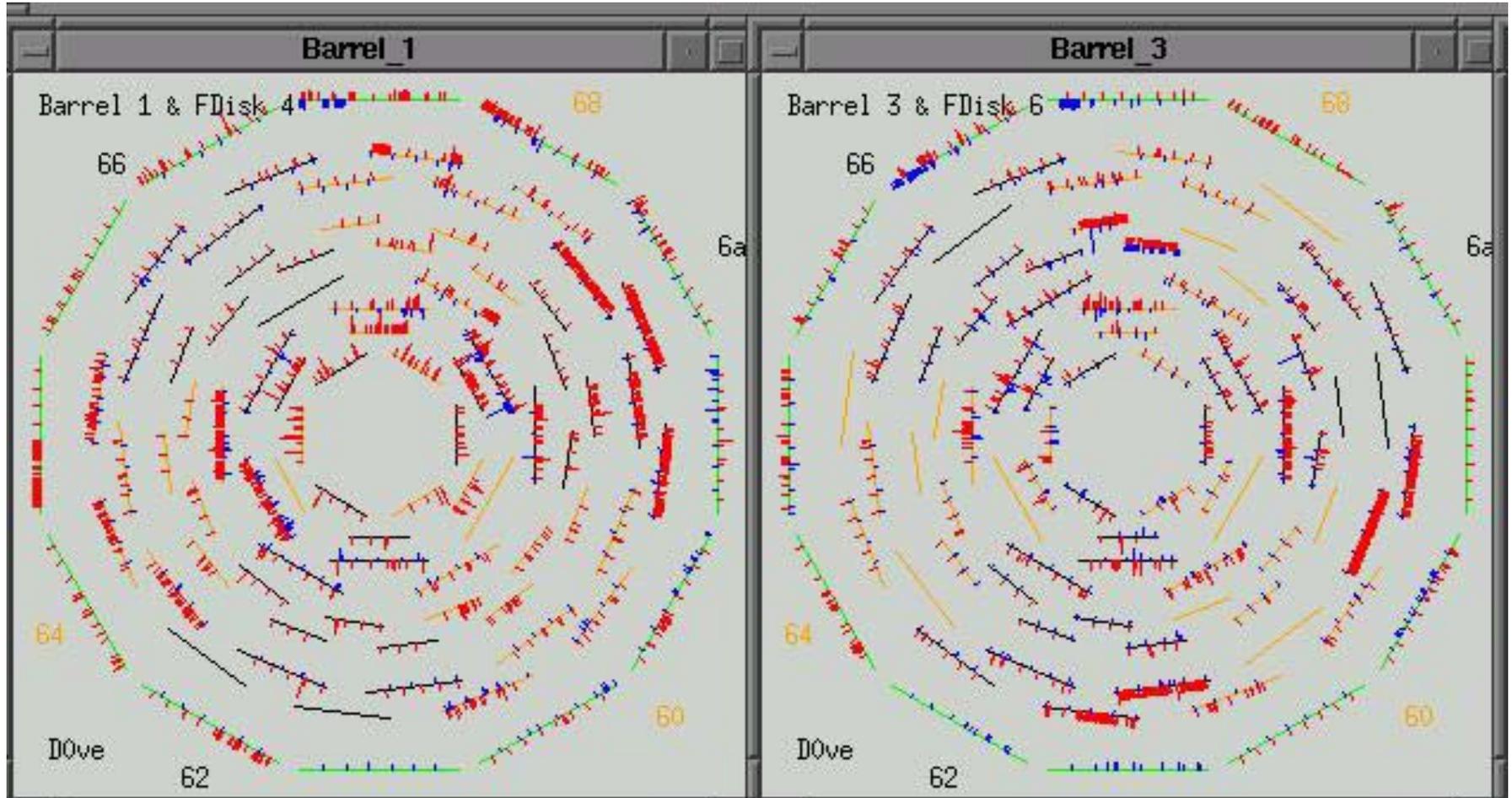
3 superbunches
of 12 bunches

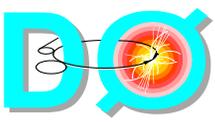
- pedestals are different at the beginning of each superbunch
- Investigating ...





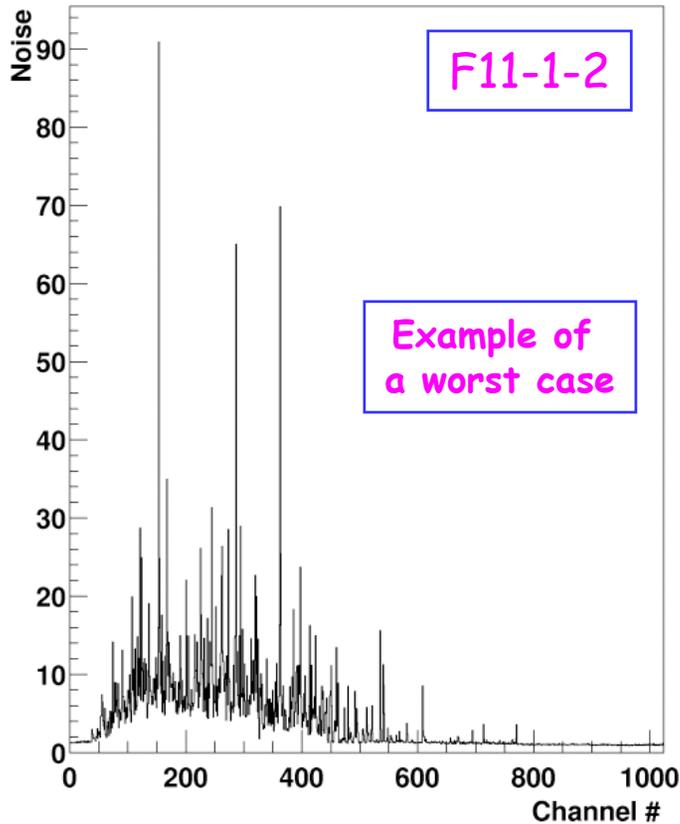
DOSMT: General Coherent Noise?



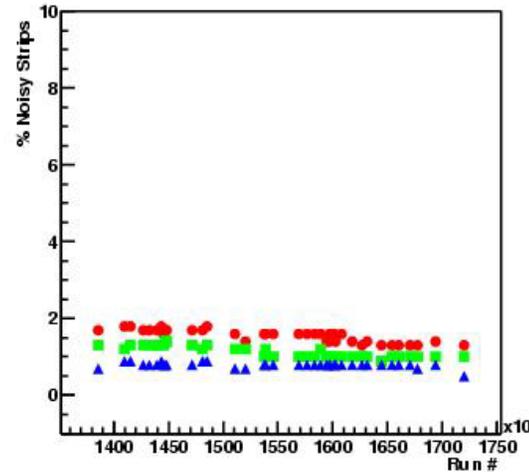


DOSMT: Micron F-Wedges 'Grassy' Noise

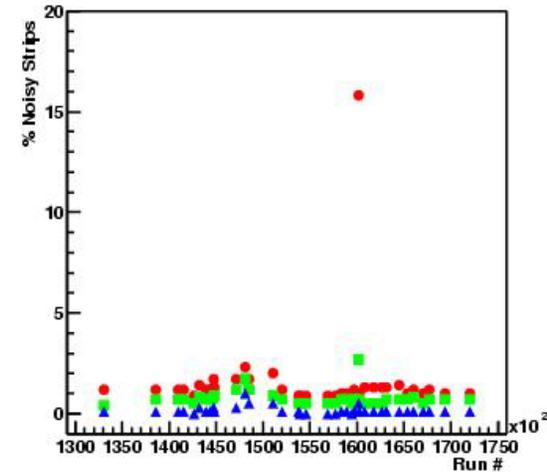
- affects a fraction of the Micron sensors
- does not seem to depend on the biasing scheme
- does not seem to depend on temperature
- investigating ...



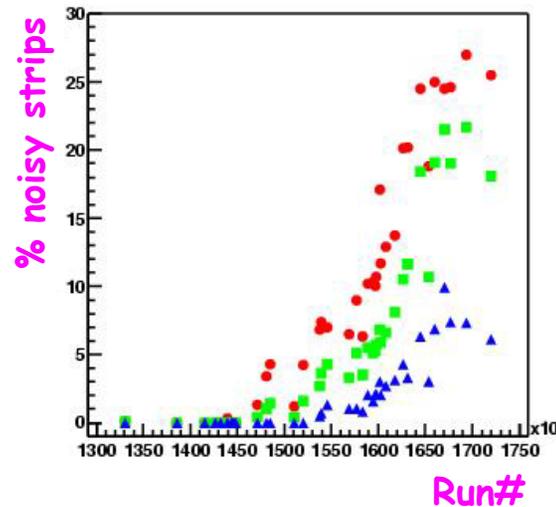
F7-2-7



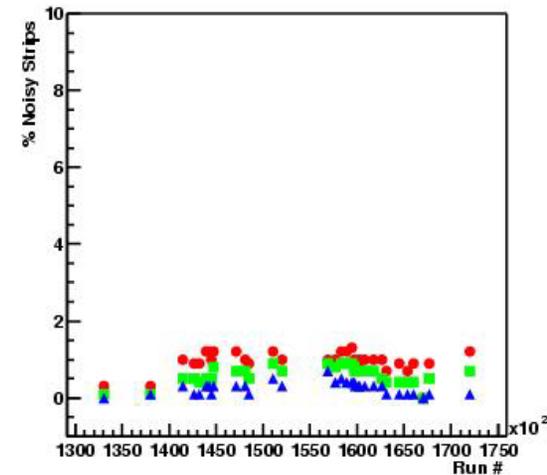
F7-2-8

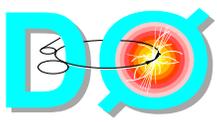


F7-2-11



F7-2-12





D0 Summary

- Collecting physics data with full detector in readout
 - ◆ 86.4% data taking efficiency last week
 - ◆ $\sim 37\text{pb}^{-1}$ written to tape since January shutdown
- Plan for this week
 - ◆ Physics data taking during stack and store operations
 - ◆ No access requests