



# Data Taking

- Last week: Monday May 3<sup>rd</sup> – Sunday May 9<sup>th</sup>:
  - ◆ **Delivered 10838nb<sup>-1</sup>**      **Recorded 9582nb<sup>-1</sup>**      **Efficiency 88.4%**
- This week: Monday May 10<sup>th</sup> – Sunday May 16<sup>th</sup>:
  - ◆ **Delivered 8385nb<sup>-1</sup>**      **Recorded 7662nb<sup>-1</sup>**      **Efficiency 91.4%**
  - ◆ (+ ~170nb<sup>-1</sup> during collimator moves & rescraping, ~66 min)
  - ◆ We'll call when losses are bad for us (they never were for this week)

<u>Day</u>		<u>f L dt (del)</u>	<u>f L dt (rec)</u>	<u>Efficiency</u>
Mon	May 10	1389nb <sup>-1</sup>	1286nb <sup>-1</sup>	92.6%
Tue	May 11	1536nb <sup>-1</sup>	1395nb <sup>-1</sup>	90.8%
Wed	May 12	905nb <sup>-1</sup>	773nb <sup>-1</sup>	85.4%
Thu	May 13	921nb <sup>-1</sup>	863nb <sup>-1</sup>	93.5%
Fri	May 14	1823nb <sup>-1</sup>	1689nb <sup>-1</sup>	92.5%
Sat	May 15	400nb <sup>-1</sup>	362nb <sup>-1</sup>	90.5%
Sun	May 16	1406nb <sup>-1</sup>	1294nb <sup>-1</sup>	92.0%

All recorded data are with the complete detector in the readout, and have no major online data quality issues

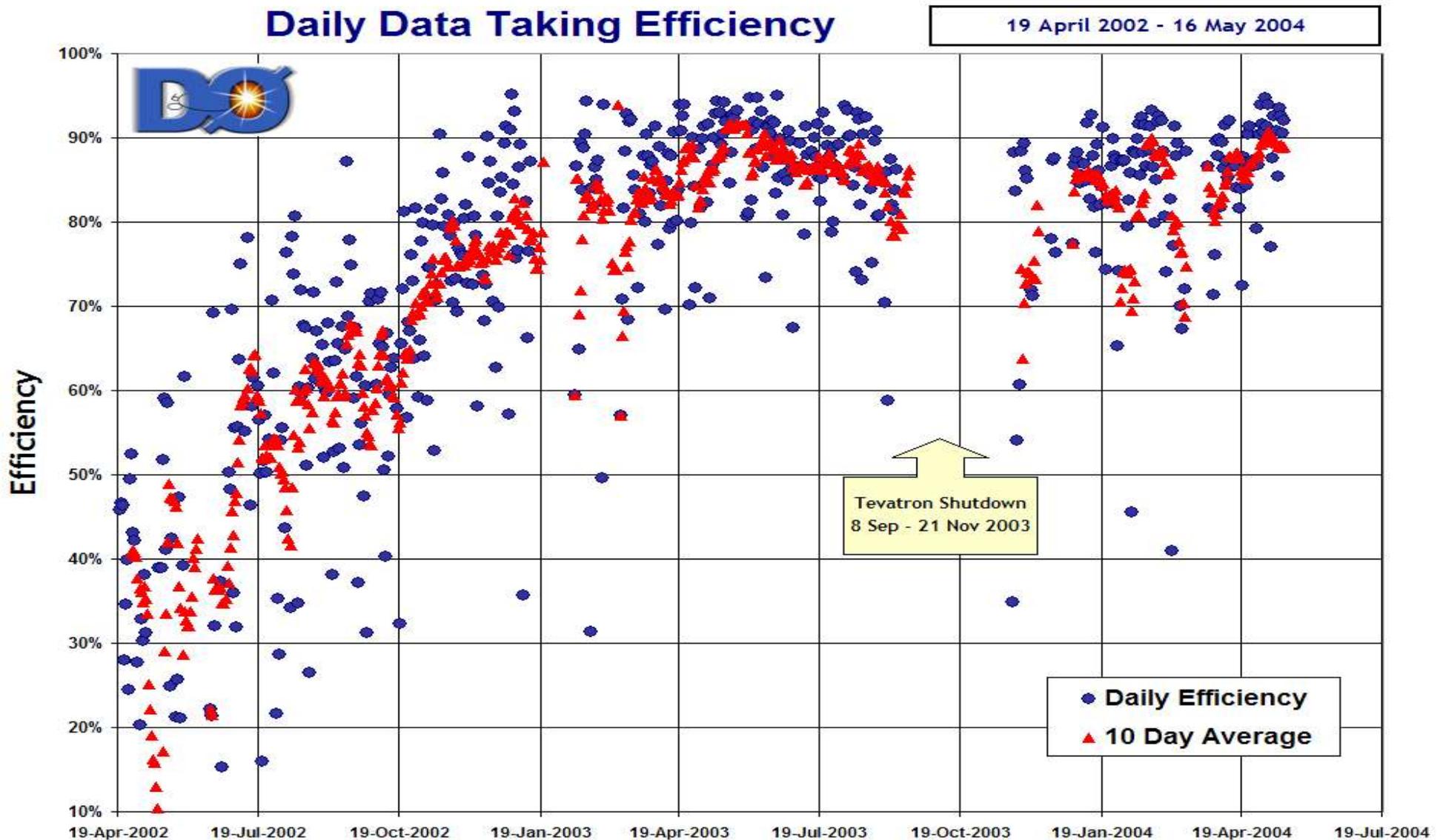


- Recorded 14.7 Million events in 102 store hours
- Largest “downtime”:
  - ◆ Two hours special runs for Forward Proton Detector timing at the end of store 3481 (Wed)
- Next largest downtime:
  - ◆ ~30 min to redownload fiber tracker electronics, and reset a level 2 crate because of bad data flow
- Store and run transitions
  - ◆ ~3 min at the beginning and end of each store (ramp HV etc.) - if all goes well
    - Also ~3 min at the beginning and end of each rescrape
  - ◆ ~1 min for each run transition
- “Free” access Monday
  - ◆ Central Muons: replaced remaining two boards for PDT 131 that had delivered bad data to L2 recently
  - ◆ Work on Calorimeter pulser system
  - ◆ Trying to understand drifting voltages in Forward Proton Detector readout power supply
- No permanent damage from unintentionally lost stores
  - ◆ HV trips in Muons, SMT, Luminosity systems; only few rads in SMT



# Data Taking Efficiency

10-day average ~90% for the last two weeks





- Fixed bug in rack monitoring interface software (4 hours downtime last week because power supply reset via software was not working properly)
- DAQ Collector
  - ◆ Three PC's, receive events from L3 nodes
    - Forwards events based on stream to data logger and distributor (for online monitoring)
  - ◆ Two of them crashed recently (once and three times) – no data loss, system can run with two collectors as long as data rates are not too close to the maximum (~850Hz L3 input, ~65Hz L3 output)
  - ◆ Replaced one of the PC's on Friday
- Preparing for the DØ workshop in Fresno, CA, June 7<sup>th</sup> - 12<sup>th</sup>
  - ◆ Expert coverage...

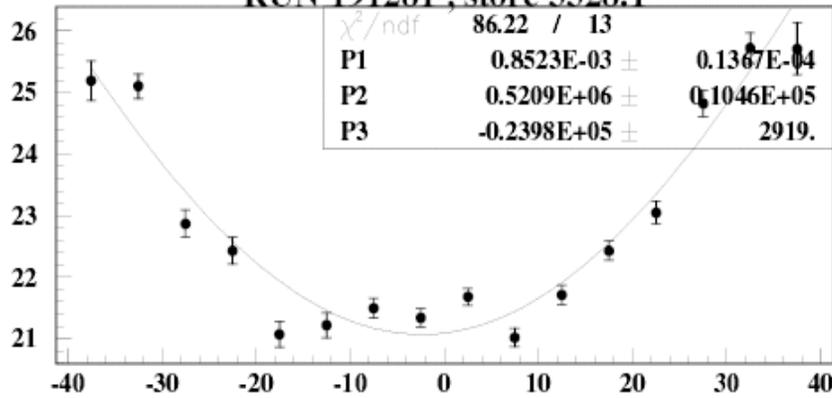




# New Low Beta Optics

- New optics online since Wednesday (store 3487)
- Very preliminary: measured  $\beta^*$  at D0 changed from about 55cm / 45cm (hor/ver) to 45cm / 35cm

RUN 191281, store 3328.1



RUN 192917, store 3487.5

