



D0 Status Report

5/9/2005

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Data Taking for 5/2 – 5/8

Day	Delivered	Recorded	Eff.	Comments
5/2 (Mon)	2.23 pb ⁻¹	1.99 pb ⁻¹	89.0 %	
5/3 (Tue)	2.30 pb ⁻¹	2.09 pb ⁻¹	91.0 %	
5/4 (Wed)	2.45 pb ⁻¹	2.28 pb ⁻¹	92.8 %	
5/5 (Thu)	0.37 pb ⁻¹	0.28 pb ⁻¹	75.5 %	L2 rack trip UPS replacement and access
5/6 (Fri)	1.28 pb ⁻¹	1.18 pb ⁻¹	92.8 %	
5/7 (Sat)	2.24 pb ⁻¹	1.67 pb ⁻¹	74.3 %	Lost a CTT crate power supply
5/8 (Sun)	1.96 pb ⁻¹	1.81 pb ⁻¹	92.4 %	Access

5/2 – 5/8	12.83 pb ⁻¹	11.30 pb ⁻¹	88.1 %	
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Store Statistics

Store	Init Lum	Duration	Delivered	Recorded	Eff.	Comments
4122	113E30	6.5 hours	1.82 pb ⁻¹	1.63 pb ⁻¹	89 %	Lost store due to quench
4125	68E30	25 hours	2.66 pb ⁻¹	2.43 pb ⁻¹	91 %	
4126	74E30	20 hours	2.47 pb ⁻¹	2.22 pb ⁻¹	90 %	
4131	50E30	23 hours	2.00 pb ⁻¹	1.82 pb ⁻¹	91 %	
4132	71E30	21 hours	2.46 pb ⁻¹	1.93 pb ⁻¹	79 %	
4134	68E30	On going				



Notable events of the week

- Surpassed 0.7 fb^{-1} in recorded luminosity
- The safety UPS replacement
 - Needed to power down and up the entire detector.
 - A few casualties from the power cycle.
 - Lost a pulser power supply and a SMT HV pod and blew a fuse for MDT supply.
 - Took advantage of the access to update the SMT sequencer firmware and to do usual repair works.
- Beam loss in the pbar side during the squeeze seems to be significantly smaller from the MDT current measurements.



Notable events of the week

- Milestones in Run 2b L1Cal commissioning
 - Successfully exercised ADF → TAB → L3 chain.
 - All 100 production ADF cards tested successfully 2.5 months ahead of the schedule.

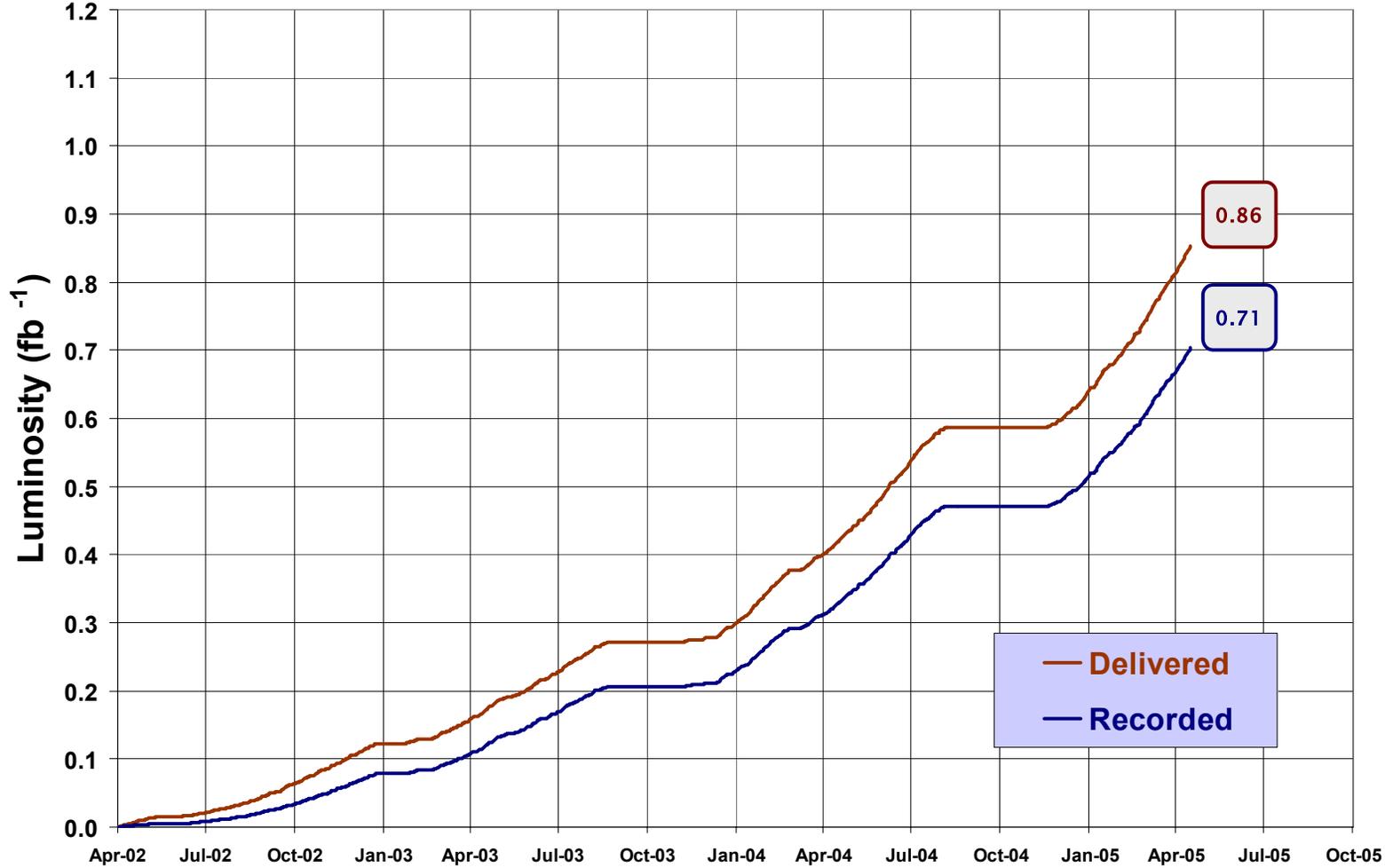


Surpassed 0.7 fb⁻¹ of Recorded Luminosity!



Run II Integrated Luminosity

19 April 2002 - 7 May 2005



9 May 2005

T. Yasuda, Fermilab



MDT Current Measurements

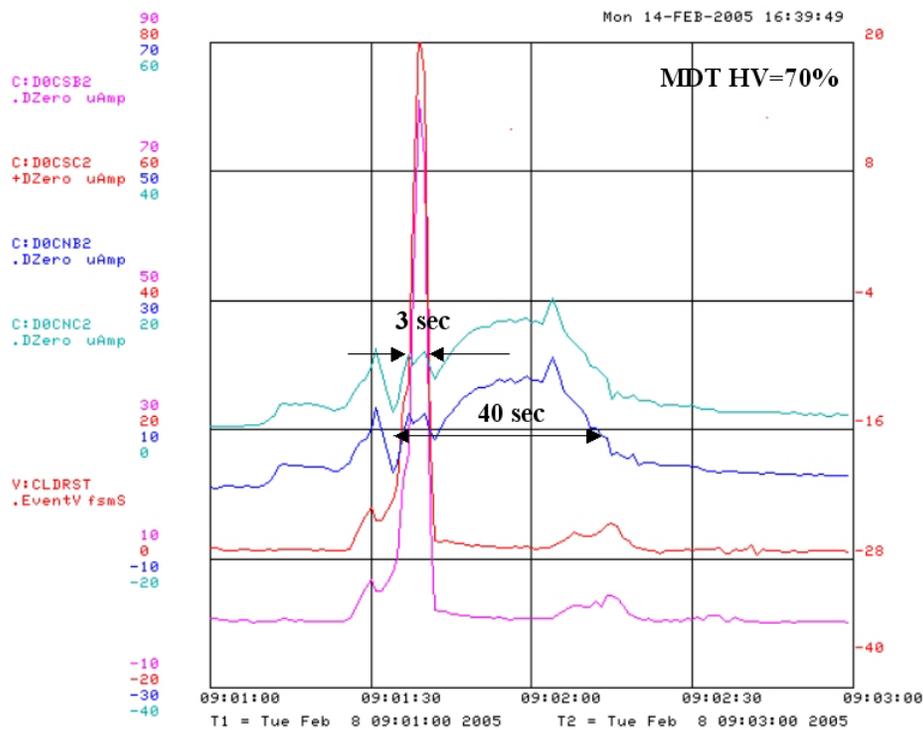


Tevatron losses during shot setup.

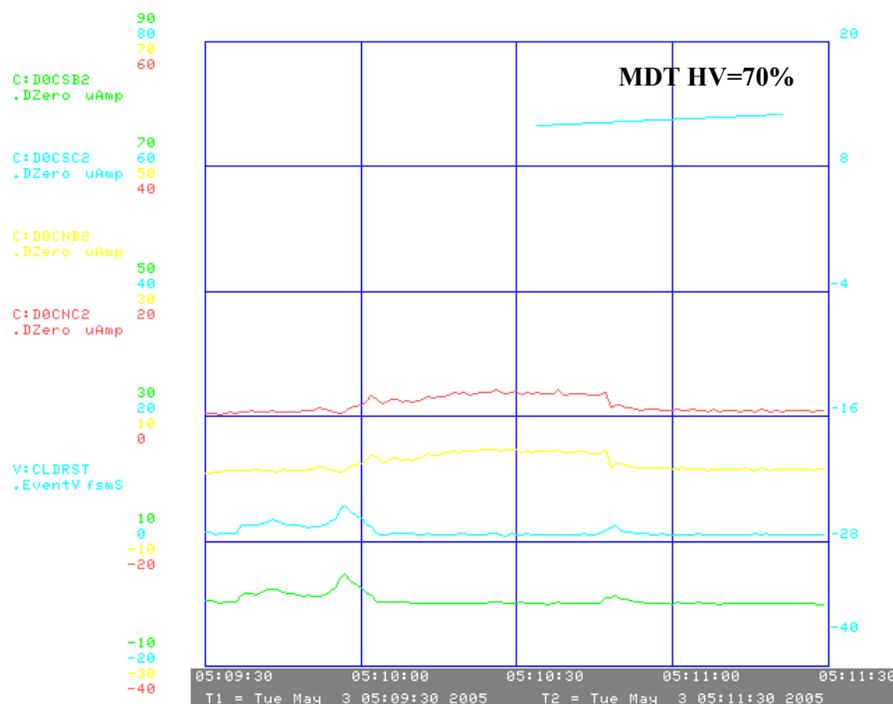
Results of study are published in D0 Note #4758 (March 2005). Used by accelerator team for improvements.

Since store 4118 (April 29th) the losses measured by the D0 forward muon detectors are substantially lower, then before. We estimate that pbar side losses decreased by a factor of ~ 20 , while proton side losses by a factor of ~ 5 during last stages of the shot setup we are mostly concerned about.

Comparison of situation in Stores # 3972 (Feb 8th) and 4125 (May 3rd):



Init lumi = 73E30



Init lumi = 68E30



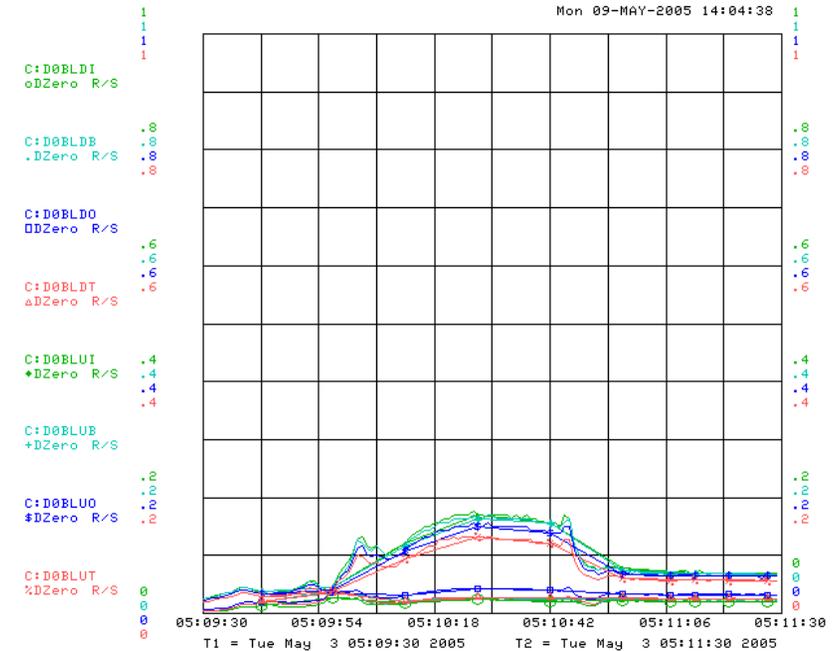
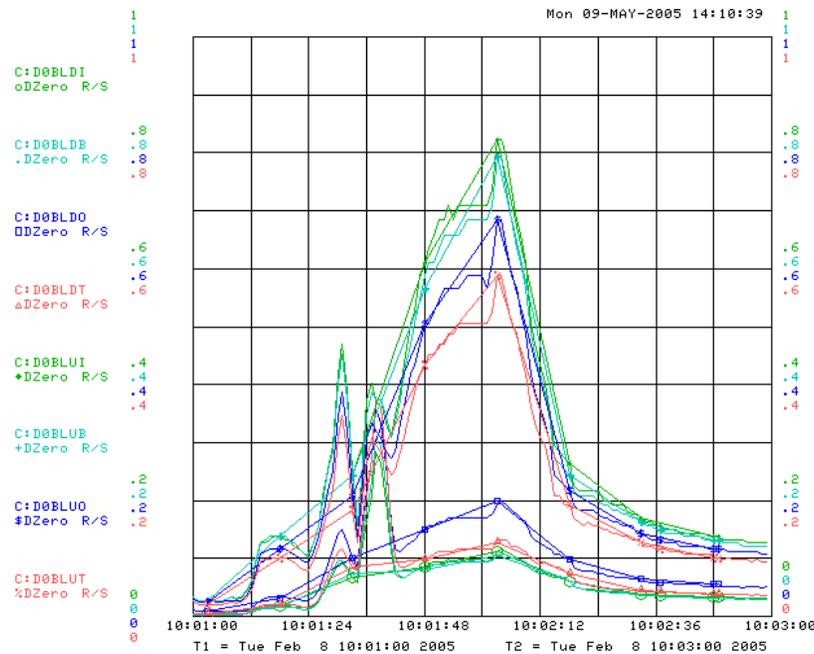
BLM measurements

Store 3972

Init lumi = 73E30
1 min integ dose = 29 rad

Store 4125

Init lumi = 68E30
1 min integ dose = 8 rad





Summary

- Surpassed 0.7 fb^{-1} in recorded luminosity.
 - We are keeping up with the good accelerator performance and recording data efficiently.
- Replaced the aging UPS.
- Beam loss in the pbar side during the squeeze seems to be significantly smaller from the MDT current measurements.
- Two milestones in Run 2b L1 Cal commissioning reached.