



D0 Status Report

3/7/2005

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Fermilab



Data Taking for 2/28 – 3/6

Smooth running most of the week. Some excitement on Sunday.

Day	Delivered	Recorded	Eff.	Comments
2/28 (Mon)	1.85 pb ⁻¹	1.61 pb ⁻¹	87 %	A bad VRB in crate 52.
3/1 (Tue)	1.37 pb ⁻¹	1.28 pb ⁻¹	93 %	
3/2 (Wed)				No store.
3/3 (Thu)	1.45 pb ⁻¹	1.34 pb ⁻¹	92 %	
3/4 (Fri)	2.04 pb ⁻¹	1.79 pb ⁻¹	88 %	Muon MDT trigger problem 75 min down time.
3/5 (Sat)	2.50 pb ⁻¹	2.35 pb ⁻¹	94 %	
3/6 (Sun)	3.17 pb ⁻¹	2.33 pb ⁻¹	74 %	Lost a PDT. Solenoid tripped.
2/28 – 3/6	12.38 pb ⁻¹	10.70 pb ⁻¹	86 %	

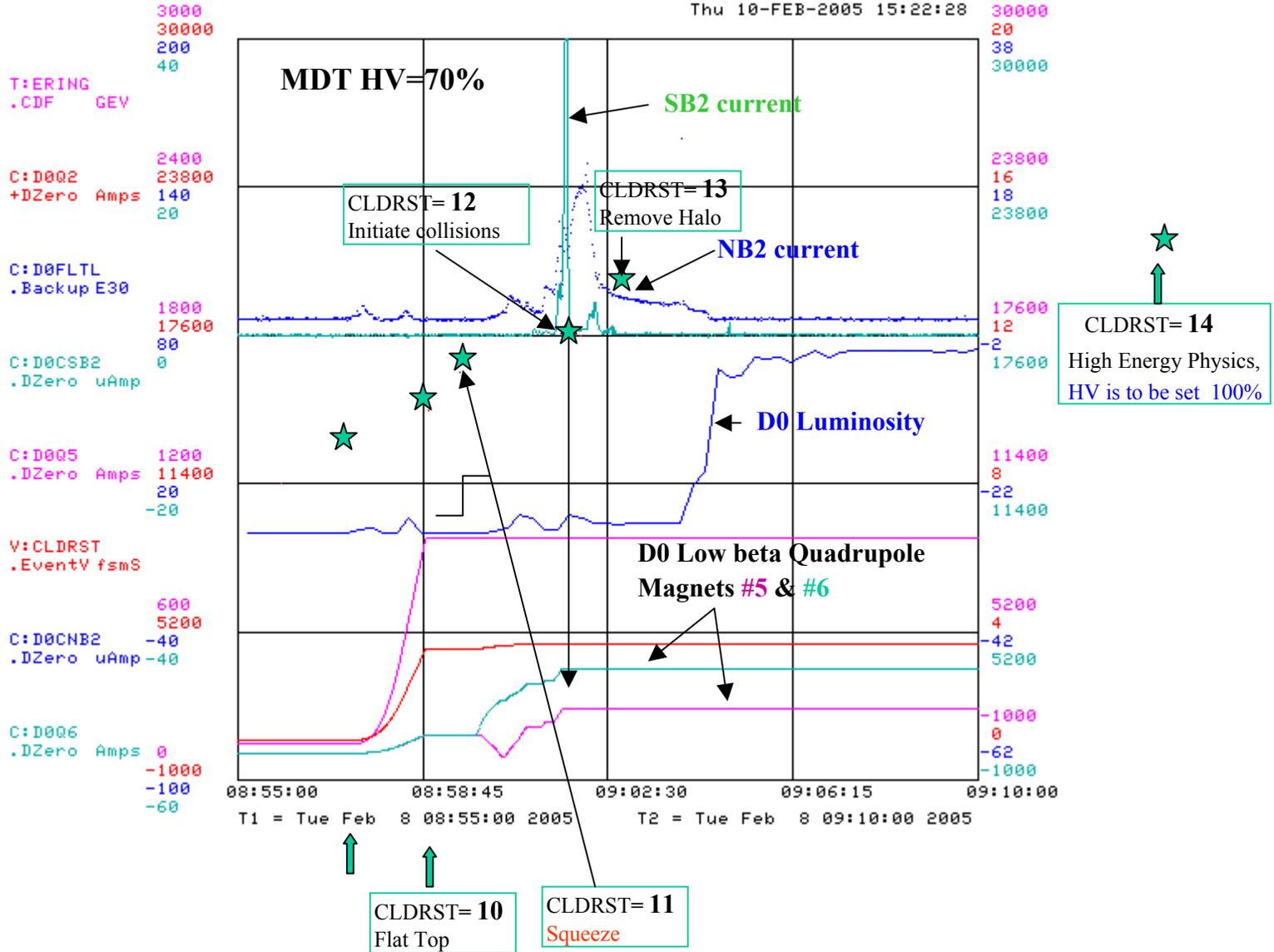


Beam Loss During Squeeze

- We have presented our studies with the muon system at the Tev meeting last Friday.
- We lost a muon PDT front-end card at the beginning of store 4023 on Sunday.



Beam Loss During Squeeze



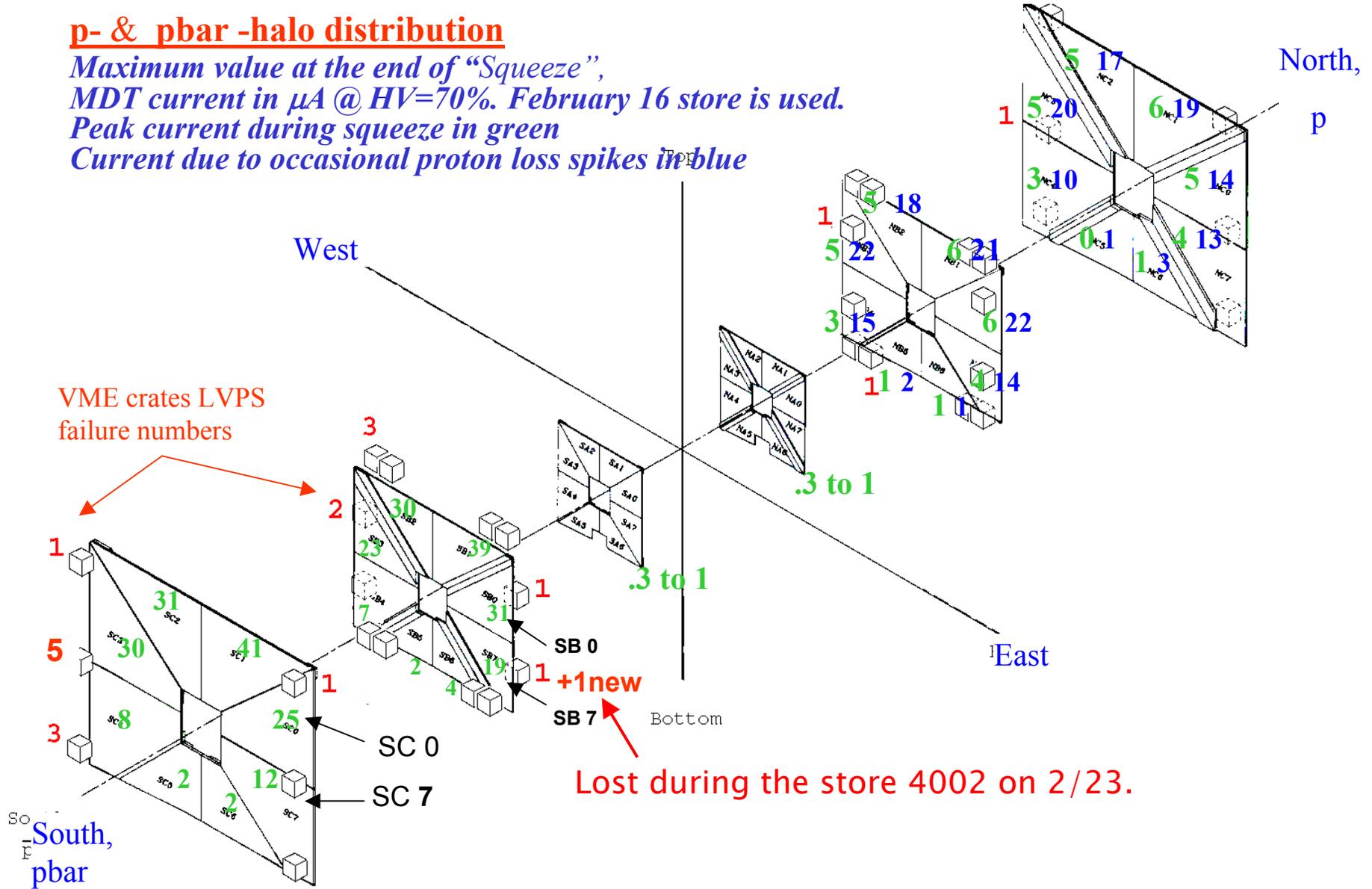
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p- & pbar -halo distribution

Maximum value at the end of "Squeeze",
MDT current in μA @ HV=70%. February 16 store is used.
Peak current during squeeze in green
Current due to occasional proton loss spikes in blue





Solenoid Trip

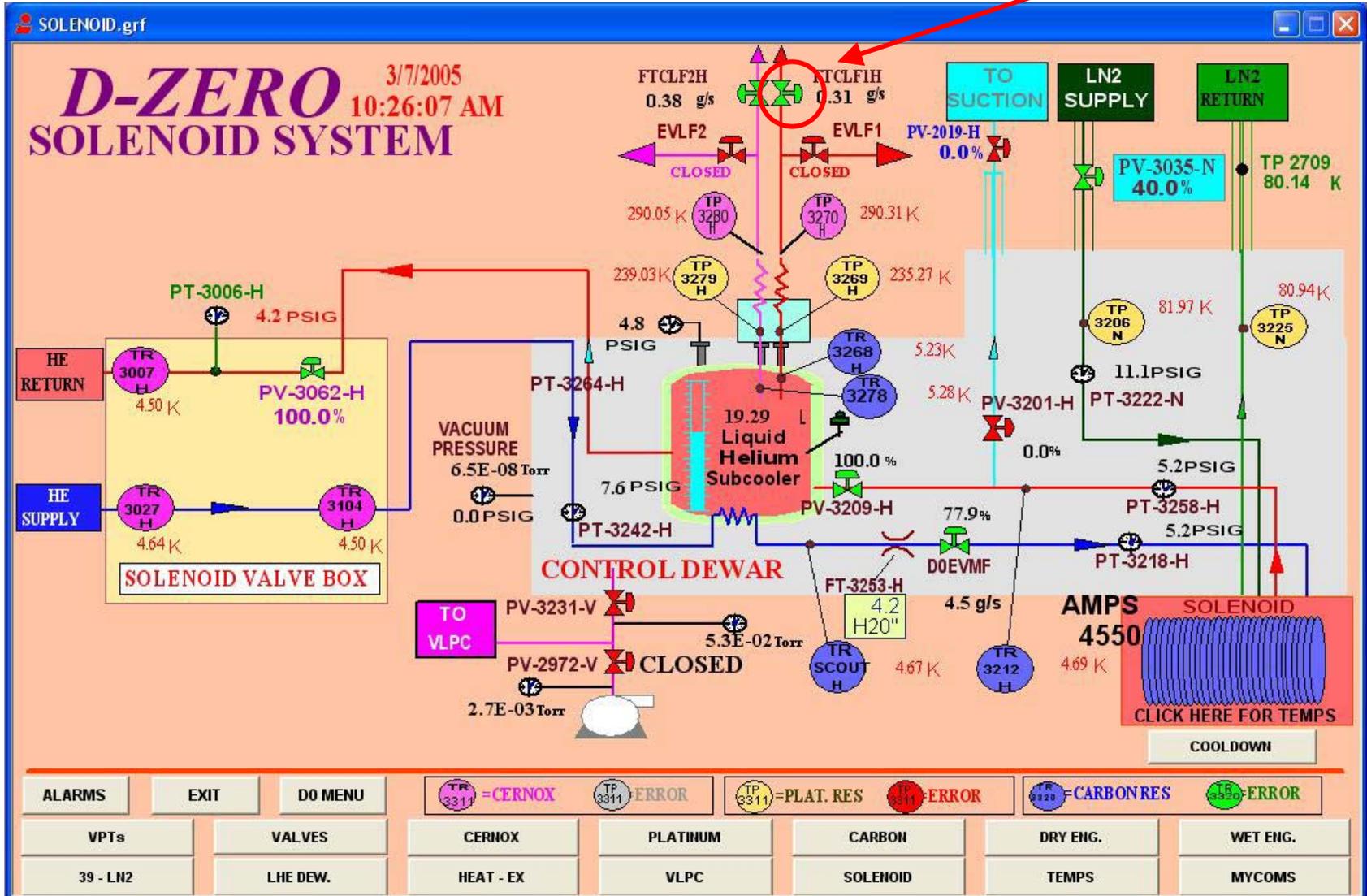
- D0 Solenoid tripped at 15:44 on 3/6 (Sun).
- The cause was determined to be a faulty lead flow controller on the subcooler of the solenoid.
- Flow controller apparently shut off the lead flow, resulting in lead temperature rise until the temperature exceeded a trip limit, dumping the magnet current.
- After investigation, the flow controller was replaced and the solenoid energized without problems.



Solenoid Trip



Faulty controller



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Solenoid Trip

Lead flow controller started misbehaving

