



D0 Status Report

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FNAL

All Experimenters' Meeting
11 October 2010



Significant Events (1)

- On Wednesday, 6 October, a Calorimeter Base Line Subtractor (BLS) card failed causing a hole in the Calorimeter coverage. We took the opportunity to perform some special studies.
 - Performed a single muon yield study.
 - Performed luminosity HV and threshold stability studies.
 - Performed a study of our Silicon Track Trigger.
 - Performed Silicon bias scans.
- Later in the store a problem with a blower was causing a Calorimeter rack to trip off.



Significant Events (2)

- Thursday morning, 7 October, D0 made a controlled access.
 - The failed Calorimeter BLS card was replaced.
 - The blower speed sensor was adjusted.
- D0 then made an additional access after another BLS card was found to be bad.
 - Another BLS card was replaced.
 - We appreciate the additional access
- On the owl shift on Friday, we encountered a forward muon readout crate failure.
 - The VME master was replaced during an access following the store.



Significant Events (3)

- Friday at the end of store 8152, an alpha bump was introduced, increasing D0's luminosity by $\sim 1\%$.
 - The alpha bump was removed following the quench of the next store.
 - We we appreciate the Tevatron group's work at trying to maximize the luminosity.
- On Sunday, a different forward muon readout crate failed.
 - We are currently waiting for an access opportunity to investigate this issue.



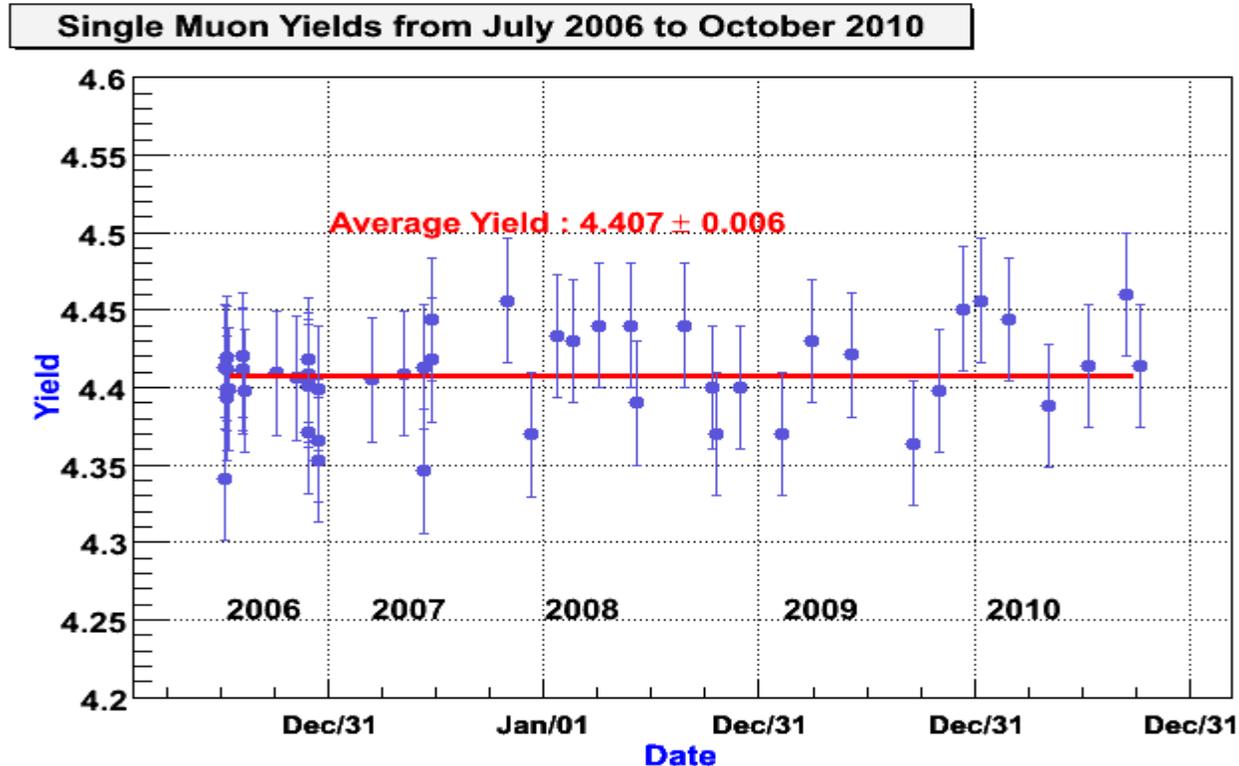
Data Taking

Delivered Lum (pb⁻¹) Recorded Lum (pb⁻¹) Efficiency (%) Comment

Delivered Lum (pb ⁻¹)	Recorded Lum (pb ⁻¹)	Efficiency (%)	Comment	
4 Oct	10.42	9.76	94	
5 Oct	2.38	2.14	90	Opportunistic access to recover a few calorimeter and muon PDT channels
6 Oct	8.27	7.40 (6.83)	89 (83)	Calorimeter BLS card fails. Took special runs.
7 Oct	5.79	5.21 (4.50)	90 (78)	Took more special runs. Accessed to replace Cal card and adjust blower sensor. 2 nd access to replace another Cal readout card.
8 Oct	5.78	4.57	79	65 minutes down for a FMUO crate failure. Accessed to replace VME master. Opportunistic access later to work on a PDT control board.
9 Oct	4.17	3.87	93	
10 Oct	11.74	10.66	91	40 minutes down for another failed FMUO crate.
4-10 Oct	48.6	43.6 (42.3)	90 (87)	(Data taken with the full detector)



Single Muon Yield Study

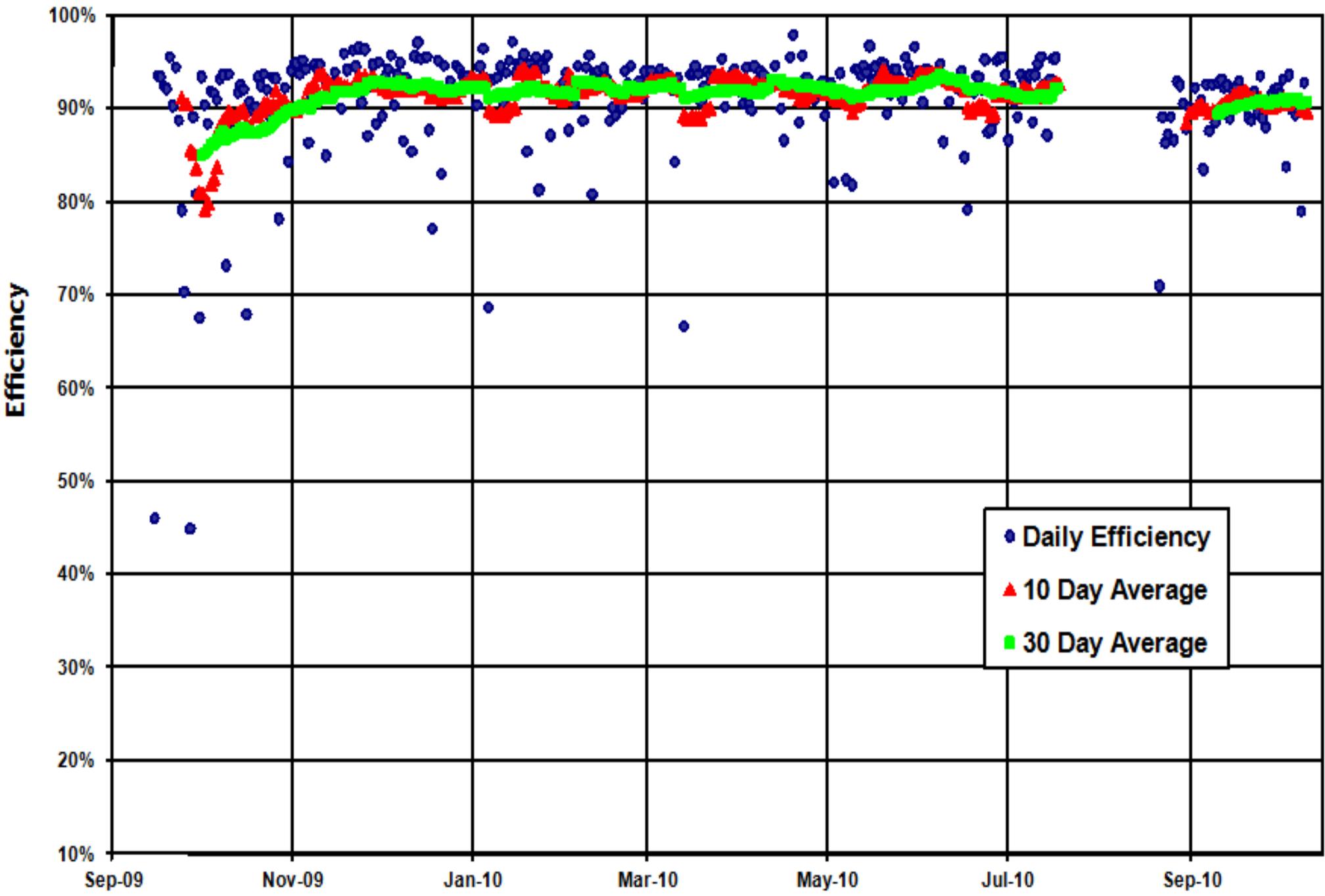


- D0 uses periods when there are problems with other systems to take special runs.
 - One of the runs that was taken while the Calorimeter had a bad BLS crate was a forward single muon yield study.
 - This allows us to monitor the performance of the forward muon detector and luminosity systems.



Daily Data Taking Efficiency

1 September 2009 - 10 October 2010





Run II Integrated Luminosity

19 April 2002 - 10 October 2010

