• **Week integrated luminosity**
  - 1.1 pb⁻¹ delivered (recorded by D0)
    • 0.7 pb⁻¹ lost due to Master Clock
  - 1.0 pb⁻¹ utilized (recorded runs)
  - 65% Live Fraction...
  - *Excluding Master Clock issues*
    • Affected three stores last week (1068, 1070, 1072)

• **Data collection downtime**
  - ~15 min lost Begin/End Store
    • HV ramps, run config, L3/DAQ
  - Muon readout crates
    • ~15% of total downtime
  - Remaining sources
    • L3/DAQ, CAL/CFT/SMT readout crates
Problems with Master Clock

- Trigger framework problems began owl shift 3/12 (Store 1070)
  - Seq halt & clock parity errors
- DØ Experts investigated
  - Potentially bad PCC module but no spare!
  - Called MCR for help
- Steve Chappa - found spare PCC module (but not certified)
  - Needed extension mods to provide sync for data taking
  - Successful TFW run

- Using 2nd PCC module w/kluged phase lock loop circuit board from 1st PCC module
  - MC Timing output signals wrt beam x-ing has moved less than 2 ns compared to recent measurement (23-FEB-02)
- We still don’t know why it failed...
- Will have spare working PCC within the week
DØ Detector Status

- We made no Controlled Access requests
  - Took advantage to make minor repairs & to do small detector maintenance jobs

Sub-detector Report

- Calorimeter: Full readout
  - T&C FPGA change moved timing by max 30 ns each readout crate
  - BLS power supplies stable

- SMT: Full readout
  - No LV supply trips in past three weeks!

- CFT: Steady improvement
  - All axials & ~50% stereo boards
    - Total channel readout increases with each access & board swaps

- Muon: Steady running
  - Readout crate errors are major issue ➔ under study
    - 29/500k events source of errors
Inter-Cryostat Detector

- **Joint effort**: Univ. Texas-Arlington & Louisiana Tech Univ.

- Enhances the hermeticity and uniformity of the Calorimeter System
  - Rapidly changing material profile & extra “dead” material between the Central & Endcap Calorimeters
  - ICD provides additional sampling in the ICR

- Improves $E_T$ calculation & Jet Energy Resolution
  - Crucial role in coverage of $1.1 < |\eta| < 1.4$
  - Reduce rate of fake $E_T$

- Commissioning of Calorimeter Readout
  - ICD channels “sprinkled” throughout most of the calorimeter readout system
DØ Detector

- Forward Mini-drift chambers
- Central Scintillator
- Forward Scintillator
- Shielding
- New Solenoid, Tracking System
  Si, SciFi, Preshowers
- + New Electronics, Trig, DAQ

Alan L. Stone
Louisiana Tech University
Inter-Cryostat Region

$\eta = 1.1$

$\eta = 1.4$
Stages of ICD installation from TDR to physics data taking
Comparison of pre-Oct 2001 data and post-Nov 2001 data. The north part of the ICD ($\eta<0$) was <5% instrumented prior to Oct 2001. The left plots (top & bottom) show the change in the average event energy in the north ICD channels pre/post shutdown. The right plots are of the south ICD, which has been fully instrumented since May 2001.
ICD Status

**Done**

- 50% in readout by end-May 2001
- Fully instrumented & part of global data taking since Nov 2001
- Integrated into CAL Readout & Shift Guide
- Stable HV system
- Spare electronics & cables in stock
- Working LED calibration system

**To Do**

- Repair & maintenance during detector accesses
  - e.g. Replace Run 1 PMTs with new ones
- Fine-tune energy scale & weights
- Improve MC geometry & material representation

18 March 2002
All Experimenters’ Meeting

Alan L. Stone
Louisiana Tech University
Plans For This Week

- **Need 2 hr access** *(day & time TBD)*
  - Muon VME crate (1 of 12) needs human intervention

- **Steady supply of small jobs** ... if offered additional access time

- **During studies Tuesday & Wednesday**
  - Significant Event Server tests
  - Spare PCC tests
  - Muon readout
    - Test new code & new hardware
    - Test of multibuffering VRBCs

- **Global data taking during stores**
  - Working on increasing data collection efficiency