Period Report 20.08.04- 27.08.04

Jörg PRETZ

Physikalisches Institut, Universität Bonn
General Comments

- Transversity Period (W34,35)
- First run taken: 39360
- Last run taken: 39615
- PS/SPS efficiency: 77.5 %

our efficiency =
\[
\frac{\text{nb. of spills in physics runs}}{\text{nb. of spill with } T_6 > 30 \cdot 10^{11}} = 79.1 \% 
\]
**Efficiency**

**Period From:** Fri, 20 Aug 2004 16:00  **To:** Fri, 27 Aug 2004 16:00  **Calculated At:** Tue, 31 Aug 2004 09:38

Length of time excluding scheduled MD: 168.00 hours

**** Efficiency of PS/SPS

a: Total SPS Circle (exclude scheduled MD): 35834.0
b: SPS spill with T6 current >30.0: 27757
c: Sum of T6 current 3904069.1
d: \((=a/b)\) PS/SPS Efficiency: 77.5%

**** Muon Beam In HALL 888

f: SPS spill In Hall with Muon Count >100000.0: 25436
g: Sum of In Hall Muon Count: 4847694090190.0
h: \((=f/b)\) SPS Spill Get in 888: 91.6%

**** Use of SPS/Inhall Spill in COMPASS

i: Spill used with ion chamber counting >100.0: 22579
j: \((=i/f)\) Inhall spill used: 88.8%
k: \((=i/b)\) SPS spill used: 81.3%

Distribution of used spills:
- transversity runs used 21952 spills, 97.2%
- random_trig runs used 15 spills, 0.1%
- detector_test runs used 5 spills, 0.0%
- DAQ_test runs used 32 spills, 0.1%
- alignment runs used 575 spills, 2.5%

**Diagram:**

- **DAQ WORKING TIME (green)**
- **BEAM NOT IN HALL TIME (BLACK)**
- **SPS WORKING TIME (BLUE)**
List of Time intervals with usable T6 current but no beam in 888

1. Fri, 20 Aug 2004 16:57, 144.8 minutes, 511 spills
2. Fri, 20 Aug 2004 19:32, 199.7 minutes, 686 spills
3. Sat, 21 Aug 2004 00:00, 3.4 minutes, 13 spills
4. Sat, 21 Aug 2004 00:16, 46.8 minutes, 168 spills
5. Sat, 21 Aug 2004 02:19, 8.7 minutes, 32 spills
6. Sun, 22 Aug 2004 11:02, 8.1 minutes, 30 spills
7. Mon, 23 Aug 2004 19:20, 29.4 minutes, 106 spills
8. Mon, 23 Aug 2004 20:46, 6.7 minutes, 25 spills
10. Wed, 25 Aug 2004 17:27, 39.8 minutes, 133 spills
12. Thu, 26 Aug 2004 08:51, 33.0 minutes, 118 spills
Friday, 20.08.2004

- recovering from polarization loss Friday morning
- MW2 gas leak fixed
Saturday, 21.08.2004

- 01.00 Start data taking with $\Delta P = 80\%$
- 02.45 channels missing in FI06Y1, fixed by replacing catch
- trigger problem, HCAL1 trigger gave double pulses
  (should not affect data quality)
- noisy channels on Straw03 and DC02Y2
  (persists for whole week)
- 18:32 ECAL2 HV partly off
Sunday, 22.08.2004

- 20.00, Scheduled SPS shutdown to repair magnet in NA60 beamline
  Target continued to polarize
- Problems with SI01 ADC

Monday, 23.08.2004

- 19.40, Beam back ($\Delta P = 93\%$)
- 16.13 Problems with SI01 solved (bad connection)
- 20.00 HV Problems with ECAL2
Tuesday, 24.08.2004

- smooth data taking

Wednesday, 25.08.2004

- 08.00 - 16.00, MD
- 17.00 resumed data taking with $\Delta P = 94\%$
- again trouble with ECAL 2
  - multiplicity spectra look different, due to a “ringing” column
- access for ECAL2
- problems closing door 221, beam only back at 23.30
Thursday, 26.08.2004

- 09.00, Problem with Bend 8
- 18.00 again ECAL HV problem

Friday, 76.08.2004

- smooth data taking