

SciBooNE Report

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Summary Aug 17-Aug 18

- Booster Neutrino Beam

- Ran smoothly

- Uptime fraction: 90%
- Average proton/hr: $2.32E16$
- Average proton/pulse: $4.15E12$

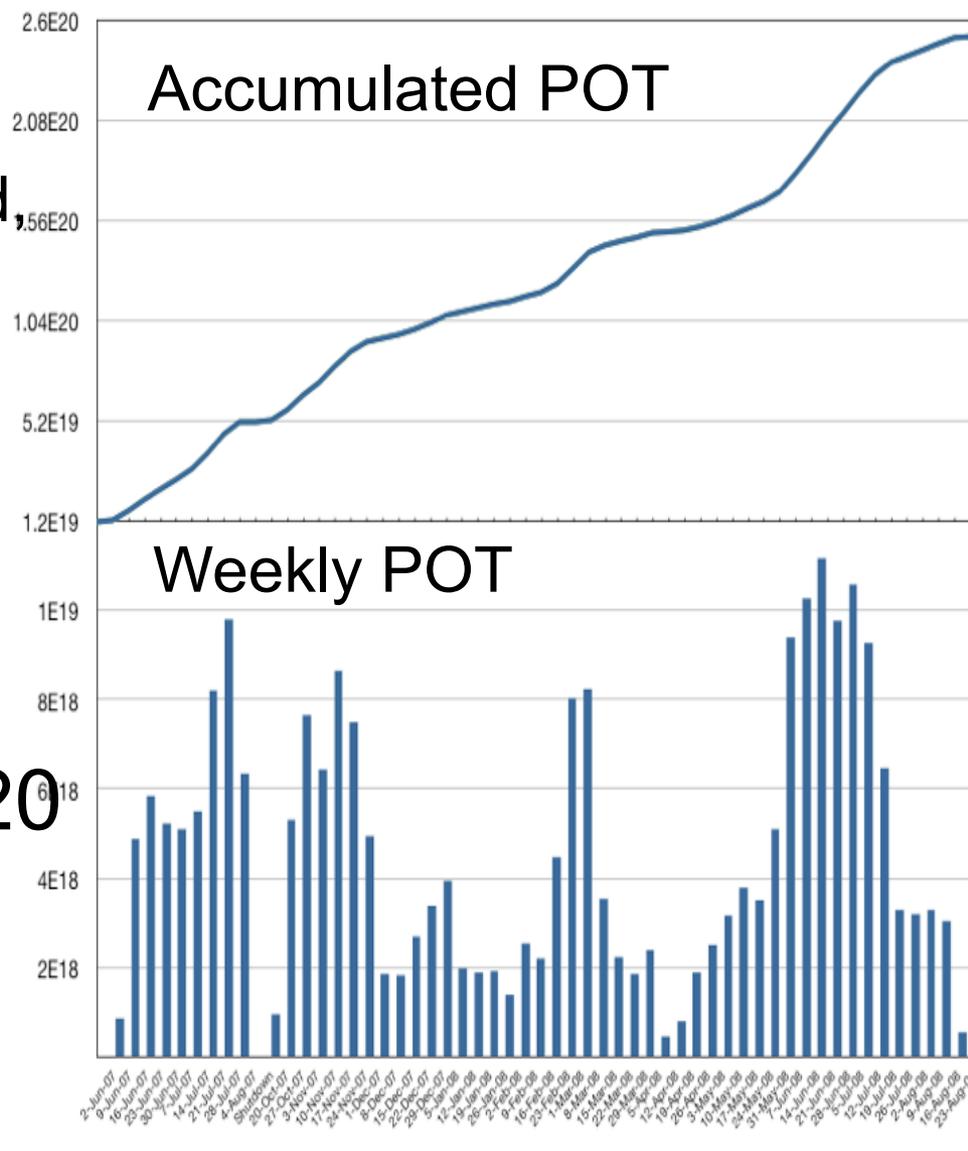
- SciBooNE Detectors

Numbers from B87 (\$1D) 20080817-20080818

- Uptime: 99.4% (period with beam on)
- SciBar: Stable
- EC: Stable
- MRD: Stable
- DAQ: Stable

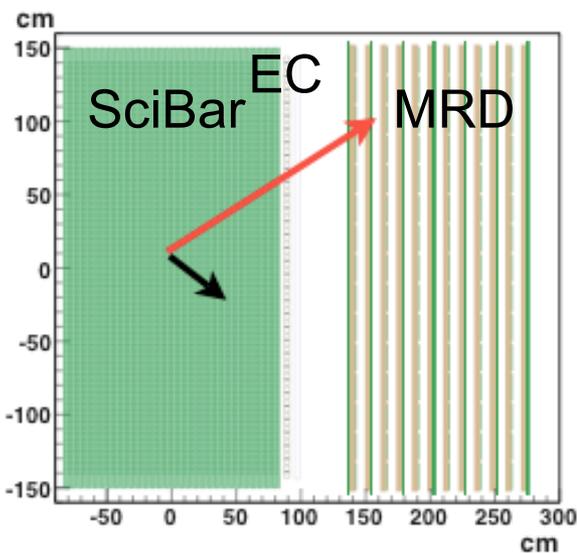
Final Protons On Target

- POT Collected
 - (Aug 17-18)
 - 0.560E18 POT delivered
 - 0.556E18 POT for analysis.
- Total POT ($\bar{\nu}$ mode) 1.53E20
- Total POT ($\nu + \bar{\nu}$) 2.52E20
- SciBooNE proposal request: 2.0E20

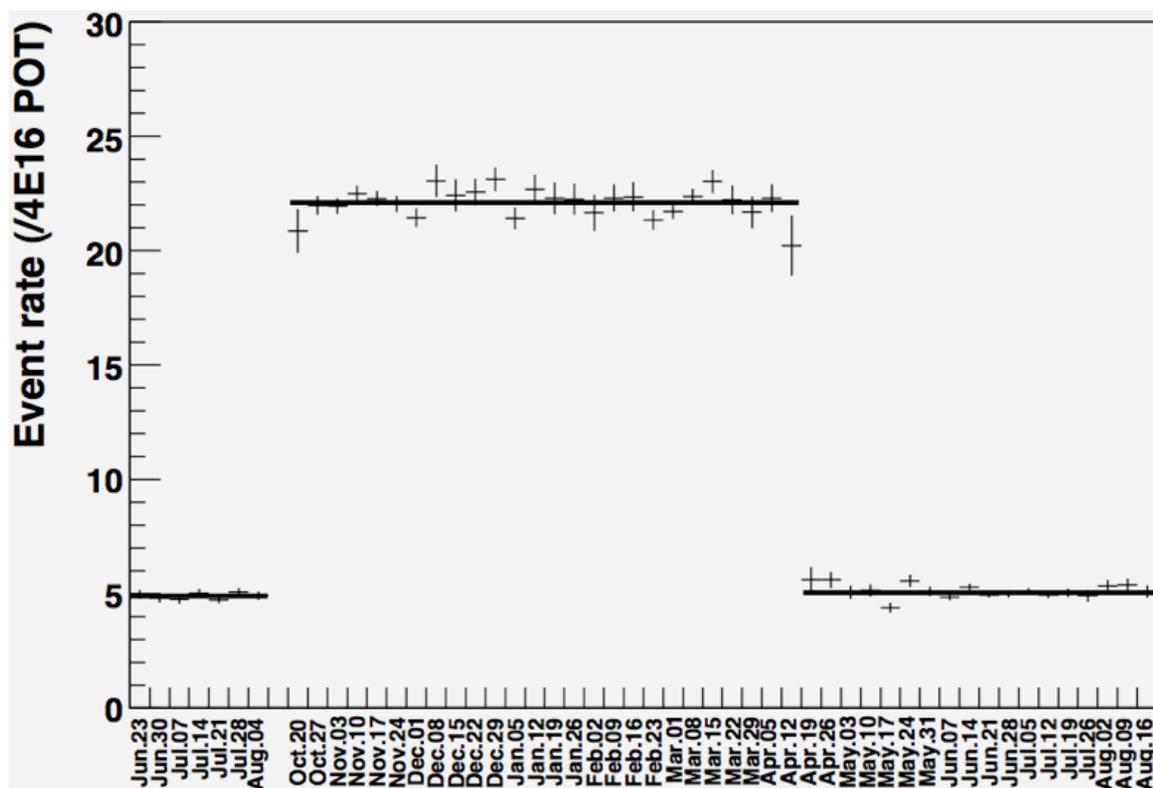


POT normalised event rate

- Charged current event candidates in SciBar.
 - Stable within stat. error.
- ➔ Stable operation of beam & detector.



Event rate per week



Decommissioning work



- SciBar: removed MAPMTs, FEBs, VME electronics; preparing to return to KEK or PREP
- MRD: removed 102 PMTs and all electronics & HV; preparing to return to PREP or owners
- Removed SciBooNE computers from BooNE Control Room
- Now sorting out materials and tools, etc.
- EC: will remove PMTs and electronics & ship to Italy

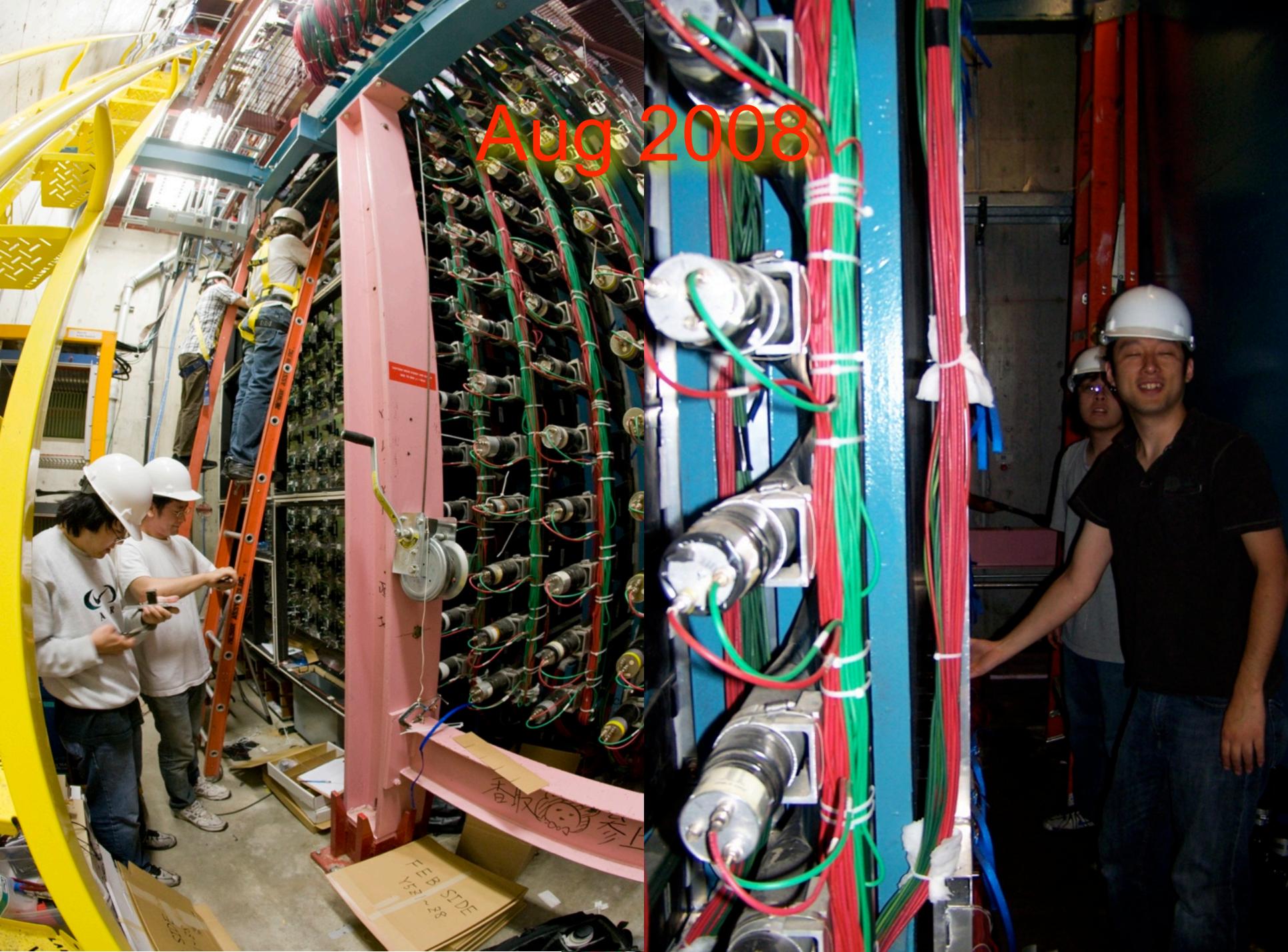
May 2007



Aug 2008



Aug 2008



SciBooNE (E954)

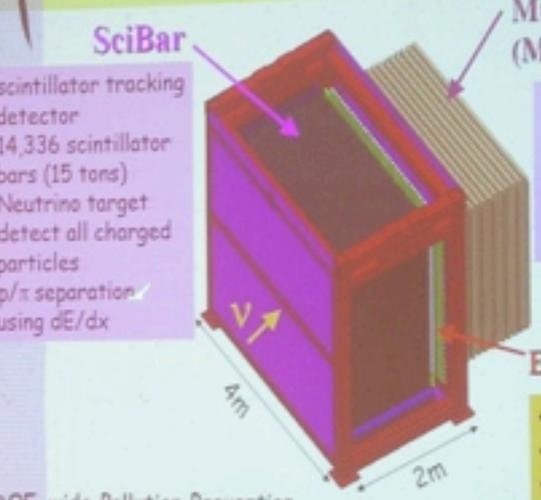
University of Barcelona, IFAE
Chonnam National University
University of Cincinnati
University of Colorado
Columbia University
Dongshin University
Fermilab
KEK
Imperial College, London
Indiana University
ICRR, University of Tokyo
Kyoto University
Los Alamos National Laboratory
Louisiana State University
Purdue University
University of "La Laguna", INFN
Seoul National University
University of Minnesota

Aug 2008



SciBooNE at ICHEP08

SciBooNE detectors



The diagram shows a 3D perspective of the SciBooNE detector components. A central purple rectangular volume represents the SciBar, with a yellow arrow labeled ν indicating the neutrino beam direction. To the right, a stack of grey rectangular planes represents the Muon Range Detector (MRD). Below the SciBar, a yellow rectangular volume represents the Electron Catcher. Dimensions of 4m and 2m are indicated for the SciBar's base.

- SciBar**
 - scintillator tracking detector
 - 14,336 scintillator bars (15 tons)
 - Neutrino target
 - detect all charged particles
 - p/π separation using dE/dx
- Muon Range Detector (MRD)**
 - 12 2"-thick steel + scintillator planes
 - measure muon momentum with range up to 1.2 GeV/c
- Electron Catcher (EC)**
 - spaghetti calorimeter
 - 2 planes (11 X_0)
 - identify π^0 and ν_e

DOE-wide Pollution Prevention Star (P2 Star) Award

More coming soon!