MIPP Update

Holger Meyer Fermilab All Experimenters' Meeting 1/31/05

- MIPP statistics
- MIPP beam status
- Detector status
- Cryo-target

MIPP statistics

- MIPP took data for approx. 106 hours (63%) during the last week
 - Most of the downtime was due to the accelerator (shot-setup, etc.)
 - Some time was lost to tuning beam
- Data was taken at $\pm 50 \text{GeV/c}$
- Be, Bi, and empty targets were used
- Accumulated data:

\mathbf{v}	_	target	momentum	Ι	total_	events
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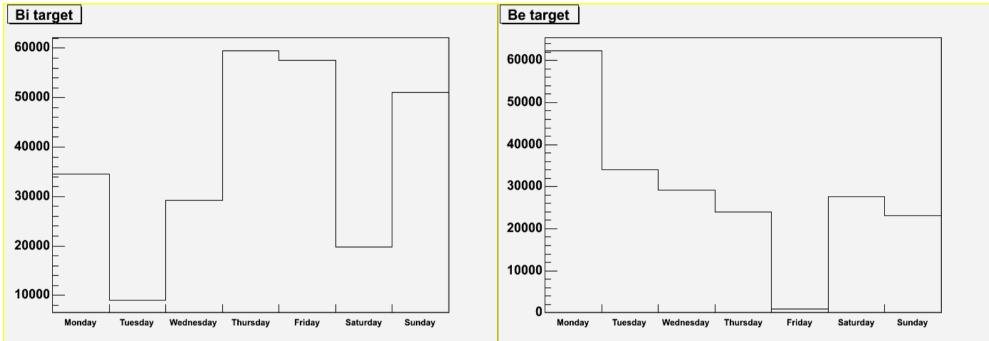
_	 	_	_	_	_	_	_	_	_	_	 +	_	_	_	_	_	_	_	_	_	_	+	_	 	 	_	_	_	_	_	_	_	_

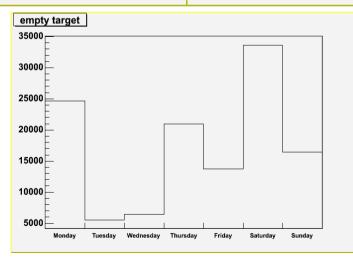
_	Berillium	Ι	50	201587
-	Berillium	I	-50	129261
-	Bismuth	I	50	200870
_	Bismuth	I	-50	216944
-	Empty	Ι	50 J	134433
_	Empty	I	-50	91253

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MIPP statistics



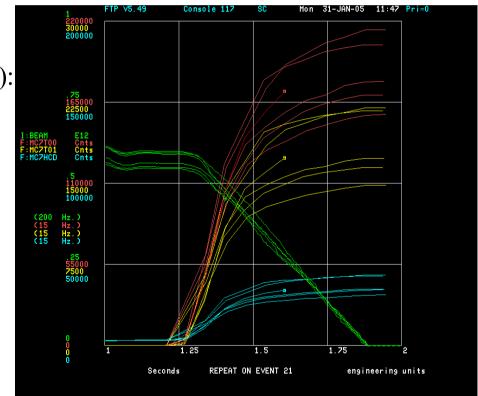


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Beam to MIPP

- MIPP is using slow extraction from the Main Injector.
 - Nominal spill length is approx. 600ms
 - Spill received at MIPP has highly non-uniform intensity profile
- With 'high' intensity (MC6IC = 1.7E10, 10 spills per minute): Rad monitors trip if beam is not centered on the primary target
- Beam moves around spill-to-spill
 - We permanently monitor and adjust our beam to preserve a good beam-spot on target



MIPP detector status

- No significant problems in the detector
- Some minor problems:
 - LAM errors resulted in approx. 12 hours of data with ToF and Ckov problems
 - Camac branch cable reseated -> fixed
 - DC1 plane 1 efficiency was dropping
 - HV feed-in resistor to cathode 1 was replaced -> fixed
 - Regular maintainance of bad pre-amps, discriminators, tdc modules, etc.
- Detector improvements:
 - Installation of a new interaction trigger scintillator (started last monday, not finished)

Cryo-target

- Target was run successfully last week
 - Cool-down took 8 hours, expected 2 hours
 - Some instrumentation was not working well
- Instrumentation fixed, cooled again today for final safety approval.

MIPP summary

- We have taken physics data over the last weeks.
- Detector improvements and studies are proceeding with little impact on data taking.
 - Most accesses to MC7 are short and occur during shot-setup
- The beam quality to MIPP is still a problem. Experts are working on it.