

MIPP Update

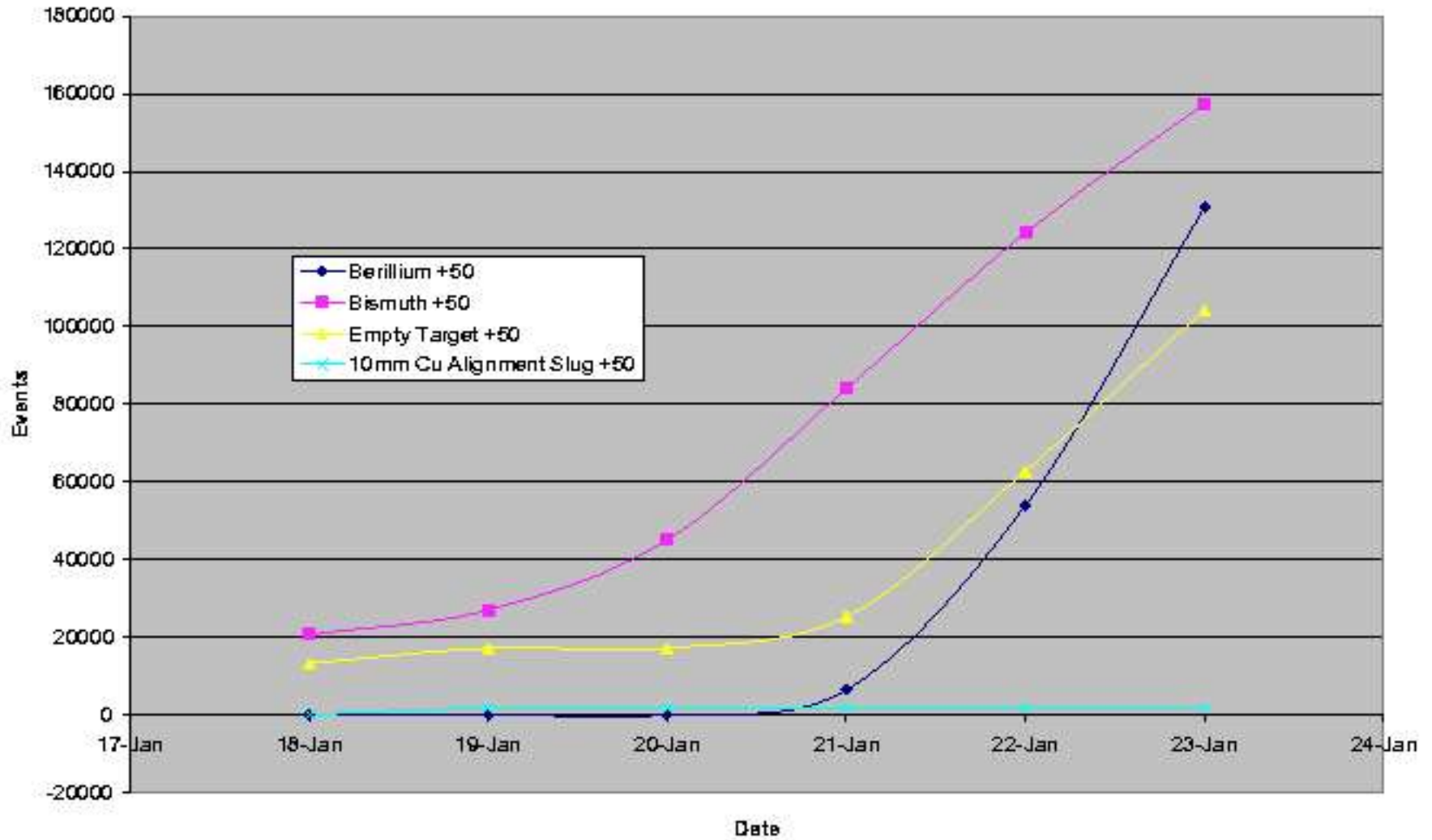
Holger Meyer
Fermilab All Experimenters' Meeting
1/26/05

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

MIPP statistics

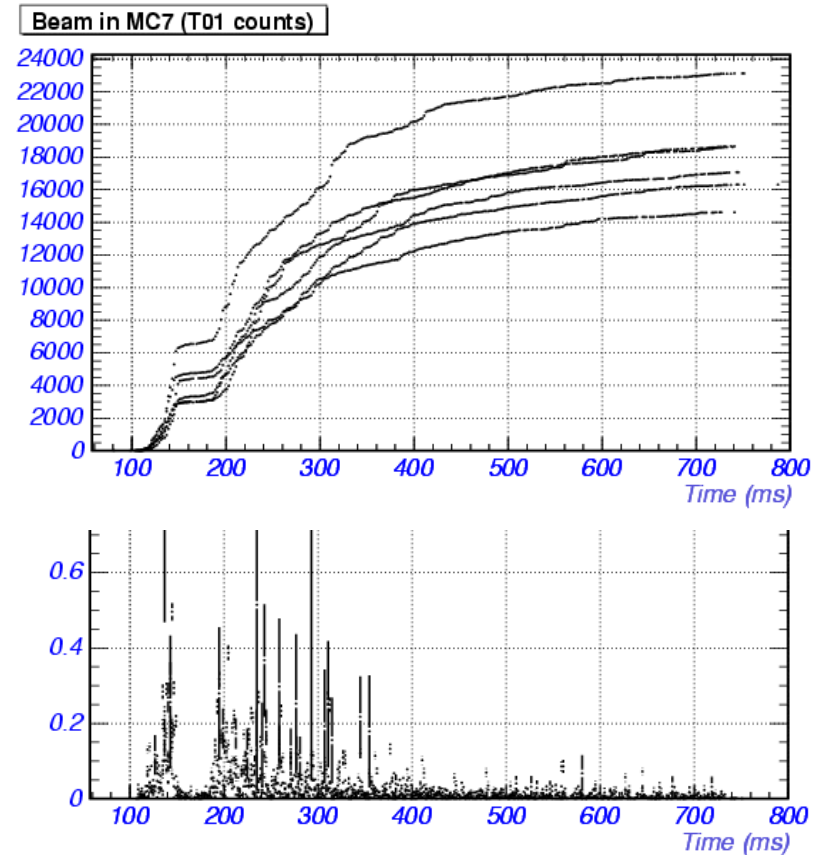
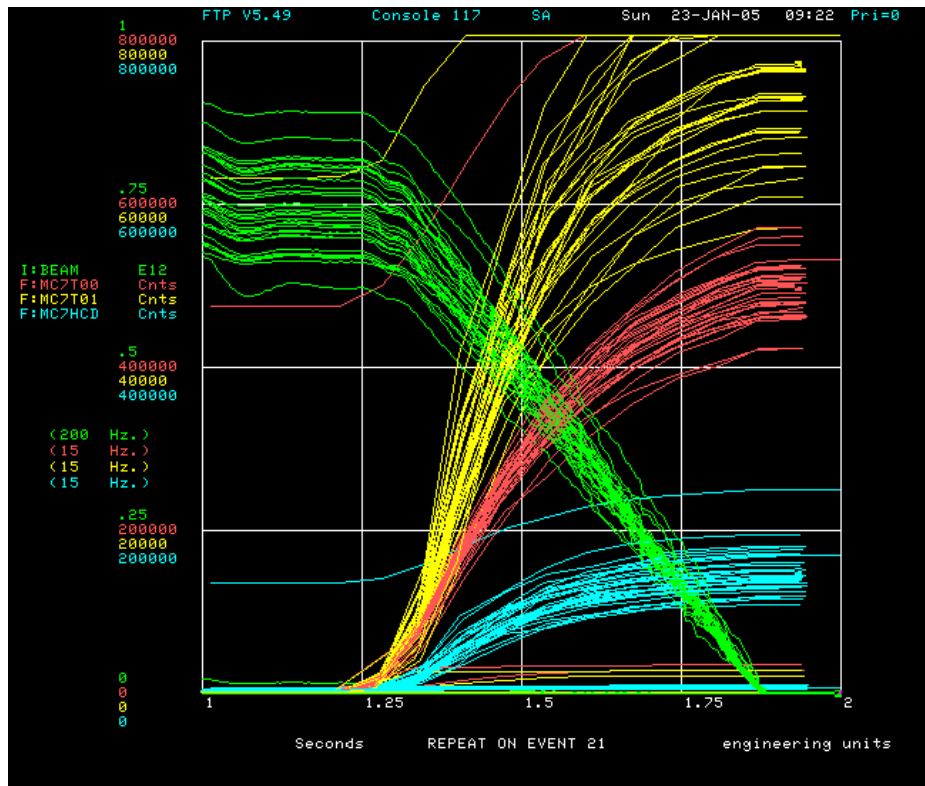
- MIPP officially started physics running on monday, 17 Jan. 2005
- MIPP took beam for approx. 120 hours (72%) during the last week
 - Most of the downtime was due to the accelerator (shot-setup, etc.)
- Data was taken at +50GeV/c
- Be, Bi, and empty targets were used

E907 Integrated Data Sets



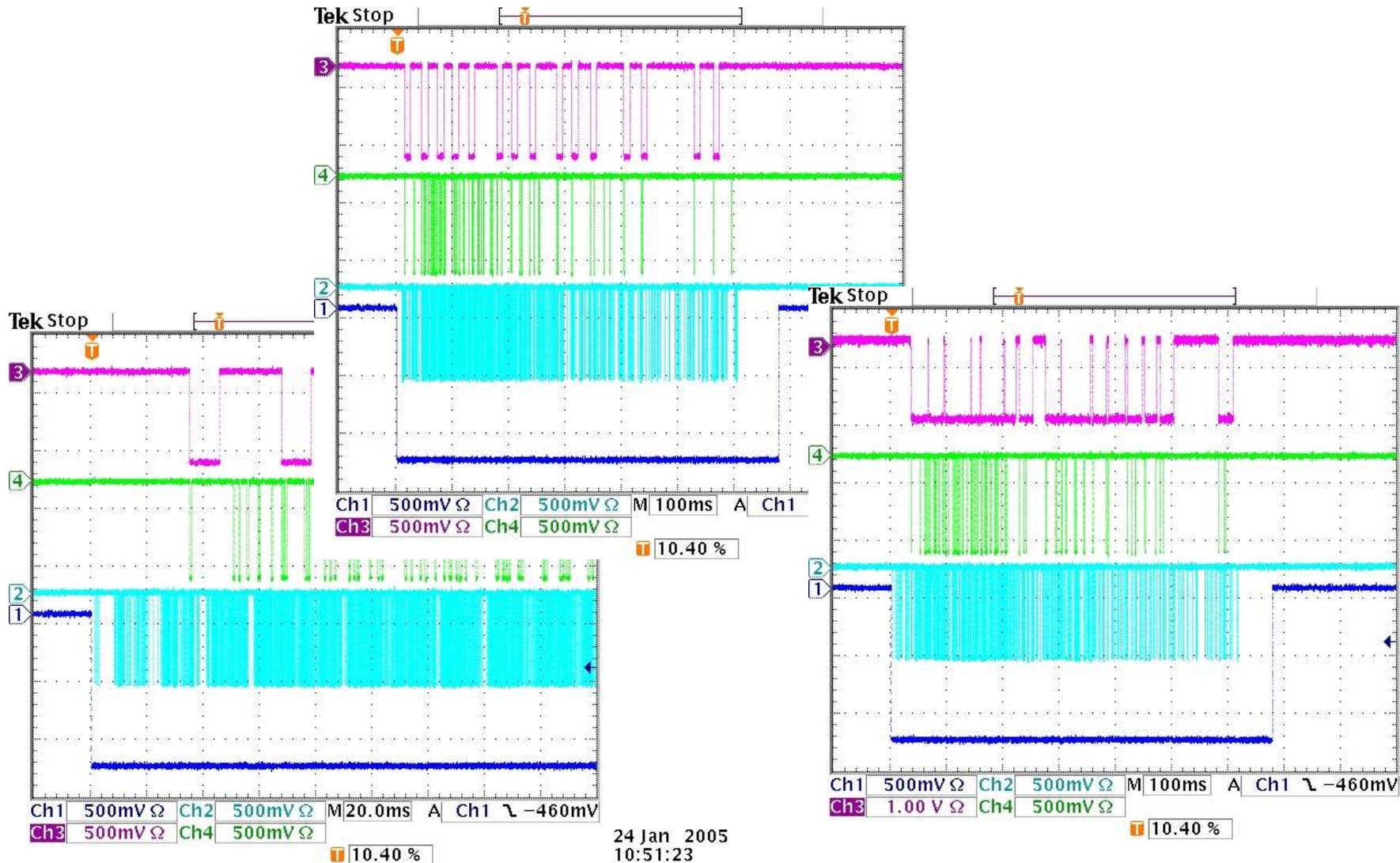
Beam to MIPP

- 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
 - Effectively only 300ms spill length



Beam to MIPP

- We see this on the scope in MC7 as well as in Acnet



24 Jan 2005
11:01:43

MIPP detector status

- The MIPP spectrometer consists of
 - Beamline devices (beam chambers, beam cherenkovs)
 - TPC and analysis magnets (JGG, Rosie)
 - DCs, PWCs
 - Threshold Ckov, TOF, RICH
 - Calorimeters
- Only the PWCs were not fully working during the last two weeks.
 - All PWC problems resolved
 - Gas (Ar/CH₄(8.5%)/CF₄(15%)) works
 - 97% efficiency at 3150V
 - Electronics working, only few dead/hot channels
 - Noise from improper grounding diagnosed and removed
 - RMH electronics recovered from power outage, diagnostics added

Cryo-target

- Last thursday the target started to cool down.
 - LH_2 formed in the target flask.
 - Found leak between flask and vacuum.
 - Fixed leak with more epoxy.
- Try to cool down again tomorrow.

MIPP summary

- We have taken physics data over the last two 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.