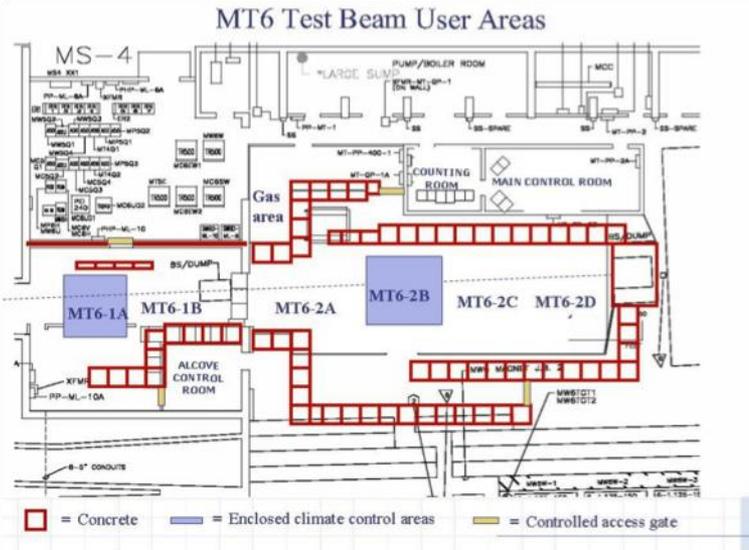
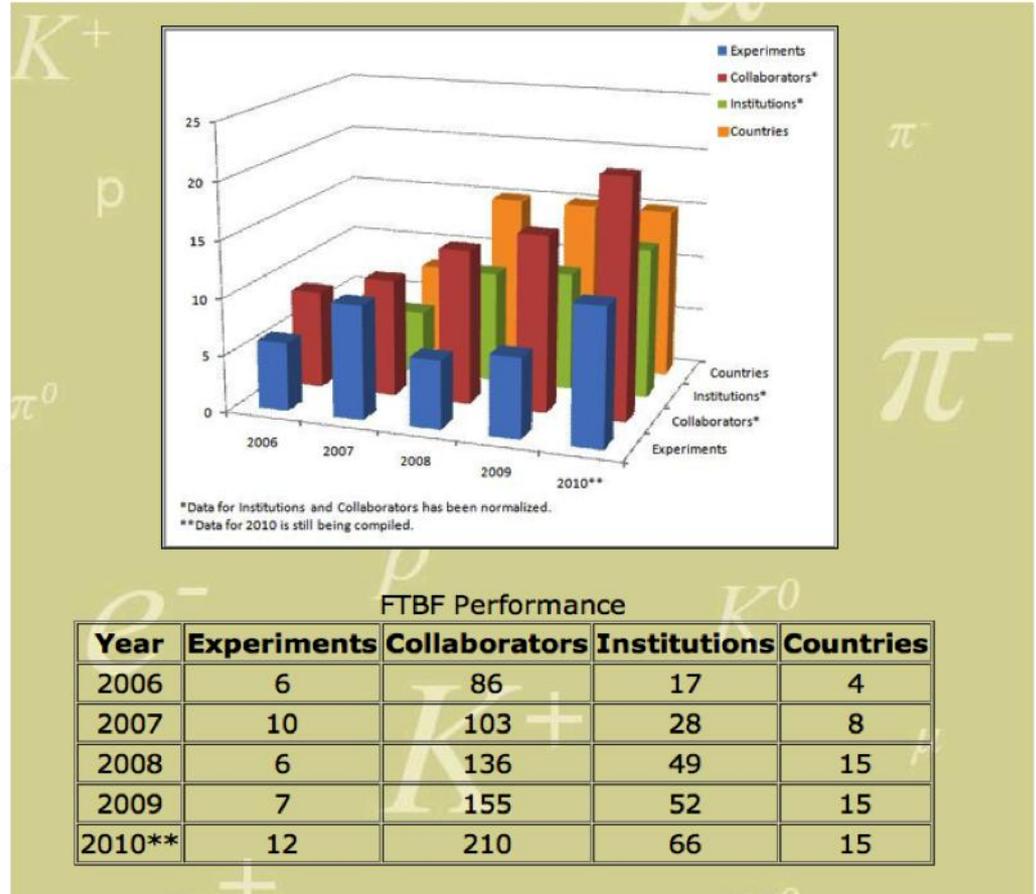


# Turning MCenter into a Test Beam Facility

Erik Ramberg

12 December, 2010

# The Current MTest Facility



# The Plan for an Additional Test Beam Area in MCenter

Meson Building

MTest control room

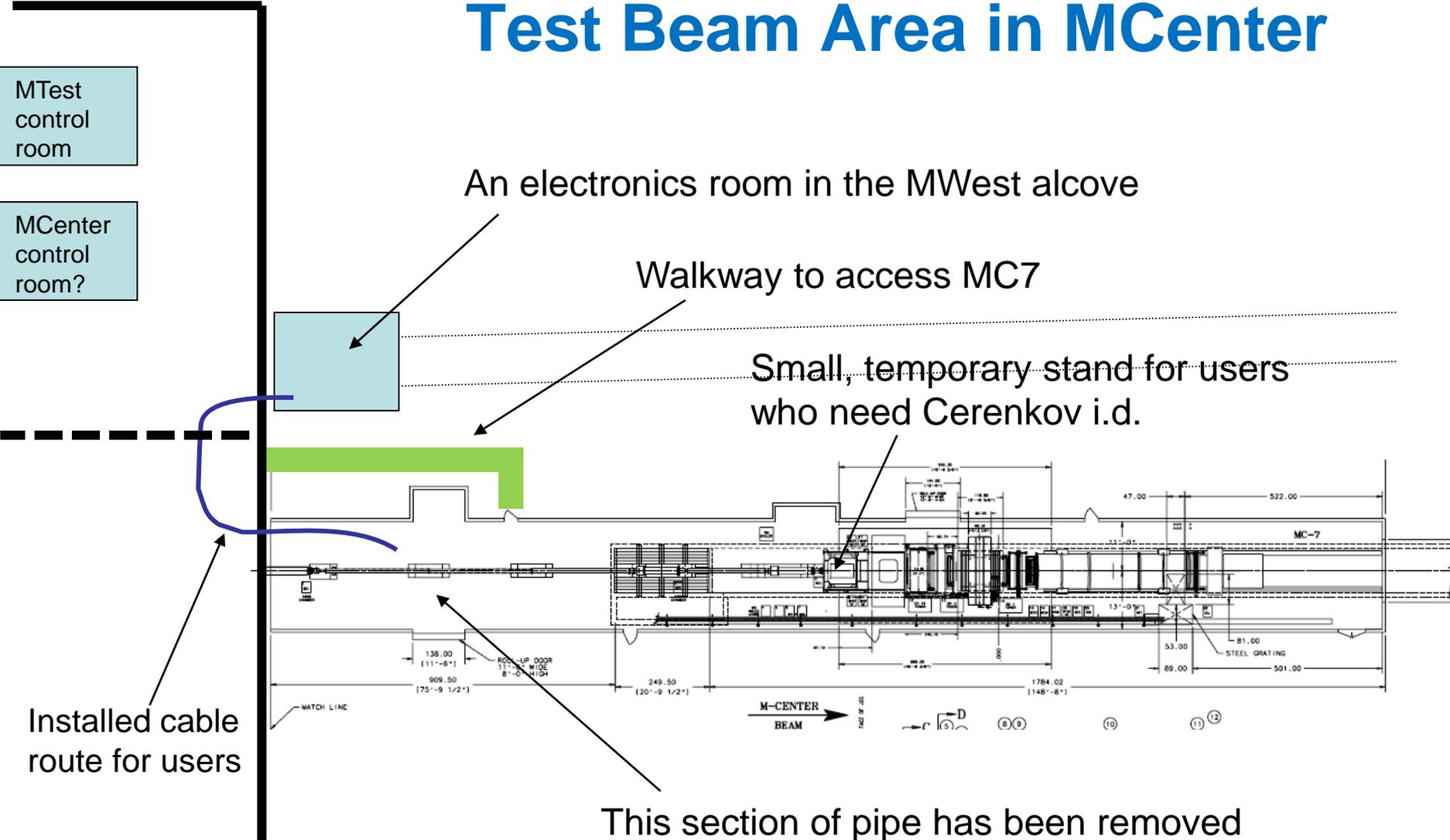
MCenter control room?

An electronics room in the MWest alcove

Walkway to access MC7

Small, temporary stand for users who need Cerenkov i.d.

Installed cable route for users



This section of pipe has been removed  
Put concrete blocks for user stands here.

# The Pitch to DOE

- Young-Kee proposed to Howard Nicholson that Fermilab could use MCenter as an adjunct test beam facility.
- We received \$190K for this purpose
- Breakdown of use of this money in the proposal:
  - Refurbishment of beamline: \$50K
  - Repairing JGG and tracking: \$100K
  - Overhead: \$20K
  - Contingency: \$20K
- The JGG repair was not as expensive as expected, and the tracking for MIPP is now put on hold, leaving extra funding for user amenities.
- We need enough priority to make this test beam operational by summer, 2011, so that it can support any user requests for that time

# Adding shielding to MCenter



West side of MCenter wall needs an additional 3' at this location



3' of additional shielding for upward going radiation, at the location under the catwalk

# Creating an electronics room



Need to move magnets out of the way, put up walls and doors at front and rear, and install electrical services

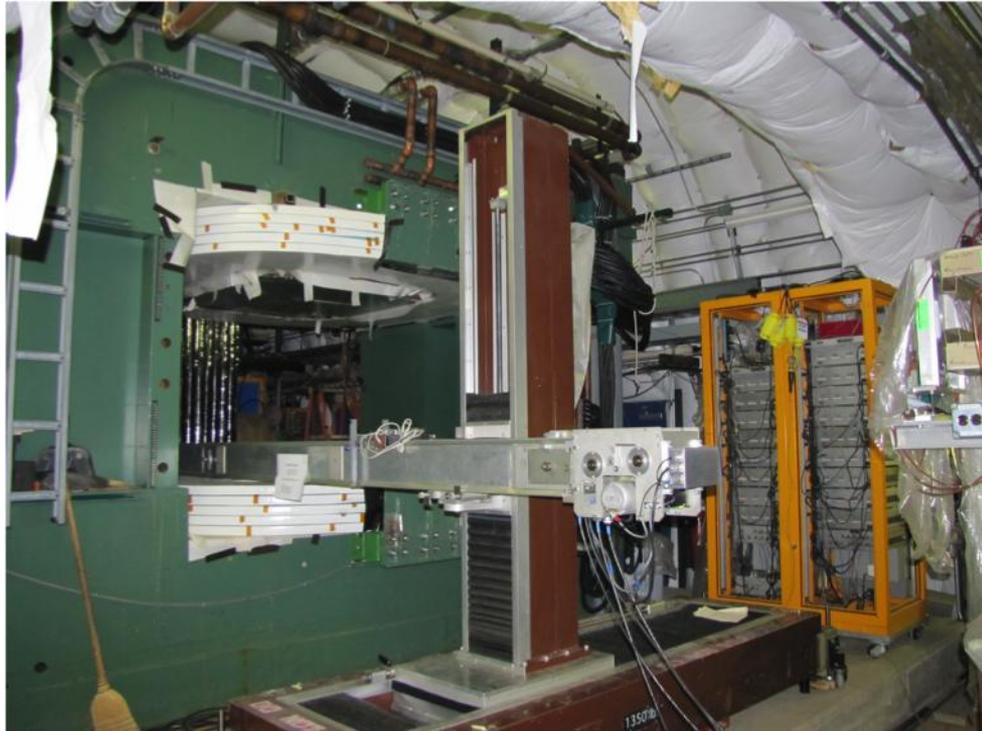
# A Walkway from MDB to MC7



Needs stable footing and protection from rain/snow

# JGG Operations

- Making the Jolly Green Giant operational is important for the facility
- We already have one request for a test in a magnetic field
- Need to verify water cooling, power delivery, and then map with Zip Tracker



## Estimated PPD Resources Needed (in order of priority)

- Install shielding at MWest wall and under catwalk (3 man-weeks)
- Move magnets out of MWest alcove (3 man-days)
- Build electronics room in MW7 (1 man week of design + contractor ~\$25-30 K)
- Build covered walkway (3 man-weeks + \$10K)
- Finish user area (3 man-weeks + \$20 K)
- Finish commissioning of JGG (2 man-weeks?)
- Zip Track JGG field (2 man-weeks)

Total of above is on the order of \$55-60K and 70-75 man-days effort.

Whatever money is left over would go to beamline improvements, such as low current power supplies.