Glast at SPS?

GLAST is a “recognized experiment” at CERN (status is reconsidered every 3 years, valid until 2007).
Running period: May 5 - November 5 2006
Deadline for proposal submission: October 15, 2005 (to be checked)
SPS North Area: 3 general-purpose beam lines, H2-H4-H6
Primary beam: 450 GeV protons, intensity up to $10^{12}$ p/s
Master cycle: 14 s, spill duration 2-4 s

All beam lines provide
- pions
- electrons
- muons

Production at target (part./proton)
Maximum energy: 300 GeV/c e (“0 degree wobbling mode”)  
Minimum energy: 8 GeV/c  
Flux: a few hundred Hz at 280 GeV/c, greater at lower energy: $10^6$ e± at 150 GeV/c  
(9 $10^7$ pi+, 3 $10^7$ pi- at 200 GeV/c)  
Little contamination (a few % level)
H4 (GLAST run in June 2002)

H4A: CMS room, nice & clean

H4B: standard area
    big moving table
Above 50 GeV: secondary beams
Below 50 GeV: tertiary beams
Maximum energy: 205 GeV (depending on H8, 150 GeV for us), minimum energy: 10 GeV
Intensity: at least a few hundred Hz at all energies (10^8 pions at 150 GeV/c)

H6A: small moving table (~100 cm wide)

Lateral extension: ~5 mm at high energy, a few cm for tertiary beams
80 GeV electrons (secondary)

For tertiary beams (E< 50 GeV), only mixed beams are available:
Similar number of pions and electrons.
Generalities

Beam diagnostics
Beam profiles can be observed from MWPCs placed along the line, that can be taken in and out. The beam particles can be counted by “Trigger” (plastic scintillator) detectors. Possibility to have Threshold-Cerenkov counters in the beam (the pressure has to be adjusted by the user). These detectors are triggered by some of the trigger detectors. Useful for E<15 GeV.

Setting up
The beam is generally granted for a given number of weeks (6 days ON +1 day OFF for maintenance). Depending on the schedule, the setup time may be taken from our allocated beam time, if it exceeds one day.

Additional costs
What is free: beam, electricity, CERN computer accounts
What is not: most the rest, including phone, access to electronic pool, other fluids (water)…

Proposal to be submitted
We don’t need to provide fine details on what we plan to do. Meeting the October 15 deadline should not be a problem. However, the time request has to be properly estimated.