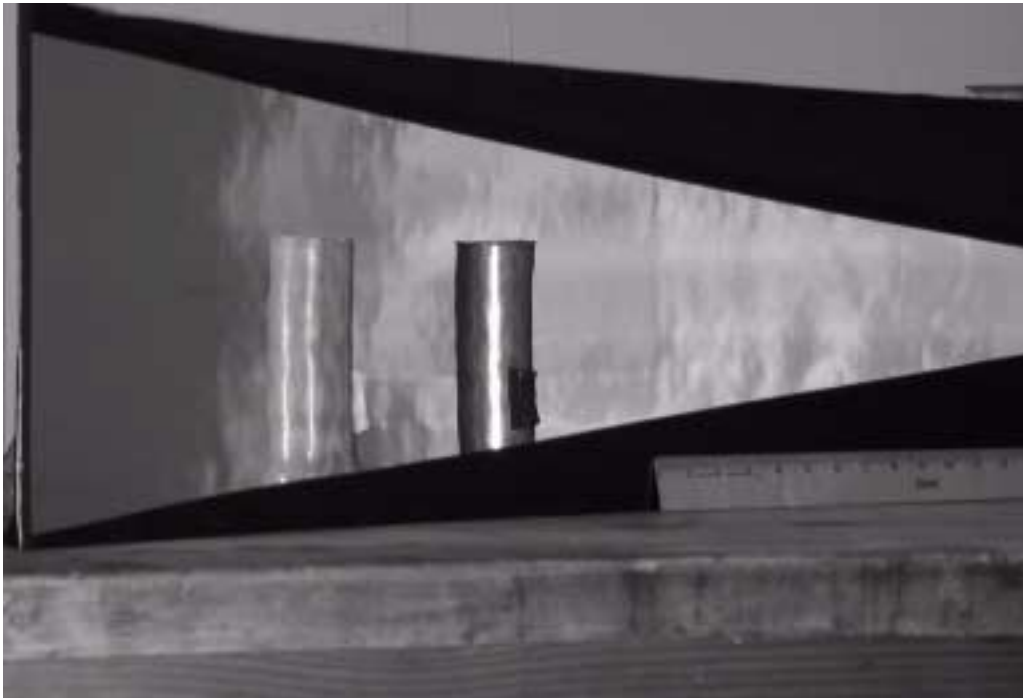


# Cherenkov Status - 1 Nov. 2001

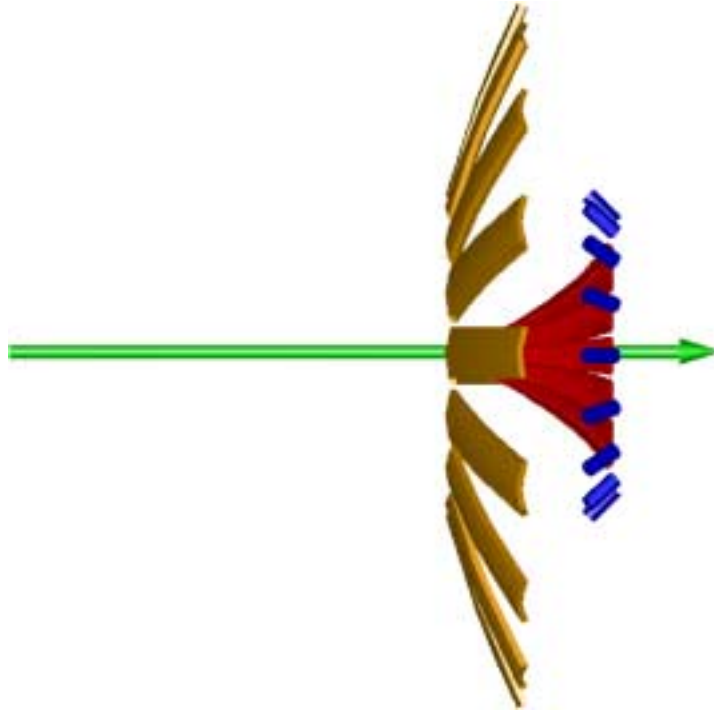
## I. Mirror fabrication technique

- lexan mirror, carbon fiber outer layers, vinyl foam inside



- point to blob optics → good enough!
- aberrations small compared to effects of Cherenkov source

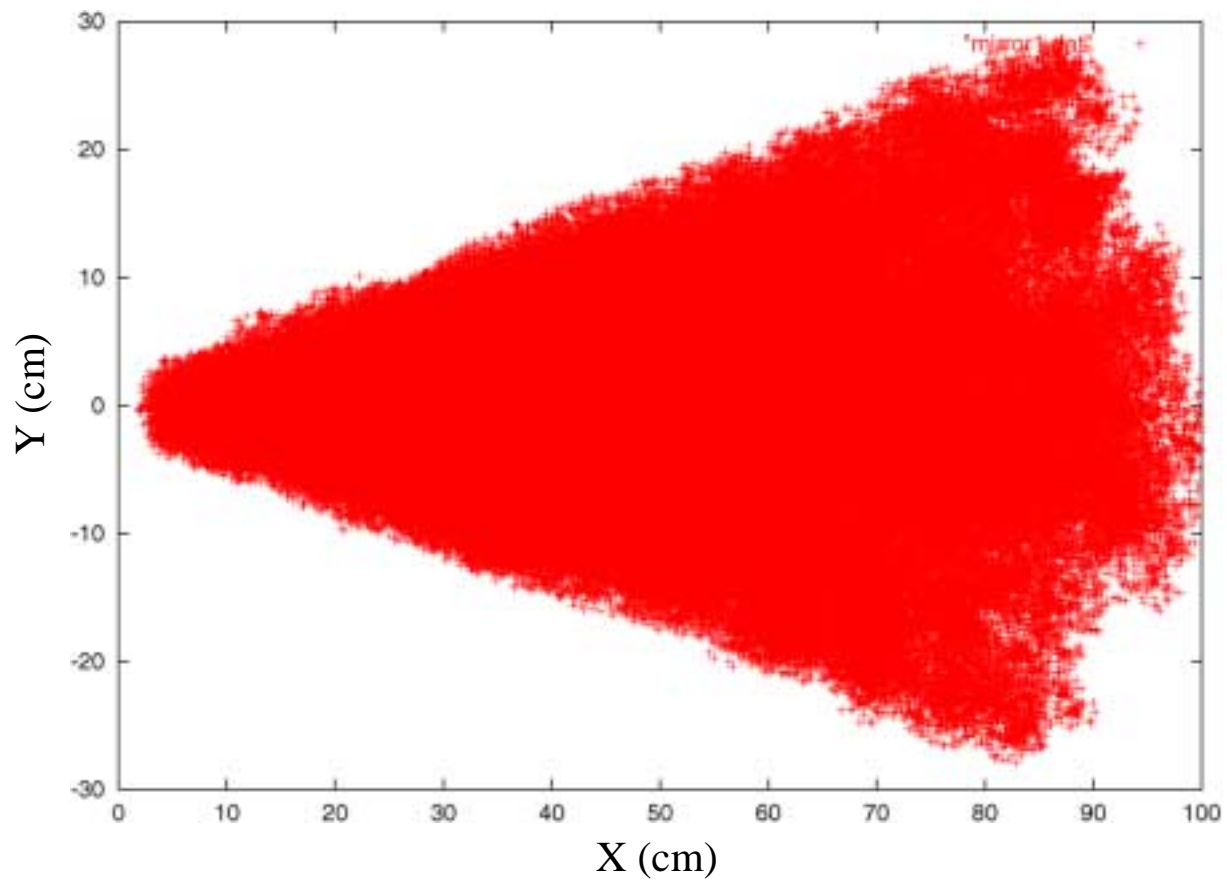
## II. New Optics



- monte carlo light from  $K^+K^-\pi^+\pi^-$ ,  $M=2.0$  GeV,  $E_\gamma=9$  GeV.
- need two mirrors to get linear magnification small enough.
- pmt placement is critical because of magnetic shielding requirements.

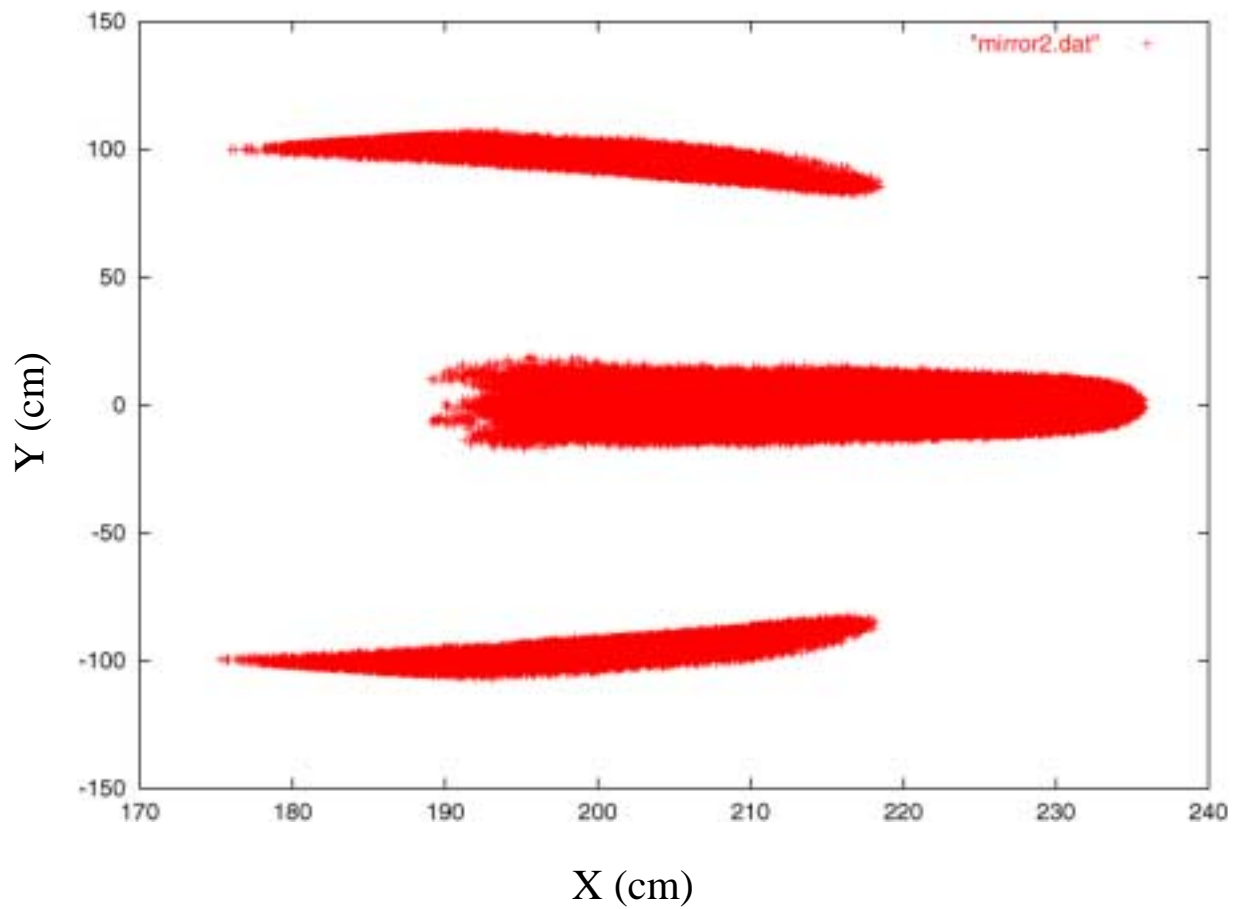
## Stage-I photon hits

- charged pions hitting one sector.



- place pmt at  $X > 100$  cm.
- reject cross-talk at second stage mirror.

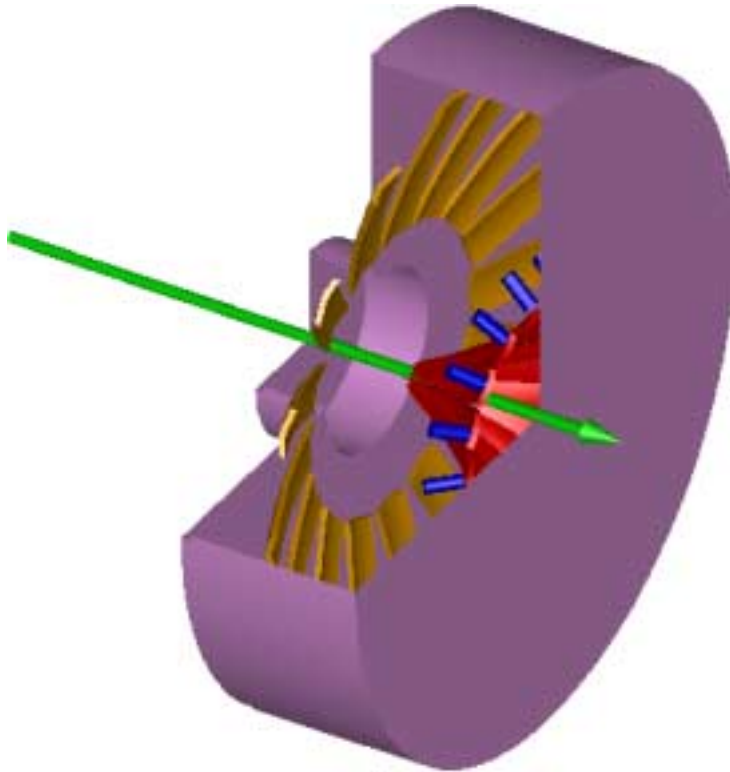
## Stage-II photon hits



- match stage-II mirror to center band.

## Cherenkov detector

- preliminary design is in IDEAS format.



- detector radius = 2.4 m (diameter = 16 ft).
- magnetic shields need to be tested ( $B = 300$  gauss!)