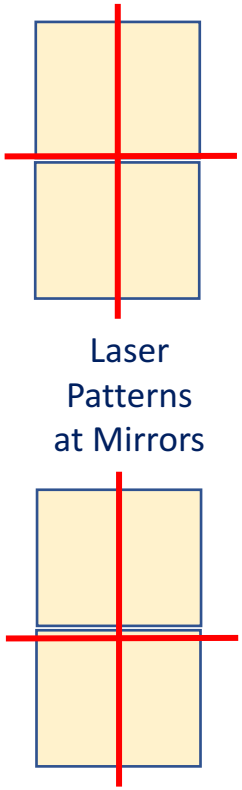
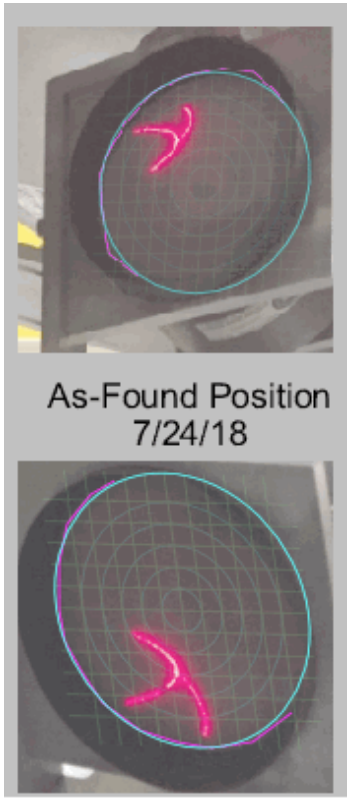
HMS Cerenkov Status as of 26-July-2018

- The rear window wrinkled two weeks ago during pumpdown and must be replaced.
- A new hydroforming fixture is being fabricated.
- New bolts and nuts have been ordered.
- 0.050" window material is on order and will hopefully arrive before 20-August.
- Eric S. did a calculation of required bolt torque and provided a writeup explaining it.
- The PMT's have been repositioned to improve the light collection.

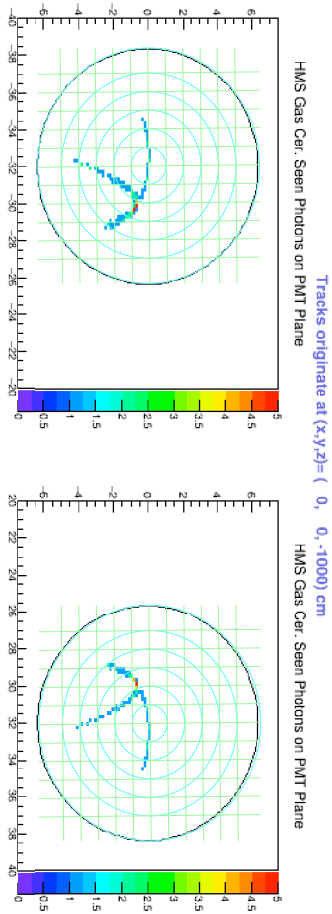
24-July-2018: Move the HMS Cerenkov PMTs Up/Down by 1 inch to improve optical alignment.*



Laser Patterns at Mirrors



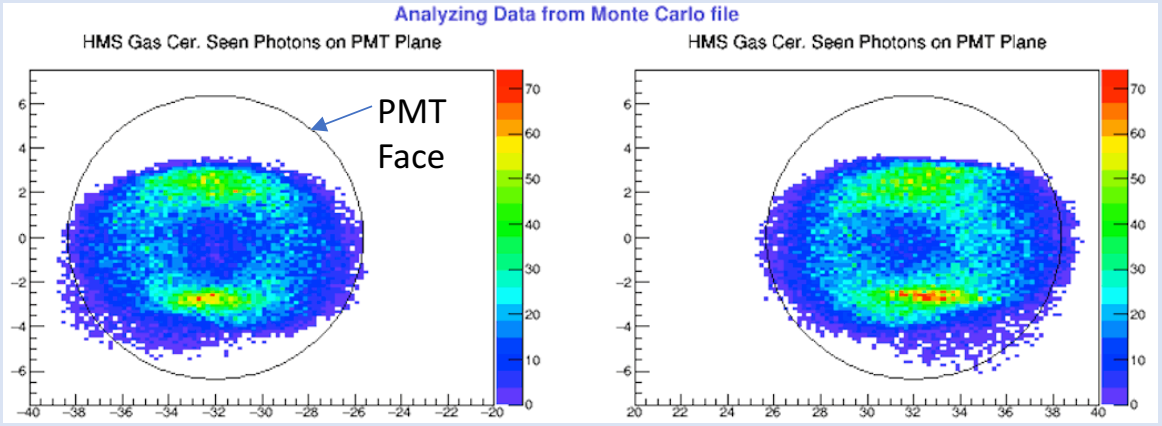
20 minutes later

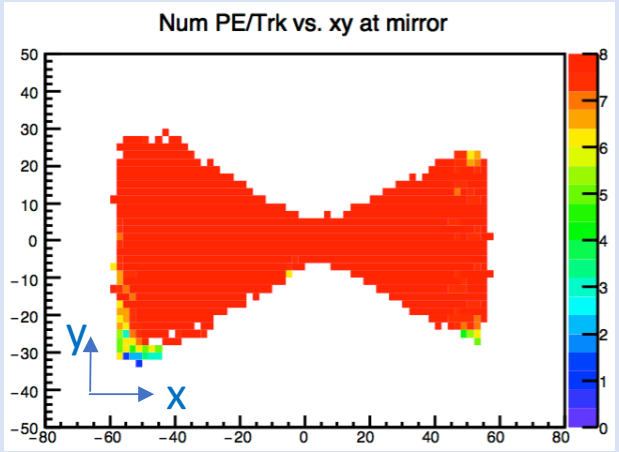


*Moving PMTs is easier and less risky than re-aiming mirrors.

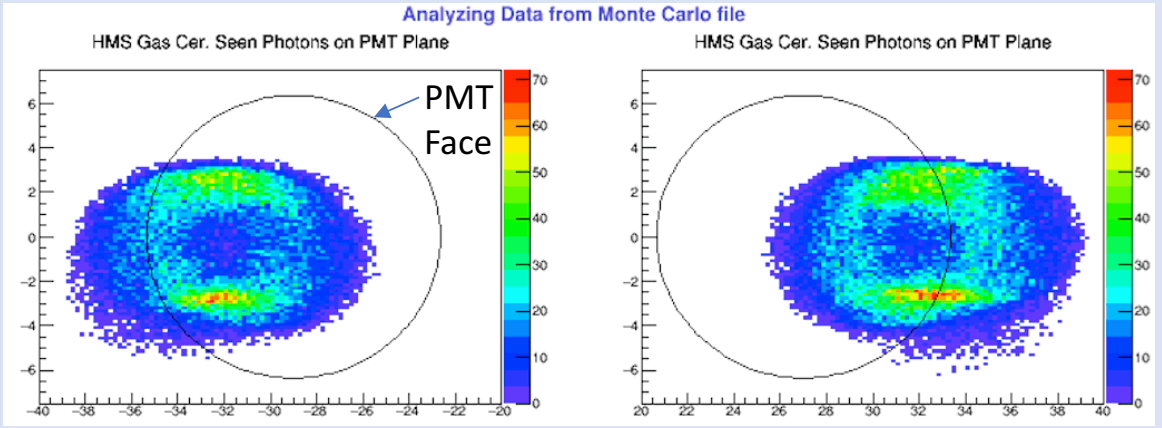
Calculated pattern that should be seen on PMT faces for crossed-lines laser. (Note that PMT circles shown are at X= ±32cm. Mirrors are nominally at X= ±30cm.)

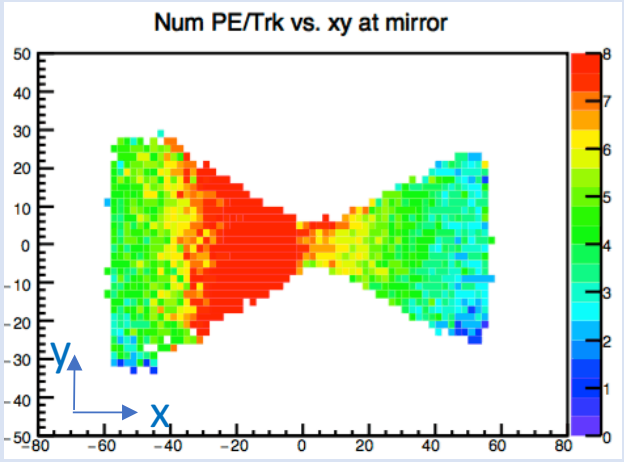
Photons radiated by Monte Carlo Tracks and propagated to PMT surfaces.





Properly aligned optics





Top PMT 3cm low, Bottom PMT 5cm high

With PID cut at Npe>1.5, change in PID efficiency is small, even for large change in photon collection efficiency.