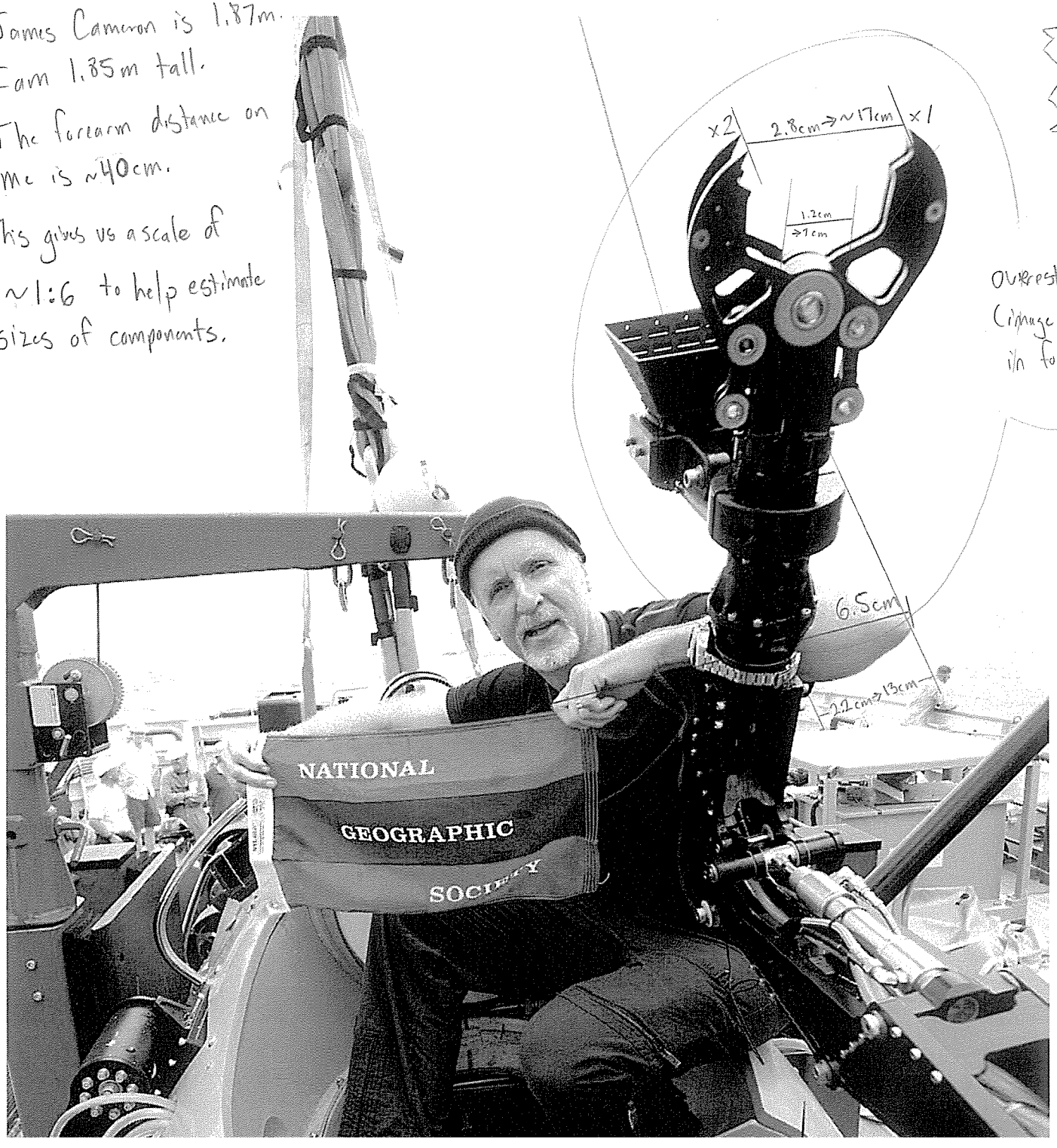
James Cameron is 1.87m.
I am 1.85m tall.
The forearm distance on me is ~40cm.
This gives us a scale of ~1:6 to help estimate sizes of components.



light array

Center of mass

top

hardpoint

bottom

Ascent weights

Vertical thrusters

hardpoint

1mm ≅ 6cm

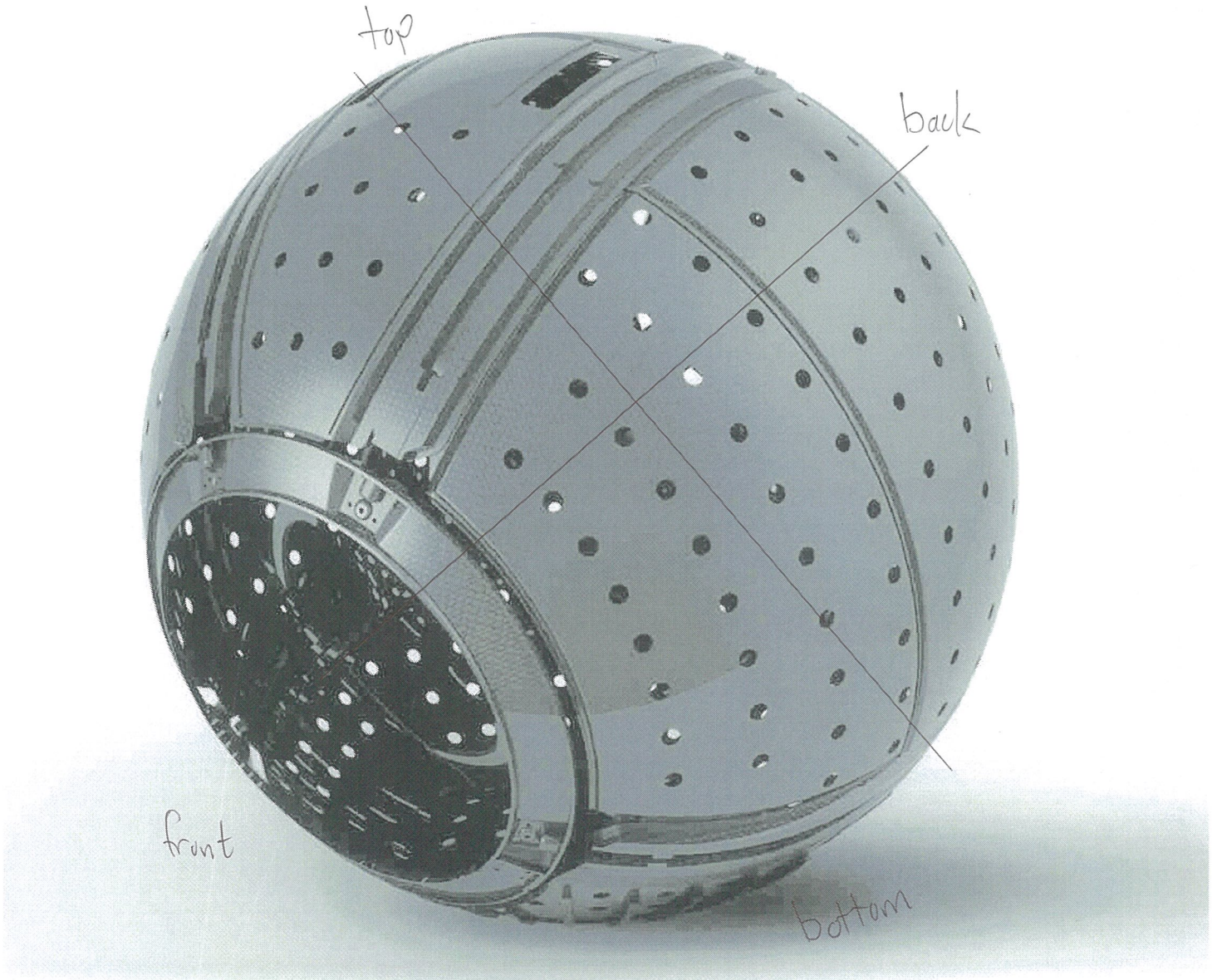
2050

top

bottom

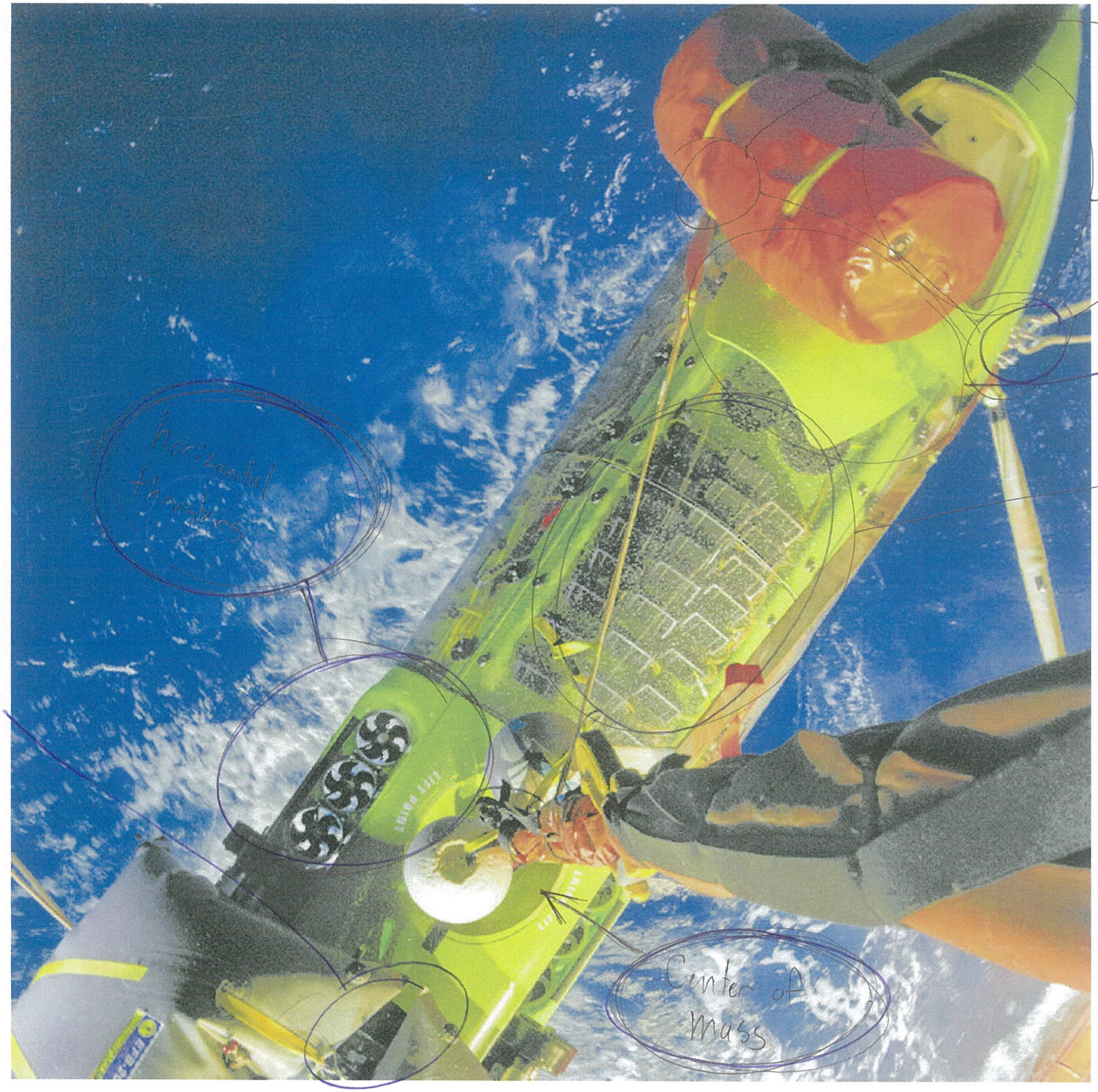
629.6

total height is ~7.3m

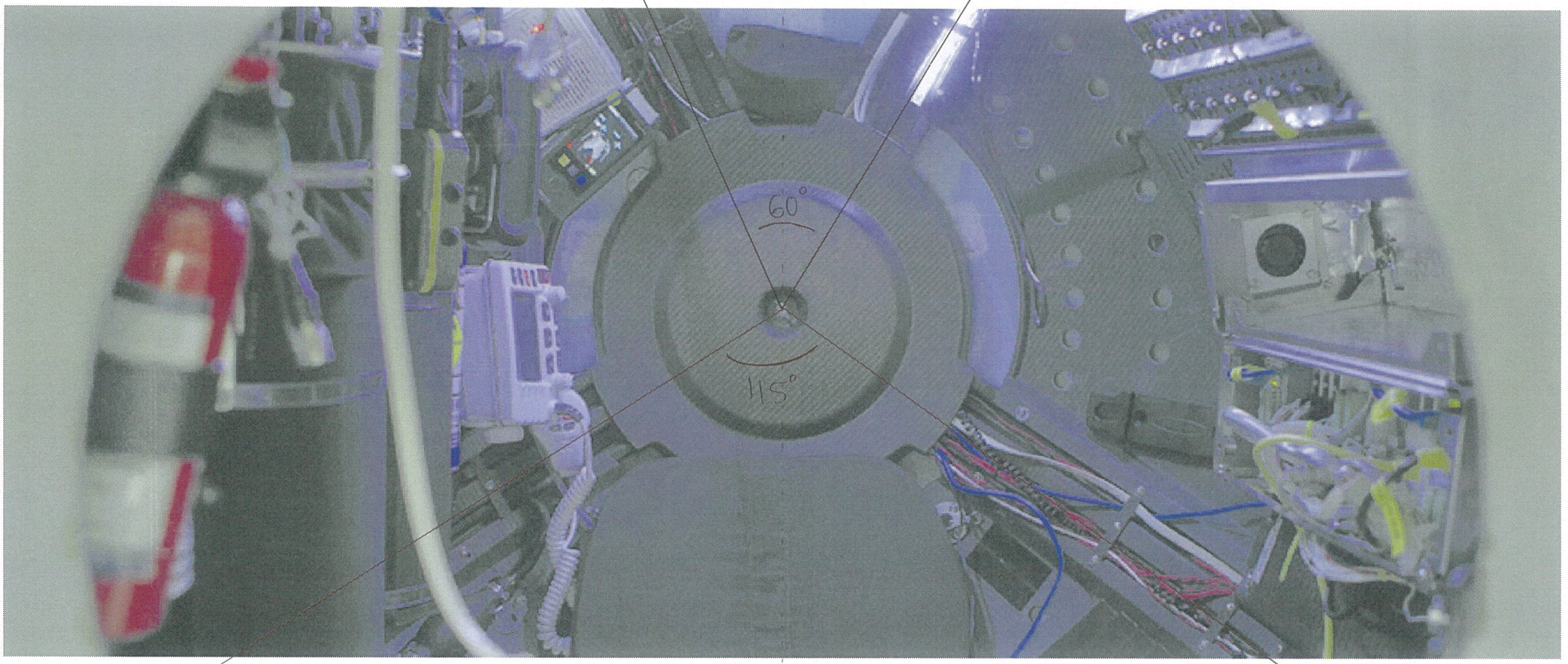


Inner shell

Actual pressure hull

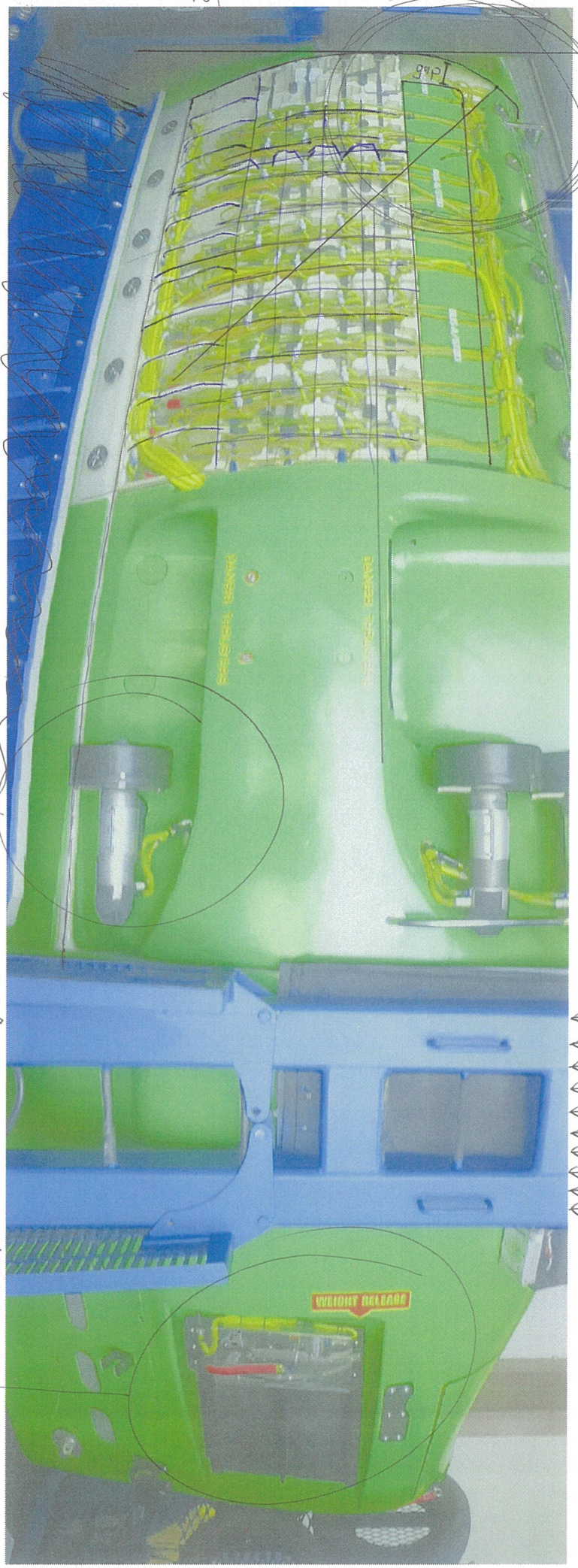

top
hardpoint
This plate goes here
light array
2
1
horizontal thrusters
Centered thruster
Center of mass
bottom

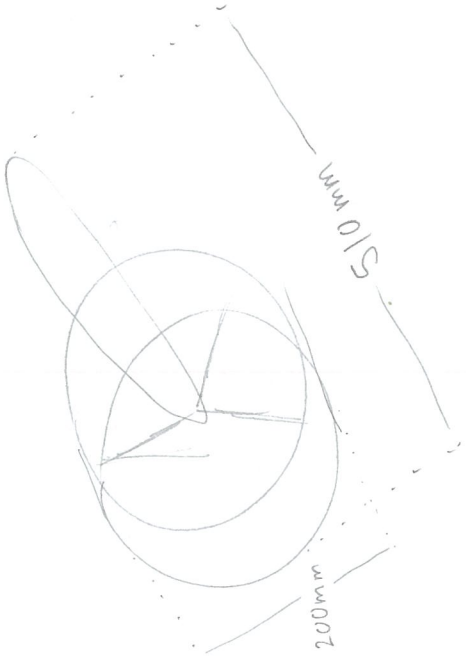
View Port



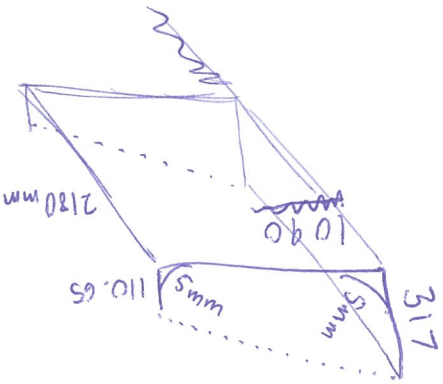
Inner shell view w/ equipment

Top





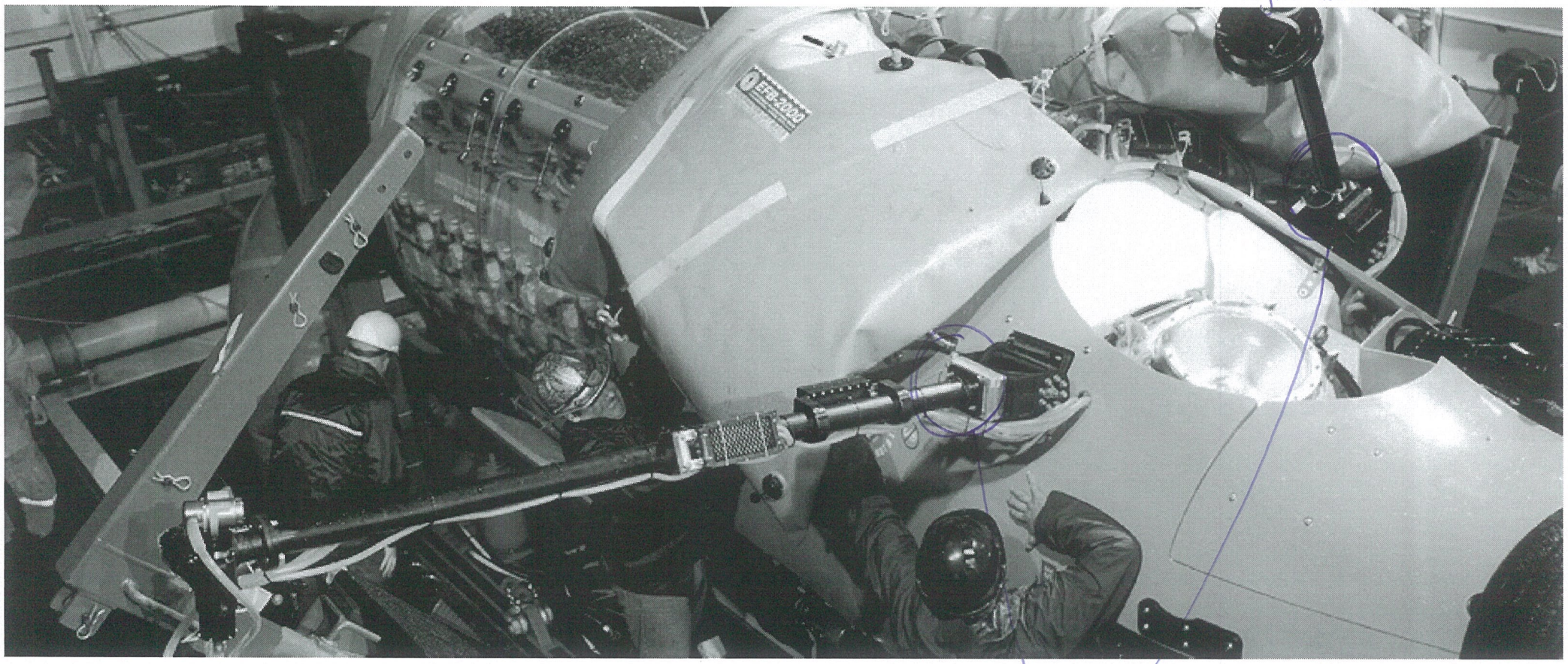
Vertical thruster profile



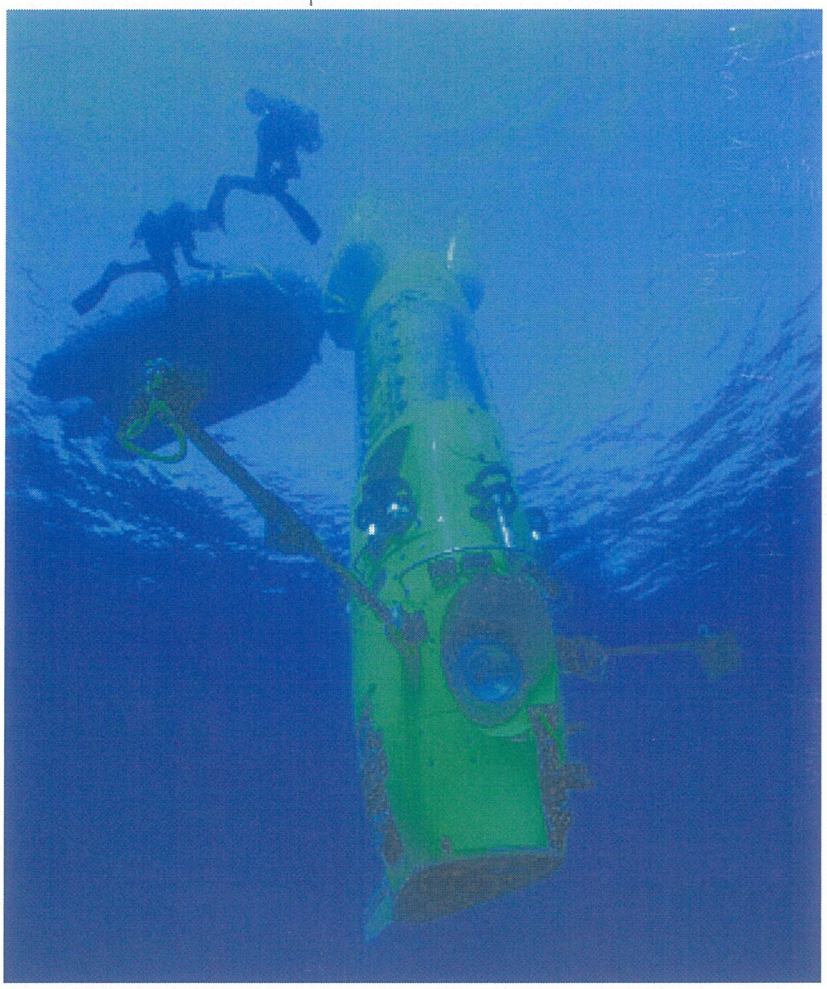
(not part of Challenger)

Weight release

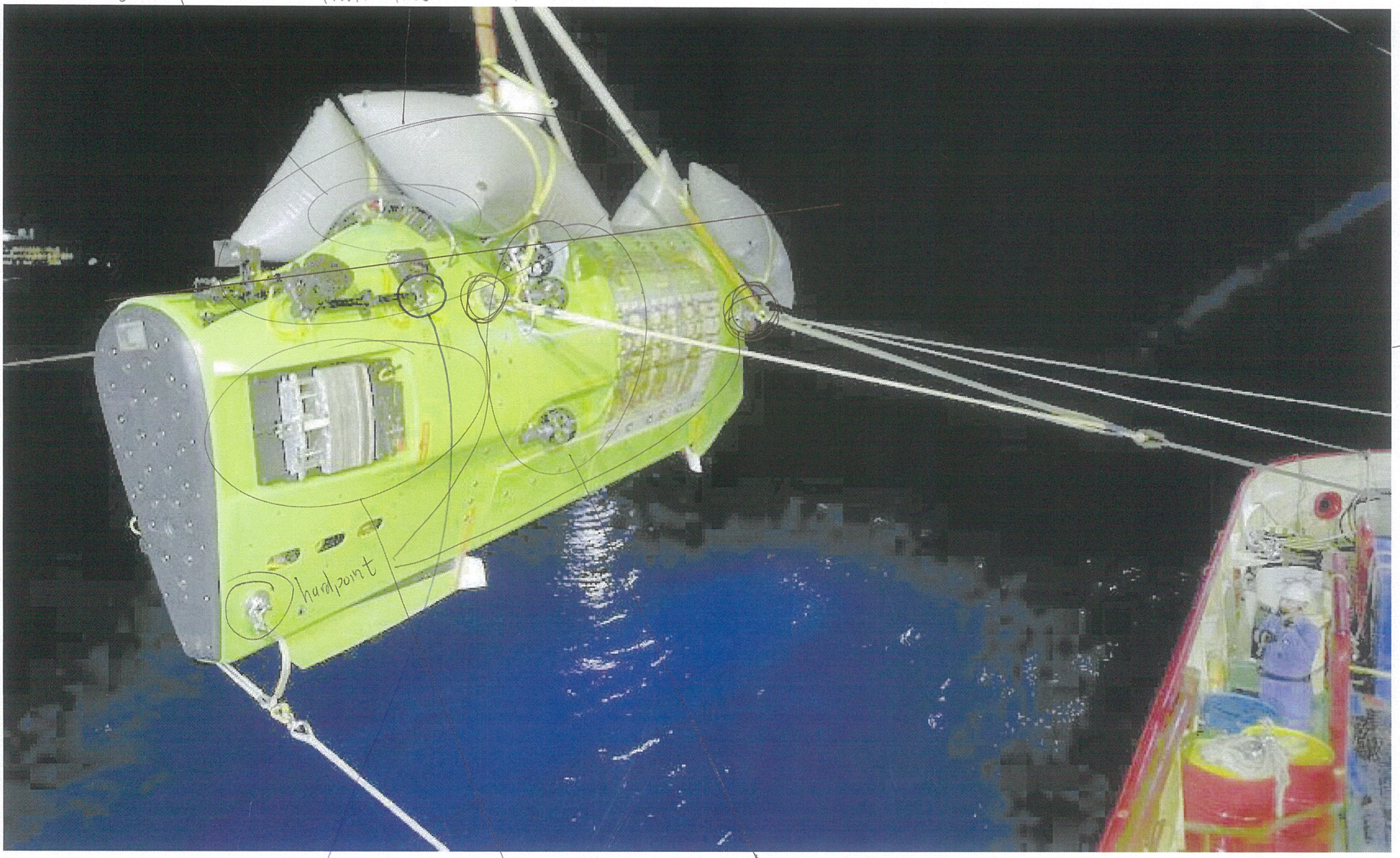
Bottom


Light boom
Camera boom
Booms are in secure mode

top



bottom


Lights w/ bar
front face is not flat!
bottom
top
hardpoint
Weight release
3 vertical propellers per side
boom in travel mode
R 150
G 234
B 1
Green Medium-Gloss Plastic

top

light boom still in travel mode. (Needs to be attached by divers.)

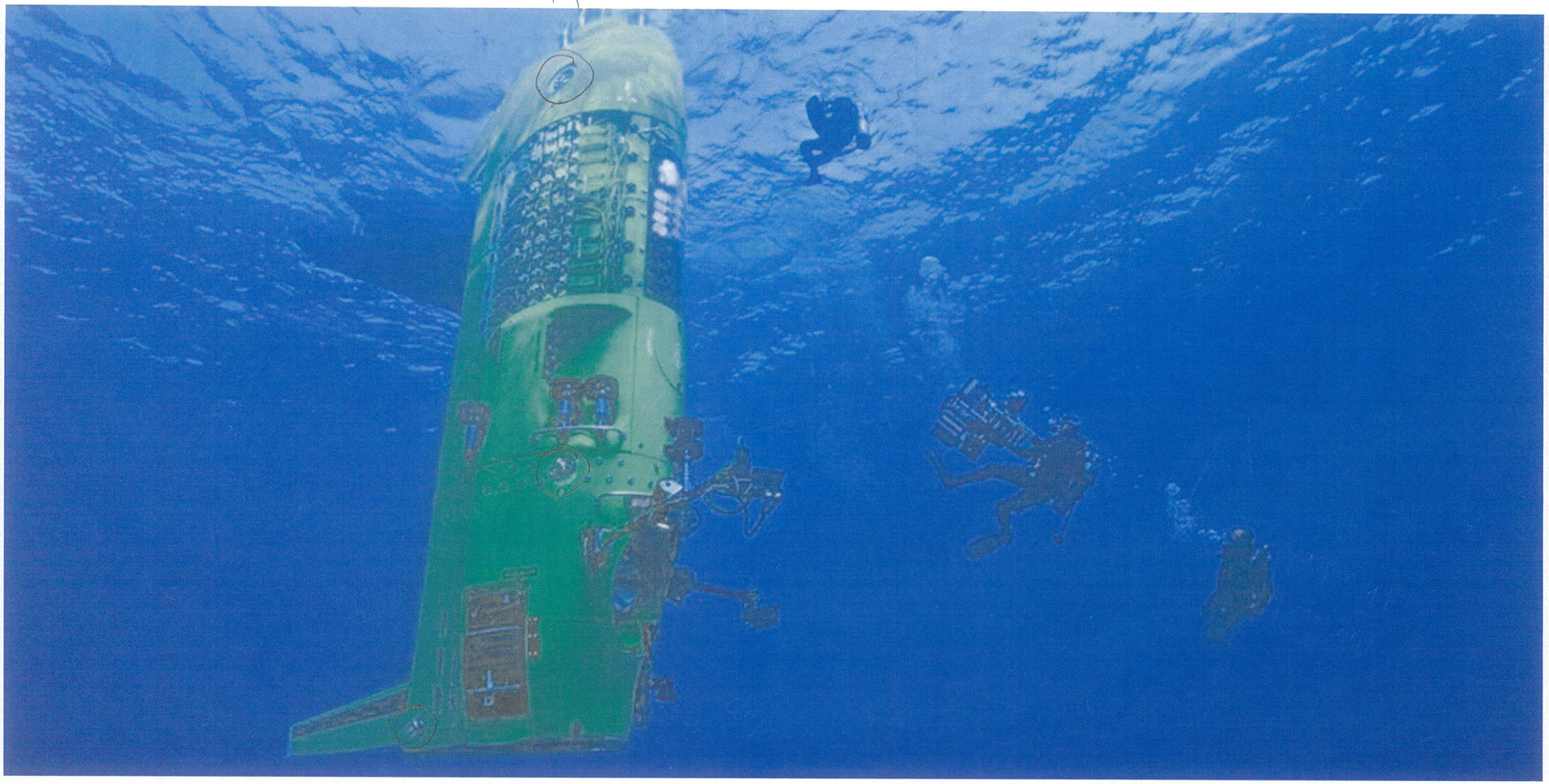
This image has been flipped horizontally (no idea why)

(vanishing point)

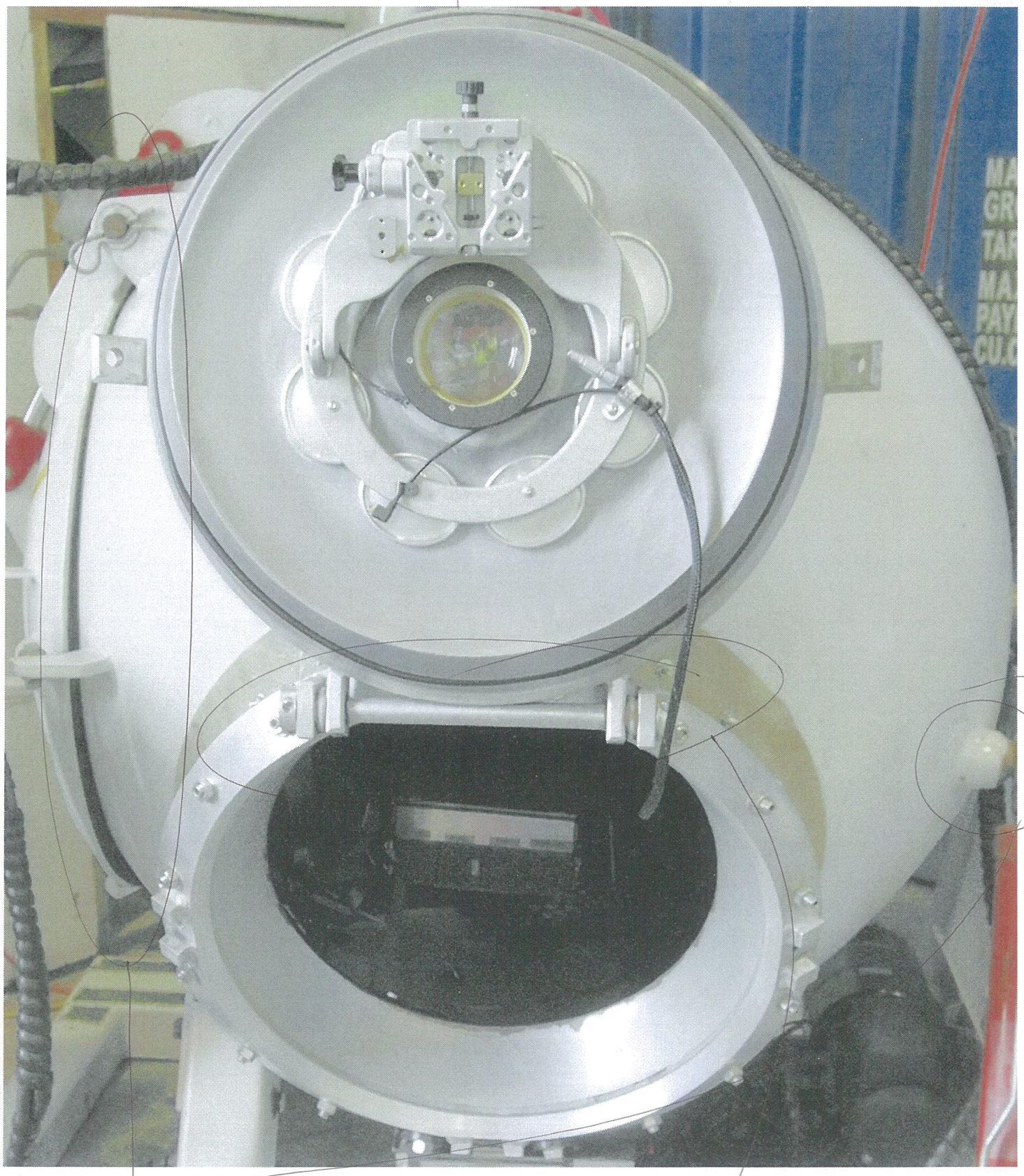
bottom

This feature is only present on one side (asymmetry)

top

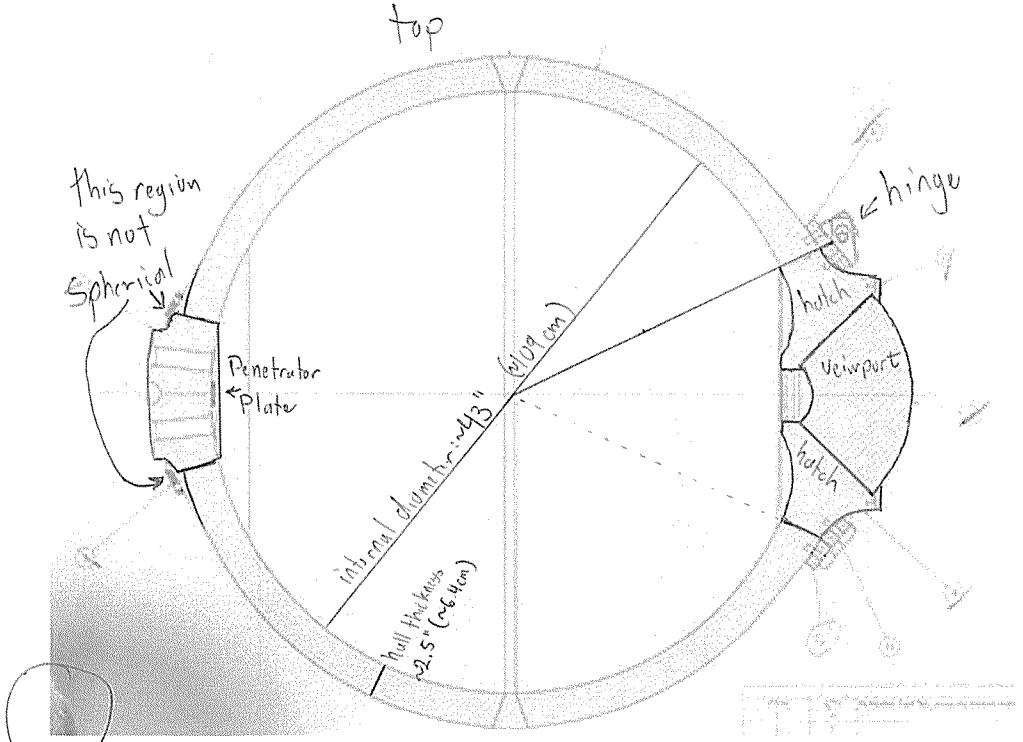


bottom



Exhibition model

Pressure hull



Pressure hull schematic

Ron Allum's head

Appologies for using "freedom units." Much of my research was intended for American audiences. I have included all conversions.