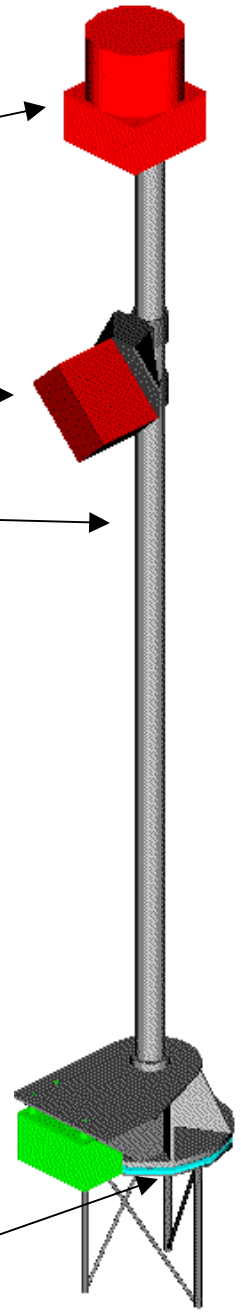
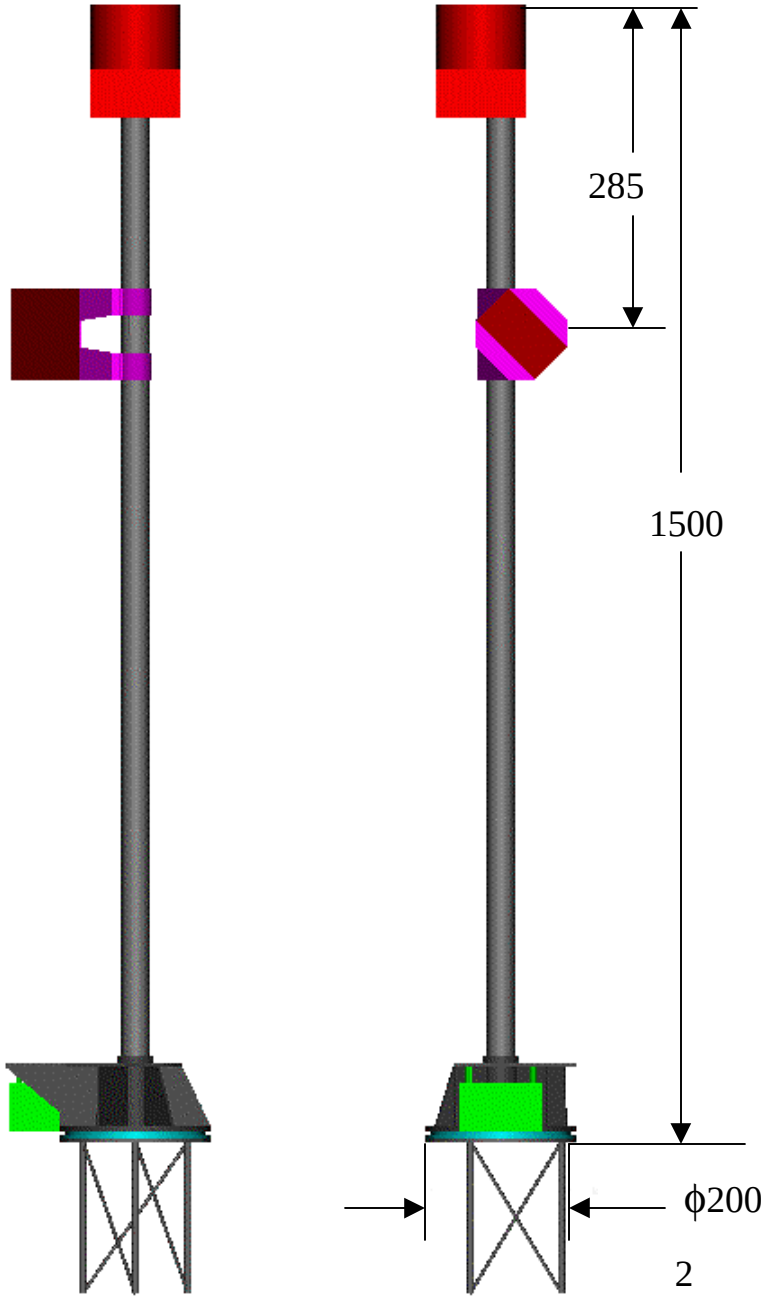
# *Stereo: Impact*

- SWEA
- STE
- Carbon Fiber Boom
  - mounts to mast
  - supports Impact instruments
  - est. mass: 350 gr
- Magnetometer
- Search Coil
- S.C. Pre-amp
  (not seen in view)



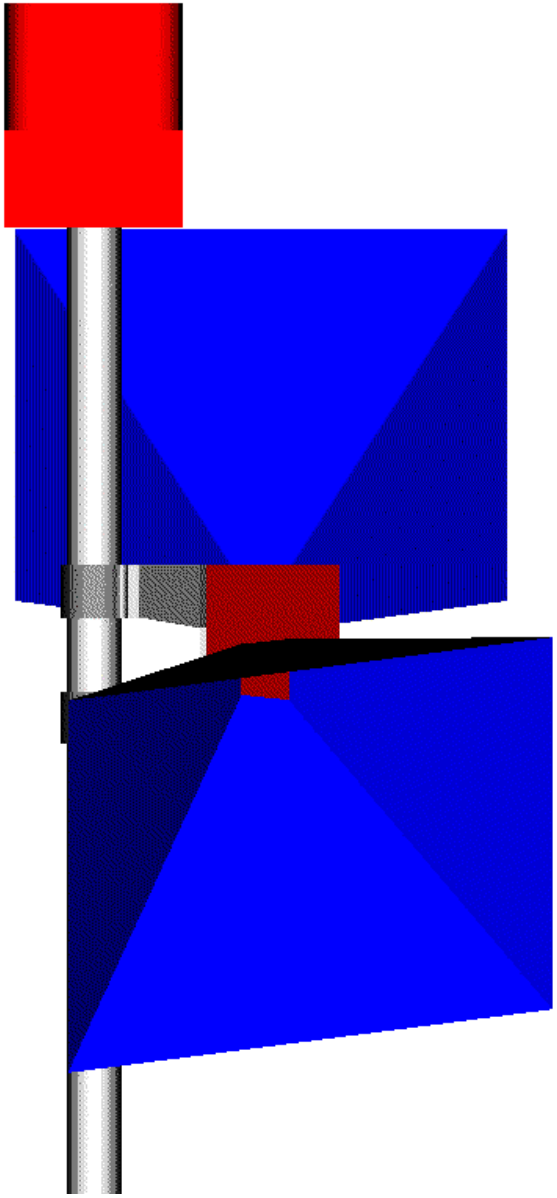
# Stereo: Impact

- Impact overall view: basic dimensions
- Estimated natural frequency (based on Lunar Prospector Magnetometer Boom): 10.8 Hz



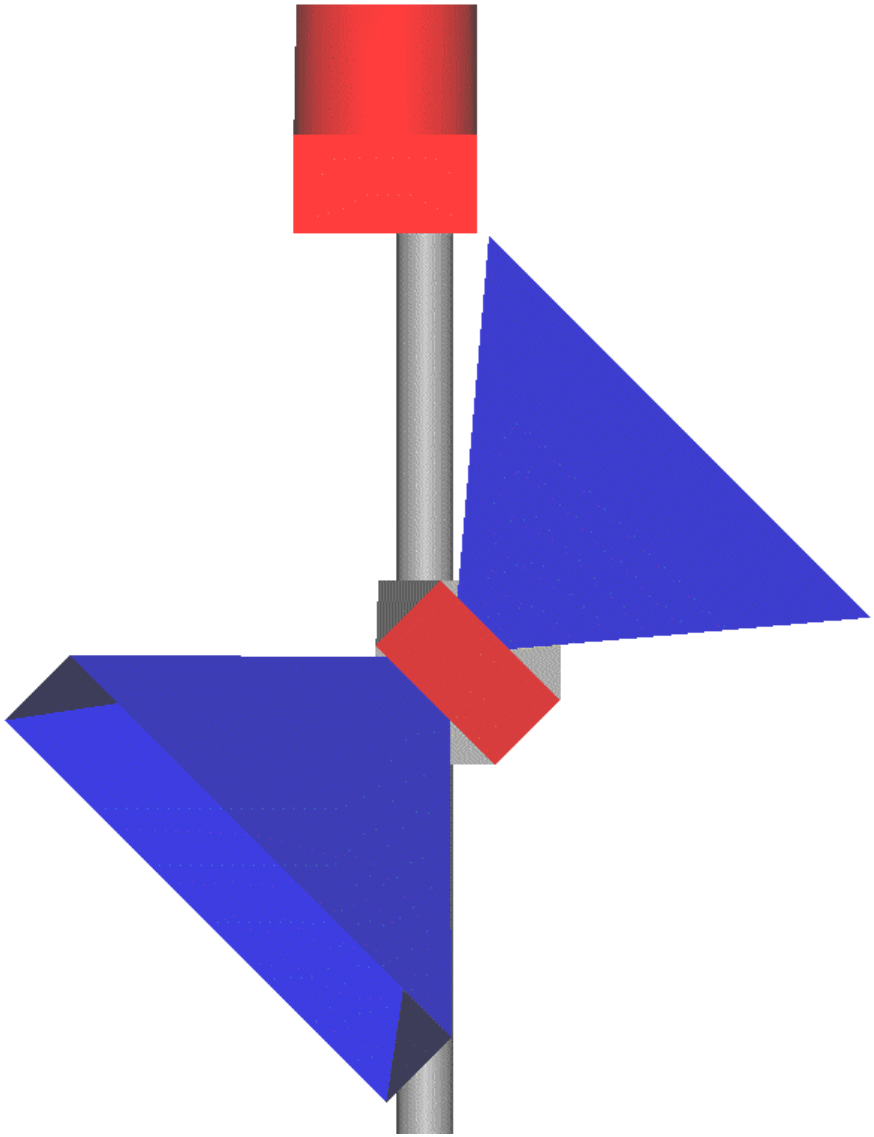
# *Stereo: Impact*

- Local X-axis view of STE Field of View
- Lead detector canted by 10 Degrees to avoid SWAVES antennas
- Detector positioned to follow Parker Field Lines
- Conductive and absorptive thermal isolation
- ‘Lead’ S/C shown, mount plate allows rotation for ‘follower’ orientation



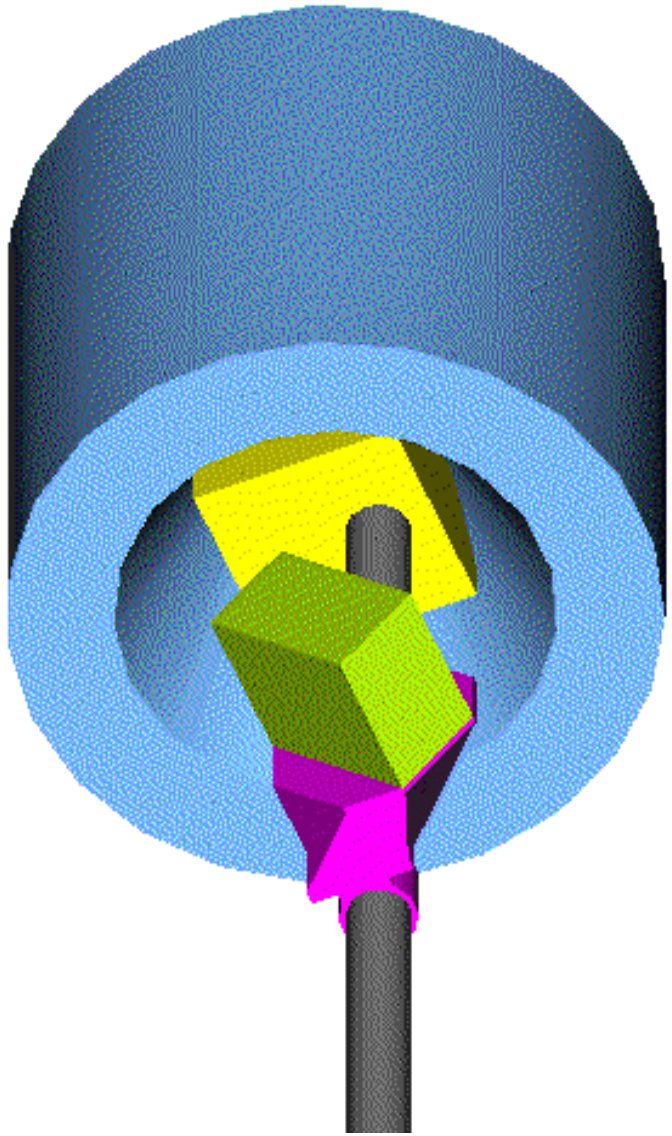
# *Stereo: Impact*

- STE local Y-axis field of view, showing clearance of SWEA
- 80 X 80 degree F.O.V.
- Estimated mass: 350 gr
- Mag base aligned with STE



# *Stereo: Impact*

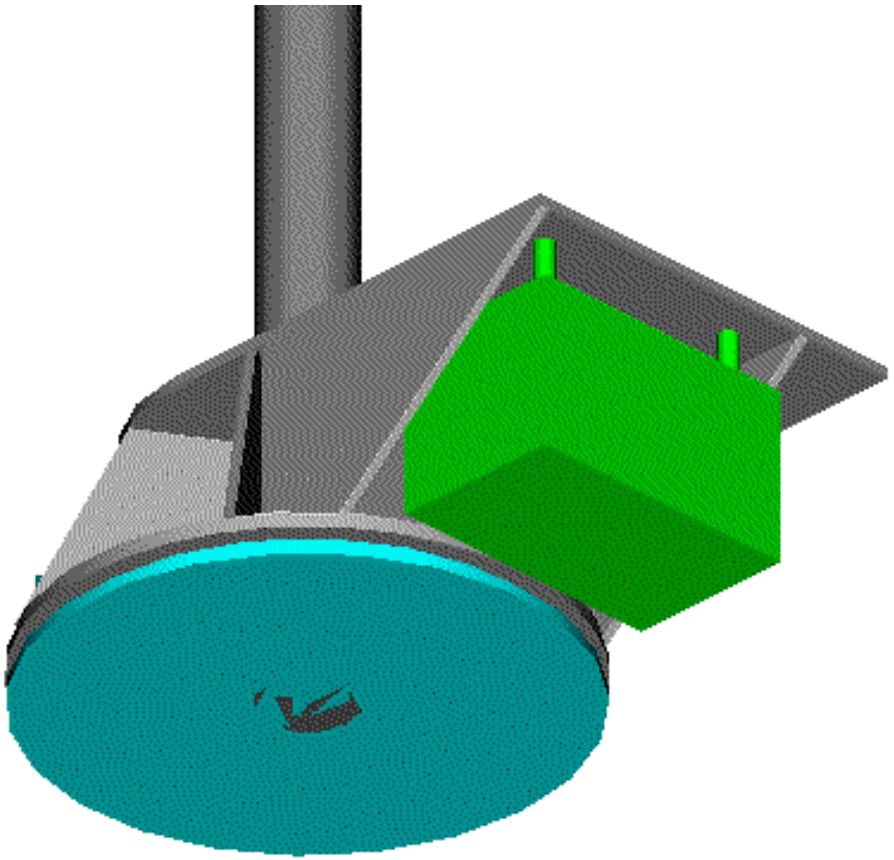
- SWEA F.O.V. clearing STE
- Offset along local X-axis to avoid STE F.O.V.



# *Stereo: Impact*

•Magnetometer requirements:

- 150 mm from STE/SWEA harness
- In sunlight
- Non magnetic, non-metallic mounts and hardware
- No search coil influence



# Stereo: Impact

- Proposed Search Coil:
  (part of SWAVES)
  - Pre-amplifier
  - Accepts interference from magnetometer drive frequencies
  - Wire Loop