

Sounding Rocket Fun

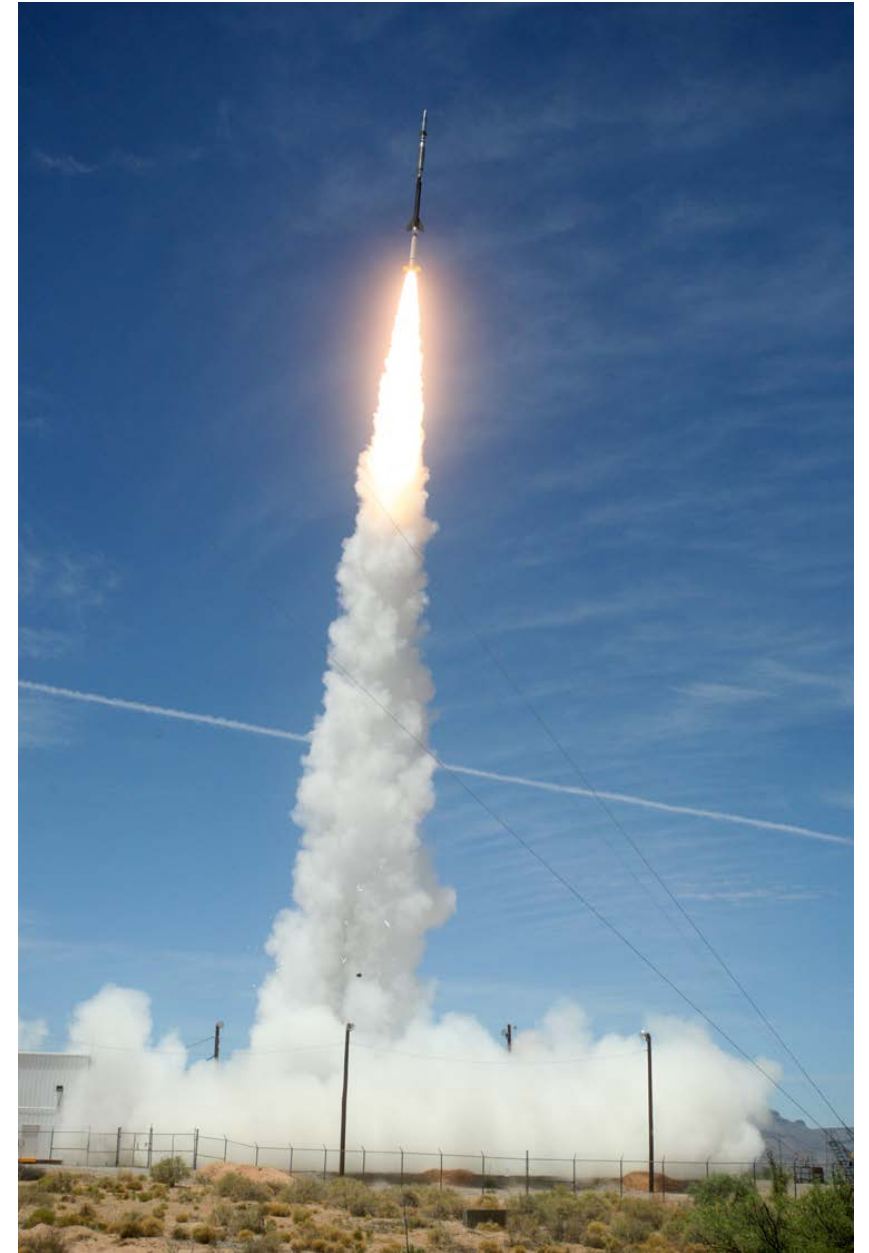
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CLASP 2 Team – David McKenzie PI, MSFC

Hi-C 2.1 Team – Amy Winebarger PI, MSFC



Marshall Space
Flight Center



<https://www.nasa.gov/centers/marshall/news/hi-c-launches-to-study-suns-corona/index.html>

Outline

- CLASP-2
 - Integration and Key Hardware
- WSMR operations overview
 - Packing up
 - Unpacking
 - Set up/Functional Testing
 - Sun Sensors and Heliostat
 - Vibration Tests
 - Rail
 - Launch !!!
 - Recovery

https://www.nasa.gov/sites/default/files/thumbnails/image/190328-n-hb488-1036_002_0.jpg



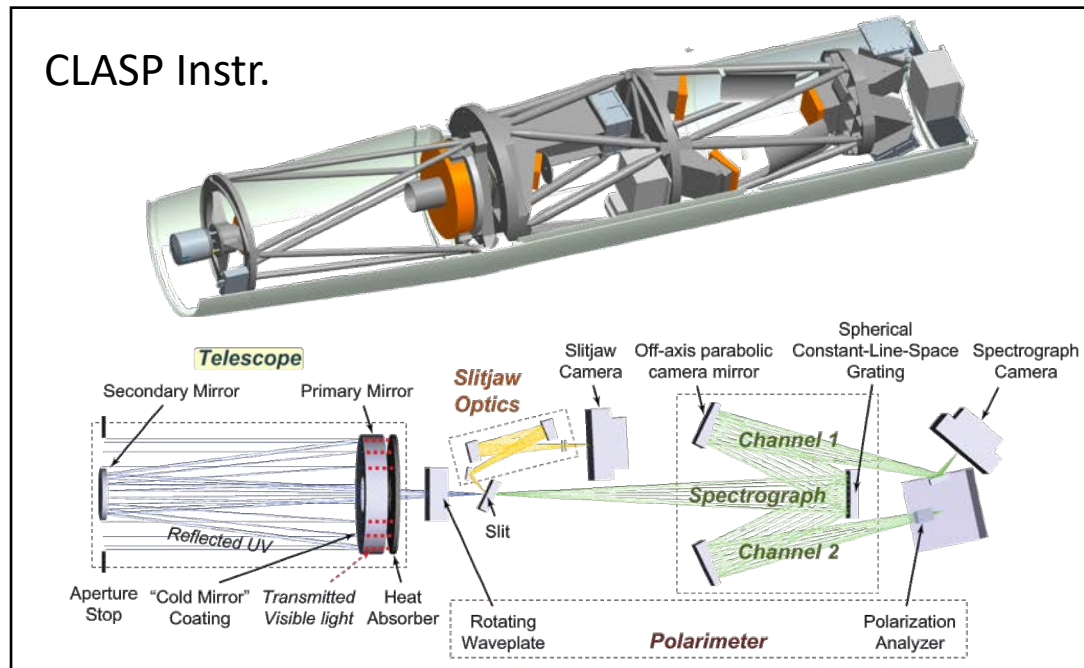
CLASP-2 Instrument

- Instrument major components
 - Cassegrain telescope
 - slitjaw imaging system
 - dual-beam spectrograph
 - Polarimeter
- CLASP-2 is slightly different from diagram but mostly the same



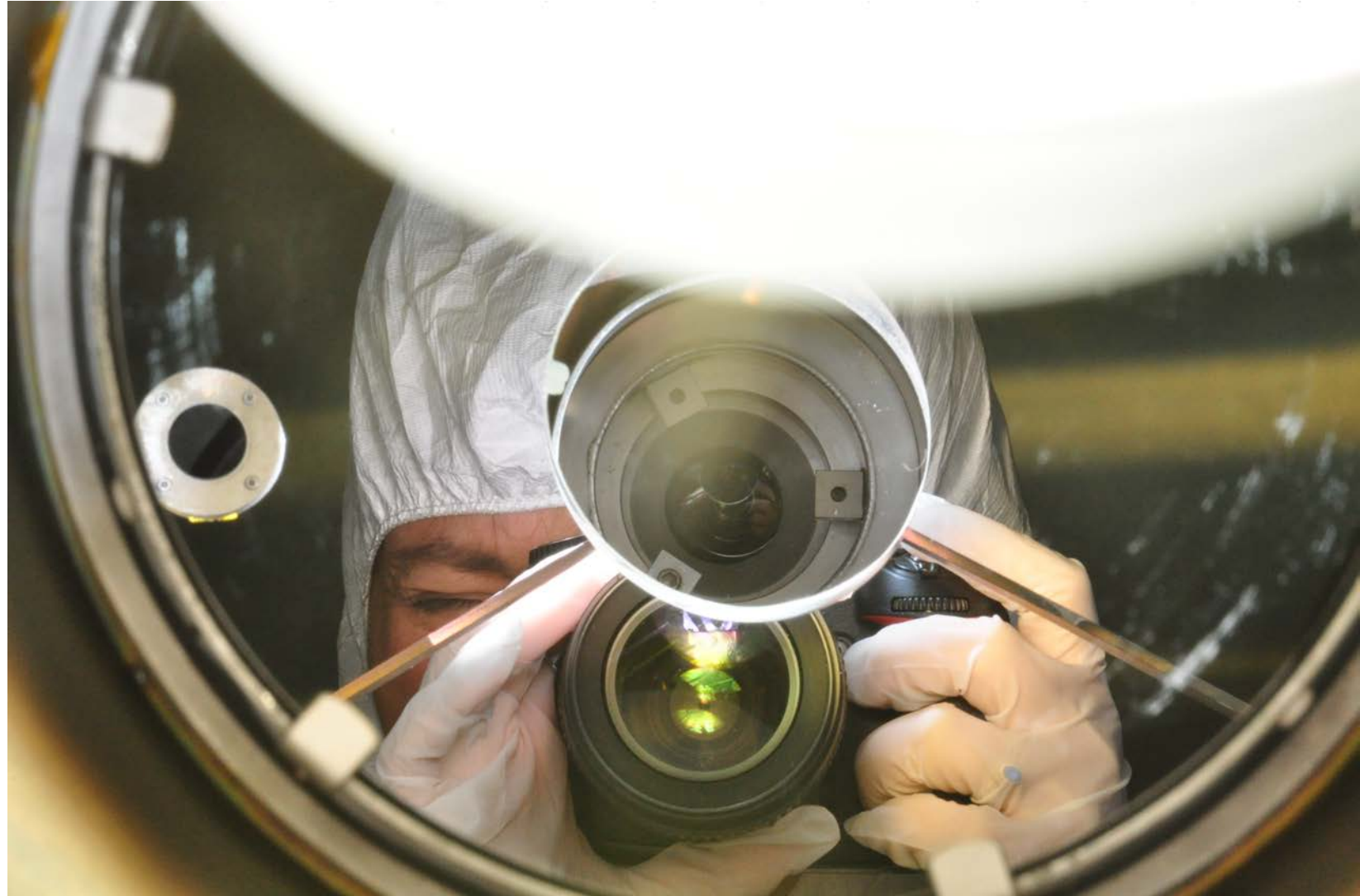
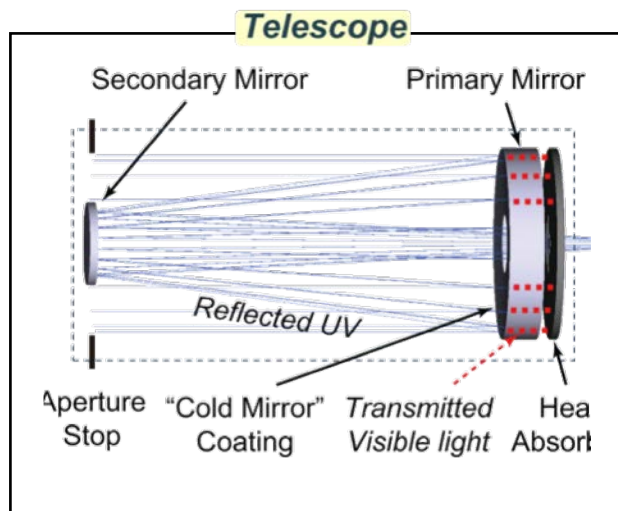
CLASP-2 at NSSTC

CLASP Instr.



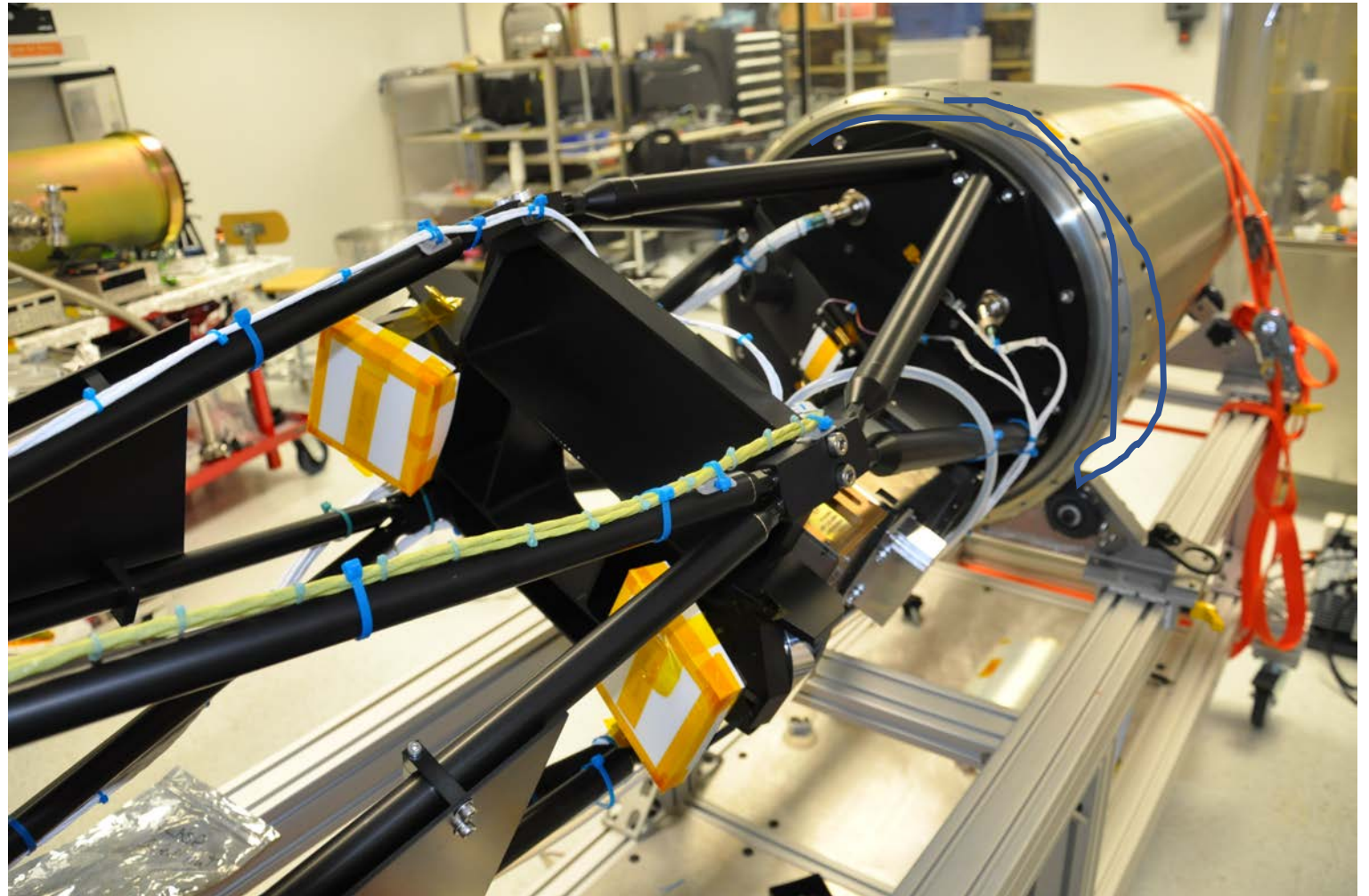
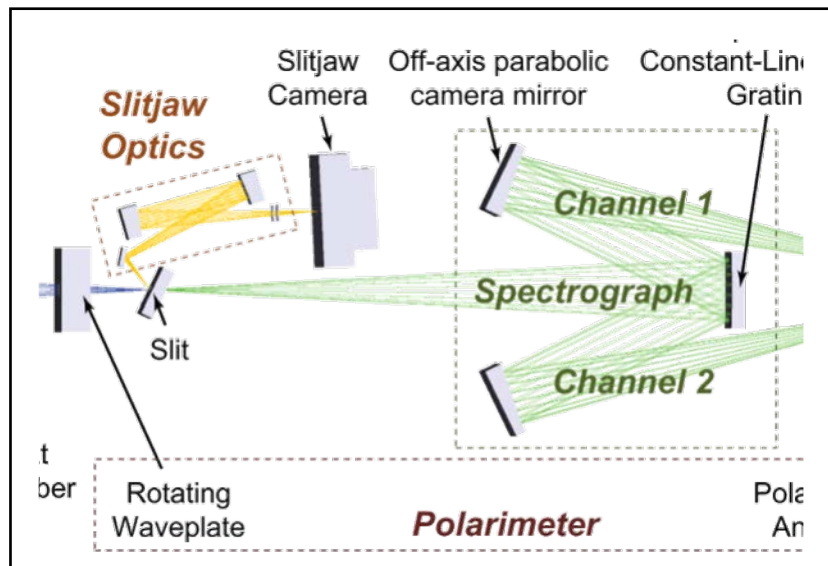
Primary Mirror

- Cold mirror
 - Narrowband multilayer coating
 - Reflects target wavelengths
 - Transparent to visible → heat absorber
- Secondary



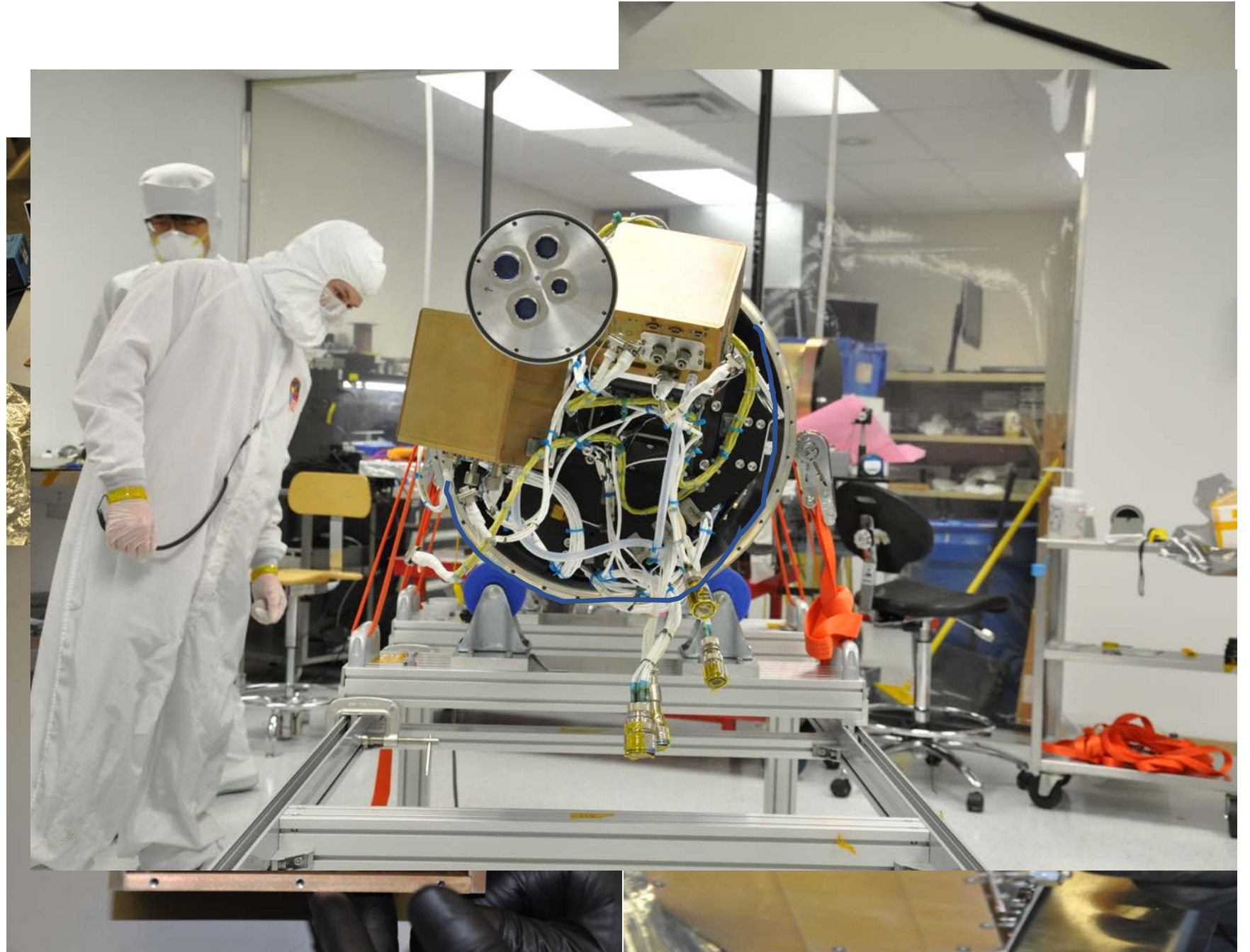
Integration and CLASP Instrument

- Waveplate
- Slit & Slitjaw camera
- Spectrograph mirrors
 - Grating just off image



Cameras

- 2 spectrograph cameras
- 1 slitjaw camera





YAAASS!!

Ready for WSMR!

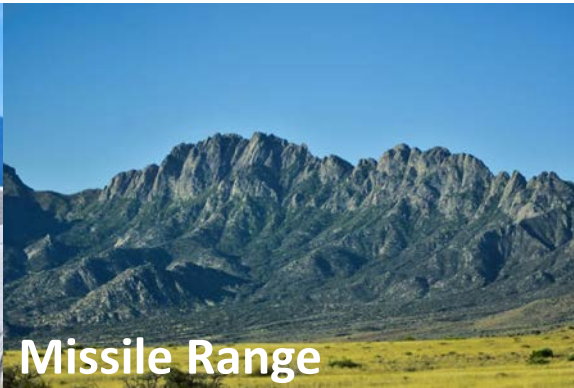
Packing



Ship and Unpack



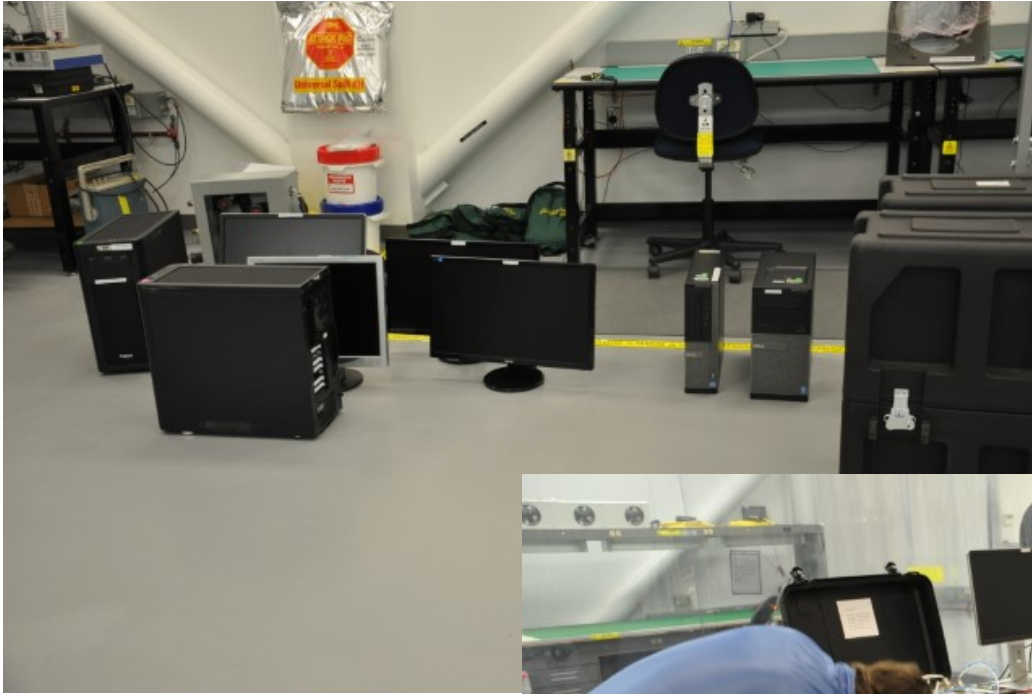
White Sand



Missile Range



GSE Set up



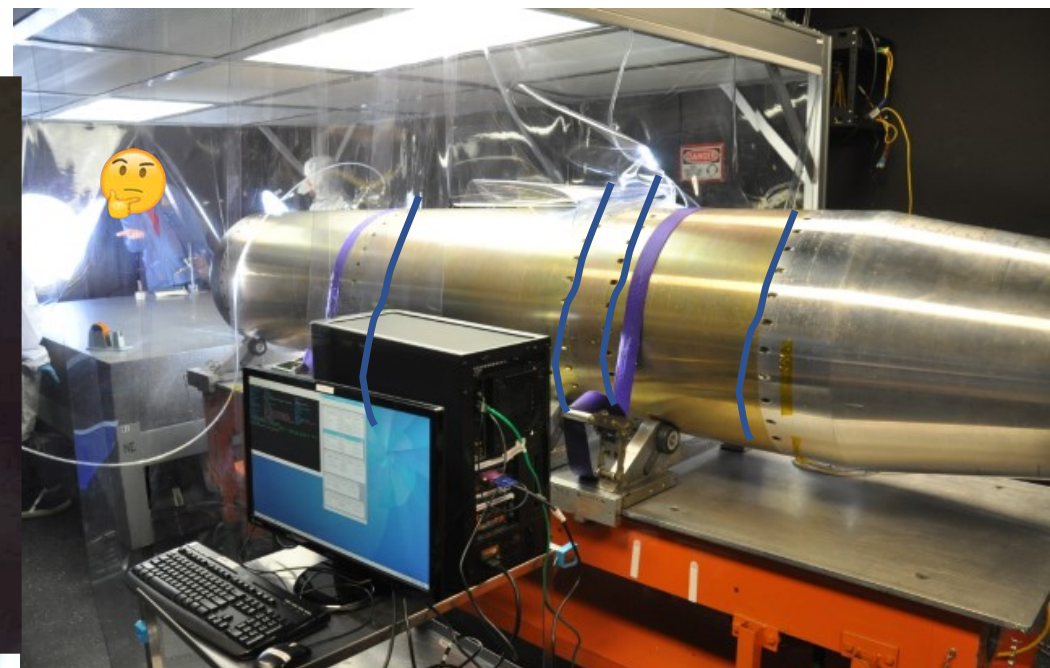
Functional Tests



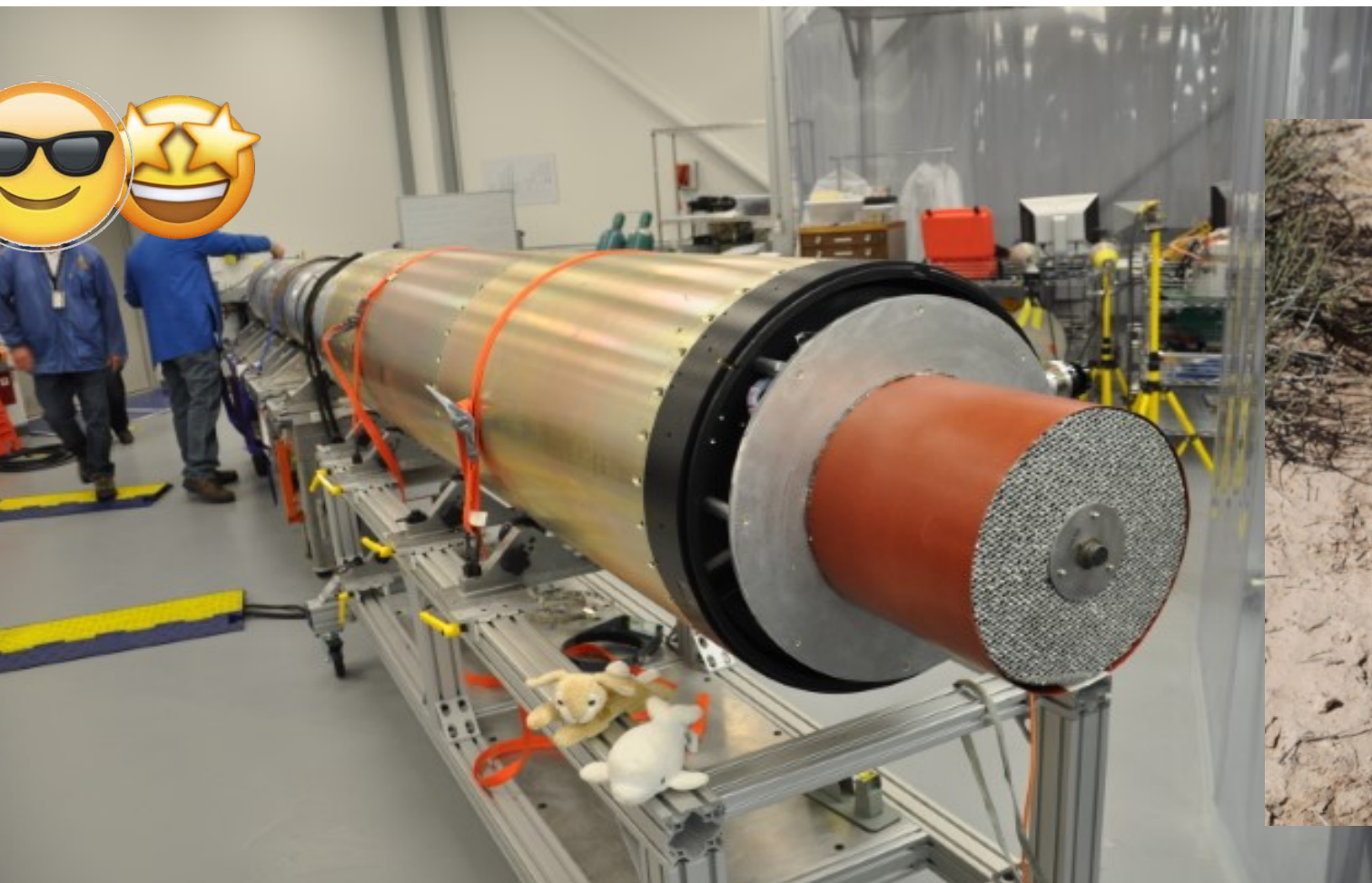
Sun Sensors Install/Alignment



Heliostat



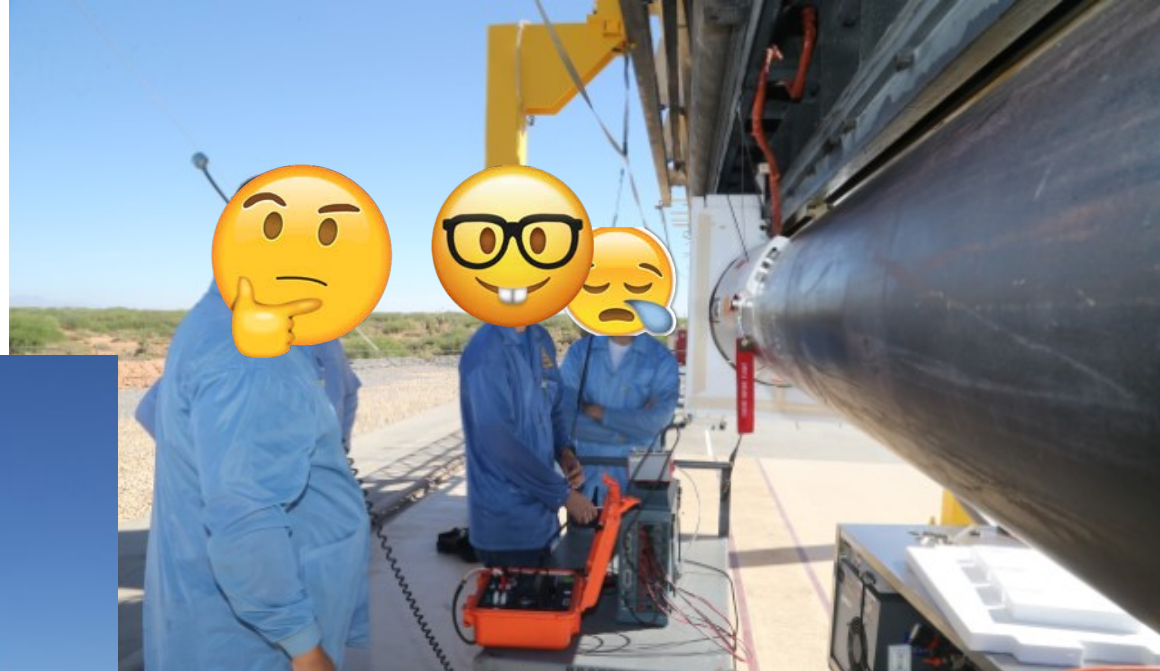
Crush Bumper



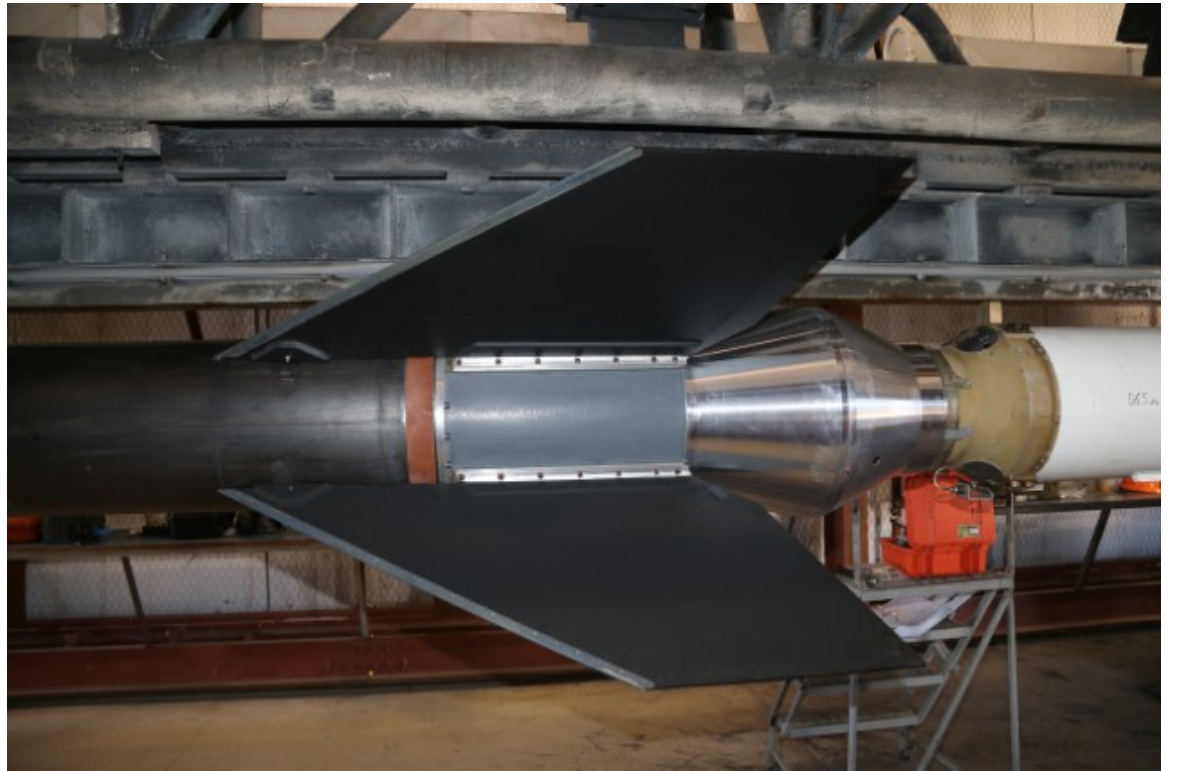
Vibration Tests



On the rail



Rail house



Launch 🚀



3,200 sq mi

<https://www.nasa.gov/centers/marshall/news/hi-c-launches-to-study-suns-corona/index.html>



Recovery

