

# *UVIT On-Orbit Calibration*

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IIA



# *Why On-Orbit*

- Truth comes from space.
  - Ground-based calibration may not reproduce observational conditions.
  - Degradation after calibration done.
  - Contamination.
  - Launch stresses.



# *What Tests?*

- Photometric.
  - Absolute calibration.
  - Flat fielding.
- Dark count.
- Alignment.
- Distortion.
- Scattering.
- Point spread function.
- *Cannot do spectroscopy.*

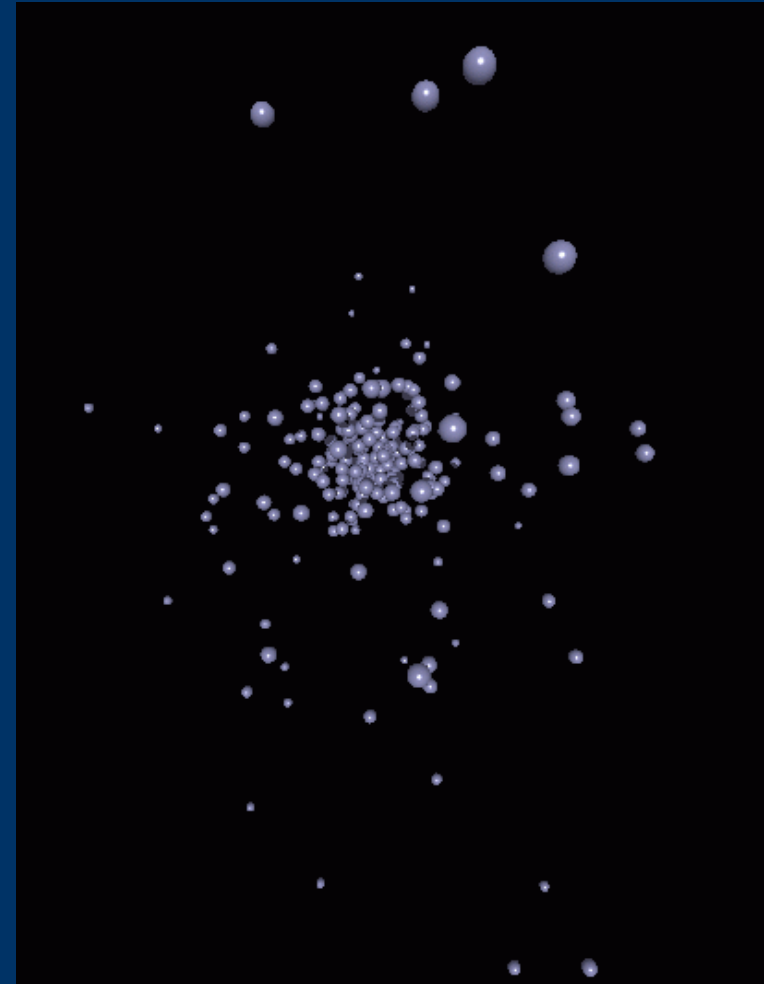


# *Photometric*

- Tied to HST standards.
    - Bohlin & Lindler.
    - Available from STScI.
    - Ultimately based on white dwarf models.
  - Test linearity.
    - Require range of brightnesses.
  - Secondary standards.
    - Observe many stars in field.
  - Accuracy limited by photon statistics.
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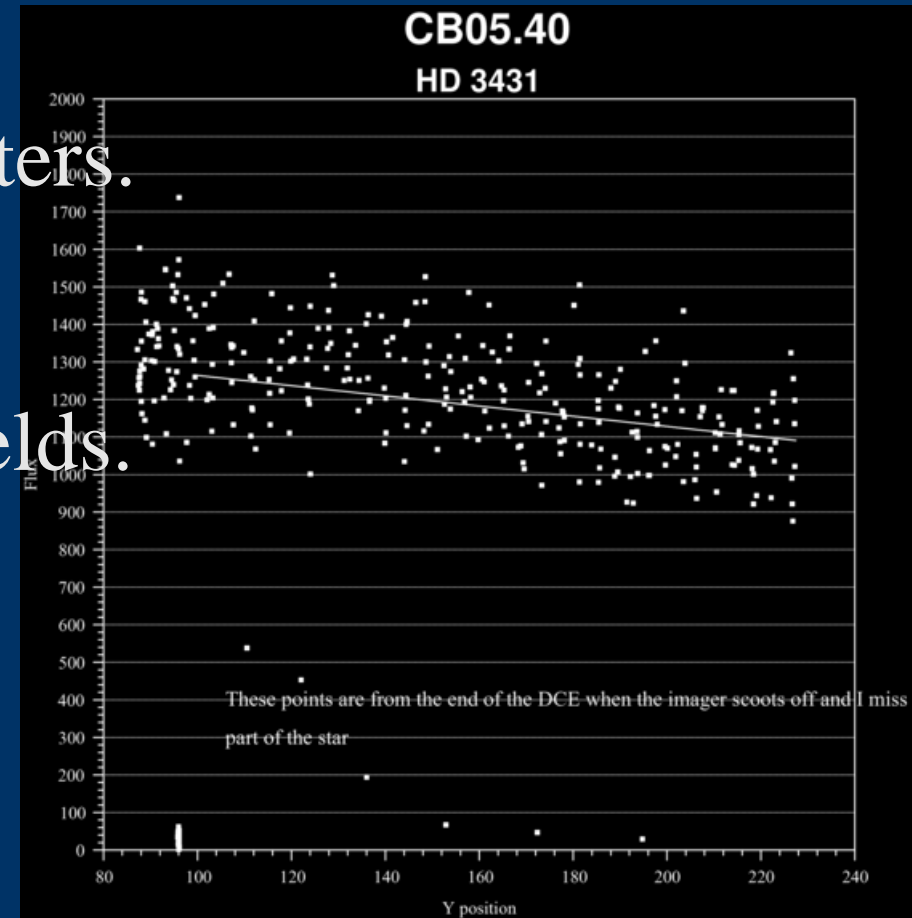
# Flat fielding & Alignment

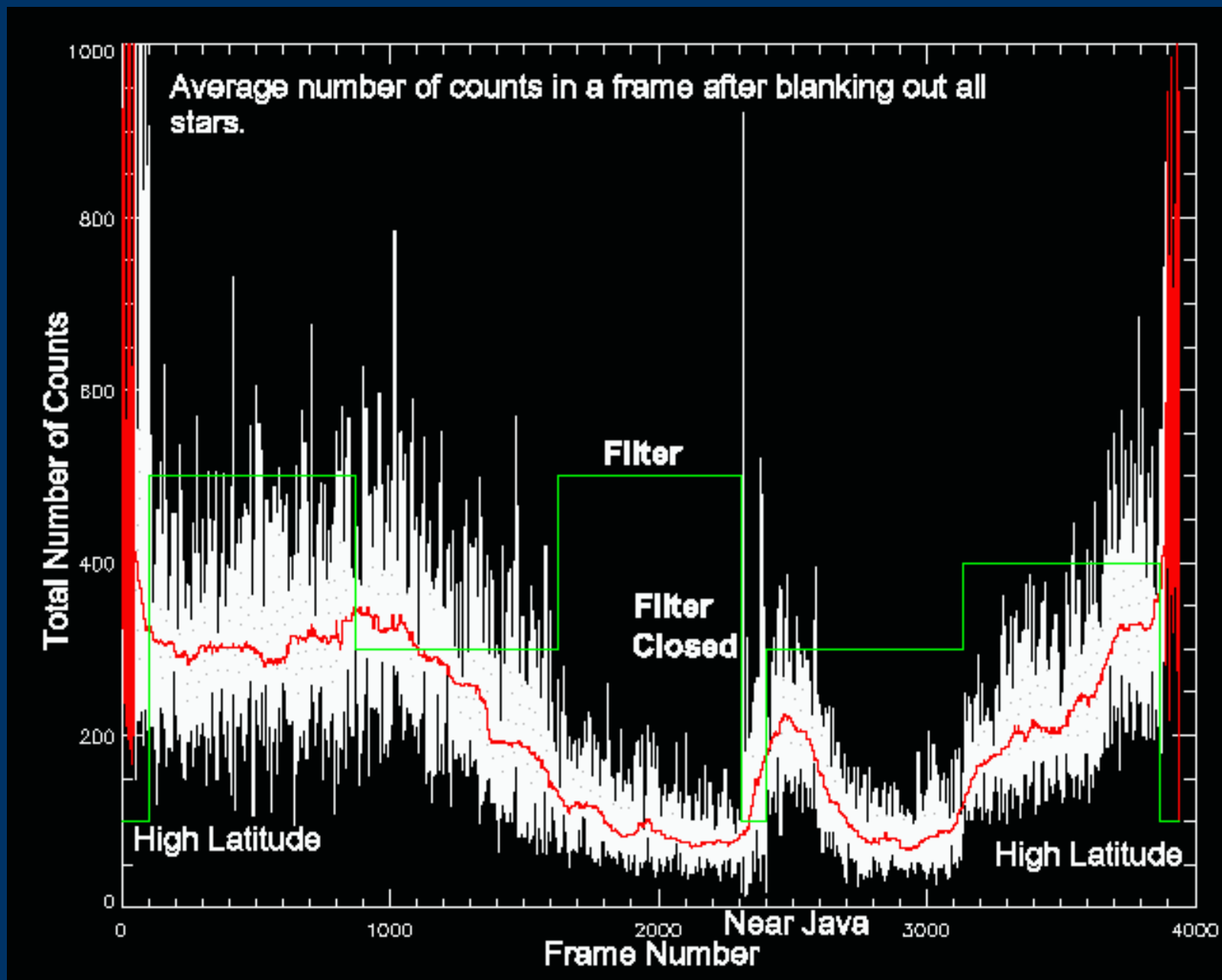
- Observe standard open clusters.  
Hyades.  
= Pleiades.
- Slow scans over selected fields.
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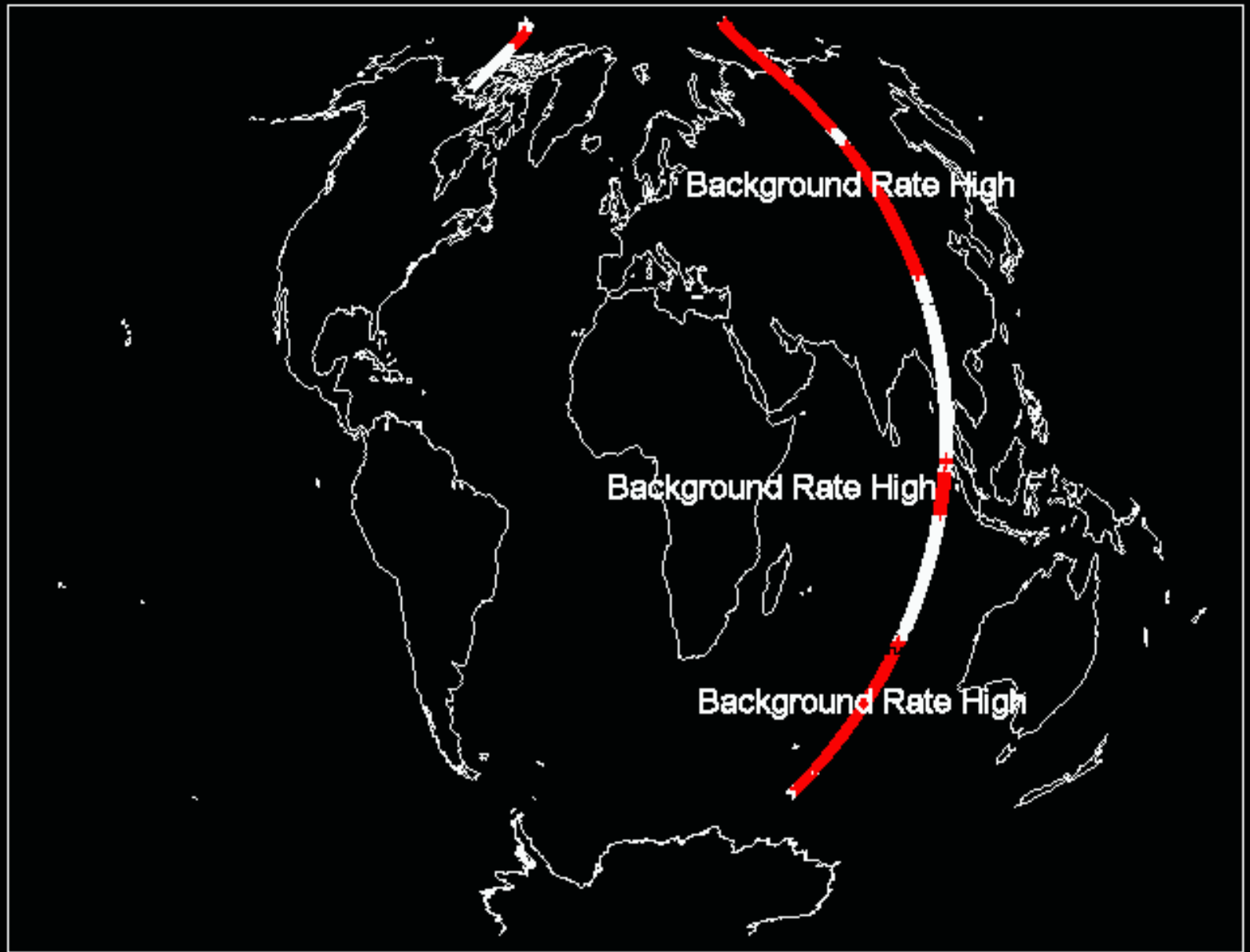
# Flat fielding

- Observe standard open clusters.
  - Hyades.
  - Pleiades.
- Slow scans over selected fields.





# CB10.232 Orbital Track

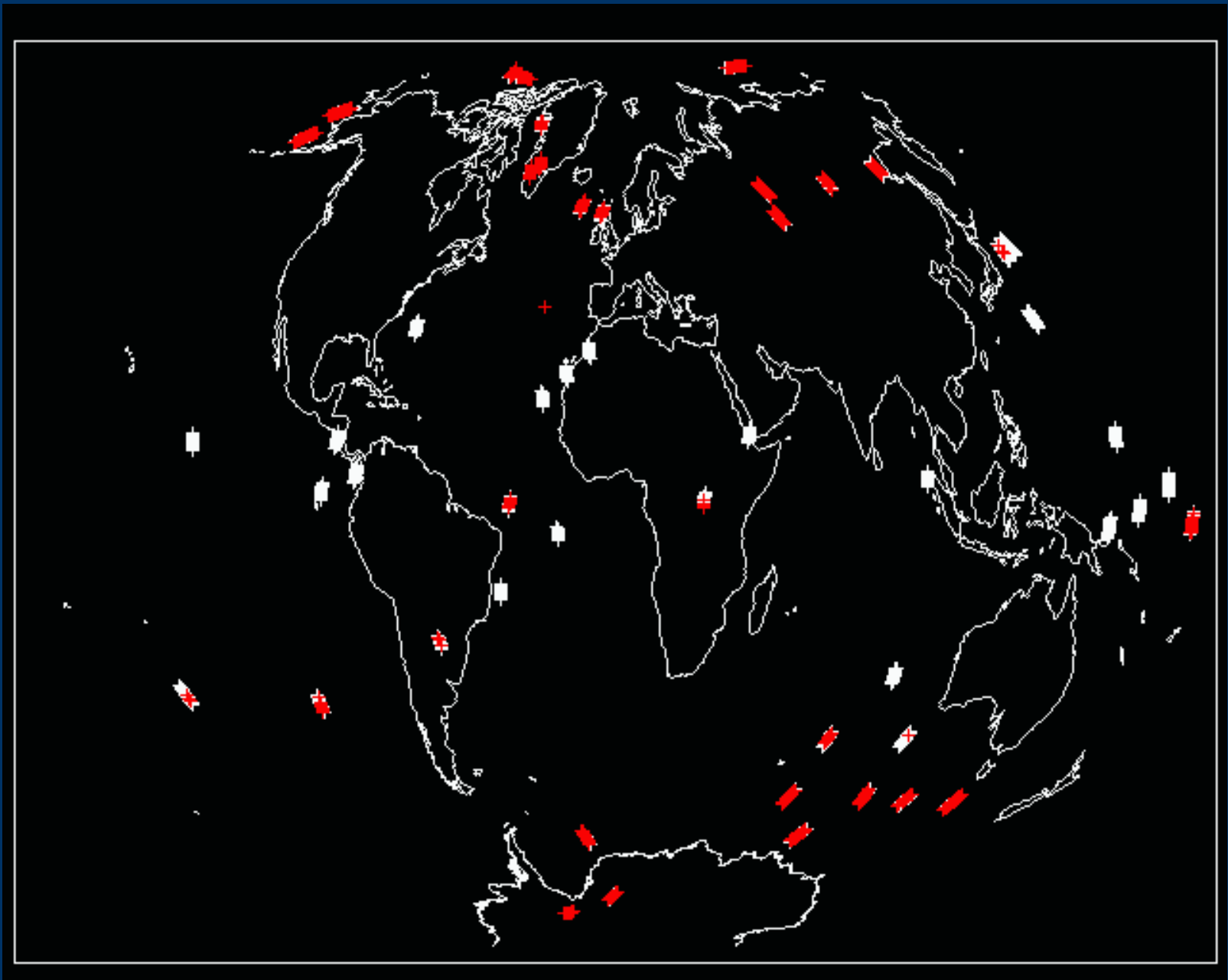


Background Rate High

Background Rate High

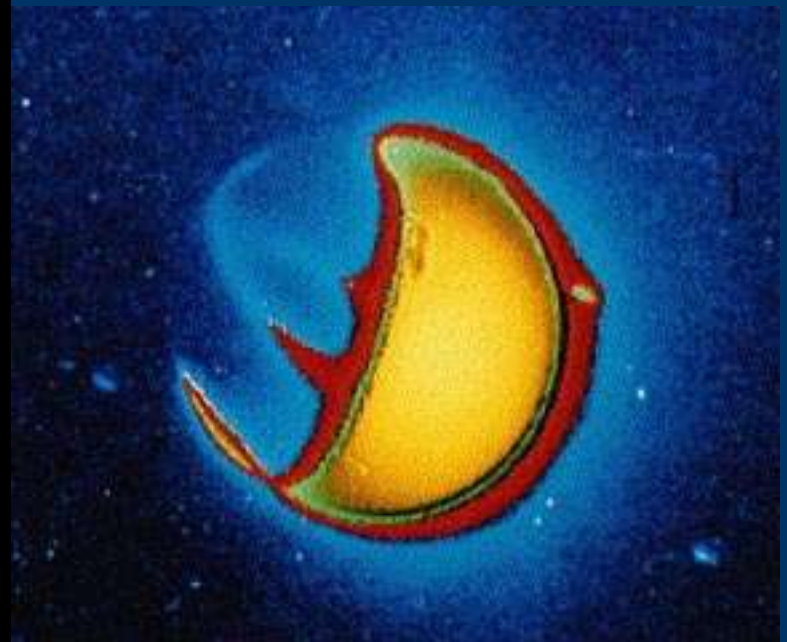
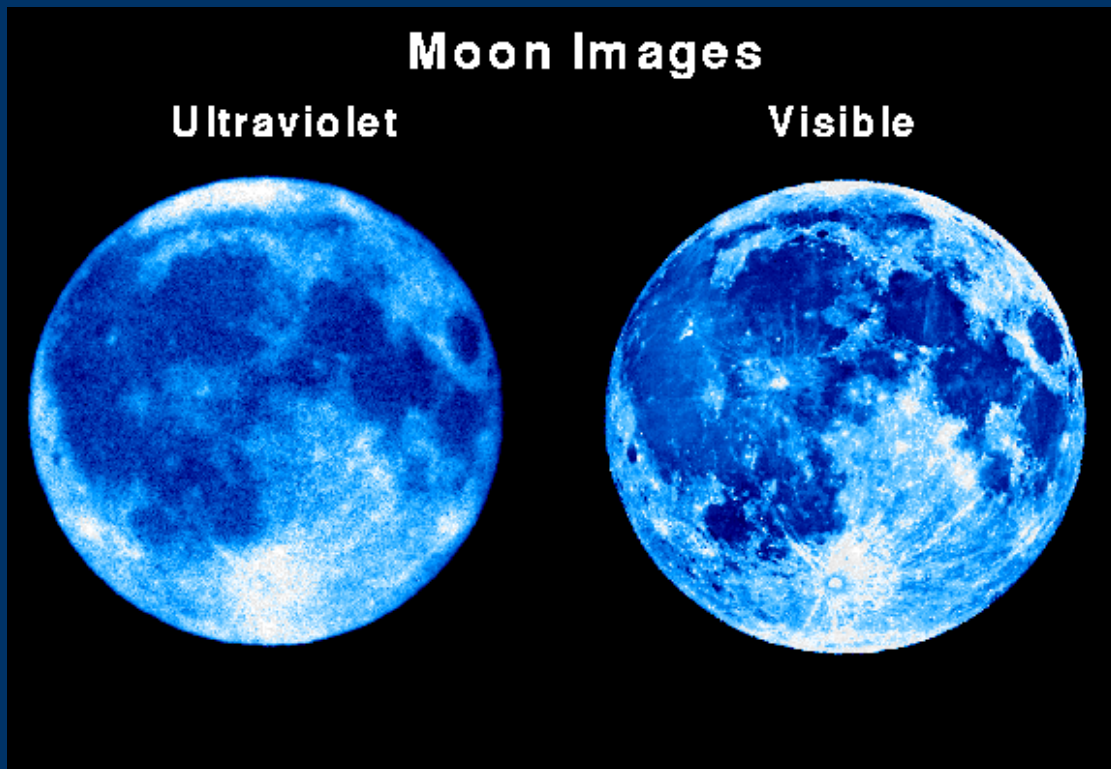
Background Rate High





# Scattering

- Scattering from Sun.
  - Even at angles greater  $> 90^\circ$ .
- Off-axis scattering from bright stars.



# *Schedule*

- Characterization phase.
  - 3 months.
- Dedicated observations once per month.
  - Primarily photometric.
  - Continual calibration from stars in field.

