

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.*

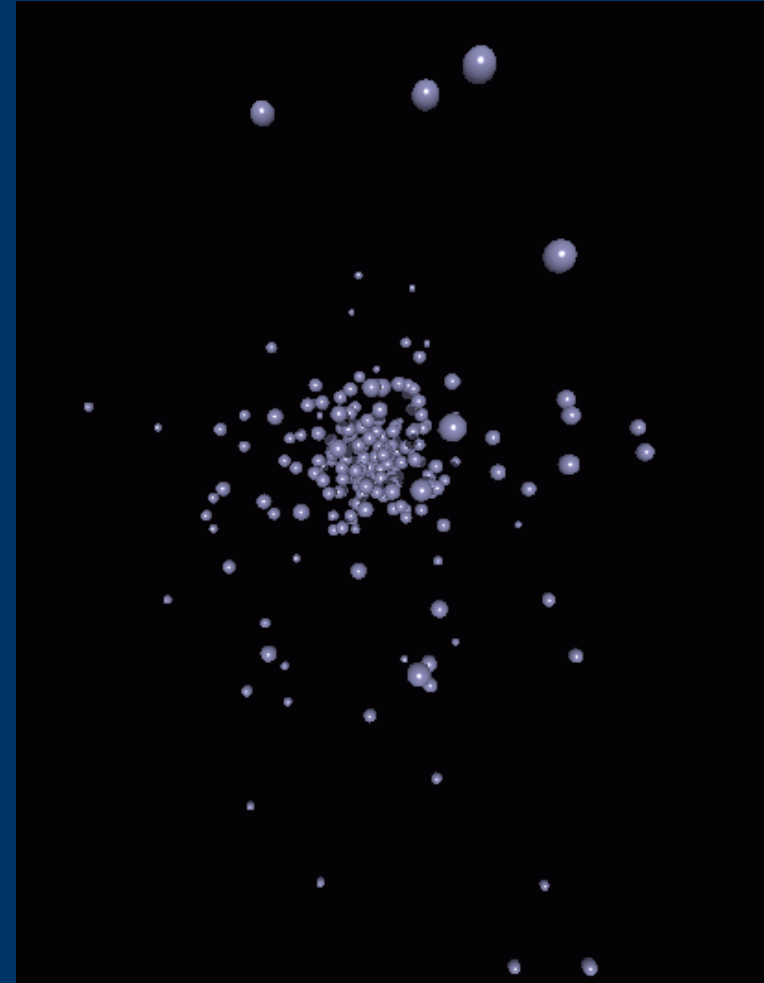


Photometric

- 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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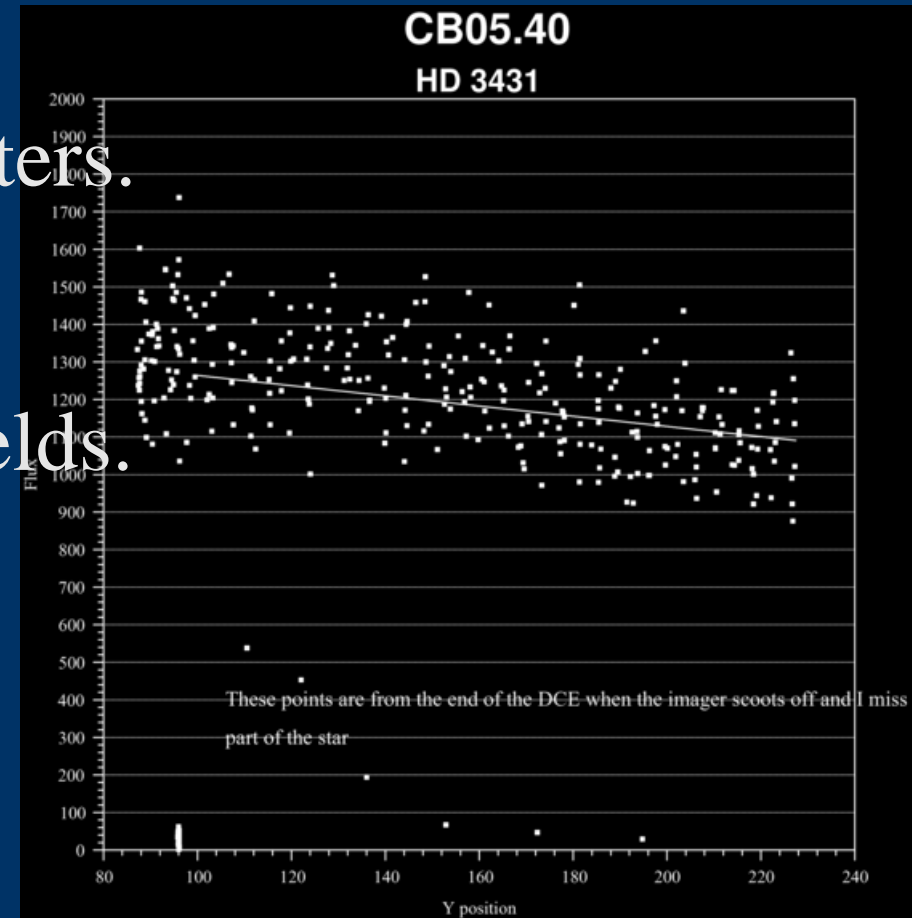
Flat fielding & Alignment

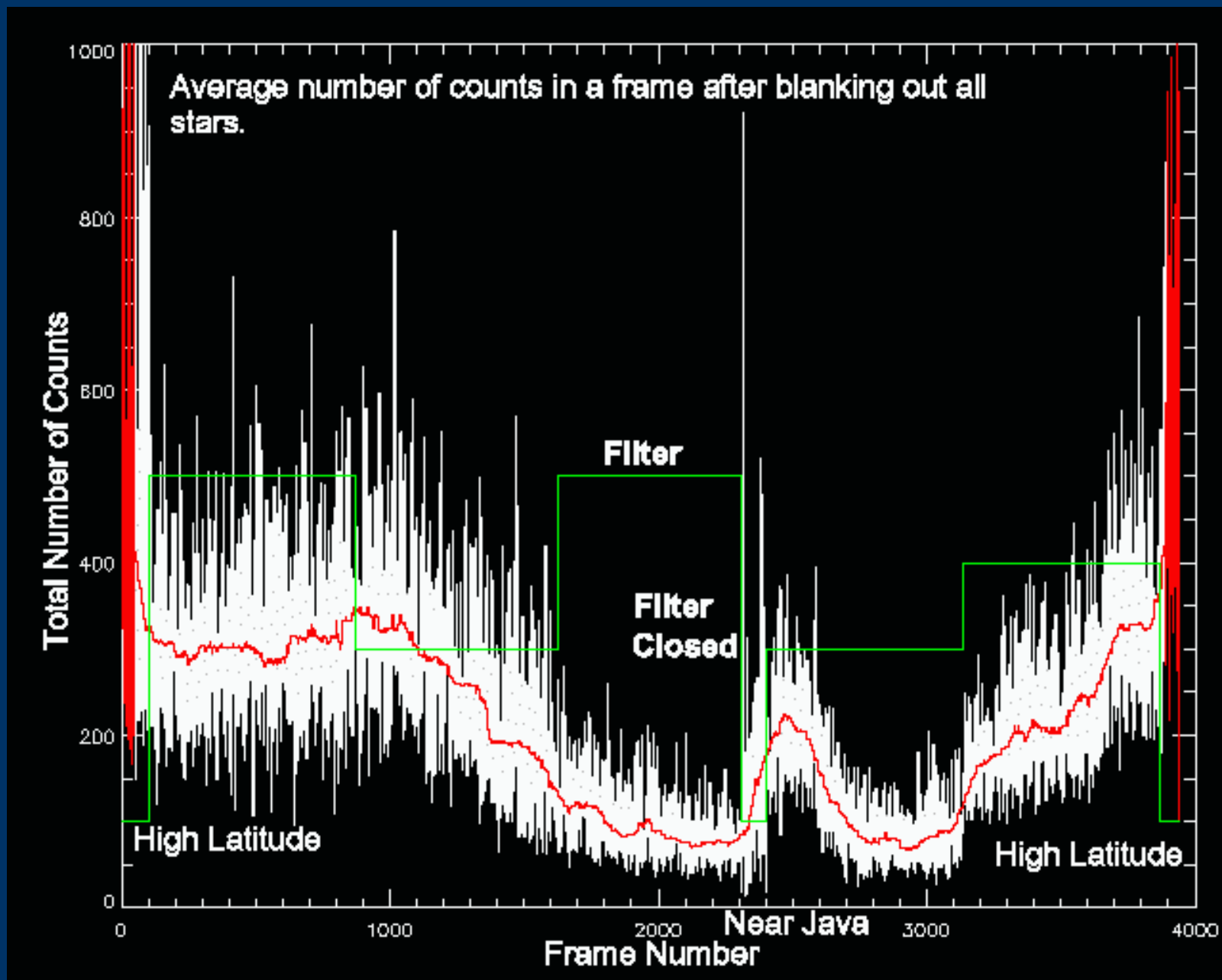
- Observe standard open clusters.
Hyades.
= Pleiades.
- Slow scans over selected fields.
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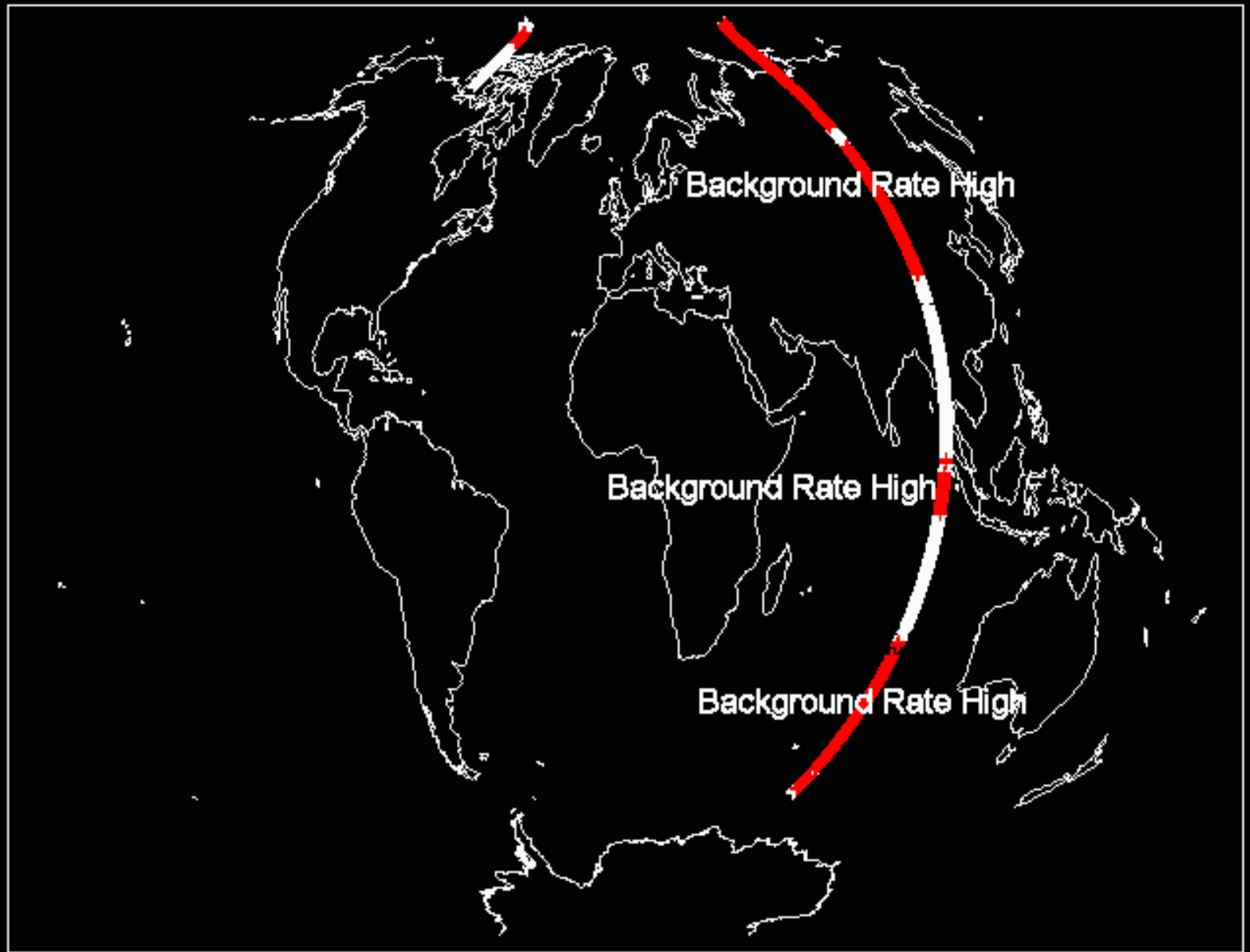
Flat fielding

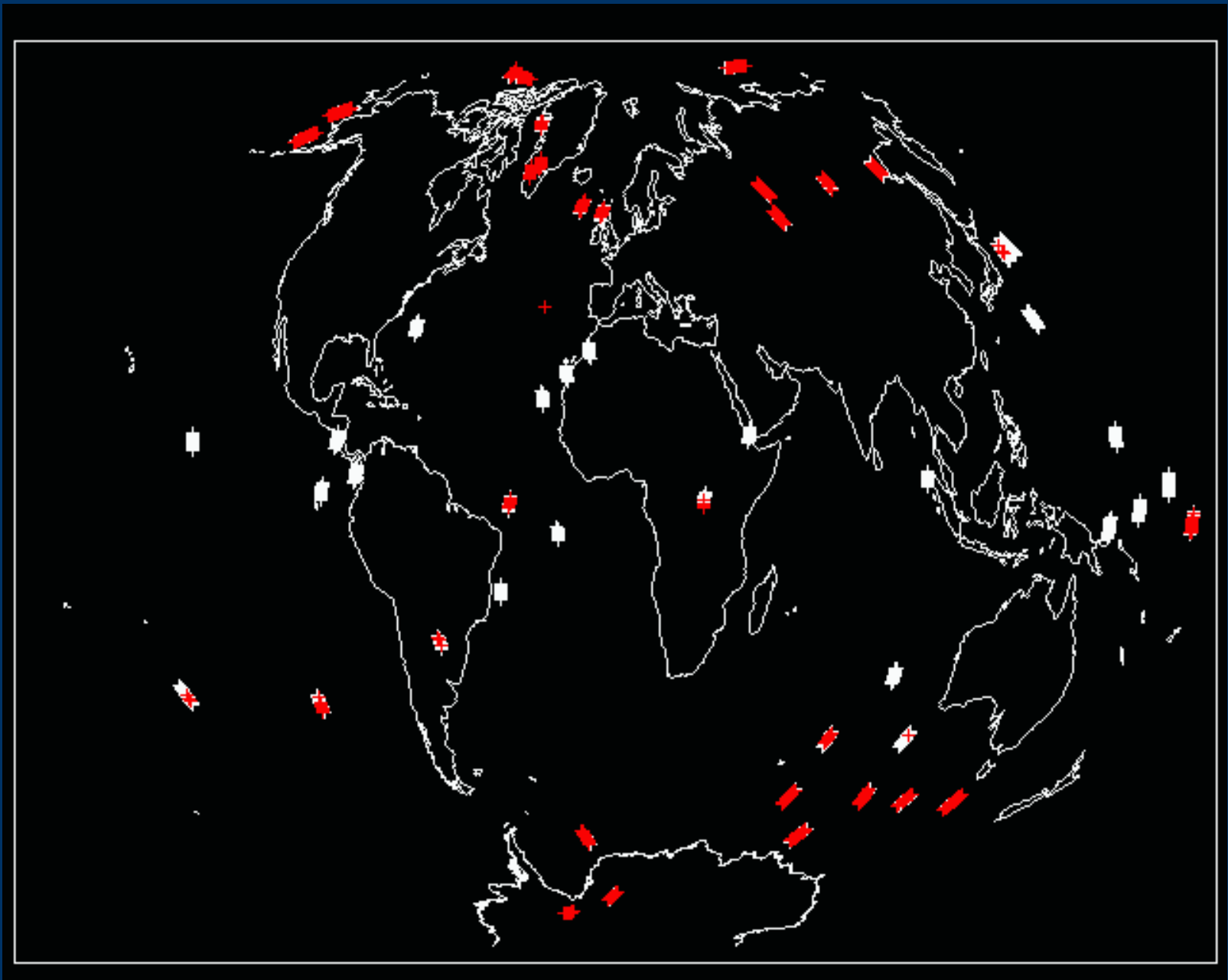
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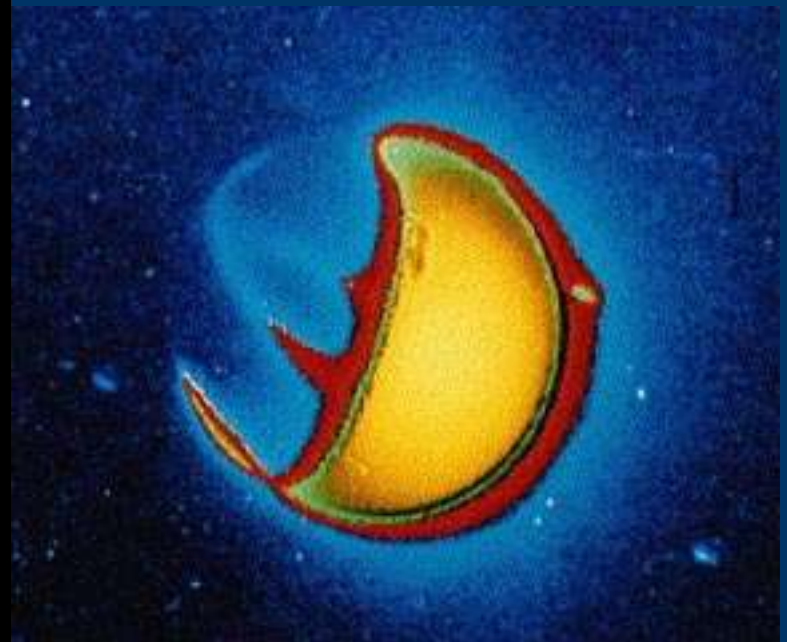
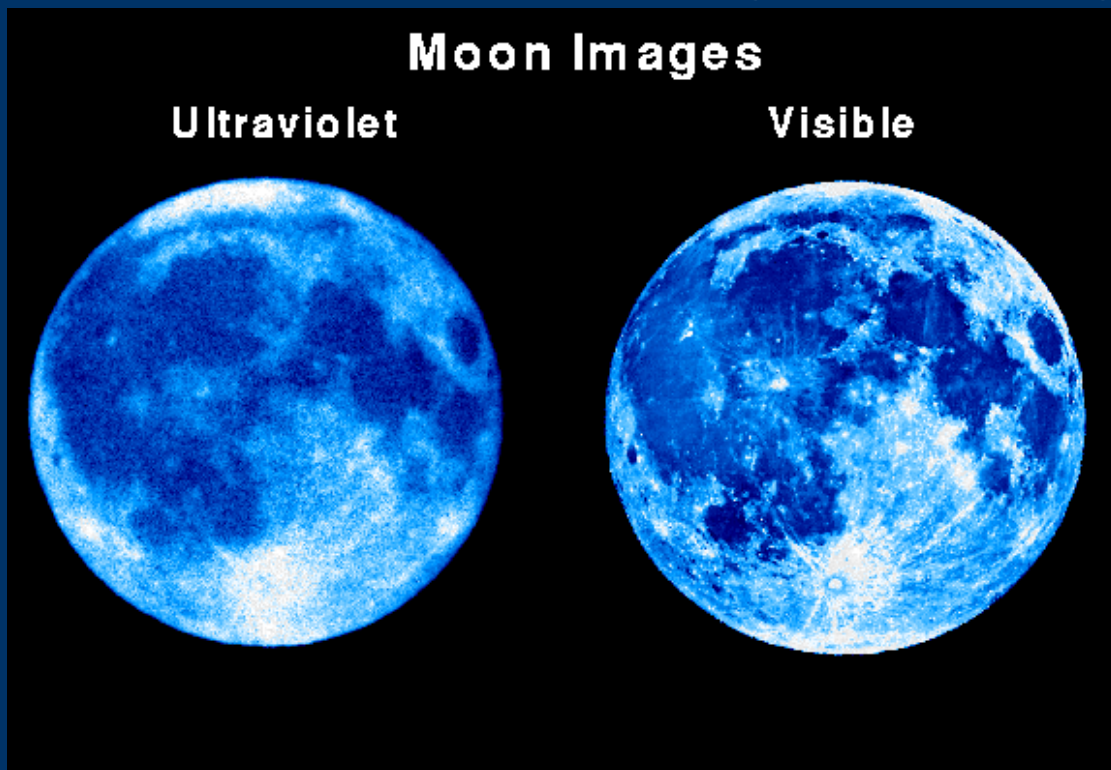
CB10.232 Orbital Track





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.

