



COR2 Status

Angelos Vourlidas

Instrument Status

- FM-A first light on Dec 4, 2006
- FM-B first light on Dec 13, 2006.
- Both telescopes are functioning nominally.
- The only issue is the **boresight offset**.
 - Both telescopes are offset from Sun center by $> \sim 2$ arcminutes.
 - COR2B is most affected because STEREO-B is in perihelion.
 - This problem has slowed down COR2 commissioning activities.
- Small amount of jitter seen around the occulter.

HOWEVER,

- The overall data quality is great.

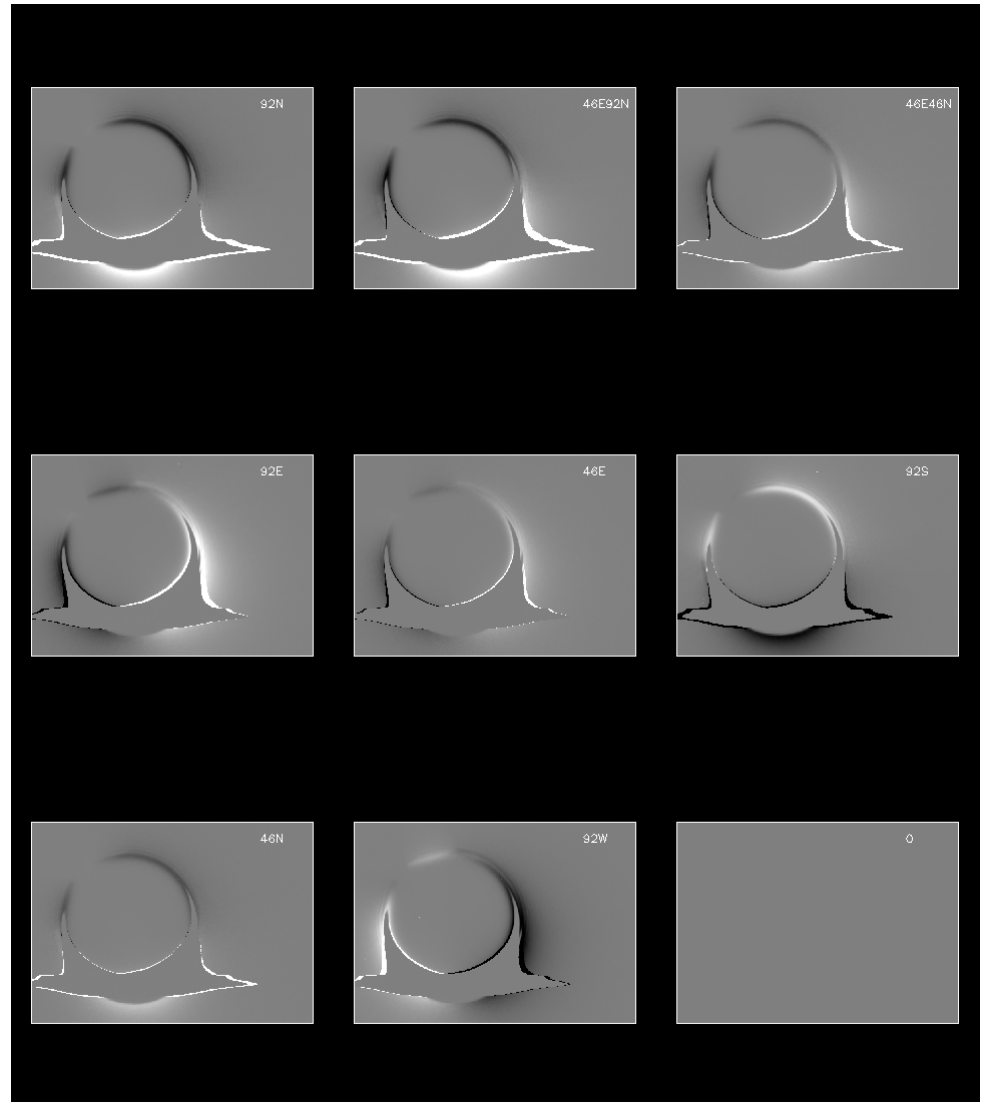


Commissioning Status

- **Calibrations Completed**
 - Light leak
 - CCD linearity, dark current, binning modes, compression
 - Exposure time stability, accuracy
 - Pointing checks (offpoints from nominal)
 - Polarization calibration (15 deg step, S/C rolls)
 - Thermal run (for focus check)
 - Spatial Resolution
- **Calibrations Pending**
 - Photon transfer curve (PTC)
 - MTF using stars
 - Stay light (deep exposures)
 - Pointing (sun center, rel to SCIP instruments).

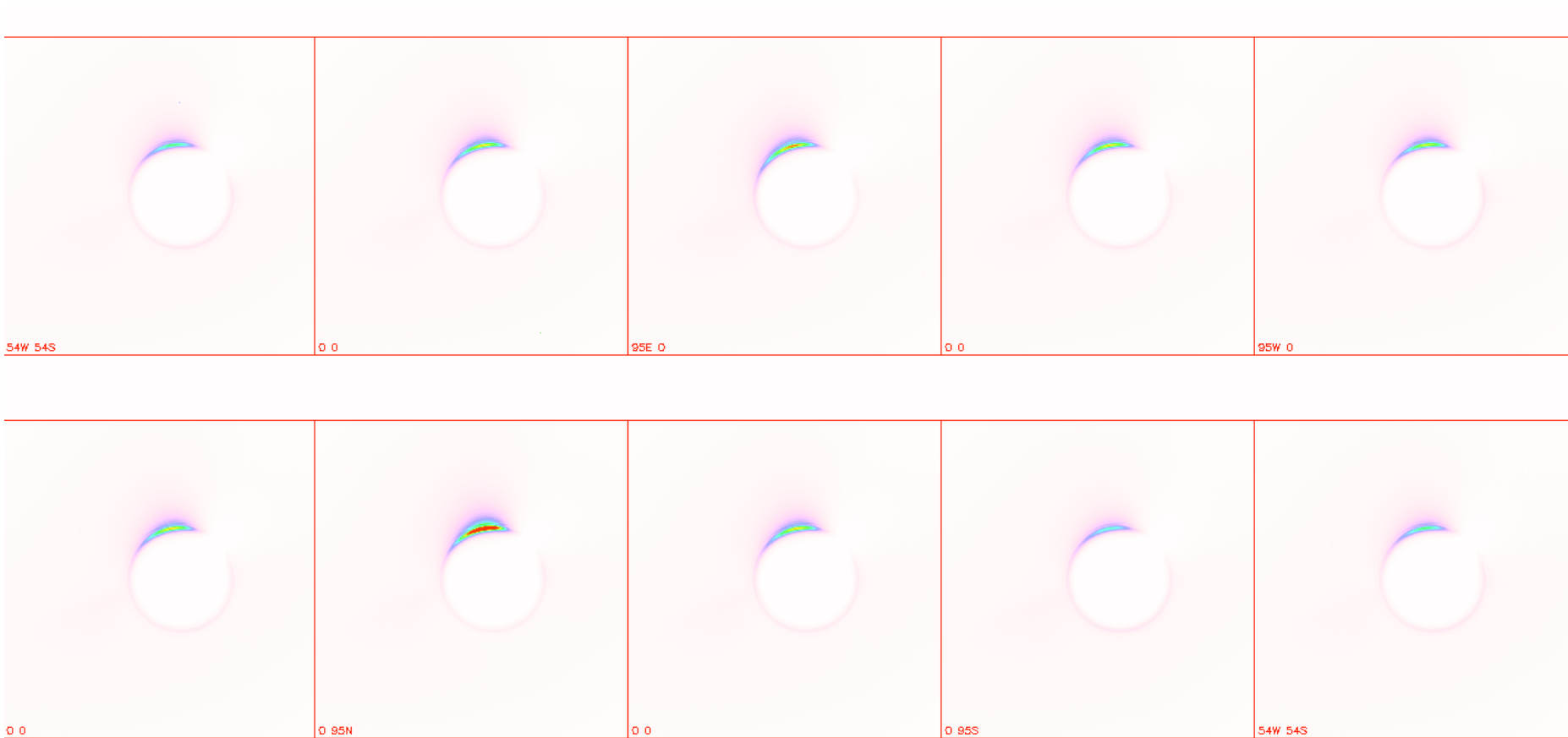
Offpoint – COR2B

- Stray light is more prominent in FM-B because the S/C is not at its proper distance from the Sun yet.



Offpoint – COR2A

- Stray light is not a serious problem in FM-A



Early Observations

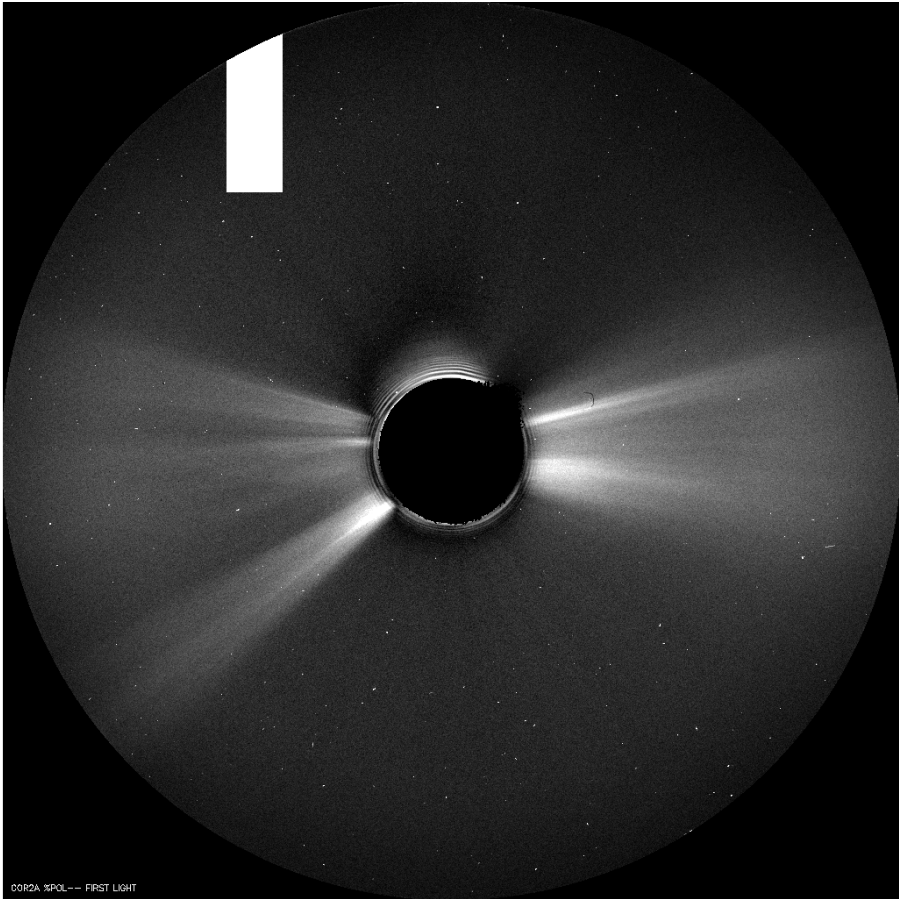
- **Typical cadence : 2 hrs**
- **Typical image: pB sequence (images at 0, 120 , 240 deg)**
- **Sequence duration: 24 sec**
- **Typical size: 2048x2048 (Full resolution)**
- **Spatial Resolution: 14.7 arcs/pix**
- **Observed CMEs, Comets, plumes**

SCIENCE TEAM

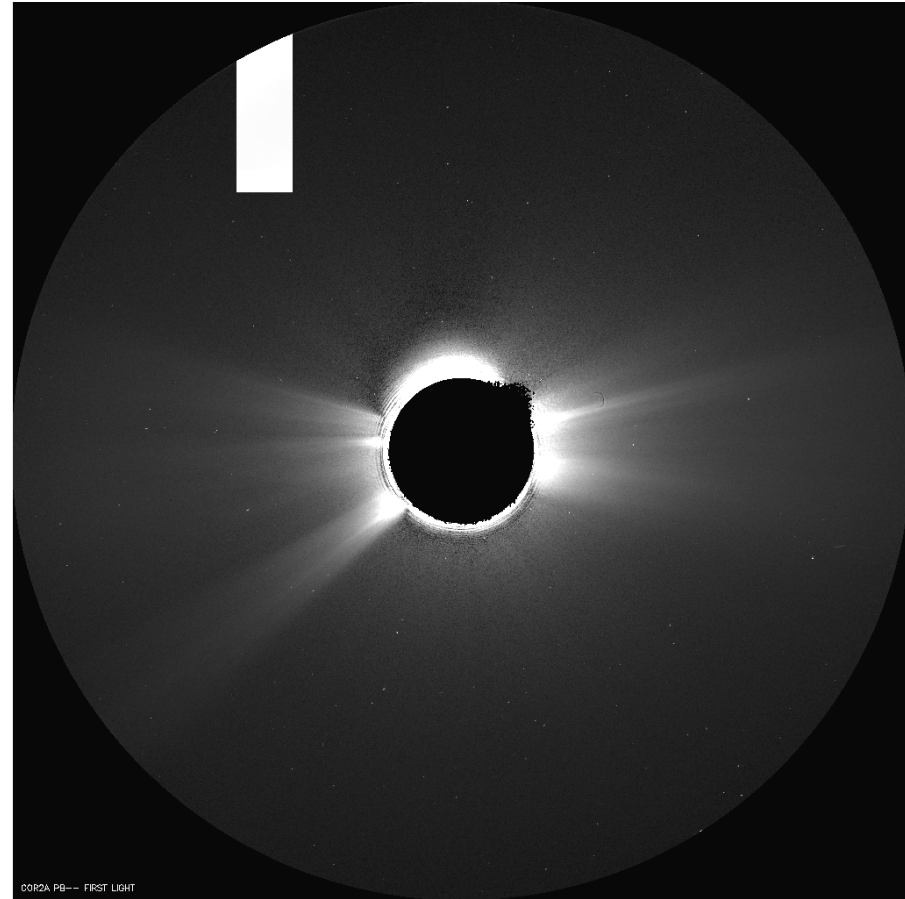
- **Angelos Vourlidas, D. Socker, S. Plunkett, C. Korendyke, S. Patsourakos**
- **A. Thernisien, R. Colaninno**



First Light- COR2A

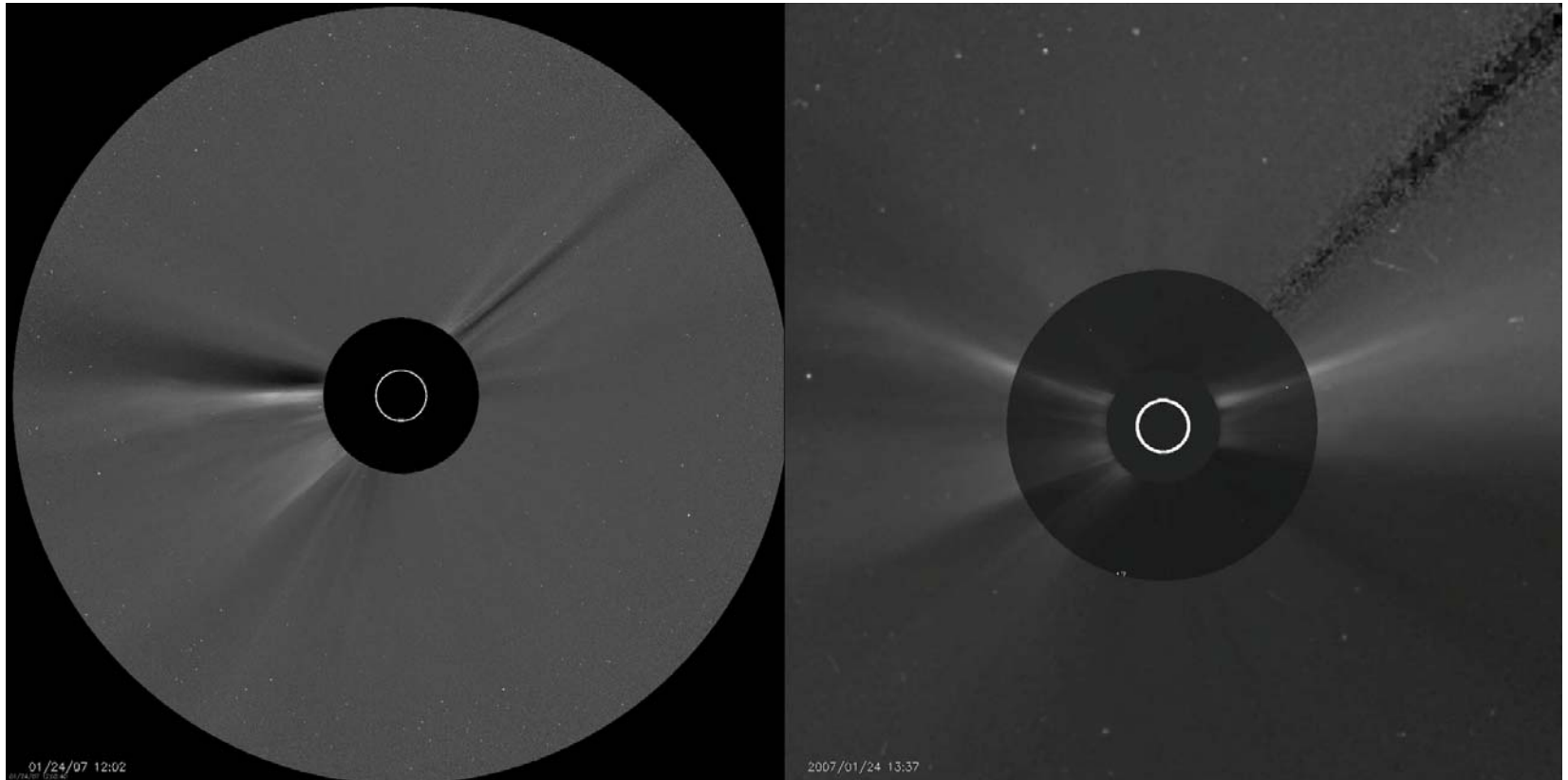


%Polarization

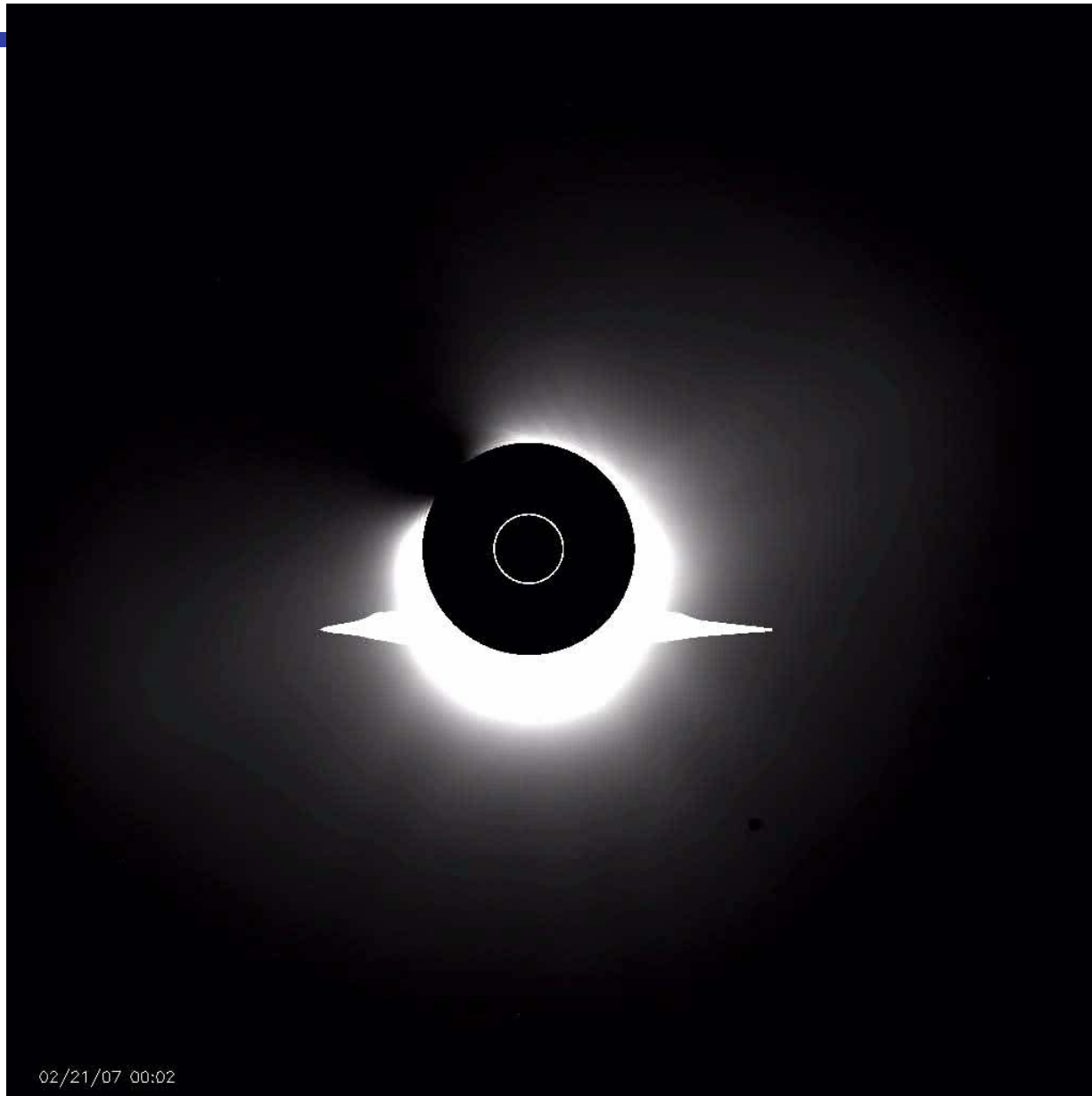


Total Brightness

Comparison w/ LASCO



Moon Transit



02/21/07 00:02

Backup Slides

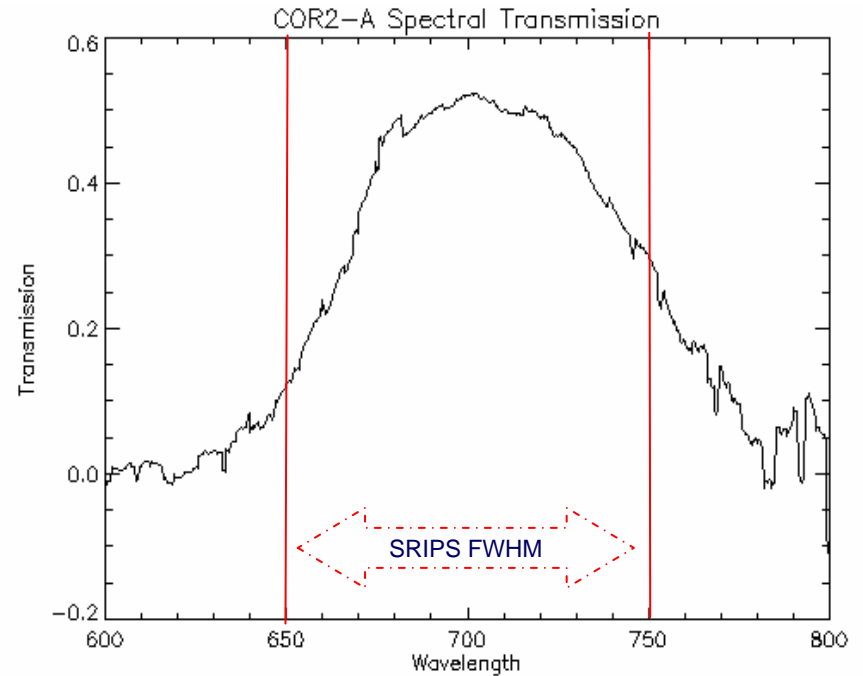
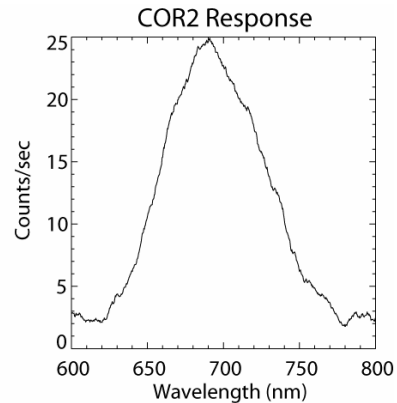
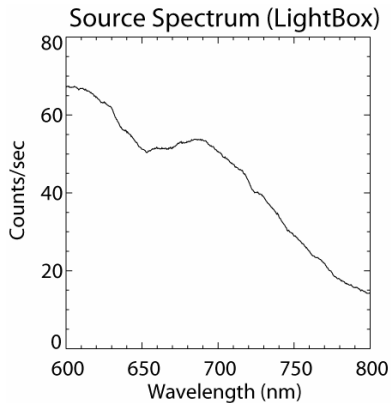
Backup Slides

Summary

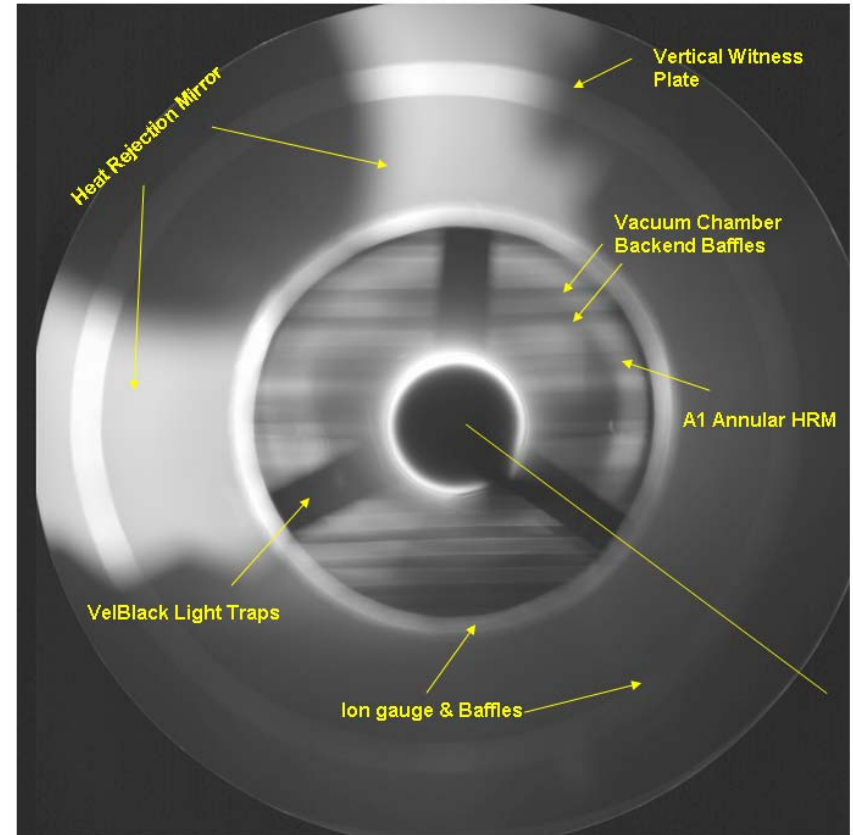
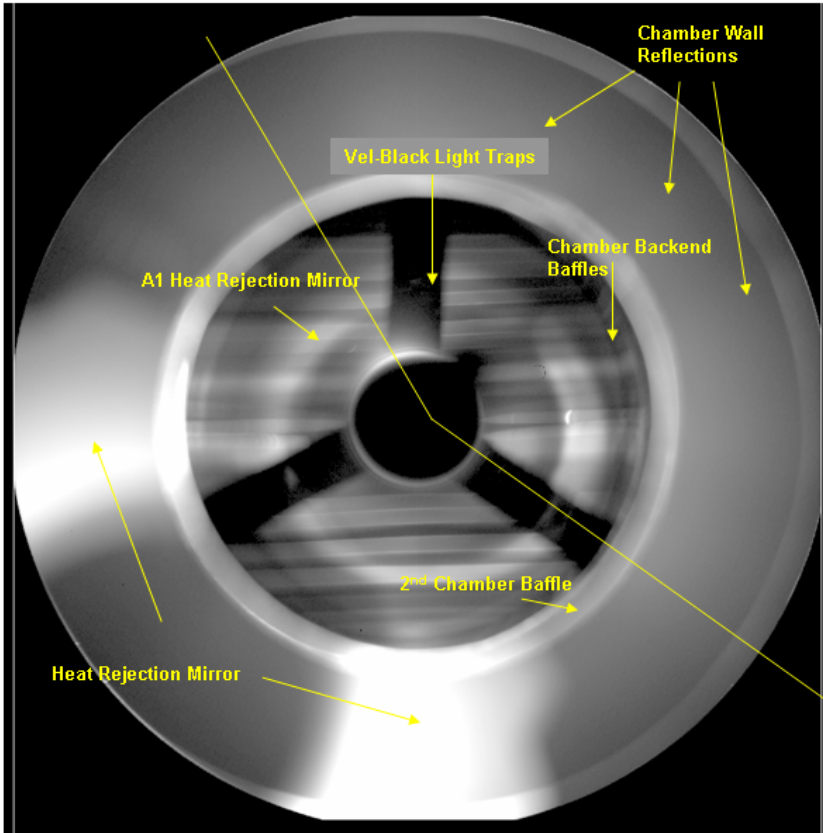
Parameter	Required Performance	Measured Performance
FOV (deg)	8	8.4
Spatial Resolution (arcsec)	30	25-30
FWHM Bandpass (nm)	650-750	650-770
Stray Light @ $6R_{\text{sun}}$ (MSB)	$< 2 \cdot 10^{-10}$	$< 3 \cdot 10^{-11}$
Polarization Accuracy	10%	2%
Min. Vignetting	80%	80%
Nominal Exposure (sec)	4	4

COR2 Spectral Calibration

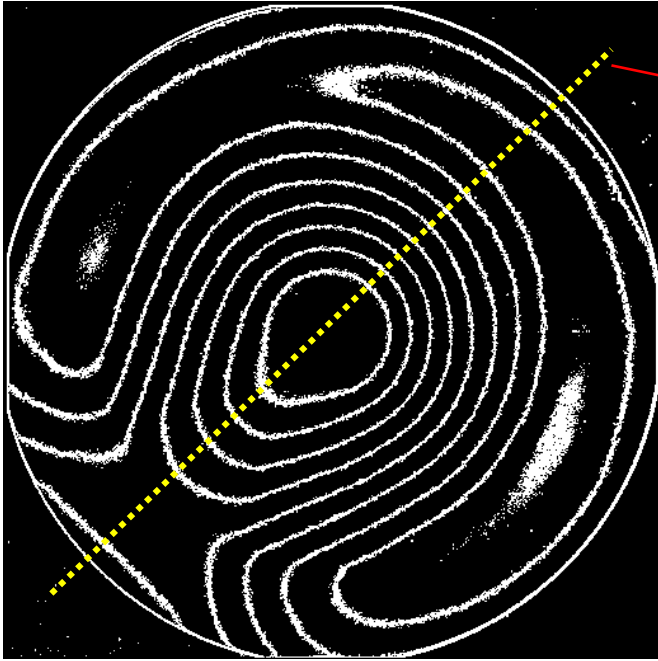
- Calibration based on LASCO's Lightbox using new Spectrometer.
- Accuracy ~20%.



COR2-A Stray Light Details



COR2 Vignetting



COR2-A Vignetting Function. Contours at 10% intervals. Inner contour is 10%.

