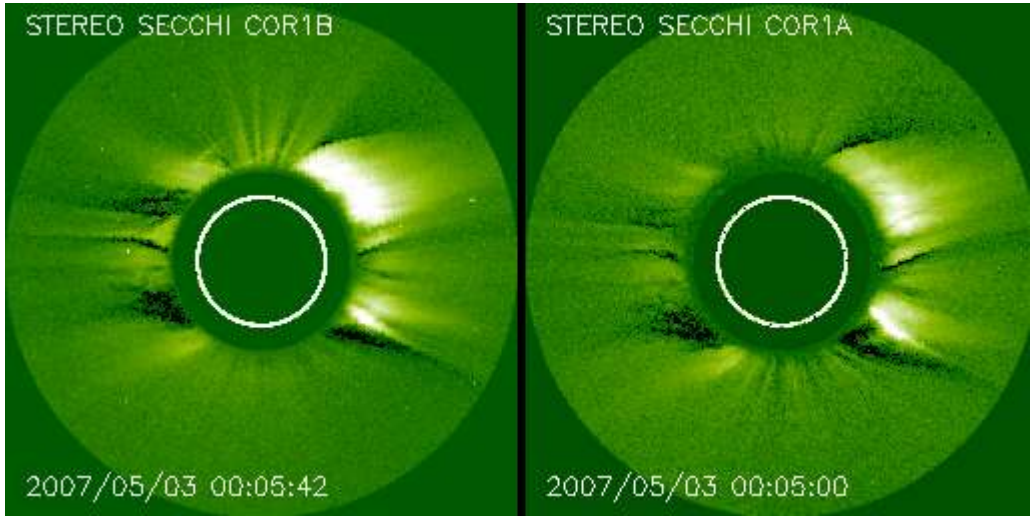
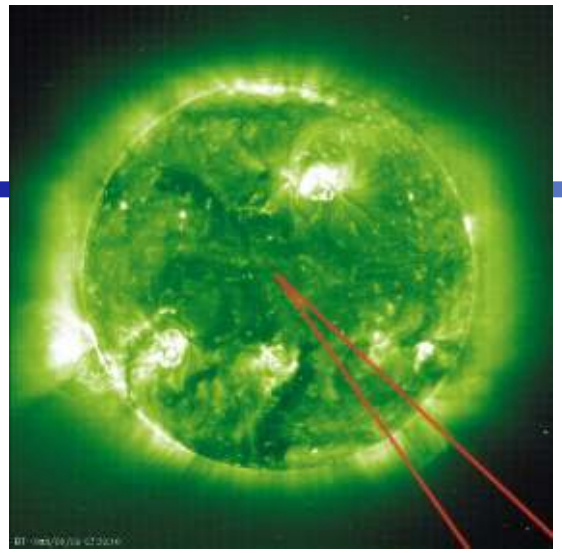
Early Results from STEREO SECCHI COR1



03-May-2007
"pB" daily minimum pixel
Separation=6.3°

O. C. St. Cyr[1], J. M. Davila[1], W. Thompson[1], B. J. Thompson[1], J. B. Gurman[1], S. Jones[1], M. Kramar[1], J. McAteer[1], M. Selwa[1], N. Reginald[1], J. T. Burkepile[2], G. de Toma[2]

[1]NASA GSFC, [2]HAO/NCAR



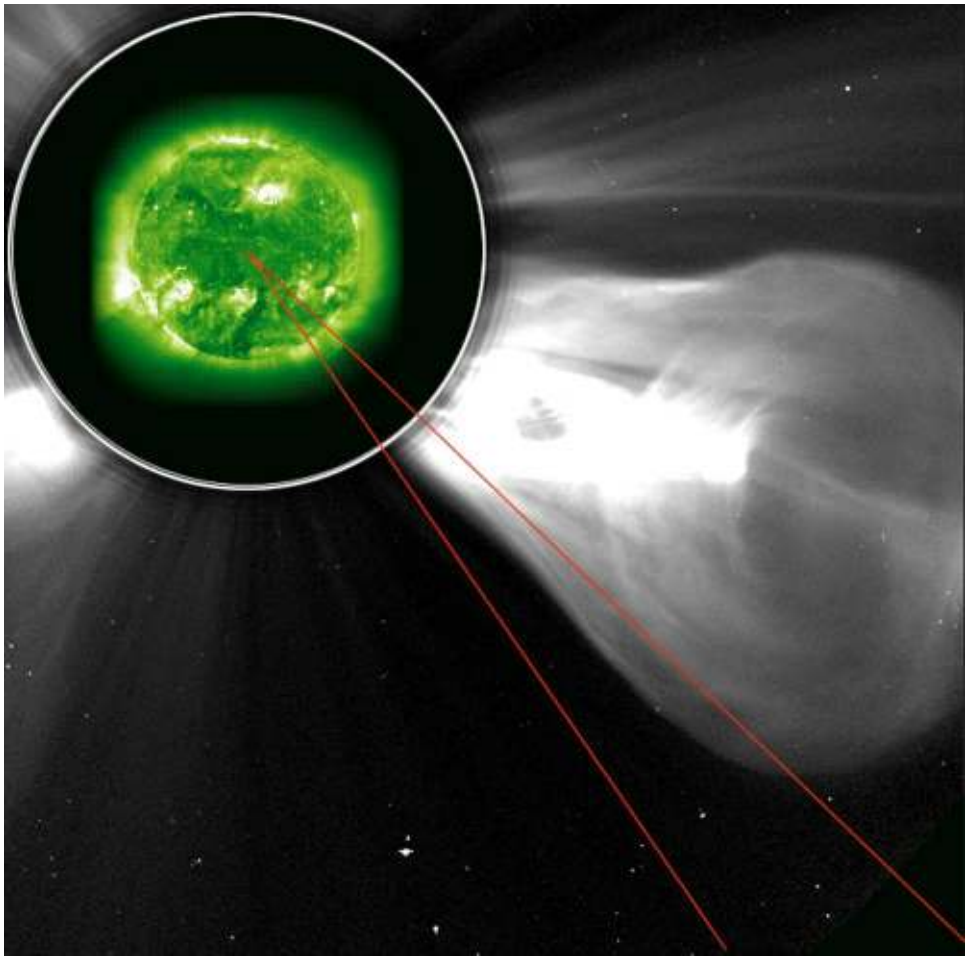
COR1 Primary Science Goal:

Understanding the Origin of CMEs

There are four parameters that are critical to understanding the origins of CMEs and the forces acting on them. But these are difficult to measure above 2 R_S (depicted by white circle).

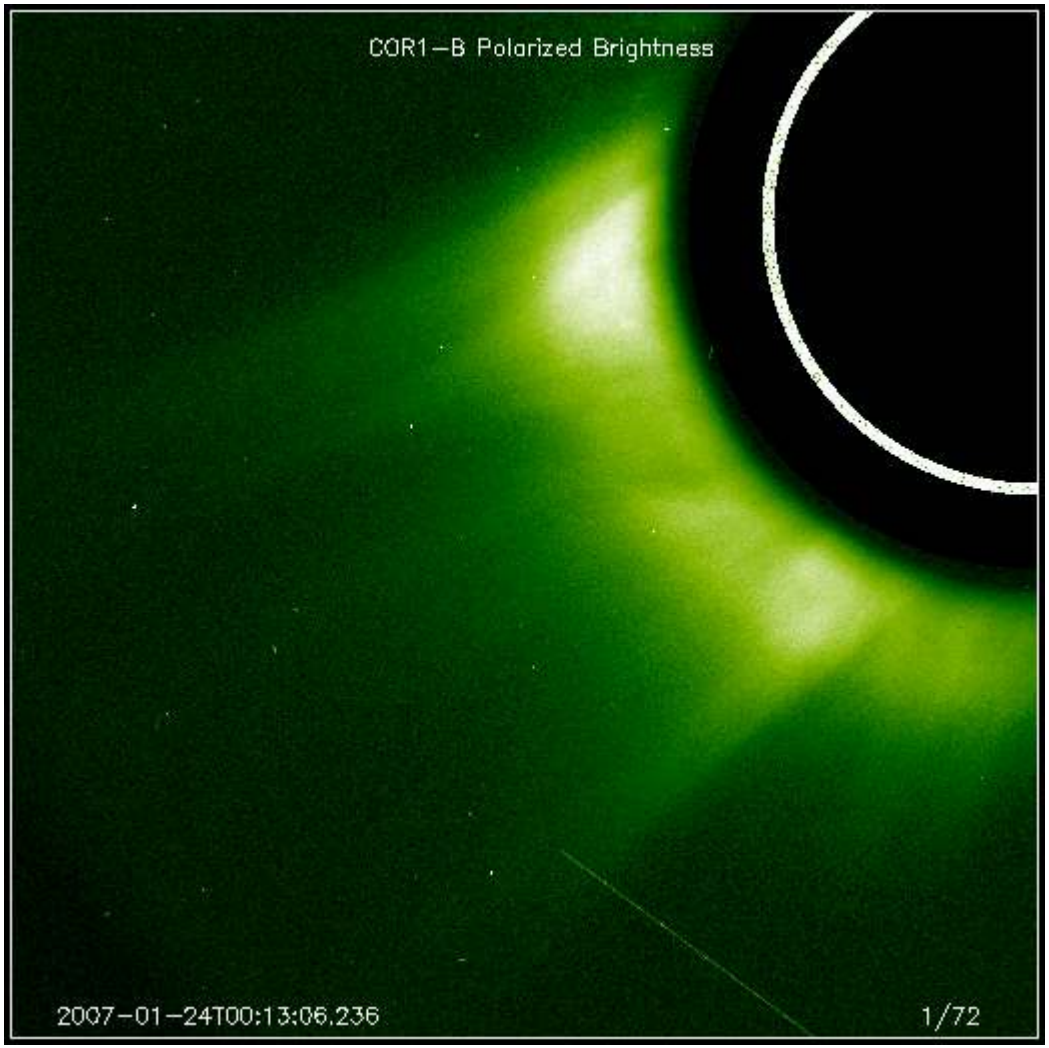
- initial acceleration
- non-radial motions
- transverse (latitudinal) expansion
- initial radial expansion

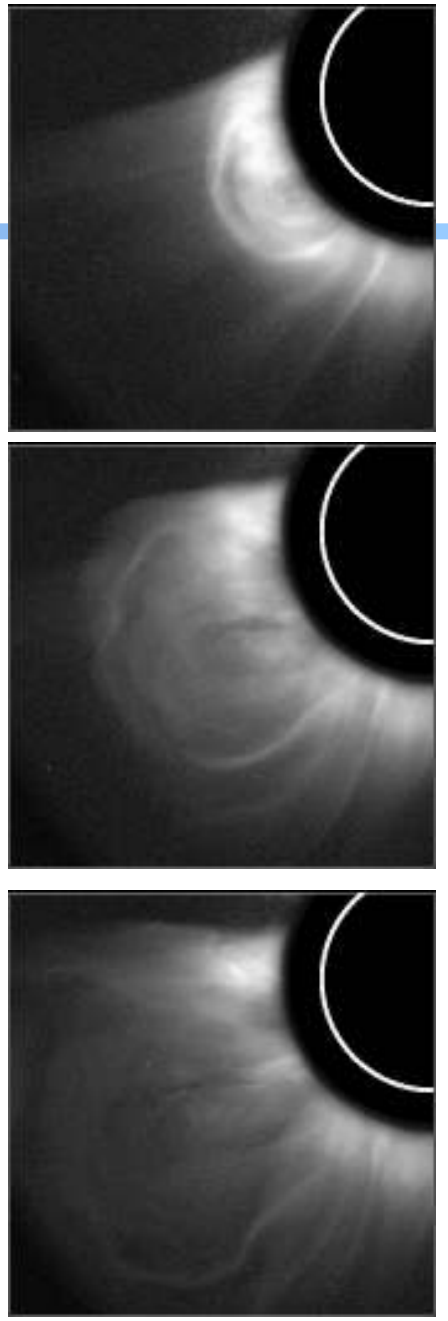
- Also the site of energetic particle acceleration



1998-06-02 SOHO EIT (195A) and LASCO C2 (Plunkett et al, 2000)

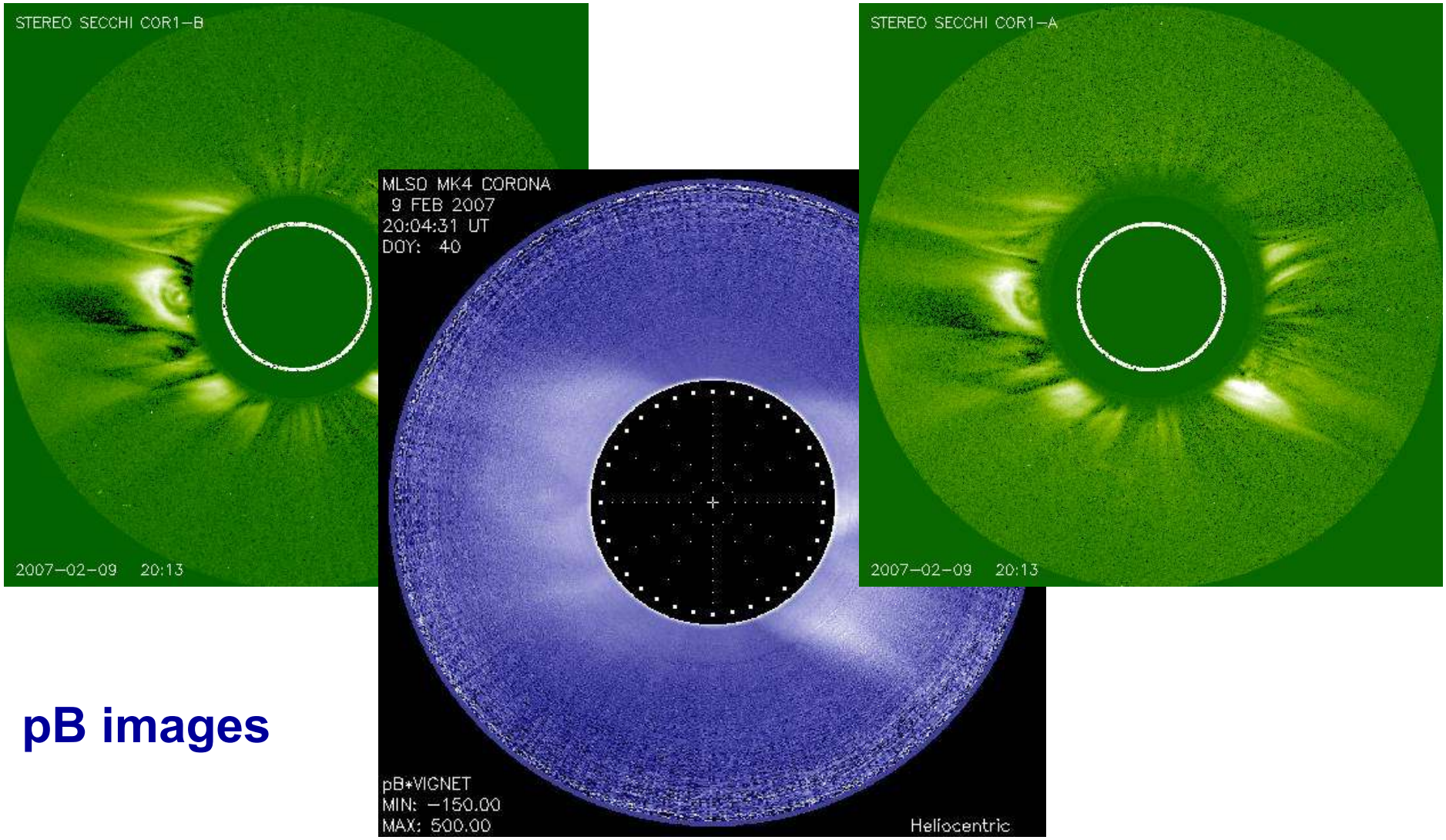
CME of 24-Jan-2007





2007-Feb-09 CME

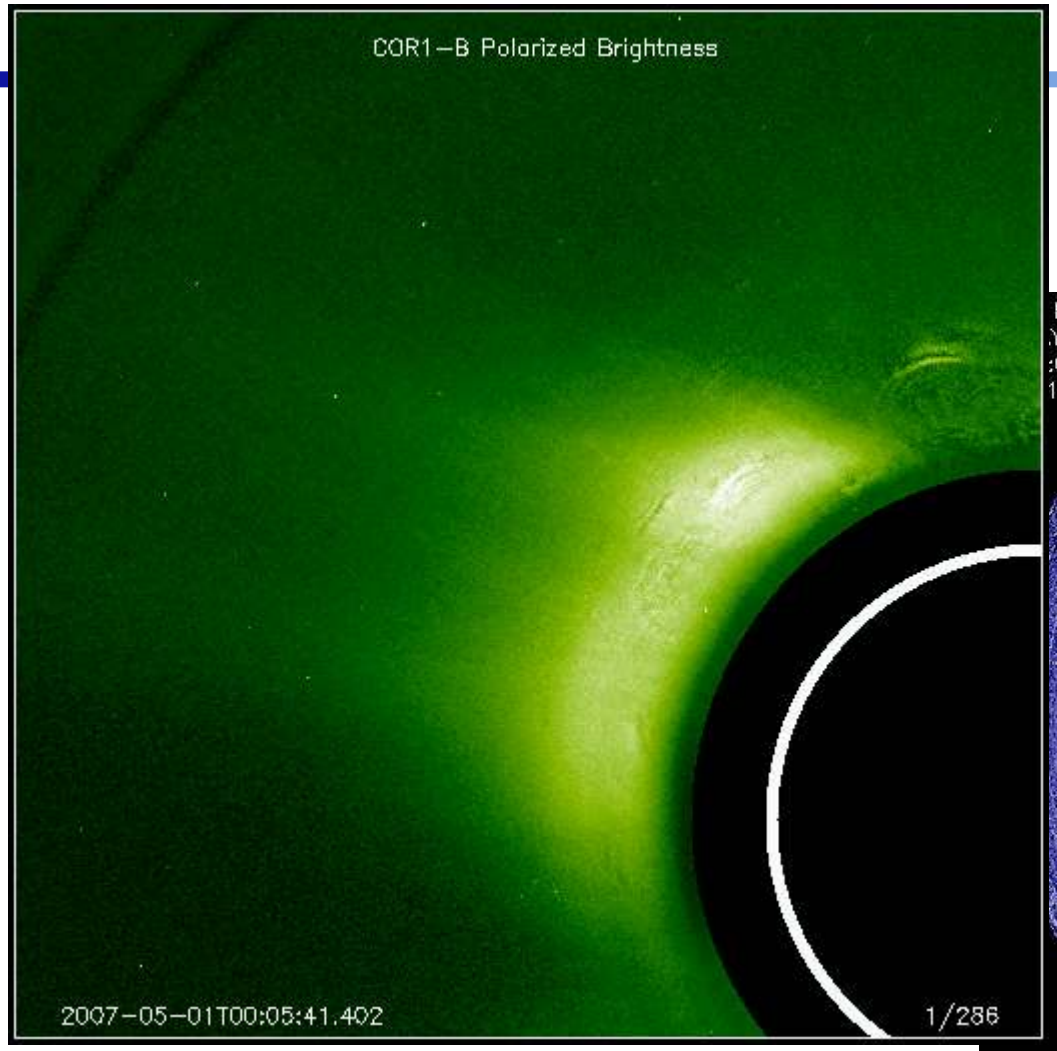
STEREO separation=0.7°

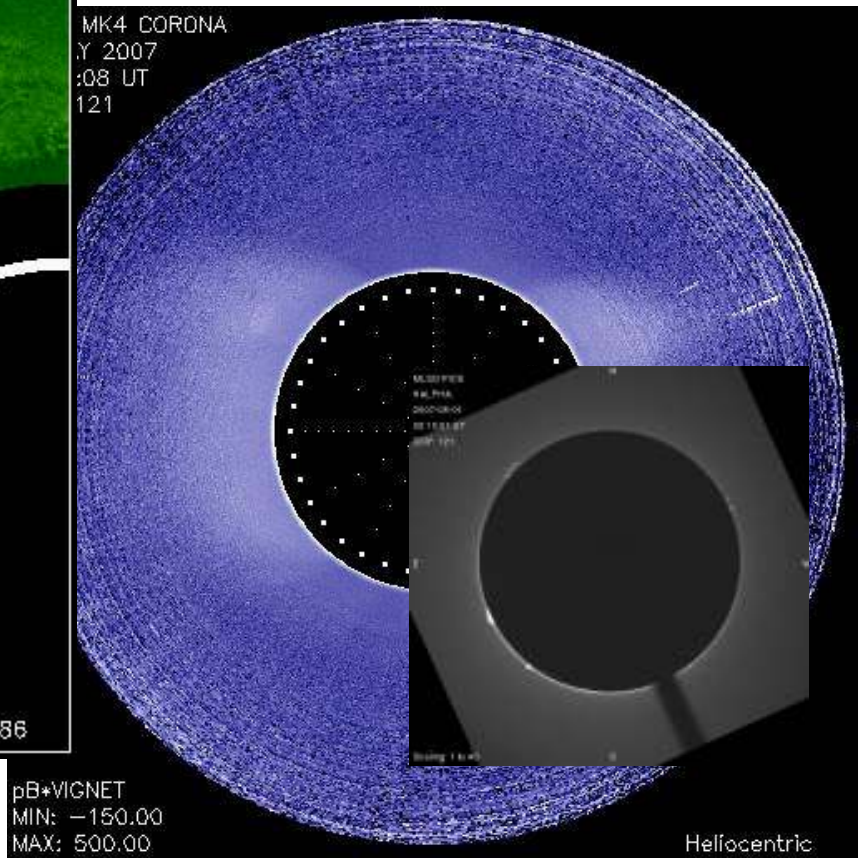


pB images

2007-May-01

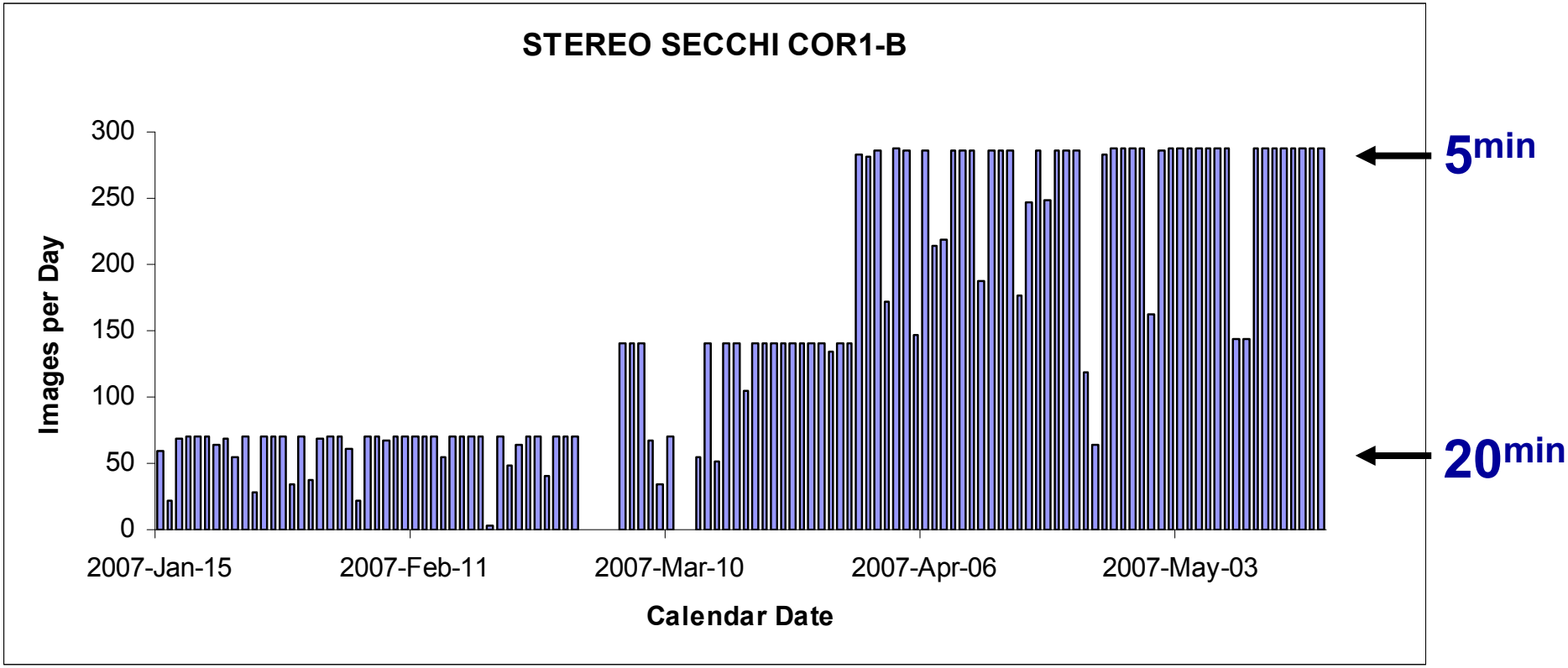
STEREO separation=6.1°



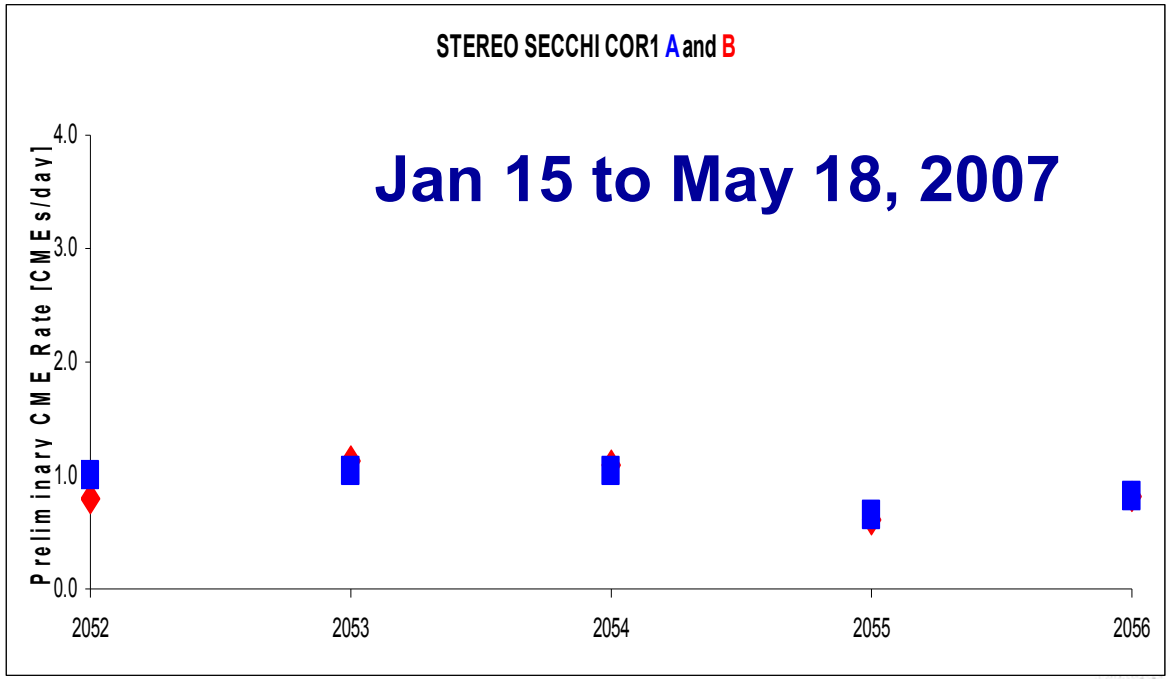


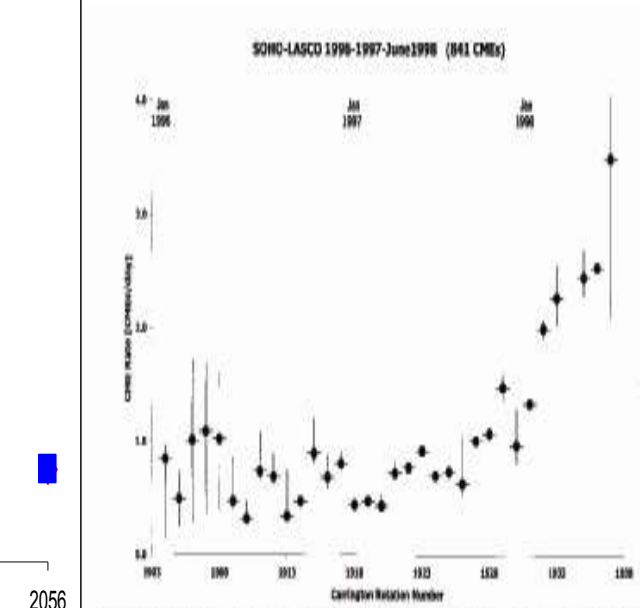
pB images

COR1-B Observing Cadence

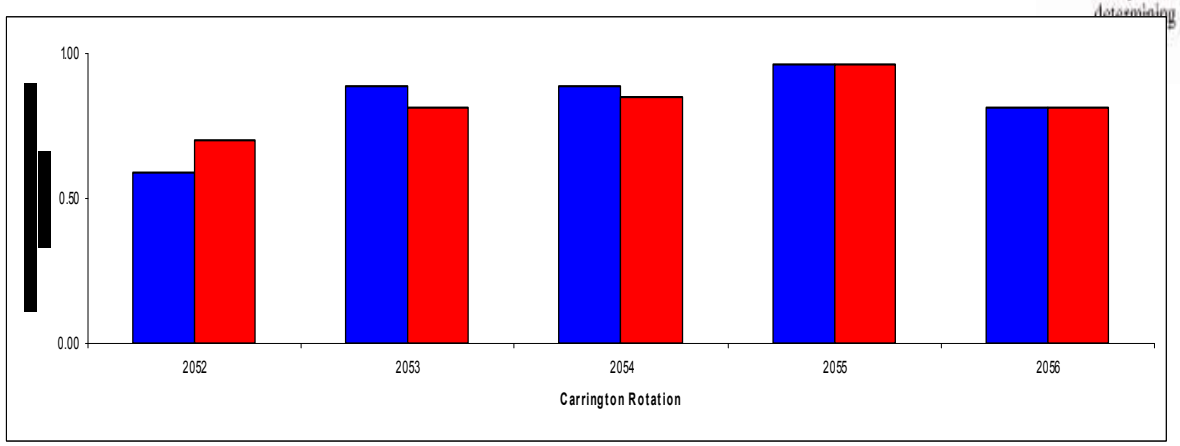


COR1 Preliminary CME Rate





CME Rate plot versus Carrington Rotation. Uncertainties in the rate are duty cycle dependent, as explained in the text. Horizontal bars represent the inherent uncertainty of coronagraphic observations in determining the Carrington longitude and rotation of any given CME.

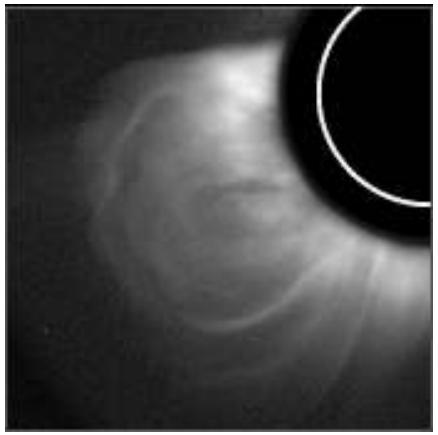


http://cor1.gsfc.nasa.gov

- Observers Log & Preliminary CME listing
- Design specifications for COR1
- Coming soon:
  - COR1 daily browse movies
  - Gallery of images, movies, and presentations

Conclusions

- Both COR1 instruments performing well and observing routinely
- ~70 CMEs detected between Jan 15-May 15
- At least two events detected by MK4 and COR1-A and –B (Feb 9, May 1, (May 26?))
- http://cor1.gsfc.nasa.gov



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CORONAL ACTIVITY BELOW 2 $R_\odot$: 1980 FEBRUARY

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ABSTRACT

In this paper we present the first observations of an eruptive prominence and coronal transient [illegible] the triggering of the motion of the magnetic configuration.