

STEREO Science Center Status Report

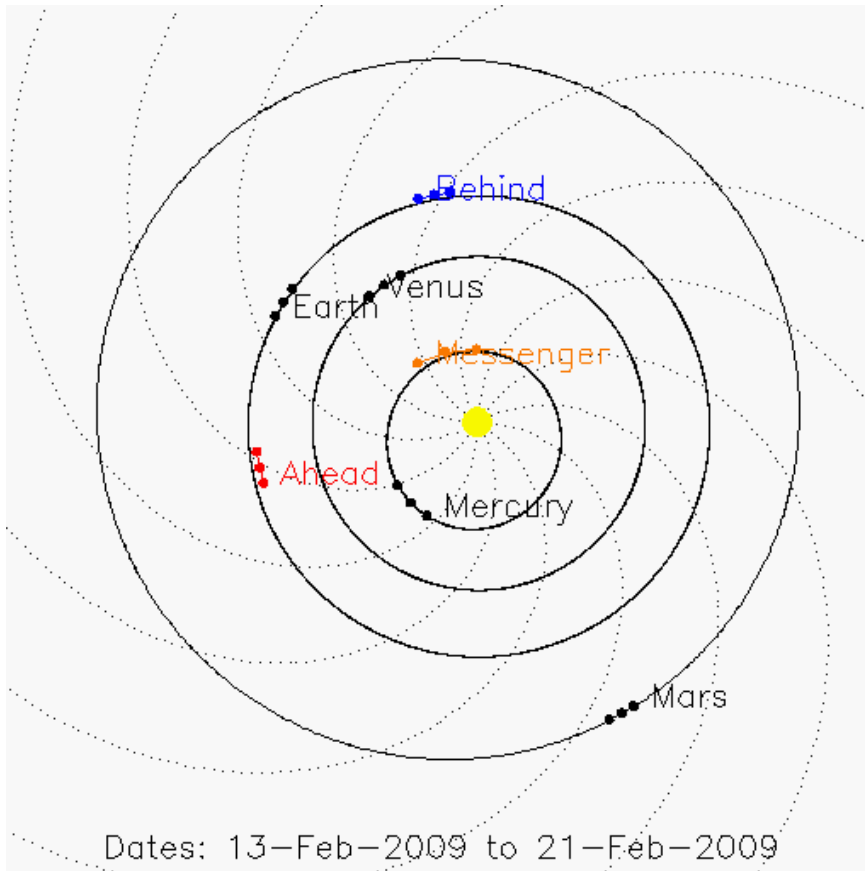
William Thompson
NASA Goddard Space Flight Center

STEREO SWG
27-29 October 2009
Meredith, NH

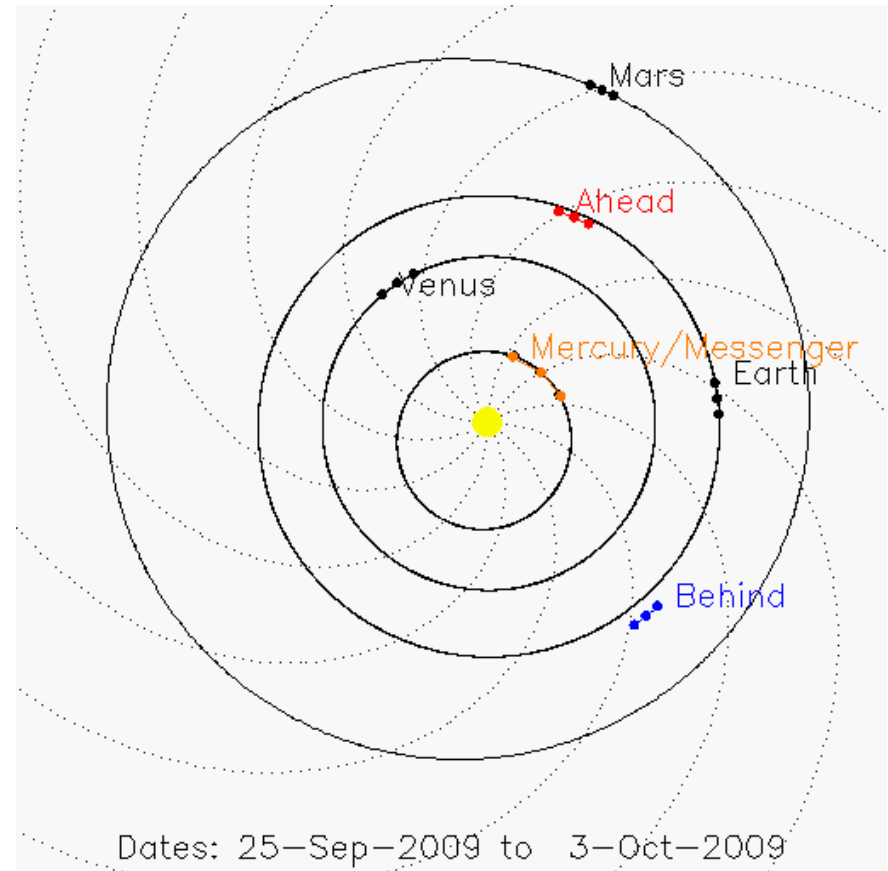
Recent Science Events

- DAWN fly-by of Mars, February 17
- SECCHI monthly 180° rolls to observe Lagrange points, March–August
 - Ahead passed L4 on September 12, Behind passed L5 on October 26.
- SUMER campaign, April 15-29
- Sunrise 5 day balloon flight, June 8-13
- Total solar eclipse, July 22, China
- Herschel sounding rocket launch, September 14
- JOP 224, Solar tomography with minimal solar rotation, September 27–October 27
- Messenger fly-by of Mercury, September 29

DAWN fly-by of Mars 17 February 2009



Messenger fly-by of Mercury 29 September 2009



Upcoming Science Opportunities

- 2009
 - SUMER campaign, Nov 1 – Dec 15
- 2010
 - SUMI sounding rocket launch, spring (TBD)
 - Total solar eclipse, July 11, South Pacific
- Targets of opportunity
 - JOP 222, Detecting the Origin of Shock-Accelerated Solar Energetic Particles
 - SECCHI/EUVI concentrates on 195 Å (same as current synoptic program)

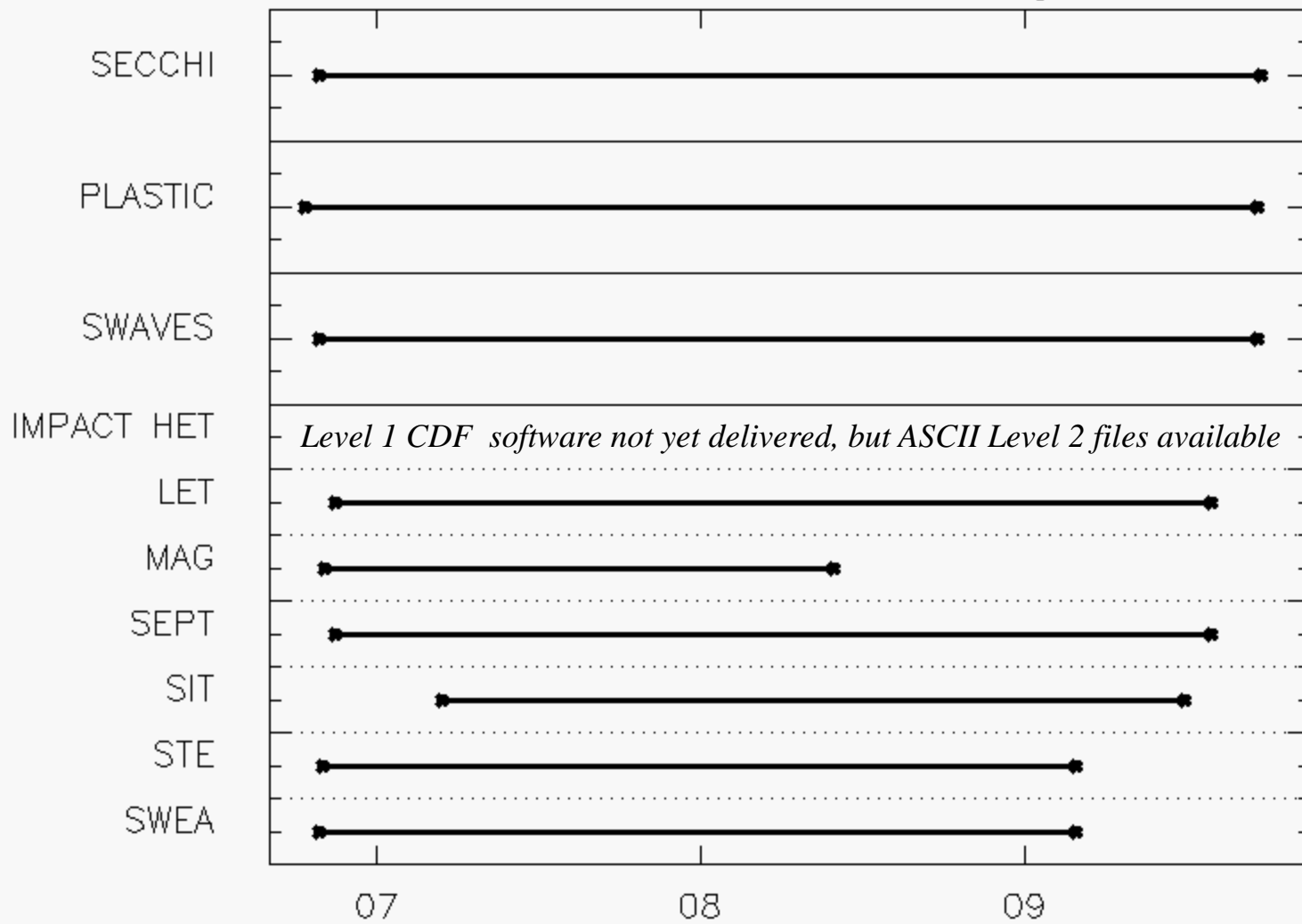
Much Farther Ahead

- 2011
 - Messenger Mercury orbital insertion, March 18
 - DAWN arrives at Vesta, August
- 2012
 - DAWN leaves Vesta, May
 - Total solar eclipse, November 13, Australia
- 2014
 - MAVEN arrives at Mars, September
- 2015
 - DAWN arrives at Ceres
 - STEREO goes behind Sun (3°)
 - Ahead, Feb 17–Aug 2
 - Behind, Jan 10–Apr 12, Jul 23–Nov 10

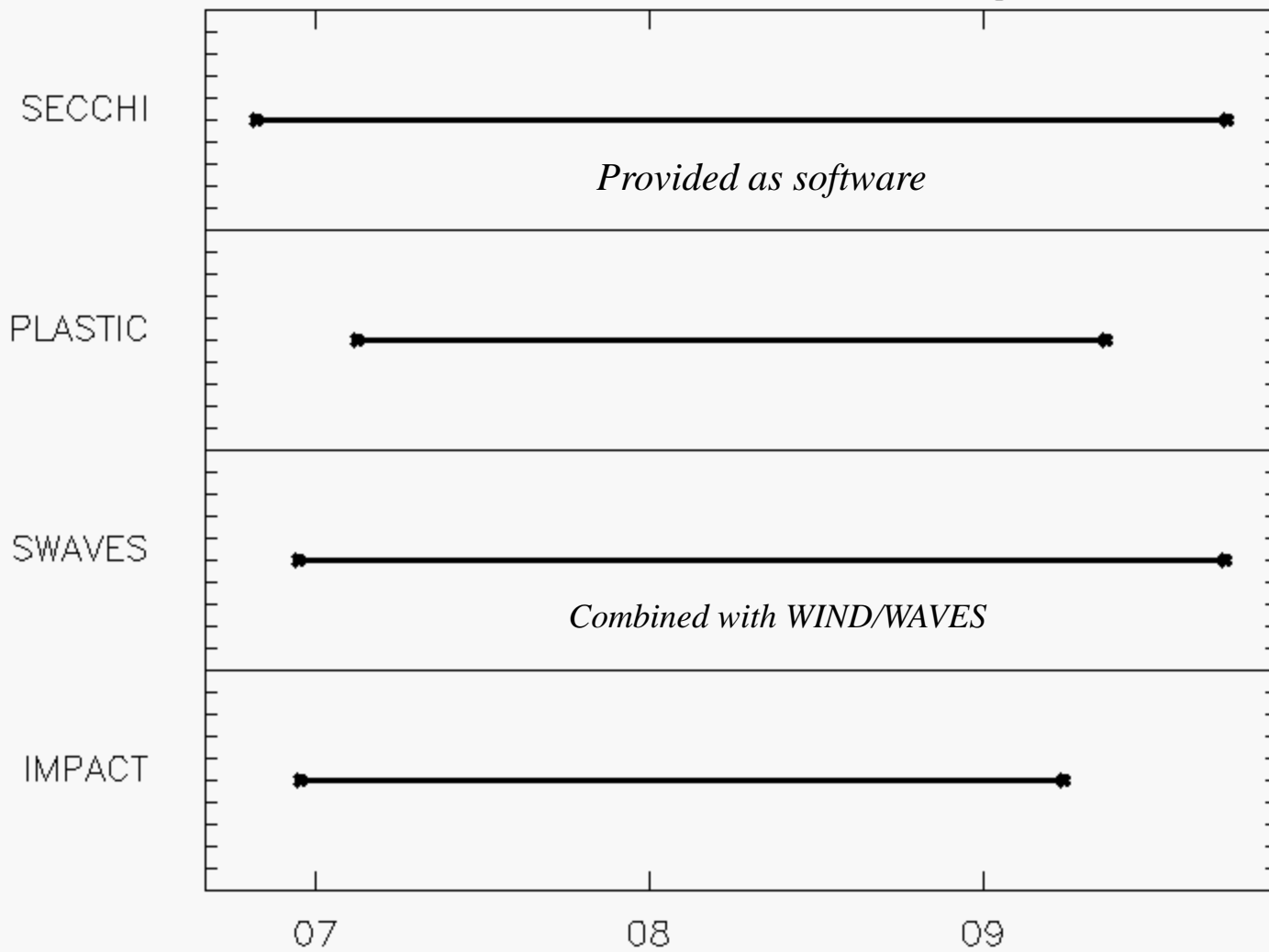
Data Availability

- Following plots show data archived within SSC for various data levels.
- Data availability is an important component of the upcoming Senior Review and the End of Prime Mission Review.
- Data available through Virtual Solar Observatory, but customized interface is still not available
 - Much data available through individual instrument data pages
- IMPACT/MAG data available through VHO.
 - Plans to include other STEREO data
- Now archiving IMPACT/PLASTIC Level-3, PLASTIC Level-2 in SSC

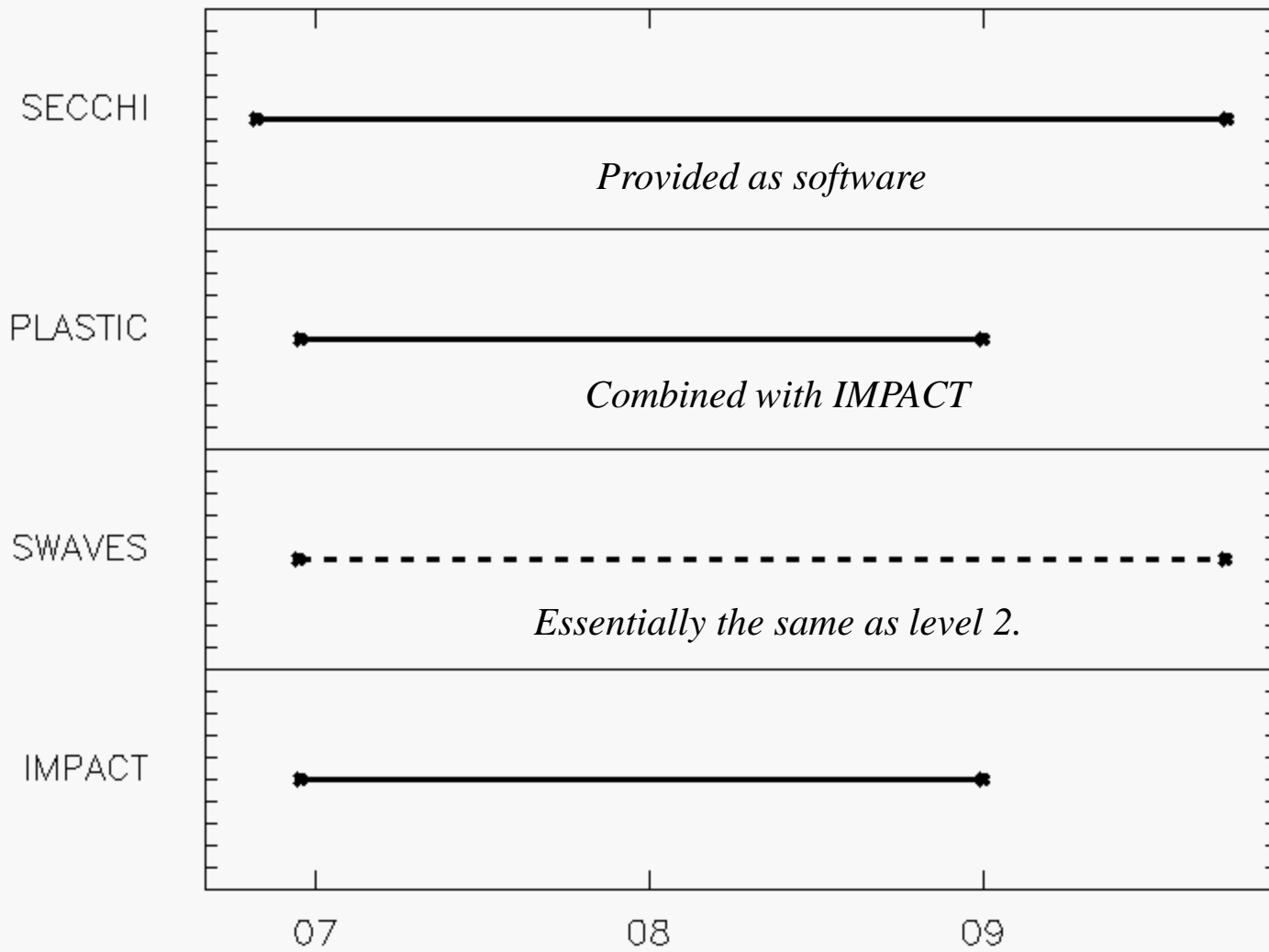
Level-1 Data Availability



Level-2 Data Availability



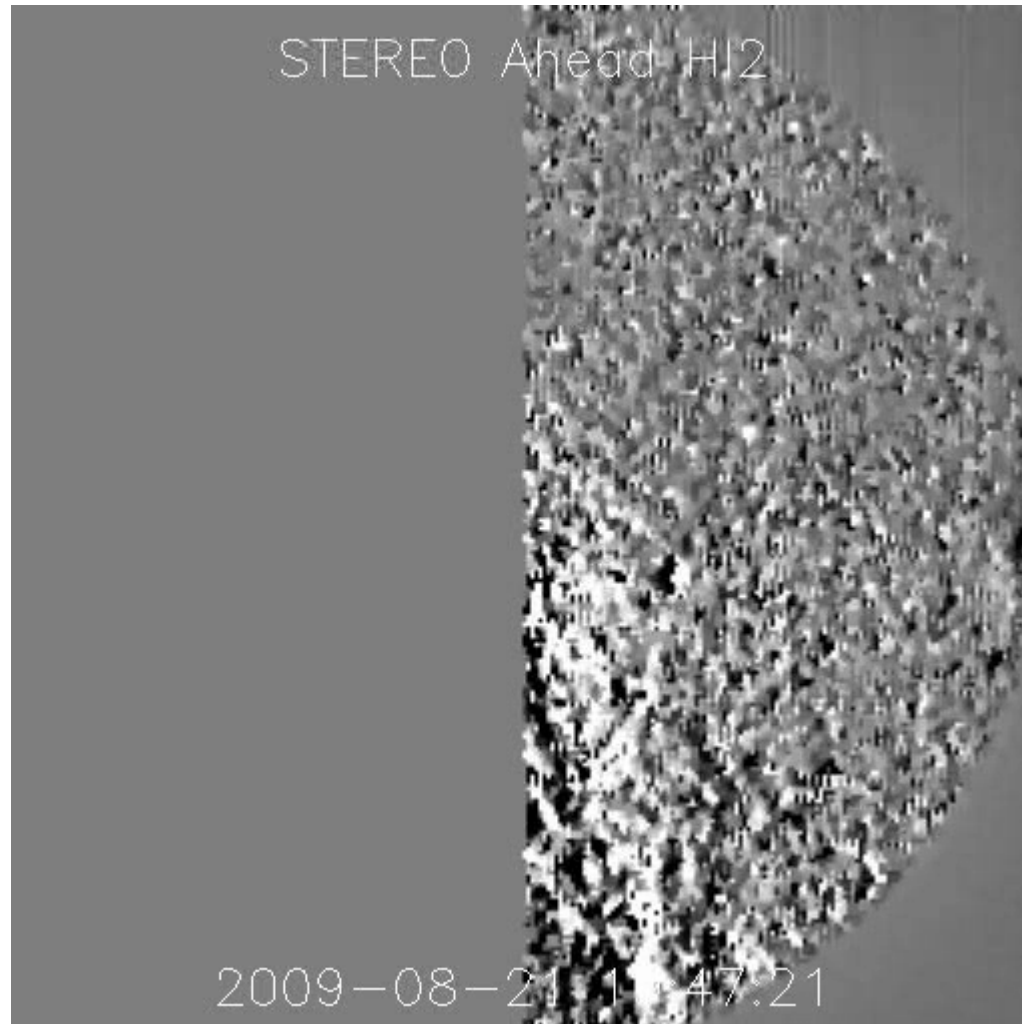
Level-3 Data Availability



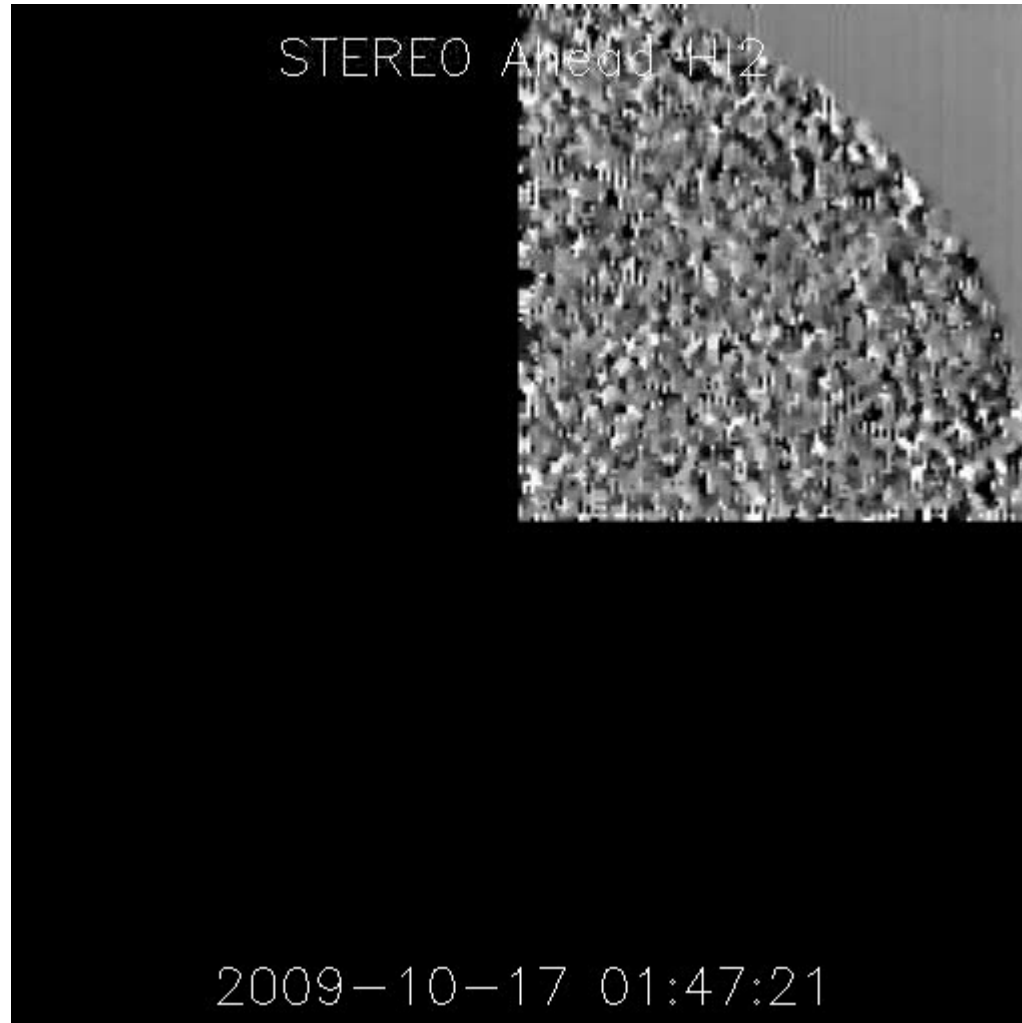
Beacon Status

- Added two amateur stations in Germany, Kiel-Ronne and Bochum
- Chilbolton (UK) station has dropped out of network—signal dropped too low.
- Toulouse station is back online.
- Receiving telemetry regularly from Kogenei, Japan.
- Still no station in U.S.—gap in coverage.
- NOAA examining link margins for extended mission
 - Switch from Convolutional to Turbo encoding (*delayed*)
 - Possibly changing the modulation index
- SECCHI HI2 beacon images changed to be more useful.
- PLASTIC beacon processing changed.

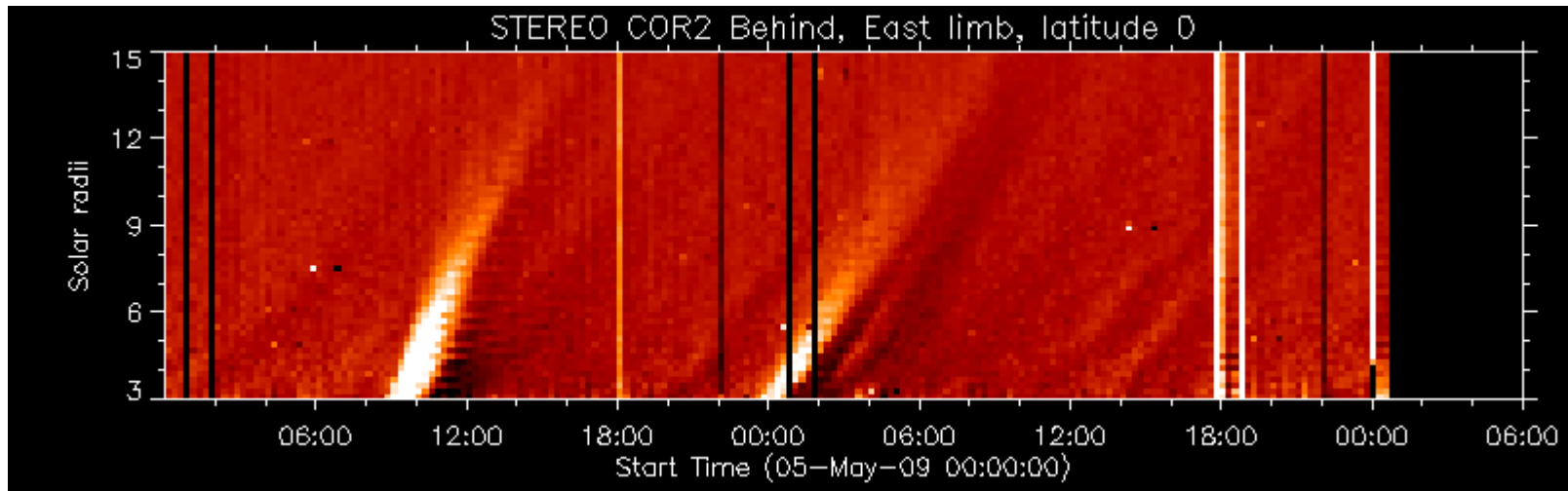
New HI2 beacon product



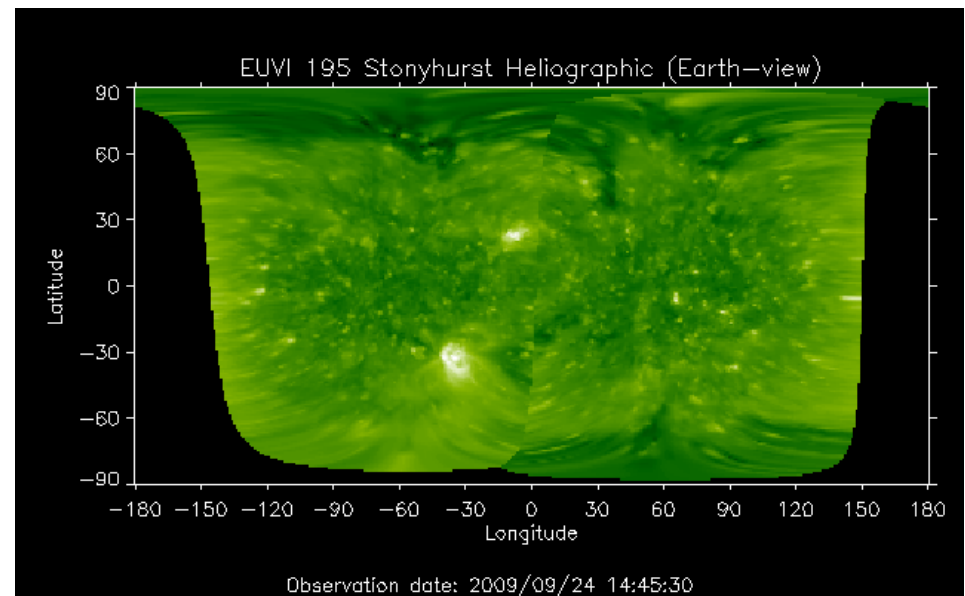
New HI2 beacon product



Website changes

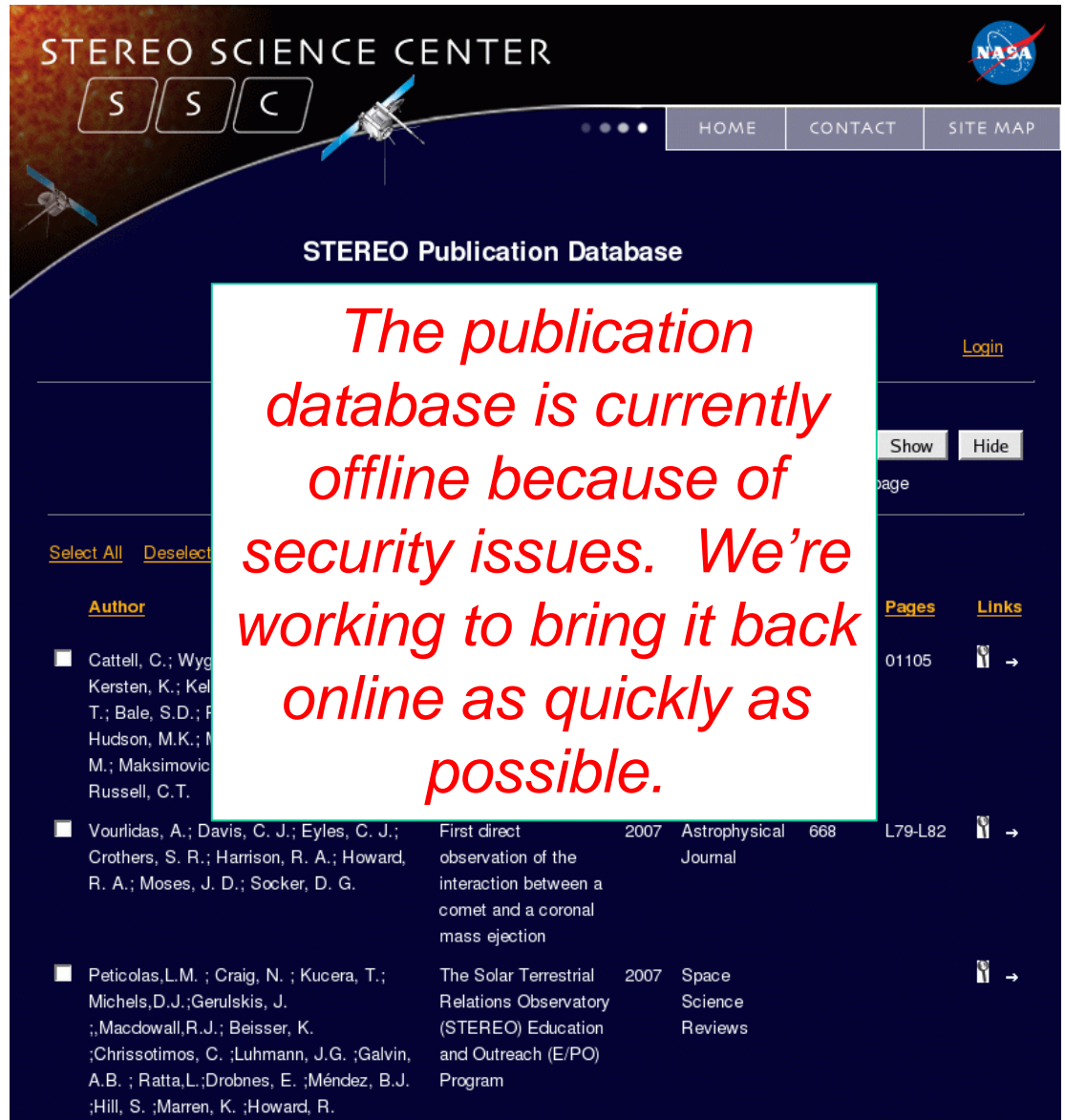


- Time-elongation plots of COR2 and HI data (“J-plots”)
- Heliographic maps from EUVI beacon data, plus a rotating view



Science Publication Database

- The STEREO publication database is now online.
- Contains published papers *only*.
- Links to online versions of the papers from the publishers
- Send new entries to C.Alex.Young @nasa.gov



STEREO SCIENCE CENTER

S S C

HOME CONTACT SITE MAP

STEREO Publication Database

The publication database is currently offline because of security issues. We're working to bring it back online as quickly as possible.

Select All Deselect

Author

<input type="checkbox"/>	Cattell, C.; Wyg Kersten, K.; Kel T.; Bale, S.D.; F Hudson, M.K.; M M.; Maksimovic Russell, C.T.					
<input type="checkbox"/>	Vourlidas, A.; Davis, C. J.; Eyles, C. J.; Crothers, S. R.; Harrison, R. A.; Howard, R. A.; Moses, J. D.; Socker, D. G.	First direct observation of the interaction between a comet and a coronal mass ejection	2007	Astrophysical Journal	668	L79-L82
<input type="checkbox"/>	Peticolas, L.M. ; Craig, N. ; Kucera, T. ; Michels, D.J. ; Gerulskis, J. ; Macdowall, R.J. ; Beisser, K. ; Chrissotimos, C. ; Luhmann, J.G. ; Galvin, A.B. ; Ratta, L. ; Drobnos, E. ; Méndez, B.J. ; Hill, S. ; Marren, K. ; Howard, R.	The Solar Terrestrial Relations Observatory (STEREO) Education and Outreach (E/PO) Program	2007	Space Science Reviews		

Pages Links

01105

L79-L82

Gallery

STEREO Gallery



STEREO
IMAGES & MOVIES



3D IMAGES & MOVIES




STEREO SPACECRAFT



SCIENCE VISUALIZATIONS



STEREO SELECTS



3D SHOWCASE

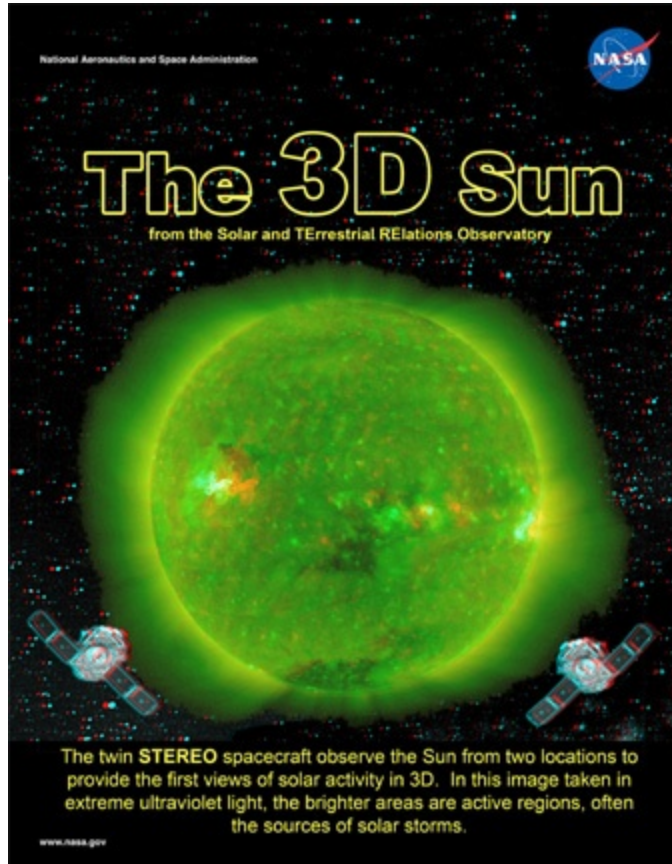
- A lot of work has been done on the STEREO gallery
- We encourage everybody to send us your best stuff
- Should also inform us of upcoming press releases

Joe Gurman

EPO Progress

- Updated and reprinted “Sun & Space Weather” CD
- Received DVD version of the “*3D Sun*” planetarium show (in 2D).
- New planetarium show using STEREO imagery, “*Journey to the Stars*”, opened at Hayden planetarium.
- Near-real-time STEREO images now being produced for Science-on-a-Sphere exhibit.
- Contributed often to SOHO “Pick of the Week”.
- Replenished supplies of the STEREO litho, 3D glasses, 3D lenticulars, STEREO 3D poster, and magnets.

Products



Poster



Litho



Magnet

Supported Events

- NASA Day on the Hill
- Space Day at the National Air and Space Museum
- Goddard Day at Annapolis
- Space Expo (middle school students, 4-day event in Immaculata, PA)
- Association of Science and Technical Centers Conference



Walk on the Sun Exhibit

- Marty Quinn, with a NASA grant, has created an exhibit where visitors interact with projected STEREO movies and generate different sounds
- Walk on the Sun has exhibited at over a dozen science centers, ASTC, public events, and National Federation for the Blind
- On permanent display at the McAuliffe-Shepard Discovery Center, Concord, NH

