Minutes of the 26th SOHO SWT Meeting

Goddard Space Flight Center

15–16 October 1998

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1 Welcoming Address. In Memoriam Guenther Brueckener

Bernhard Fleck welcomed the attendees and thanked the entire SOHO recovery team, including those who built the spacecraft and the instruments, for their successful work in bringing SOHO back into operations. A big round of applause subscribed his words.

Russ Howard remembered Guenther Brueckner, who died this summer. After reviewing his life, his career and his contributions to Solar Physics, all the attendees dedicated a moment of silence to his memory.

Actions Revision

Action 26-1: PI's are requested to test the sample level zero data CD-ROMs that CDHF will produce from data processed at IDDS (the new ground system). They are asked to report the results of these tests to the Science Data Coordinator (lsanchez@esa.nascom.nasa.gov) no later than two weeks after receiving the CD-ROMS.

Action 26-2: On Luis Sanchez, to find out how MDI will receive their high rate data once the transition to IDDS is complete and no more 8mm tapes are produced.

Action 26-3: PI's are requested to provide input on the strategy they will adopt with their instruments regarding the Leonids meteor storm by October 28. They are asked to consider two cases: No spacecraft attitude change, and 1.77 degree off-pointing to set the solar panel edge-on on the radiant of the storm.

Action 26-4: The SOHO engineering team will report on the outcome of the MMS study to mitigate the risk associated with the Leonids meteor storms as soon as it becomes available.

2 Agree Agenda and Action Items

No changes to the agenda.
No action items to review from last SWT

3 SOHO Recovery

Francis Vandenbussche described the events since June 24. This included the loss of spacecraft attitude, the recovery process, and the current status of the spacecraft.

Animations shown of the loss and recovery of attitude can be found in the SOHO WWW pages.

Annex 3 is a copy of the set of viewgraphs presented.

4 Spacecraft Status

Helmut Schweitzer gave the SWT more details about the current status of the spacecraft (see annex 4).

5 Operational Restrictions Due to Single-Gyro Mode

Francis Vandenbussche explained the operational restrictions resulting from the loss of gyros A and C (annex 5), and polled the PIs about the effect that abandoning the roll steering law could have in the operations and science coming from their instruments. This would imply no North/South spacecraft orientation during several weeks per year in order to always keep a bright start in the SSUs. The result of the poll was:

- VIRGO/LOI needs the North/South alignment in order to work, so the correct roll attitude is a requirement.
- MDI would need a more complex calibration. Also, each different spacecraft roll attitude would require a different calibration, so abandoning the roll steering law will make life much more difficult.
- GOLF is insensitive
- SUMER to be studied.
- CDS no problem.
- EIT would be able to live without the roll steering law, but the maximum resolution on synoptic charts would be degraded.
- LASCO: complicates the calibration mainly for C3. Same situation as MDI.
- SWAN no effect.
- CELIAS no effect.
- COSTEP no effect.
- ERNE no effect.

There was an agreement on a moratorium on any special operations (rolls and offpoints) until next SWT. At that time, and taking into account the report of the re-certification review, a thorough discussion will be held on the feasibility of any of these types of operations.

6 Instrument Re-commissioning Status

The principal investigators presented the status of their instruments. This material is included as annex 6. See also the re-commissioning WWW pages of MDI, CDS, UVCS, EIT, LASCO and VIRGO available through the SOHO WWW pages.

7 Leonids Threat for SOHO

See annex 7 to find a copy of the presentation of Craig Roberts, Bill Worrall and Francis Vandenbussche. It is worth noting that the numbers provided are highly uncertain (by one or two orders of magnitude).

Questions from PI teams about what to do to mitigate the risk are welcome and can be submitted to NASA in writing until October 23. The generic recommendation is to close doors and to power down high voltages.

A study on what is the best strategy to address this issue is under way at MMS. NASA resources will be increased both at DSN and at GSFC.

Action 26-3: PIs are requested to provide input on the strategy they will adopt with their instruments regarding the Leonids meteor storm by October 28. They are asked to consider two cases: no spacecraft attitude change, and 1.77 degree off-pointing to set the solar panel edge-on the radiant of the storm.

Action 26-4: The SOHO engineering team will report on the outcome of the MMS study to mitigate the risk associated with the Leonids meteor storms as soon as it becomes available.

8 Science Priorities for Next Six Months

The science priorities for the six months, starting on December 4, were discussed. There was a broad agreement to focus on CME observations in collaboration with NEAR and on coronal hole boundaries together with TRACE.

The next MDI continuum contact period is scheduled for next spring (March through May).

Bernhard Fleck showed a set of viewgraphs by Jean-Claude Vial on the next MEDOC campaign (annex 8). There was an agreement on running this campaign pending a favorable report for starting nominal science operations at the re-certification review scheduled for early December.

9 Status of SOHO Archive

Presented material is included as annex 9. There is a pending question on how MDI is going to get their high rate data once the ground system transitions to the new IMOC and, therefore, no more 8mm tapes are produced.

Action 26-1: PIs are requested to test the sample level zero data CD-ROMs that CDHF will produce from data processed at IDDS (the new ground system). They are asked to report the results of these tests to the Science Data Coordinator (lsanchez@esa.nascom.nasa.gov) no later than two weeks after receiving the CD-ROMs.

Action 26-2: On Luis Sanchez, to find out how MDI will receive their high rate data once the transition to IDDS is complete and no more 8mm tapes are produced.

10 Meetings and Workshops

Next SWT meeting, SWT-27, will take place on 25 and 26 February 1999 at ESTEC. The 'Fresnel' conference room is already booked for it.

- SWT-28 will be held on June 21, 1999, in the Paris area, in the same week as the SOHO 8 workshop.
- SWT-29 is scheduled for October 21-22, 1999, at GSFC.
- Next SPWGs will be on November 13 and December 4, 1998.
- The next SOHO intercalibration meeting is planned to be held in Berlin, end of February 1999 adjacent to SWT-27. Date and place to be confirmed.
- The SOHO 8 Workshop will take place on 22-25 June 1999 at Orsay or Paris. Viewgraphs presented by Bernhard Fleck are include as annex 10.
- The SOHO 9 workshop topic will be local area seismology, on the second or third week of July, in the Palo Alto area.
- A joint meeting or workshop with ACE was discussed. Both Peter Bochsler and Martin Huber are working towards organizing it.

11 Board Report and Implementation of Recommendations

John Credland started with his appreciation for the whole international team involved in the recovery of SOHO, and then he presented the final report of the 'SOHO Mission Interruption Joint NASA/ESA investigation Board' (see annex 11). The SOHO re-certification review is planned for December 2 and 3, 1998, at GSFC.

12 PR Issues

Martin Huber gave a brief introduction to the ESA communications office. Franciscus Jagtman discussed the SOHO communications plan (annex 12)

13 Main Scientific Achievements During the Last 6 Months

There were several presentations by Volker Bothmer, Jarmo Torsti, Peter Bochsler, Russ Howard, John Kohl, Jean-Pierre Delaboudiniere, Richard Harrison, Philippe Lemaire, Phil Scherrer, Claus Frohlich, and Alan Gabriel on published scientific papers and on-going work.

14 AOB

It was announced that Piet Martens will leave the SOHO project scientist team at the end of the year to join Montana State University at Bozeman.

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Annex 6: Instrument Re-commissioning Status

GOLF (A. Gabriel)

VIRGO (C. Froehlich)

See also `http://virgo.so.estec.esa.nl/`

MDI (R. Bush)

See also http://soi.stanford.edu/

SUMER (P. Lemaire)

CDS (R. Harrison)

See also `http://orpheus.nascom.nasa.gov/cds/home/recovery/recovery.html`

EIT (J.-P. Delaboudiniere)

See `http://umbra.nascom.nasa.gov/eit/`

UVCS (J. Kohl)

See `http://cfa-www.harvard.edu/uvcs/`

LASCO (R. Howard)

See `http://lasco-www.nrl.navy.mil/`

SWAN (E. Quemerais)

CELIAS (F. Ipavich)

COSTEP (R. Mueller-Mellin)

ERNE (J. Torsti)

See also `http://www.srl.utu.fi/projects/erne/erne.html`

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