

# ESA Space Weather Working Team

Minutes of 9<sup>th</sup> SWWT Meeting, 2 August 2002  
Hotel Böglerhof, Alpbach

## Attendees

F. Portier-Fozzani, MP Ae  
J. Y. Prado, CNES  
F. Lefeuvre, LPCE/CNRS  
B. Arbesser Rastburg, ESA/TOS-EEP  
R. Marsden, ESA/RSSD  
D. Berghmans, ROB-SIDC  
F. Jansen, University of Greifswald  
T. Clark, BGS  
S. Reay, BGS  
M. Jenrich, SW Forum consortium  
H. Lundstedt, Swedish Institute of  
Space Physics, Lund  
J. Watermann, DMI  
W. Riedler, SRI. Graz Austria  
E. Daly, ESA/TOS-EMA  
A. Hilgers, ESA/TOS-EMA  
A. Glover, ESA/TOS-EMA  
P. Hedja, Geophysical Institute of the  
Academy of Sciences, Prague, CZ  
J. Bochnicek, Geophysical Institute of the  
Academy of Sciences, Prague, CZ  
E. Friis Christensen, DSRI  
E. Amata, IFSI/CNR  
H. Koskinen, FMI

## Excused

R. Leitinger, IGAM, Univ. Graz  
F. Simonet, CEA  
M. Messerotti, Trieste Astronomical Observatory  
E. Flueckiger, Physikalisches Institut, Bern  
M. Candidi, IFSI  
P. Stauning, DMI  
R. Gendrin  
M. Hapgood, RAL  
J-J. Bertheliet, CETP  
F. Ongaro, ESA-SER  
S. Poedts, KUL  
  
A. Blusson, CLS  
D. Hall, BNSC  
W. Verschueren, OSTC  
B. Fleck, ESA/SCI-SO  
A. Korth, MP Ae  
P. Wentzel, ESA/RSSD

1. Matters arising from the SWWT-8 minutes.

No further changes recommended.

2. Matters arising from the Alpbach summer school presentations (1<sup>st</sup> August)

Members agreed that the Alpbach summer school participants had produced two projects of exceptionally high standard given the allocated time.

3. Pilot Project Status [A. Hilgers]

## Appendix 1: The Space Weather Pilot Project AO

A. Hilgers reviewed the status of the pilot project. Several members pointed out that in order to receive the Announcement of Opportunity (AO) documentation it is necessary to register with ESA/EMITS first. Members affiliated with research institutions felt that the EMITS questionnaire was geared towards commercial companies and not research establishments. Concern was also expressed that registration with this system might take several weeks, thus reducing the amount of time available to respond to the AO.

A. Hilgers reported that members should complete the EMITS registration questionnaire to the best of their ability and contact the responsible ESA contract officer directly. (**Mrs L. van Hilten: Tel +31 71 565 4544; Fax +31 71 565 5773**). She is aware of the situation and has agreed to provide the relevant documentation promptly and will fill in a registration number when registration has been completed.

### 4. Roadmap [A. Glover]

#### Appendix 2: The Roadmap

A Glover reviewed the current status of the space weather roadmap document. It was asked what progress had been made in contacting Eumetsat. E. Daly responded that Eumetsat had been briefed around the time of the Darmstadt SWWT meeting and although they had invited submission of a paper for the Eumetsat Council, nothing has been done until the follow-on actions (i.e. Pilot Project) were clear. Some contact was re-established at the GMES Forum.

**Action (ED):  
Restart Eumetsat contact**

R. Marsden stated that he had been tasked by D. Southwood to coordinate internal ESA discussion to identify possible synergies between the ESA Space Science division and the applications pilot project. An internal ESA meeting is scheduled for early Autumn.

### 5. SWWT Restructuring [A. Glover]

#### Appendix 3: Updated SWWT Terms of Reference

A. Glover presented a proposed new structure for the SWWT. The new structure would include the provision of smaller thematic groups in addition to the main SWWT meetings. Participants were asked how they envisaged thematic groups to be divided and how often these groups should meet.

J. Watermann pointed out that there are already numerous meetings people are required to attend and so meetings in addition to the main SWWT might be difficult to arrange.

The members agreed that this is the case. It was decided that contact between thematic groups be primarily through email. A meeting could be scheduled in conjunction with

relevant conference sessions e.g. where a number of the participants were already in attendance but these would be arranged on an ad hoc basis.

Division of thematic groups was also discussed. It was felt that a large number of groups may become unmanageable.

A. Glover suggested that the thematic groups could be divided to be in accordance with the COST 724 working groups. However, it was decided that the most appropriate action would be to divide the thematic groups according to the responses received to the pilot project AO.

F. Jansen suggested that ESA contact national representatives directly to invite their participation in the restructured SWWT.

E. Daly pointed out that national representatives would be invited to participate in the space weather steering board activities rather than the SWWT.

## 6. COST 724 [T. Clark]

### Appendix 4: COST 724

T. Clark presented the accepted structure of the COST action “Developing the Scientific Basis for Monitoring, Modelling and Predicting Space Weather”. COST Action 724 was accepted by the COST Committee of Senior Officials (CSO) on 4/5 July. The process of arranging signatures to the Memorandum of Understanding will begin shortly.

Due to budgetary constraints arising from the administrative changeover from EU FP5 to FP6, the first Management Committee Meeting will take place in April 2003. During the interim period, the COST website will remain at:

<http://www.geomag.bgs.ac.uk/COST>

T. Clark stressed that COST funding will be available for organising and planning short term missions

B. Arbesser-Rastburg pointed out that opportunities for exchange of scientists should be emphasised.

T. Clark stated that COST would be able to fund research students to move between institutes for periods of weeks.

F. Lefevre commented that in the context of FP6, funding for researcher mobility is available. One of the COST 724 management group’s first tasks should be to set up some sort of framework for mobility.

T. Clark stressed that the COST action on space weather has been approved by the EU. As such, this should be emphasised and promoted by SWWT members in other applications

T. Clark pointed out that a COST-271 workshop will take place on 1-5<sup>th</sup> Oct, in Faro, Portugal. Details are available via the COST 271 website at RAL:

<http://www.cost271.rl.ac.uk/>

T. Clark proposed that the COST management group could take over organization of the December workshop scheme.

#### 7. EU – FP6 [A. Glover: F.Lefevre]

A. Glover presented a list of space weather related expressions of interest (EoI) submitted to the EU in June 2001 with SWWT member involvement.

- **EASE** (Effects on Aircraft and Satellite of space Environment) by Francois Lefevre,
- **POTIONS** (Protection of Telecommunication and in Orbit Navigation Satellites) by Richard Horne,
- An Integrated Approach to creating a European Space Weather Programme - by Bob Bentley
- **WATCSA** (Wide-Area, Time-Coherent Sensor Arrays) for a solar radar(LOFAR/LOIS) by Bo Thide,
- **SWEEC** (Space Weather Effects on Earth's Climate) by Peter Stauning.
- **SACE** (Solar Activity and Climate in Europe) by H. Lundstedt
- **SWAN** (Space Weather Applications Network) by TOS-EMA/ESA

F. Lefevre gave a short overview of the EASE proposal and described a proposal received from the consulting group Alma for provision of an EU interface and management of the activity.

It was agreed by the members that inclusion in the consortium of a consulting group with previous experience of interfacing with the EU is beneficial when submitting a proposal owing to complex EU procedures.

F. Lefevre expressed concern that the expressions of interest are not sufficiently well developed if the authors wish to be in a position to submit a proposal following publication of the EoI evaluation in September.

It was proposed that a combined space weather related proposal be arranged. A. Glover will contact the individual authors for their comments. The authors, and other interested parties, will be invited to attend an SWWT meeting at ESTEC on 30<sup>th</sup> September to discuss FP6 proposals.

**Action (AG):**

## **Contact EoI Authors for feedback on a combined space weather proposal**

### 8. Possible GMES Synergies [A. Hilgers]

#### Appendix 5: GMES Participation

A. Hilgers reviewed information gained during first GMES forum in Brussels on 15-17<sup>th</sup> July 2002. Several possible synergies between space weather and GMES were identified through discussion with representatives of ESA (D/EOP) and the EU DG Environment.

Three possible next steps were identified. These are under investigation. It was agreed to intensify the flow of information between TOS-EMA and the ESA GMES team on market and customer development activities. Mark Doherty (D/EOP, based in ESRIN) agreed to be informed of the pilot project activities and progress.

It was agreed that an SWWT meeting could be held at ESRIN in early spring to discuss possible involvement for the space weather pilot project in GMES.

### 9. ESA Participation in ISES [A. Hilgers]

#### Appendix 6: ISES Participation

A. Hilgers reviewed the potential role for ESA in ISES. It was proposed that ESA integrate its role in the pilot project into ISES. For example, if one of the outcomes of the pilot project were a new type of space weather data, it might be possible to integrate it into the ISES distribution. This type of activity would be transferred to the relevant organisation at a later date. Another possibility is the inclusion of TOS-EMA's expertise on space weather induced spacecraft effects not otherwise represented in ISES. It would be possible to organise a working group and team on the subject.

### 10. AOB

E. Daly mentioned national microsatellite initiatives. It was noted that the Proba AO has now closed. The SWWT are aware of space weather related proposals from ESTEC with involvement from NASA-Goddard, CNES and SIDC.

J.-Y. Prado pointed out that there may be opportunities for space weather payloads on French satellites. It was stated that this is not a formal position, but the Picard spacecraft to be launched in 2006 currently has some available mass margin. In this case, it might be possible to accommodate a few kg instrument with limited power and telemetry and

capacity. Picard will be dedicated to monitoring the relationship between solar diameter and total solar irradiance. It will be located in a Heliosynchronous orbit, almost permanently in view of the sun. The mission is currently undergoing a phase-A study.

E. Friis-Christensen stated that the Earth Observation programme of ESA has selected 3 missions for further review next year. The *swarm* proposal includes participation from 25 European and American institutions. The mission would comprise a constellation of 4 satellites which would precisely measure the geomagnetic field with the aim of producing a precise model. Physical climate is also of importance and can be addressed by this mission. Currently the proposal is third of the 3 selected missions and there have been proposals to combine its goals with one or more of the other selected missions.

#### 11. ESTW and Space Weather Forum [F Jansen]

F. Jansen summarised the status of arrangements for the space weather forum which will be held in Berlin on the evening of the 4<sup>th</sup> November. The format of the accompanying educational space weather CD-Rom was demonstrated.

It was pointed out that a space weather week was held in Baltimore recently. This makes the European space weather week In Berlin the second event of its type.

B. Arbesser Rastburg expressed concern that the press release contains grammatical errors, thus not increasing the appeal of space weather. He suggested that F. Jansen request assistance from the ESA public relations department.

F. Jansen stated that although efforts had been made to contact ESA public relations, no response had been received.

B. Arbesser-Rastburg agreed to provide contact details of the person responsible for press releases within ESA.

**Action (BAR):  
Provide contact details for press-release to F. Jansen**

The EU website for ESTW is available as follows:

[www.cordis.lu/scienceweek/act\\_act.htm](http://www.cordis.lu/scienceweek/act_act.htm)

F. Jansen requested that SWWT members provide names and contact details of important persons from their institute or country that should be invited to the space weather forum. Each EU member state is encouraged to organise it's own event to coincide with the space weather week in Berlin. Interested parties should contact F. Jansen by email. In this case, accompanying space weather material will be provided by the Berlin team. This will include display boards translated into 3 different languages (German, English and French).

It was stated that participation in the forum will be free. An SWWT meeting will be convened following the forum on 5<sup>th</sup> November in Berlin.

12. Next SWWT meetings:

- a. 30<sup>th</sup> September, ESTEC (Local contact person: A. Glover)
- b. 5<sup>th</sup> November, Berlin (Local contact person: F. Jansen)
- c. Early spring, ESRIN (Local contact tbc)