MISSION EXPERTS DIVISION (EOP-SM)
DIRECTORATE OF EARTH OBSERVATION PROGRAMMES

date	reference	number of pages
31 March 2003	EOP-SM/0815/MB-dr	Page 1 of 17

from M. Berger (EOP-SML)

Telephone: +31 71 565 5158
Fax: +31 71 565 5675
e-mail: Michael.Berger@esa.int

to Members of the SMOS Science Advisory Group (distribution list attached)

c.c.:
ESA HQ: J. Achache (D/EOP)
ESRIN: S. Briggs (EOP-S), W. Lengert (EOP-GM), J. Benveniste (EOP-SEU)
ESTEC: R. Zobl (EOP-P), E.A. Herland (EOP-SM), M. Rast (EOP-SML), E. Attema (EOP-SMS), N. Floury (TOS-EEP), P. Wursteisen (EOP-SMS), M. Martin-Neira (TOS-ETP), P. Baptista (TOS-EEP), H. Rebhan (EOP-SMO), A. Hahne (EOP-PS), M. Drinkwater (EOP-SMO), R. Bock (EOP-PSM), H. Barre (EOP-PSM), B. Duesmann (EOP-PPS), J. Lahtinen (TOS-ETP)

Subject: **Minutes of the 11th SMOS SAG Meeting held at ESA-ESTEC, Noordwijk, The Netherlands, 24 & 25 February 2003**

Dear Colleague,

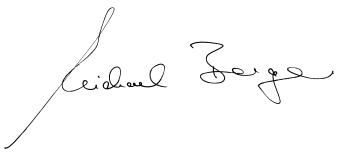
Enclosed you will find the minutes of the eleventh SMOS SAG meeting held at ESA-ESTEC, Noordwijk, The Netherlands, 24 and 25 February 2003.

Please note that this document is also available in PDF format for downloading on the SMOS SAG ftp server. The version on the ftp site also contains the presentation viewgraphs used during the meeting.

I already now would like to ask you to mark the dates for our next SAG meeting which will take place at ESTEC, **2-3 July 2003**. An invitation and a draft agenda will be send to you in due time.

Should you have any questions concerning the minutes, please feel free to contact me.

Yours sincerely,



Dr. M. Berger
Land/Surfaces Unit
Earth Sciences Division

SMOS
Science Advisory Group

MINUTES OF THE

ELEVENTH

SOIL MOISTURE AND OCEAN SALINITY (SMOS) MISSION SCIENCE ADVISORY GROUP MEETING

24 & 25 February 2003

ESA-ESTEC, Noordwijk, The Netherlands

Participants: Y. Kerr, J. Font, M. Peichl, P. Ferrazzoli, P. Waldteufel, M. Hallikainen, D. LeVine, N. Skou

Excused: P. Viterbo, G. Lagerloef, T. Jackson

ESA: A. Hahne, M. Martin-Neira, B. Duesmann (part time), R. Bock (part time), J. Lahtinen, J. Benveniste, H. Rebhan, M. Drinkwater, N. Floury (part time), M. Berger

1. Welcome and Introduction – Objectives of the Meeting

Y. Kerr and M. Berger welcomed the SMOS SAG members to their 11th SMOS SAG meeting.

P. Viterbo, G. Lagerloef and T. Jackson were excused.

The objectives of the meeting had to be modified since relevant documents for the cal/val and the SMOS Science Report review could not be made available in time. The main objectives of this meeting were:

- to discuss the study and campaign requirements for the next year,
- to agree on study topics for the Portuguese announcement for outline proposals,
- and to prepare for the 4th SMOS workshop.

2. Approval of Draft Agenda

M. Berger introduced the draft agenda.

The agreed agenda is attached to the minutes (Annex A).

3. Actions from the Last Meeting

Action items from the last meeting were reviewed and their status updated.

No.	Category	Subject	to	due	Status
1.17	Camp. Doc	To keep master copy/ circulate updates	NS		Closed
1.26	Promotion	To provide planned promotion activities/publications to MB	all		On-going
3.9	Promotion	To draft GEWEX article – PV and GL to provide inputs	YK/PV /GL	31/1	Re-issued
6.10	MRD	To update MRD on OS requirements	JF/GL	31/1	Open
6.11	Data Products	To analyse required number and locations of incidence angles for Level 1b data product	PhW		Closed
7.5	Simulator	To obtain more SSS simulations from OS req. study team	HR/GL	31/1	Obsolete
8.6	Cal/Val	To draft a calibration scheme and a validation plan	YK	31/12	On-going
8.13	Science Report	To submit for draft of the Science Report to MB	SAG	31/12	On-going
8.15	Promotion	To distribute various SMOS logos used to the SAG	MB	31/1	Closed
9.1	Camp. Doc	To provide NS with a summary of all campaign activities performed so far	PW	31/1	Obsolete
9.3	Studies	To draft requirements for an assimilation study	PV	31/1	Re-issued
10.1	Campaigns	To ask TJ for a SMEX chapter to be included in the campaign document	MB	31/1	Obsolete
10.2	Faraday	To distribute the TNs to the SAG	NF	31/1	Done
10.3	Promotion	To provide electronic copies of logos to MB	SAG	31/1	Done

10.4	Instrument	To provide a TN on the validity of NIRs to the SAG	MMN	31/1	Deferred
10.5	Cal/Val	To forward draft ELDAS validation plan to YK	PV	31/12	Open
10.6	Cal/Val	To provide detailed feedback to the draft cal/val document which will be distributed at the end of this year	SAG	31/1	Open
10.7	Campaigns	To review planned CRYOSAT campaigns for possible collaborations	MD/HR	31/1	Done
10.8	Portugal	To further discuss possible studies in Portugal with J. Hernandez and M. Alves	JF/GL	31/1	Done

Remarks:

Action 1.17: It was agreed that the campaign document in its current form is not required any longer. A summary of the achievements made with a chapter covering the open issues which need to be followed by dedicated campaigns will be included in the Science Report and the cal/val document. M. Berger took the action to forward the campaign summary article as it was submitted for publication in the EuroSTARRS/WISE/ LOSAC workshop proceedings to Y. Kerr (**AI: 11.1**).

Action 6.10: The MRD will be updated 2-3 weeks after the 4th SMOS WS where further inputs on the product requirement will be discussed.

Action 6.11: Details on the multi-angular views will be covered in the document describing the ground processing scheme.

Action 8.6: A cal/val document is currently being drafted and will be distributed to the SAG for reviewing by mid March.

Action 8.13: M. Berger will use the inputs received so far for drafting a first version of the SMOS Science Report for subsequent review/completion by the SAG.

Action 10.2: Three TNs are available for downloading on the SMOS SAG ftp site (skynoise.pdf – a first iteration on the non surface contribution to the brightness temperature and their variability, faraday_maps.pdf – frozen ionosphere and its impact on Faraday rotation (model results), domec.pdf – which includes a chapter on the temporal fluctuations of the ionosphere at high latitudes (radar observations)). A fourth document is currently being prepared (atm_fluc.pdf – summary of short term fluctuations of the phase front caused by atmosphere/ionosphere inhomogeneities) and will be available by mid March.

Action 10.4: Deferred until detailed results of the NIR tests are available (expected by mid of April). M. Martin-Neira agreed to give a presentation at the next SAG meeting.

4. Project Status

A. Hahne reported on the status of the project.

Industrial Phase B studies for the payload were successfully kicked-off in December. Technical work is progressing. Issues of calibration, operations and for a design and development plan are being pursued. The support study with Alcatel with contribution from CNES will be implemented soon. Furthermore, a preliminary launcher study was initiated

with the objectives to analyse the coupled dynamics and the trajectory in order to streamline the deployment strategy.

The Statement of Work (SoW) for the phase 1 of the level 1 processor prototype development study is currently under internal review. It will be released within the next few weeks. A proposal for the accompanying scientific support study was received and is currently under evaluation.

He also reported on a range of other issues related to the project. The project team takes shape and a seminar for the project team is being organised end of March to bring all new team members up-to-date. A documentation system was implemented and is running. Currently the SRD is under review in order to make it suitable for phase B/C/D/E. Further discussions about the management (internal assignments of responsibilities and tasks) of the ground segment development are on-going with the D-EOP ground segment department at ESRIN.

MDPP

M. Martin-Neira reported on the status of the MDPP activities:

MDPP-1:

MDPP-1 has been completed. Open issue on polarisation tilt angle of the antennas identified during the TUD test campaign has been solved by additional measurements.

MDPP-2:

On MDPP-2 the deployment demonstration was carried out successfully. Some more tests were done to compute the resonant frequency taking into account the flexibility of the test jig. The image validation activity has also progressed. UPC is performing the data processing. Preliminary results show that the sensitivity and impulse response tests have been successful. A reformulation of the visibility function has been achieved to make it compatible with Bosma theorem under conditions of thermodynamic equilibrium. Using the new visibility function a very good image of the empty chamber has been achieved, with an error of 2 K in the central part of the field of view.

Also within MDPP-2 the Test Readiness Review of DICOS-2 correlator was successful and tests have started. NIR tests are progressing according to schedule, too. The Critical Design Review of the optical harness will take place March 6. A MOHA-Q meeting on qualification of optical components will happen the following day.

IV-3C

Furthermore, J. Lahtinen reported on the image validation test 3C (IVC-3C) activities:

The preparations for image validation test IV-3C are underway. The test will be conducted in Summer/Autumn 2003. Three LICEF-2B receiver units, Noise Injection Radiometer (NIR), and DICOS 3B correlator will be used. The Sun, the Moon and the Milky Way (Cygnus region) will be imaged. Equatorial mounting of the mechanical support structure will be applied, which minimizes the tracking error.

IV-4

An image validation test is also being planned at DLR for 3 months starting mid March. M. Peichl reported on the planned activities.

Two receivers will be delivered to DLR and mounted on sledges which are controlled by software. This allows arbitrary sampling not restricted to concrete steps, as it was the case in the previous image validation tests. Point sources will be used in the laboratory and 'natural' scenes will be imaged at a later stage of the experiment.

HUT:

M. Hallikainen reported on the status of the HUT-2D instrument development.

Measurements of the antenna characteristics are on-going. The new digitising boards were delivered and analysed. Unfortunately, they also show self-interference although the performance has improved. Shielding could solve the primary source of the interference which was due to the sampling clock. Further work need to be done on the secondary source, which is due to the serial bus and the coupling to the power supply. A new digitising board needs to be designed which will further delay the availability of the instrument.

Mechanical stress during flight conditions is of concern, too. The dynamic pressure could cause a bending of the structure. The radome could support the structure. This is currently reviewed with the support of a mechanical engineer.

In the discussion N. Skou offered to visit HUT for a brainstorming meeting to further discuss solutions concerning the self-interference.

M. Hallikainen will provide an updated timetable as soon as more details on the various issues of concern are available, likely at the SMOS workshop in April.

5. Open Issues Related to the Project

Orbit requirements:

B. Duesmann gave an overview presentation of the different orbit parameters and their effect.

In the discussion it was agreed that yaw steering, which compensates the Earth rotation, together with local normal pointing, which accounts for the Earth ellipsoid, is recommended for the SMOS mission since it would minimise geometrical distortions of pixels seen under different viewing angles. This overrules the SAG finding from their previous meeting.

In addition, the orbit repeat cycle was discussed. The repeat cycle, the frequency at which any point on the globe is seen at exactly the same position within the swath, should be long (orbit spacing at least two times the pixel spacing). The rationale behind this is that retrieval schemes are not perfect and may introduce biases. These biases would be difficult to detect if the ground is always observed under the same geometry. A change of this requirement should be possible a few times during the mission's lifetime.

Additional orbit parameters (frozen orbit requirement, localisation requirement etc.) and their effect were also addressed by the B. Duesmann's presentation. He stressed that the pointing accuracy is independent from the selected attitude mode. It depends only on the used actuators, instruments and applied processing, in orbit and if necessary on ground. Therefore localisation requirements are preferred rather than pointing requirements.

It was agreed that B. Duesmann and M. Berger prepare a technical note describing the different orbit parameters which would help to generate a common understanding for further discussions within the SAG (**AI: 11.2**).

6. Status Reports of ESA Support Studies

Soil Moisture Requirement Study:

The Soil Moisture Requirement Study had its final presentation back-to-back with the SAG meeting. The draft final report is currently under review. An updated version will be made available on the SMOS ftp site as soon as available.

The study results reveal that it will be difficult with the current retrieval approach to achieve the SMOS requirements using SMOS 'snapshots and the 3-parameter retrieval (retrieval of surface soil water, optical thickness and surface temperature at the same time). The situation looks much better if an effective surface temperature with an accuracy of 2 K could be provided by other means (models, complementary satellite data). Results obtained by assimilating time series of brightness temperature for retrieving surface soil moisture look encouraging.

In summary, it was shown that a better parameterisation of the retrieval scheme is required. Considering the scale of the SMOS footprint, some inputs for the model parameterisation would be provided by SMOS data itself during the commissioning phase.

Some deliverables of the study (simulated high resolution subsets in the US and in Siberia) could not yet be delivered because of limited access to the super computer. Therefore, a no-cost-extension of the contract for 2 months was proposed.

Soil Moisture Retrieval Study:

The mid-term presentation of the soil moisture retrieval study had to be postponed to 21st March mainly because of manpower problems.

Ph. Waldteufel, a member of the study team, reported that the retrieval scheme foresees to provide 'effective dielectric constant' estimates whenever the retrieval of surface soil moisture fails (e.g. over mountainous regions). A successive improvement of the retrieval scheme could be implemented, as more knowledge of the physics of signal is available.

Salinity Data Processing Study:

N. Floury reported on the status of the salinity data processing study. An extension of the study as discussed during the last SAG meeting could not be implemented and a final presentation of the study is planned for end of March. All reports were received and are currently under review. A synthesis document will be made available to SAG members on the ftp site by mid of March. The final report should be available after the final presentation.

Scientific inputs for the SMOS level-1 processor development (with emphasis on calibration and image reconstruction techniques):

A proposal received in response to the 'request for quotation' was assessed as 'unsatisfactory'. The potential contractor was requested to submit an updated proposal addressing a range of critical issues. The updated proposal is currently under evaluation.

7. Update on Campaign Activities – Cal/Val Issues

LOSAC:

N. Skou reported on the status of the outstanding LOSAC flights.

A LOSAC coordination meeting took place end of January at ESTEC where it was agreed that the issue is too important to be dropped even if the flights have to be further postponed e.g. to autumn this year because of political reasons (the aircraft availability is constrained by the military requirements). The site in the North Sea as used for the previous LOSAC flights is preferred because of short transect flights and therefore keeping more time for the actual data acquisition. In case of unfavourable wind conditions (too low winds) a site in the Norwegian Sea, close to the platform 'Mike' would be an alternative option. It is planned to

fly circles (as many as possible - 16 or more) and the cloverleaf pattern which would increase the integration time on cost of azimuth sampling. The flights are planned for 6 March.

SMOSREX – LEWIS exploitation:

Y. Kerr reported on the status of the SMOSREX experiment.

The radiometer was now named to LEWIS which stands for L-band radiometer for Estimating Water In Soils. LEWIS was installed on the scaffold end of January and is operational since then. It takes measurements from –60 to 60 degrees whereas from –20 to 20□degrees no measurements can be made because of the structure. During high wind conditions the instrument is locked in nadir position for safety reasons. The instrument is very stable and the antenna beam pattern shows almost no side- and back lobes. So far several freezing events could be observed. Sky measurements are being performed regularly. In the discussion it was noted that atmospheric models available differ in modelling atmospheric attenuation at L-band. LEWIS might be well suited to provide more insights into this by performing sky measurements together with measurements characterising the atmosphere (radiosonde, irradiance measurements, etc.).

Dome-C preparations:

M. Drinkwater reported on the Dome C preparatory activities (see slides).

In early January a proposal prepared by M. Drinkwater and N. Floury was submitted to the French (IPEV) and Italian Polar institutions (PNRA) as a placeholder for proposed scientific activities in Antarctica in austral summer 2003/04. These institutions are together with ESA, responsible of a steering group that governs the planning and approval of austral summer experimental activities at the Concordia Station, Antarctica. Approval of a proposal is required in order to obtain airborne personnel and equipment shipping support to the continent, as well as permission to perform activities at this station. The proposed activities involve 2-persons (Franco/Italian) making tower radiometer spectral time-series measurements, with in-situ snow pit characterisation and other parallel experiments. The proposal decision is expected in April. In the meantime, equipment preparatory activities are ongoing amongst the participants, and electromagnetic modelling preparations continue.

CryoSat Greenland campaign – opportunity for cooperation:

H. Rebhan reported on the planned CryoSat campaign activity.

A first truly validation campaign for CryoSat has been arranged for April this year. Taking the opportunity to combine in-situ sea-ice measurements with simultaneous airborne laser profiling the data will be of important value for the validation of CryoSat thickness estimations. More campaigns like this will be conducted in the subsequent years offering the potential to co-operate with the science teams to extend the range of sea-ice measurements with airborne L-band radiometers.

N. Skou outlined his ideas to fly the EMIRAD radiometer coordinated with this campaign to Greenland to observe sea ice at a range of different conditions. Considering the short time available to prepare and coordinate with this campaign and also considering constraints imposed by the military on the availability of the aircraft it was concluded that this would not make sense for this year. The option to piggyback on a later CryoSat campaign remains open.

SMEX activities:

D. LeVine reported on behalf of T. Jackson on the activities performed in the frame of SMEX.

SMEX, a land surface hydrology-atmosphere interaction experiment exploiting a range of instruments to observe fluxes at ground and aircraft level has as main objective to validate Aqua AMSR soil moisture products for a range of surface cover types. It will also demonstrate the validity of new soil moisture retrieval and data fusion concepts and serve as a demonstrator of new technologies (GPS, 2DSTAR). The first SMEX campaign took place in 2002. Campaign data are currently reviewed and will be made available at a dedicated archive centre. A follow-on experiment is planned for 2003 in Brazil and in the US (Oklahoma, Georgia and Alabama). Aircraft over-flights that include the exploitation of instruments like PSR, 2DSTAR, GPS and AIRSAR, will be accompanied by an intensive fieldwork. The experiment in the US is scheduled for 24 June to 18 July 2003 and in Brazil for 16 to 26 September 2003.

Future campaign activities:

M. Berger introduced the long-term airborne experiment as proposed by the science community at the EuroSTARRS/WISE/LOSAC campaign workshop.

The main objectives would be to provide L-band dual-polarisation (if possible full-polarisation) data for a range of different cover types under different conditions for improving model parameterisation and assimilation scheme. 30–60 days are considered necessary to cover different surface conditions. An area around Toulouse was proposed, where intensive ground measurements supported by measurements networks would take place at the same time of the over flights. In order to have results available in time for the ground segment development, it was stressed that the campaign should take place next year at the latest. Appropriate instruments and their availability was intensively discussed. Basically, two airborne instruments are favoured, HUT-2D and 2D-STAR, whereas the availability of the HUT-2D instrument still cannot be guaranteed for next year. Further details are expected at the SMOS workshop. It therefore was agreed to await a more detailed schedule of the HUT-2D instrument development before starting preparatory activities for the campaign.

Status of the campaign document:

As discussed under agenda point 3 (actions from the last meeting) a campaign document in its current form is not required any longer. A summary of the achievements made together with a chapter covering the open issues which needs to be followed by dedicated campaigns will be included in the Science Report and the cal/val document which currently is being drafted.

8. Future Study Requirements (incl. List of Topics for the Portuguese Call for Outline Proposals)

M. Berger outlined ideas for future scientific studies required to prepare for the mission.

The improvement/correction of the SEPS is considered of highest priority since it hampers scientific progress. The current version of SEPS apparently only runs on the PC platform and requires an older version of MatLab (version 5.3) with some additional MatLab modules (simulink, optimisation toolbox, mapping toolbox and image processing toolbox). Furthermore, SEPS is very slow in its processing and according to the experts there is much room for improvements. In the discussion it was agreed that a special Q&A session on SEPS should be held at the next SMOS workshop. The SEPS developers should be invited to give presentations and prepare a SEPS hands-on demonstration (**AI: 11.3**). Users of SEPS should be informed beforehand to prepare for this session. M. Berger will provide Y. Kerr and A. Hahne with the list of SEPS users (**AI: 11.4**). Following this and a further ESA internal assessment of the usability of the current version, actions will be taken by the project to cover open ends.

Second highest priorities have studies related to the development of the ground segment. It was stressed that in about two years time the project would need ATBDs describing the retrievals in detail. Considering this, there is an urgent need to start relevant activities. M. Drinkwater agreed to submit an example ATBD to get an idea about the format and extent of this document (**AI: 11.5**). Further inputs in designing these studies will be provided by the discussion covering the product definition as planned for the SMOS workshop.

In this context the draft ground processing scheme was mentioned. This document, drafted by Y. Kerr and Ph. Waldteufel with inputs from A. Hahne, was distributed shortly before the SAG meeting. The SAG was asked to review it and to provide inputs to Y. Kerr within the next 4 weeks (**AI: 11.6**).

M. Berger also informed the SAG on the preparation of the Portuguese SMOS Information Day which will take place in Porto on 17 April following the SMOS workshop. It is planned to release a call for outline proposal restricted to the Portuguese community at the Information Day. Research topics of the call were discussed at the SAG meeting. Ideas covering retrieval concepts, assimilation schemes and product validation concepts were discussed. It was agreed that M. Berger further liases with Y. Kerr and J. Font in defining a list of research topics for the call for outline proposals (**AI: 11.7**).

9. AOB

4th SMOS Workshop

Y. Kerr introduced the draft SMOS workshop agenda to the SAG. It was proposed to invite B. Wilson and S. Yueh, to report on the PALS instrument, S. Rising, to report on his foam experiment, and S. Blanch and R. Lang, to report on their dielectric constant measurements. Furthermore, it was considered worthwhile to invite Australian colleagues who operate a salinity instrument.

It was agreed that a summary presentation outlining campaign results and addressing open issues is more appropriate than an extra campaign session since detailed results were already presented at various workshops, conferences and journals.

A Q&A session on SEPS is considered useful. The participants should come prepared and therefore need to be informed beforehand (see also agenda point 8).

Splinters are organised to address specific issues (such as on product definition) and it is proposed to have a poster session to accommodate presentations of new results by the participants and foster discussion.

New D-EOP organigramme

M. Berger introduced the new D-EOP organigramme as it went into force in December last year. The directorate has been restructured in order to account for the new environment of the EO sector and to better respond to new challenges.

The directorate has now 4 departments, the Future Programmes Department, the Projects Department, the Ground Segment Department and the Science and Applications Department. The introduction of the latter underpins the importance of scientific missions as seen by ESA management. Consequently the former Earth Science Division was moved to this new department and has been renamed to Mission Experts Division.

SMOS logo

J. Benveniste showed a range of SMOS logos generated at ESRIN. Preferences were briefly discussed. A. Hahne reported that currently logos for all approved ESA missions are being generated. Therefore this activity was considered obsolete. The new logo will be distributed as soon as available.

10. Date and Place of the Next Meeting

The next SAG meeting was tentatively scheduled for **2 and 3 July** at ESTEC. The option to organise a 1-day SAG meeting during the IGARSS in Toulouse will be kept open. A decision will be made after the final symposium programme is available.

11. Summary and Conclusion

Y. Kerr and M. Berger thanked the SAG for attending the meeting. It was proposed that information material should be made available a few days before the meeting allowing the SAG members to prepare for the discussions.

List of Actions:

No.	Category	Subject	to	due	Status
1.26	Promotion	To provide planned promotion activities/publications to MB	all		On-going
3.9	Promotion	To draft GEWEX article – PV and GL to provide inputs	YK/PV /GL	31/1	Re-issued
6.10	MRD	To update MRD on OS requirements	JF/GL	31/5	Open
8.6	Cal/Val	To draft a calibration scheme and a validation plan	YK	20/3	On-going
8.13	Science Report	To submit inputs to the draft Science Report to MB	SAG	2/7	On-going
9.3	Studies	To draft requirements for an assimilation study	PV	31/1	Re-issued
10.4	Instrument	To provide a TN/presentation on the validity of NIRs to the SAG	MMN	2/7	Deferred
10.5	Cal/Val	To forward draft ELDAS validation plan to YK	PV	31/12	Open
10.6	Cal/Val	To provide detailed feedback to the draft cal/val document which will be distributed by YK	SAG	1/5	Open
11.1	Camp. Doc.	To provide Y. Kerr with the summary paper of the EuroSTARRS/WISE/LOSAC campaign workshop	MB	15/3	
11.2	Requirements	To draft a TN outlining orbit requirements	BD/MB	1/4	
11.3	SMOS WS	To invite SEPS developers to the WS	YK	15/3	
11.4	SMOS WS	To provide YK and AH with a list of SEPS users	MB	15/3	
11.5	Studies	To send the GOCE ATBD to the SAG	MD	1/4	
11.6	GS	To provide inputs to YK's draft GS processing scheme	SAG	1/4	
11.7	Promotion	To liase with YK and JF on a list of research topics for the Portuguese call for outline proposals	MB	15/3	

11th SMOS SAG Meeting

24 / 25 February 2003

ESA-ESTEC, Noordwijk, The Netherlands

---

1. Welcome and Introduction - Objectives of the meeting

2. Approval of draft agenda

3. Actions from the last meeting

4. Project status:
   - Programmatics and organisation
   - On-going activities
   - Technical progress
   - MDPP
   - HUT-2D

5. Open issues related to the project
   - Orbit requirements (Yaw steering, frozen orbit, time synchronisation)

6. Status reports of ESA support studies:
   - Soil Moisture Requirement Study
   - Soil Moisture Retrieval Study
   - Salinity Data Processing Study
   - Scientific support for the level-1 processor development

7. Update on campaign activities – Cal/Val issues:
   - LOSAC
   - Fauga, Avignon - Lewis
   - Dome-C preparations
   - SMEX
   - Future campaign activities
   - Status of the campaign document

8. Future study requirements (incl. List of topics for Portuguese call for outline proposals):

9. AOB
   - 4th SMOS WS
   - New D-EOP organigramme
   - SMOS logo
   - Image validation test-3

10. Date and place of next meeting

Members of the SMOS Science Advisory Group

Name	Company/Department	Address	Phone	Fax	E-mail
Ferrazzoli, Paolo Dr.	Universita' Tor Vergata, Dipartmento di Informatica, Sistemi e Produzione, Facolta di Ingegneria	Via del Politecnico 1, 00133 Rome, Italy	(39) 06 7259 7420	(39) 06 7259 7460	Ferrazzoli@disp.uniroma2.it
Font, Jordi Dr.	Institut de Ciències del Mar CMIMA-CSIC, Physical Oceanography Group	Passeig Maritim de la Barceloneta, 37-49, 08003 Barcelona, Spain	(34) 93 230 95 12/00	(34) 93 230 95 55	jfont@icm.csic.es
Hallikainen, Martti Prof.	Helsinki University of Technology, Laboratory of Space Technology	PO Box 3000, 02015 HUT, Finland	(358) 9 451 2371	(358) 9 451 2898	martti.hallikainen@hut.fi
Jackson, Thomas J. Dr.	USDA ARS Hydrology Laboratory	104 Bldg 007 Barc-West, 20705 Beltsville, MD, USA	(1) 301 504 7490	(1) 301 504 8931	tjackson@hydrolab.arsusda.gov
Kerr, Yann Dr.	CESBIO	18 avenue Edouard Belin, 31401 Toulouse Cedex 4, France	(33) 5 61 558522	(33) 5 61 558500	Yann.Kerr@cesbio.cnes.fr
Lagerloef, Gary Dr.	Earth and Space Research	1910 Fairview Avenue E, Suite 102, 98102 Seattle, WA, USA	(1) 206 726 0501	(1) 206 726 0524	lagerloef@esr.org
Le Vine, David Dr.	NASA GSFC, Microwave Sensors Branch	Code 975, 20771 Greenbelt, MD, USA	(1) 301 614 5640	(1) 301 614 5558	dmlevine@priam.gsfc.nasa.gov
Peichl, Markus Dr.	DLR, Institute of Radio Frequency Technology and Radar Systems	Oberpfaffenhofen, 82234 Wessling, Germany	(49) 8153 282390	(49) 8153 281135	markus.peichl@dlr.de
Skou, Niels Mr.	Technical University of Denmark, Department of Electromagnetic Systems	Bldg 348, 2800 Lyngby, Denmark	(45) 45 881444	(45) 45 931634	ns@emi.dtu.dk
Viterbo, Pedro Dr.	ECMWF	Shinfield Park, RG2 9AX Reading, Berks., United Kingdom	(44) 118 9499 734	(44) 118 9869 450	p.viterbo@ecmwf.int

Name	Company/Department	Address	Phone	Fax	E-mail
Waldteufel, Philippe Dr.	IPSL/Service d'Aéronomie du CNRS	B.P.3, 91371 Verrières le Buisson Cedex, France	(33) 1 6447 4320	(33) 1 6447 4348	philippe.waldteufel@aerov.jussieu.fr