

**SRS Meeting 2010**  
**Stockholm, March 24-25, 2010**

## **Meeting Summary**

The SRS Meeting 2010 was held on March 24-25 at Stockholm University. Local host was the Department of Meteorology (MISU). The meeting had 84 registered participants. *See the list of participants for details.*

The meeting comprised topical sessions, posters sessions, invited speakers, presentations by the Swedish National Space Board and related strategy discussions, as well as SRS formalities. *See the meeting programme for details.*

The meeting was opened by SRS chairman Mark Pearce. Jörg Gumbel was elected as meeting chairman. Meeting secretaries were Jörg Gumbel and Jacek Stegman with responsibility for the meeting protocol.

## **Space Board Sessions and Strategy Discussions**

SNSB's Director-General, Olle Norberg, started the meeting with a presentation entitled "Towards a comprehensive strategy for the Swedish National Space Board". More details about the activities and plans of SNSB were later presented in a specific SNSB session by Lennart Nordh, Per Magnusson and Kristine Dannenberg. *See the online presentations for details.*

A significant part of these presentations was dedicated to ongoing work on a comprehensive strategic plan of SNSB for future space activities. This strategic plan is thought as a basis for future funding deliberations, for future discussions with the government and other authorities, and for the preparation of the next ESA ministerial conference. Olle Norberg and Lennart Nordh listed a number of specific questions, asking the scientific community for input concerning the ongoing strategy discussions. These questions focused on future scientific priorities and challenges, the role of missions of different sizes, including exploratory missions, the role of national, multilateral and ESA collaborations, the role of micro-/nanosatellites, balloons and rockets, as well as the relationship between scientific and technological developments. *See the online presentations by Olle Norberg and Lennart Nordh for details.* Input from the scientific community is welcome until early April. Similar discussions are ongoing with Swedish space industry. A strategy document is envisaged for June.

In the SNSB presentations, Per Magnusson and Kristine Dannenberg discussed activities and developments in the mandatory and optional ESA programmes. Changes in the Space Research Advisory Committee and the Remote Sensing Committee were announced. News related to the 2010 Call for Research Proposals, with deadline on May 20, concern overhead rules, a request for a clearer justification of space relevance, and a web-based submission system. During the discussions, concern was expressed that the new overhead rules by the Universities (full kostnadsteckning) may lead to a reduced amount of funding that is actually available for research projects.

Much of the discussion during the SNSB session focused on the idea of "small missions". On the ESA level, the idea of small missions is under discussion by a Task Group put in place by SPC (Science Programme Committee), as a complement to the current M- and L-missions. The cost efficiency of ESA was questioned when it comes to small missions. Small missions on the national level were discussed as important for scientific and technological continuity. Difficulties to get political support for small missions were pointed out both nationally and within ESA. Successful international reviews and participations were pointed out as an important justification for national funding. The idea of combined ESA and national funding for small missions was promoted, with the control over the mission remaining on the national level.

The issue of "open data access" was discussed and in this context it was pointed out that even in times of "open data access" it is important to ensure that groups actively contributing to the implementation of a project will have the possibility to influence part of the programme and have a privileged data access during a certain amount of time. When it comes to the general funding of data use, problems were pointed out concerning the interface between SNSB and Research Council responsibilities.

An open position as Forskningshandläggare at SNSB was (pre-)announced.

## **Topical Sessions**

Ongoing Swedish space research was presented in seven short thematic sessions featuring two speakers each. *See the meeting programme and the online presentations for details.*

**Atmospheric Physics:** Heiner Körnich discussed how ongoing atmospheric research in Sweden contributes to a better understanding of middle atmosphere dynamics and coupling processes. Patrick Eriksson presented efforts on global retrievals of cloud ice content as an important parameter for the Earth's radiation balance.

**Astronomy, Astrophysics and Cosmology:** Göran Östlin presented a survey of Swedish interests in ESA's astronomy missions. Based on PoGOLite and other examples, Mark Pearce discussed the role of balloons in developing and performing space experiments.

**Microgravity, Life Sciences and Radiation:** Per Tesch talked about the development of an efficient training machine against astronauts' muscle loss. Lembit Shiver presented numerical simulations and related ISS experiments concerning radiation effects on humans in space.

**Earth Observation and Remote Sensing:** Yifang Ban presented developments of remote sensing methods to study urban expansion and its consequences. Johan Kleman talked about the possibilities to draw conclusions about past ice sheets and climate development from remote sensing of today's land forms.

Earth-Sun System: Göran Marklund discussed the role of current and future multi-probe missions to understand the Earth's aurora, ionosphere and magnetosphere. Henrik Lundstedt discussed capabilities of predicting geomagnetic disturbances based on current (SOHO, SDO) and planned (Solar orbiter) space missions observing the Sun and its behaviour.

Solar System: Hans Rickman talked about the search for a consistent picture of the early solar system development up to the Late Heavy Bombardment. Mats Holmström discussed solar wind interactions with a particular focus on the Moon.

Astrobiology: Wolf Gebbert discussed ideas of biomolecule formation with a particular focus on the role of planetary ionospheres. Alexis Brandekar discussed the search for biomolecules in space, stressing the importance of Herschel for studies of protostellar disks.

## **Poster Sessions**

Poster presentations and discussions were combined with the lunch and coffee breaks. 30 posters were on display, providing a broad overview of ongoing space-related projects in Sweden. *See the list of posters for details.*

## **Invited Presentations**

Two invited speakers gave presentations of general interest for the SRS community. Kevin Noone introduced the concept of "planetary boundaries", promoting a holistic view on human development and the interaction with our environment. He pointed out the need for global monitoring of human and environmental development in terms of critical key parameters. As part of this, the importance of an independent national capability to obtain environmentally relevant data from space was stressed. Malcolm Fridlund talked about Herschel's early days in space. He summarized the mission preparation, the current instrument status and some first observational highlights. The upcoming measurement programme and announcements of opportunities were outlined. *See the online presentations for details.*

## **SRS Formalities**

A new SRS Board needs to be elected at the SRS Meeting in 2011. An election committee was approved consisting of Göran Marklund, Göran Olofsson and Jacek Stegman.

It was suggested that decisions about travel support for students attending future SRS Meetings should be taken early enough to allow for a booking of cheap tickets and hotels.

The SRS Meeting 2010 welcomed industry participation but did not comprise a specific Space Industry session. There was general agreement that this was a

reasonable approach, considering the fact that there was an ample amount of time set aside for discussion and contributions also from industry within the general sessions.

The next meeting of Rymdforum will take place in Göteborg on April 20, 2010.

The current format of the SRS Meeting was appreciated by most. There was agreement that that this meeting format will continue also in 2011. The next SRS Meeting will take place in Lund. Preliminary dates for the meeting are March 23-24, 2011.

Protocol by Jörg Gumbel and Jacek Stegman