

## **Annual Meeting of SRS (Svenska Rymdforskarens Samarbetsgrupp), Kiruna, 12-13 March 2013**

The SRS Meeting 2013 was held on 12-13 March 2013 at the Kiruna Space Campus. The local host was the Swedish Institute of Space Physics (IRF). The meeting had 68 registered participants: <http://www.irf.se/srs2013/>

The meeting began at 9.00 on Tuesday 12 March and concluded at 12 noon on Wednesday 13 March. In addition to the oral presentations summarised below, 14 posters were displayed in the Skywalk at the Space Campus; participants had the opportunity to discuss them with their authors during the coffee breaks on both days. On the afternoon of 12 March many of the participants took the opportunity offered by SSC (Rymdbolaget) to visit the Esrange Space Center for a guided tour and to attend the meeting dinner, funded by SNSB (Rymdstyrelsen), at the restaurant at Esrange. Between courses at the dinner, Professor emeritus Bengt Hultqvist (former Director of IRF) gave a talk on Swedish space history up until the establishment of Esrange.

The meeting was chaired by SRS chairperson Donal Murtagh. Meeting secretary was Rick McGregor (IRF Kiruna).

Meeting programme: [http://www.irf.se/link/srs2013\\_program](http://www.irf.se/link/srs2013_program)

### **1. Opening of the meeting**

SRS chair Donal Murtagh opened the meeting.

Lars Eliasson (Director, IRF) welcomed the participants on behalf of the local host organisation.

Olle Norberg (General Director, SNSB) reported on new developments at SNSB, summarised the results of ESA's ministerial meeting in November 2012 and discussed the conclusions of Swedish National Audit Office's report on Swedish space activities (*Svensk rymdverksamhet - en strategisk tillgång?* RIR 2013:1).

### **2. First topical session: Atmospheric Physics** (Chair: Jacek Stegman, MISU)

Jana Mendrok (Satellite Atmospheric Science Group, LTU) gave an introduction to ARTS+ - a toolbox for microwave atmospheric radiative transfer in solar system planets.

Jonas Hedin (MISU) reported on results from the PHOCUS rocket campaign on particle interactions in the polar summer mesosphere.

### **3. Second topical session: Solar System** (Chair: Hans Nilsson, IRF)

Stas Barabash (IRF Kiruna) gave an introduction to IRF's instruments PEP and RPWI which will fly the forthcoming ESA L-mission JUICE to Jupiter and its icy moons.

Gabriella Stenberg (IRF Kiruna) reported on some of the scientific results achieved with measurements from IRF's instrument ASPERA-3 after ten years of the Mars Express mission.

### **4. Third topical session: Astronomy, Astrophysics and Cosmology** (Chair: Kay Justtanont, Chalmers)

Stefan Larsson (Stockholm University), who was scheduled to talk on Fermi, had fallen sick and Alexis Brandeker (Astronomy, Stockholm University) did not arrive in Kiruna to give his talk on the ESA S-mission CHEOPS (due to be launched in 2017) until Wednesday, so Kay filled in with a talk on the James Webb Space Telescope to be launched in 2018 with Swedish participation in MIRI (Mid-InfraRed Instrument).

### **5. Fourth topical session: Sun Earth System** (Chair: Nickolay Ivchenko, KTH)

Victoria Barabash (Division of Space Technology, LTU) gave an introduction to the activities of the Division of Space Technology (Department of Computer Science, Electrical and Space Engineering, LTU), on the Space Campus in Kiruna.

Urban Brändström (IRF Kiruna) described IRF's observatory activities and ground-based auroral research using optical instruments.

### **6. Fifth topical session: Microgravity and Life Sciences** (Chair: Lars Gustafsson, Karolinska institutet)

Lars Karlsson (Karolinska institutet) reported on a planned experiment to be carried out on the International Space Station (ISS) to investigate lung health in space.

Oscar Larsson (KTH) reported on the SilEye-3/Alteino experiment to investigate the radiation environment on board the ISS.

### **7. Sixth topical session: Remote sensing** (Chair: Donal Murtagh, Chalmers)

Leif Eriksson (Chalmers) described research using radar remote sensing of ocean and sea ice in the polar regions, for example Fram Strait between Greenland and Svalbard, and the Amundsen Sea in Antarctica.

### **8. SRS formalia**

Chairperson Donal Murtagh (Chalmers) opened the meeting at 10.20 on Wednesday 13 March 2013.

The nominations committee (valberedning) elected at the 2012 SRS meeting in Stockholm (Jörg Gumbel, Mark Pearce and Anna Rutgersson) had nominated two new members to the Beredningsgrupp (Working Group). The meeting approved their suggestions:

- Alexis Brandeker (SU-Astronomy) replaces Mark Pearce (KTH-Physics), Astrophysics, Astronomy
- Linda Megner (SU-MISU) replaces Jörg Gumbel (SU-MISU), Atmospheric Physics.

Donal Murtagh (Chalmers), Atmospheric Physics, continues as Chair for a further year.

To be replaced or extended by up to a maximum of two years at the next meeting:

- Kay Justtanont (OSO, Chalmers), Astronomy
- Nickolay Ivchenko (KTH-Space & Plasma Physics), Space Plasma
- Hans Nilsson (IRF-Kiruna), Space Physics
- Lars Gustafsson (KI), Microgravity
- Lars Eklund (LU-Earth and Ecosystem Sciences), Remote sensing
- Wolf Dietrich Geppert (SU-Physics), Astrobiology

The meeting elected a nominations committee (valberedning) consisting of:

- Victoria Barabash (LTU-Division of Space Technology)
- Jacek Stegman (SU-MISU)
- René Liseau (OSO, Chalmers)

to propose the composition of the Working Group (beredningsgrupp) six weeks prior to the next SRS meeting.

The next meeting (the 50th anniversary of SRS) will be hosted by the Swedish Institute of Space Physics in Uppsala on Tuesday 11 March and Wednesday 12 March 2014.

It is suggested that Gothenburg host the SRS meeting in 2015 and Linköping in 2016.

The meeting closed at 10.35.

### **9. SNSB Information**

- Kristine Dannenberg reported on the national programme on balloons and rockets, the student programme REXUS/BEXUS a number of optional ESA programmes and Horizon 2020.

- Johan Köhler reported on ESA's optional programme Space Situational Awareness, which Sweden has now joined, and gave a status report on SNSB's call for proposals for innovative low-cost satellites. A public report study will be available on <http://www.snsb.se>. Although the cost target could not be met, SNSB is still investigating a way forward. He also reported that two new enclosures will be required when responding to SNSB's annual call for research proposals.

- Per Magnusson reported on dates and budget for the Swedish National Space Research Programme and described the missions chosen or competing for places within the ESA Science Programme.

### **10. Closing of the meeting**

The meeting chairman thanked the speakers and the local organizers from IRF and SSC.

Minutes by  
Rick McGregor (IRF Kiruna)