# VLF Workshop 2004 Conference Report; ELF/VLF radio phenomena:

Generation, propagation and consequences in observations, theory and modelling.

Sodankylä Geophysical Observatory, Sodankylä, Finland (27th September to 1st October 2004).

## **Overview**

The VLF Workshop 2004 which took place last month at the Sodankylä Geophysical Observatory was sponsored by URSI Commission H and supported by the VERSIM IAGA/URSI joint working group. The workshop attracted about 30 participants from 9 countries resulting in ~37 presentations. There were a particularly strong series of presentations on chorus emissions observed onboard satellites (for example, Cluster) and subionospheric propagation studies undertaking remote sensing of the lower ionosphere (plus mineral prospecting underground). A full listing of abstracts can be found at:

www.sgo.fi/Events/Workshops/vlf-2004/abstracts.php

Because of the relaxed nature of the timetable all the oral presentations were of a sensible length (~20-25 min), allowing good discussion time after most of the talks. In addition, there were also good-length coffee and lunch breaks in which participants could follow up with more detailed discussions, or plan future scientific collaborations. The nature of the programme was one of the best features of the VLF Workshop, as it allowed excellent interactions between the participants.

The facilities and organisation was of a very high standard, and at the end of the 2004 Workshop the participants gave a vote of thanks to the Local Organising Committee for running the workshop so smoothly. Their efforts ranged from keeping the timetable realistic and picking up people at the airport to arranging for some of Sodankylä's souvenir shops and restaurants to open late for workshop participants.

#### **Invited Talks**

There were a small number of invited talks at the 2004 VLF Workshop, lead off by Tauno Turunen on the use of VLF techniques in scientific studies. Tauno gave this presentation on behalf of Michael Rycroft, who could not attend the workshop due to an operation. David Nunn ("On the numerical modelling of VLF chorus") and Craig Rodger ("Testing the importance of precipitation loss mechanisms in the inner radiation belt") also gave invited presentations during the Workshop, generating some broad discussions afterwards.

#### **Social Events**

As with most really successful scientific meetings, there were a number of excellent social events associated with the 2004 VLF Workshop at the Sodankylä Geophysical Observatory. These included a welcoming "Ice Breaker" function supported by the Sodankylä regional Government at the Sodankylä Municipality Hall. For many of the participants this was the first opportunity to sample a range of food and drinks from Lapland (there was also generous quantities of fine Australian red wine). The primary social evening, however, took place on 29 September 2004, when the conference

participants travelled to the home of Esa Turnen (SGO). We were wined and dined with some excellent quality Lappish foods (yes, reindeer), and experienced the presentation at the "Aurora House" – a business operated by some of our Finnish colleagues to explain the wonders of the Aurora to tourists visiting Sodankylä. For me, however, the high point was certainly the bonfire by the river, cooking chunks of reindeer steaks on sticks while discussing Science under the stars!

Some idea of the success of this session can be found on the Photos page of the 2004 Workshop: <a href="http://www.sgo.fi/Events/Workshops/vlf-2004/photos.php">http://www.sgo.fi/Events/Workshops/vlf-2004/photos.php</a>

### **Future**

At the end of the 2004 Workshop it was felt that the meeting had been a large success, providing a fresh venue for the VLF community to gather and exchange information. After discussions amongst the participants, it was decided to run another workshop in 2006 (as no URSI or IAGA meeting will take place that year), with the possibility of the VLF Workshop becoming a "standard" feature of our scientific community. Craig Rodger noted that he would like to invite the participants to New Zealand for a future meeting, once it has become well established.

The Local Organisers of the 2004 Workshop announced that they would be happy to run another meeting at the Sodankylä Geophysical Observatory in 2006, which was widely supported by all present! Look out for information on the 2006 VLF Workshop, again in Finland.

At the very end of the meeting all participants prepared a message to Michael Rycroft wishing him a speedy recovery from his recent operation. I'm confident that this feeling extends to all the VERSIM community, and not only those attending the 2004 VLF Workshop. Get well soon Michael!

[VERSIM meeting at the SGO Workshop. On Wednesday 29 September 2004 a Business Meeting of the VERSIM working group was held during the 2004 VLF Workshop. A report on this meeting will be placed on the VERSIM website].