

URSI/IAGA Joint Working Group on VERSIM (VLF/ELF Remote Sensing of the Ionosphere and Magnetosphere)

Business meeting - Friday 19 September 2008.

There was a meeting of the VERSIM working group during the 3rd VERSIM Workshop, held in Tihany, (Hungary) at 14:20 on Friday 19 September, 2008.

Present: Craig J. Rodger (New Zealand) and Janos Lichtenberger (Hungary) in the chair. Jyrki Manninen (Finland), Csaba Ferencz (Hungary), Tauno Turunen (Finland), Anna Odzimek (UK), Yoshiharu Omura (Japan), Mark Clilverd (UK), Andy Smith (UK), Mark Golkowski (USA), Andrew Collier (South Africa), Hal Strangeways (UK), Arthur Hughes (South Africa), Annika Seppälä (UK), Don Carpenter (USA), Chris Noitwani (South Africa), Rajesh Singh (India), Balázs Heilig (Hungary), František Němec (Czech), Jaroslav Chum (Czech), Jiri Fiser (Czech), David Shklyar (Russia), László Bodnár (Hungary), Péter Szegedi (Hungary), Orsolya E. Ferencz (Hungary), Ondřej Santolik (Czech).

Overview comments

Craig Rodger (the IAGA co-chairman), welcomed the many participants to the VERSIM business meeting held as part of the 3rd VERSIM workshop. He noted that a high percentage of the VERSIM community had attended the workshop, which had slightly more than 50 participants. Craig expressed the opinion that the quality of the talks had steadily improved with each VERSIM workshop, suggesting that the collaborations established through VERSIM workshops were leading to rapid forward motion in VERSIM-Science. He thanked Jyrki Manninen and fellow researchers from the Sodankylä Geophysical Observatory (Finland) for making the first two VERSIM workshops happen, thus establishing the strong basis which led to the 3rd workshop. Craig also noted that many past VERSIM chairs were present at the 3rd workshop, including Don Carpenter who was the first chair of the *Whistlers in the Magnetosphere URSI* joint committee. This evolved into the joint URSI-IAGA VERSIM working group. Craig paid tribute to all the previous VERSIM working group chairs, and noted how most of the previous chairs were still active members of the VERSIM community.

Membership of VERSIM and communications

There was a description of the VERSIM email list, and an opportunity for those attendees who are not currently on the emailing list to join. There was also a brief discussion on the yearly VERSIM newsletter, which is well supported by the community through a large number of reports made from many countries. In particular, leadership of the URSI Commissions and the IAGA Divisional structure have praised the regular VERSIM newsletter, suggesting it indicates the vibrancy of our community.

Congratulations to VERSIM members

At the August 2008 URSI General Assembly Prof. Umran Inan (USA) was awarded the Appleton Prize, and was also elected to one of the URSI Vice-President positions. Umran Inan is a long-standing leader in the scientific efforts of the VERSIM community, and the meeting expressed their congratulations on these highly appropriate events. In addition, another very active VERSIM member, Ondrej Santolik was elected on Monday 11 August 2008 to the position of vice-chair of URSI Commission H. He received more than 3 times more votes than the next candidate!

VERSIM-relevant sessions at next IAGA meeting

The next IAGA meeting is to occur from 23-30 August 2009 in Sopron, Hungary. There was a brief presentation concerning the IAGA timetable and the sessions which are likely to be of most interest to the VERSIM community. These are

Electrodynamical coupling from the troposphere to the magnetosphere related to thunderstorm electrical activity

Remote sensing of the plasmasphere, and coupling to the ionosphere

Energetic particle precipitation into the atmosphere: sources and consequences

Wave and particle dynamics in the ring current and radiation belts/geomagnetic storms

Conjugate and inter-hemispheric studies of polar geophysical phenomena: Results from the International Polar and Heliophysical Years (IPY/IHY)

Attempts have been made to ensure that most of these sessions are on separate days from one another, and hence that there will be less clashes at the 2009 IAGA than is often the case.

Future VERSIM workshop?

It was agreed by all those present that a further VERSIM meeting would be valuable. The community also agreed that it is best, where possible, to avoid years when IAGA or URSI are meeting, and thus 2010 would be the next sensible year for a VERSIM workshop. On the basis of discussions which took place during the 3rd workshop, our colleagues from the Czech Republic have offered to host the next workshop in Prague. Ondrěj Santolík outlined the possibilities, after which there was a discussion on the most sensible time period in which to have the meeting. It was felt that the time in which VERSIM workshops are currently taking place leaves a sensible gap between URSI/IAGA meetings and the VERSIM workshops, and hence that the 4th workshop will occur sometime in September 2010, possibly in the first week of that month. Our Czech colleagues will contact the community with some possible dates. The meeting strongly endorsed this plan, and thanked our Czech colleagues for taking this task on.

Committee on Global Navigation Satellite Systems (ICG)

Yoshiharu Omura (Japan) reported that he has been asked by the President of URSI to provide a response to a report from the Committee on Global Navigation Satellite Systems, in his role of Chair of URSI Commission H. Yoshi outlined the basis of the report, and the responses which have been put forward by URSI Commissions F and G. During the following discussion a number of points were raised concerning the scientific links between our work and those of Global Navigation Satellite Systems, and the relevance of some of our current activities. Yoshi will assemble this material, and pass it to the President of URSI as the contribution of URSI Commission H.

VERSIM Science Topics

It has been suggested that the VERSIM community could identify Science "Topics" that are of current interest to the wider international community. Obviously, groups in different regions will be better suited to support different topics. For example, ground based observations at high latitudes can provide important information on triggered emissions, which are extremely rare in observations made from equatorial locations. In contrast, low-latitude observations are more likely to produce valuable information on the ionospheric impact of solar flares, or data on lightning and red sprites. In addition, the chair noted a request from R. Friedel (LANL, USA) that VERSIM members could

provide experimental data to support the needs of the inner magnetospheric modeling community: knowledge of plasmaspheric densities, plasmopause position, and also a measure of hiss/ chorus intensities. Ground based wave measurements can help address these needs, and could provide continuous, near-real time estimate (if possible) of these quantities, in as much a global sense as possible. This is a good example of how mid- and high- latitude measurements can provide very valuable context to wider scientific communities, and is an example of the suggestions which will appear in the VERSIM science topics.

Craig Rodger then lead a brain storming session to move the concept forward. This produced the following table, as an initial starting point for VERSIM Science topics. The VERSIM chairs suggest that we let this list evolve over time, with more suggestions and additional information being added over time.

	Wide Band	Narrow Band
Low latitude	tweeks to probe ionosphere general lightning studies "natural hazards"	solar flares/ionosphere TLE research Gamma-ray Bursters "natural hazards"
Mid-latitude	whistler techniques to probe plasmasphere tweeks to probe ionosphere general lightning studies "natural hazards"	solar flares/ionosphere TLE research particle precipitation driven from lightning "natural hazards"
High latitude	whistler techniques to probe plasmasphere Hiss and chorus observations general lightning studies "natural hazards"	Gamma-ray Bursters radio blackouts solar proton events electron precipitation from the radiation belts "natural hazards"

Continuation of the working group?

It was unanimously agreed to recommend that the working group continue in existence, noting that this question is put to each VERSIM business meeting, in order to report back to our parent bodies (IAGA and URSI). The working group has reached a new vibrancy, through the regular workshops and the annual newsletter.

Any other business

There was wide agreement that the 3rd VERSIM workshop was a success, with a record number of participants and presentations. Our thanks were extended to our Hungarian friends and colleagues for making the workshop so valuable and pleasurable!

Other business:

None.

The VERSIM meeting broke up at around 1520.