

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

Business meeting - Sunday 3 July 2011 from ~6:10pm

There was a meeting of the VERSIM working group during the International Association of Geomagnetism and Aeronomy (IAGA) meeting as part of the International Union of Geodesy and Geophysics (IUGG) General Assembly, held in Melbourne (Australia), at 1810 on Sunday 3 July 2011.

Present: Craig J. Rodger (New Zealand) in the chair, Janos Lichtenberger (Hungary) the URSI co-chair, who was also present. C. Price (Israel), S. Kumar (Fiji), M. Clilverd (UK), V. Zigman (Slovenia), A. Collier (South Africa).

Chairman's Report

Craig Rodger (the IAGA co-chairman), described the purpose and nature of the working group, and outlined activities of the working group since the previous IAGA general assembly, which was in Sopron (Hungary). The last business meeting of the VERSIM community was at the 4th VERSIM workshop, which was held in Prague (Czech Republic) in September 2010 with 29 attendees. Our community to open to those involved in our broad scientific interests spanning IAGA Divisions II and III, and also URSI Commissions G & H. While this may indicate our working groups activities do not necessary fit snugly into the structures of URSI and IAGA, the VERSIM working group operates comfortably inside both parent bodies.

The chairman thanked the members of the VERSIM community who attended this business meeting. This is the lowest attendance (7 people) we have had at a VERSIM business meeting for some time. This is almost certainly a consequence of the business meeting being held on an evening, very early in the IAGA time period, and before the main VERSIM-relevant sessions had started. For the last few business meetings at IAGA and URSI our business meetings have been during lunchtimes and have involved food provided for our participants. That worked vastly better, as we have seen with the small turnout at the business meeting at the Melbourne IUGG conference. The business meeting questioned the chair as to how much flexibility we had been offered as to the timing of our meeting – Craig Rodger responded that there was none, in fact the communication from IAGA (maybe Division II) as to the timing of the meeting was poor.

The series of VERSIM-specific workshops (2004, 2006, 2008, and 2010) have brought additional vibrancy and span to the VERSIM community. As well as meeting through the VERSIM workshops, the community issues a yearly newsletter in which groups summarize their activities. The 2010 report included reports from 17 different research institutes from 16 countries.

Report on the last VERSIM workshop (4th VERSIM Workshop)

The 4th VERSIM Workshop took place in September 2010 in Prague, Czech Republic. The workshop was organized by the Institute of Atmospheric Physics, Prague, Czech Republic and by Charles University, Faculty of Mathematics and Physics, Prague, Czech Republic. The scientific sponsorship and financial support for this workshop has been provided by the International Association of Geomagnetism and Aeronomy (IAGA) and by the Union Radio-Scientifique Internationale (URSI). More details can be found on the workshop website (<http://www.ufa.cas.cz/versim10/>). The workshop attracted 40 participants from 15 countries, ranging from New Zealand to Russia (ordered by latitude) including 9 students and young scientists under 35 from 5 countries.

Next VERSIM Workshop (5th Workshop in São Paulo, Brazil (30 September- 5 October 2012))

The VERSIM workshop 2012 is being organized by the Center for Radio Astronomy and Astrophysics Mackenzie (CRAAM), Mackenzie Presbyterian University, São Paulo, Brazil. The suggested dates are 30 September- 5 October 2012, although it is not totally clear these dates are yet completely firm. The workshop currently has sponsorship from Mackenzie Presbyterian University Foundation (MackPesquisa), National Institute for Space Research (INPE), University of São Paulo (USP), Fundação de Amparo a Pesquisa do Estado de São Paulo (FAPESP), Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq), Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (CAPES). In addition, we hope that IAGA and URSI will provide sponsortship.

In addition, we have been contacted by François Lefeuvre, the President of URSI, to suggest an additional aspect to the 5th VERSIM workshop. An ICSU grant has been allocated to an URSI-SCOSTEP proposal entitled "Geophysical Approach to Assess Natural Disasters and Space Weather impacts on Earth", and is lead by Prof. Jean Pierre Raulin, one of the chairs of the 5th VERSIM workshop local organizing committee. The URSI-SCOSTEP project includes participation from research groups in Brazil, Argentina, Peru (with possible extensions to Chile and Paraguay). François Lefeuvre noted that the final report to ICSU is due by 1 June 2012, and thus a meeting in September would be ideal to draw first conclusions.

There was quite a lot of discussion about URSI-SCOSTEP project description, much of which centred around the "Natural Disaster" part of the project. The meeting felt there was little science crossover with that part of project, but more crossovers with the Space Weather aspects. The idea of exploring these crossovers was viewed as positive. The meeting suggested that there could be a ~1-day joint session between the project activity and the main VERSIM workshop, timed to be at the end of the VERSIM workshop. It was suggested that the URSI-SCOSTEP project team might want to have their own separate/parallel sessions to talk about science which is not linked to VERSIM, examples being seismo-electromagnetics and maybe some of the more F-region space weather and earthquake prediction areas. In addition, it was suggested that the additional science topic for the 5th VERSIM workshop could be described by "*radio methods to asses natural hazards and space weather effects*".

Craig Roder indicated he would take the request for IAGA sponsorship to the Division II meeting.

Symposia at future IAGA Assemblies

This IUGG meeting has multiple VERSIM- relevant sessions, including two suggested to IAGA through the VERSIM Business Meeting at Sopron "Remote Sensing and Modeling of the Earth's Plasmasphere" and "Radiation Belt Dynamics: drivers and impacts of acceleration and loss processes". In addition, we supported the proposal for a TLE/sprite/thunderstorm session ("Thunderstorms: from troposphere to mesosphere and beyond / Thunderstorms: Upwards and Downwards Coupling of the Atmospheric Layers and near-Earth Space". After some discussion it was felt we should try and return to the scheme we had at IAGA Sopron, where there was two radiation belt sessions and also a plasmaspheric session. One of the two radiation belt sessions are likely to come from Division III as well.

Wave and particle dynamics in the radiation belts and ring current

Energetic particle precipitation into the atmosphere: sources and consequences

The Earth's Plasmasphere: Modeling and Remote Sensing

and that we also support a sprite/TLE session assuming this will come forward from IAMAS.

IAGA resolution on open-access scientific software

As the VERSIM community is aware, a VERSIM-supported resolution on open access scientific software was put forward to IAGA at the Sopron meeting. This was supported by IAGA's Council, although it requires confirmation at the Melbourne meeting. To prepare for this, L.R.O. Storey has been working on a website which would serve repository for VERSIM-related software. Both Owen Storey and Craig Rodger believed that the resolution required confirmation from IAGA at the Melbourne meeting. However, we have recently been informed that this is essentially a formality. Up to now Owen was holding back on this, until he received confirmation. However, now we know that this is going to go ahead, he is working on this. He contacted Craig Rodger in mid-June and indicated this should be ready after 2 or 3 more months of work. While he has apologised for this delay, this is really due to some poor communication from IAGA (and Craig Rodger). We are grateful for Owen's efforts!

Future of the working group (vote for continuation)

It is a requirement from our parent bodies (both IAGA and URSI) that the question of "whether our working group should continue" is put to each VERSIM business meeting, and reported back. This does not reflect a feeling that our particular working group should necessarily be wound up, it simply reflects the normal process of IAGA and URSI - there are some moribund working groups out there, and if they become too moribund it is hard to fund people who will even "wind it up". Colin Price (Israel) moved that the working group continue, seconded by Sushil Kumar (Fiji). There were no votes against.

IAGA Chair of the Working group (election)

We re-elect the IAGA co-chair every 2 years at the IAGA/IUGG meetings. Craig was elected to be the IAGA co-chair in 2003 at the Sapporo IUGG meeting. Craig Rodger indicated that he would be willing to continue in the role. There were no other nominations, and Craig was unanimously re-elected. However, Craig has indicated that he plans to step down at the next IAGA, and suggested people should think about his replacement.

Other business

1. The business meeting indicated they were troubled by the high cost of the registration for this conference. While the conference centre itself is very nice, it is unclear where the large costs have gone. For example, there is insufficient coffee at morning and afternoon tea, which seems strange given the costs.
2. There was some disquiet at the communication process surrounding the timing of the business meetings – these were not well advertised on the IUGG conference website. Craig Rodger found out about the date and time of our business meeting by writing to the IAGA Secretary General, who seemed to indicate the times had been set long beforehand (but without the VERSIM chairs or community being informed).
3. It seemed strange this IUGG charged an abstract submission free and then required the registration fee to be paid for the presentation to be included in the programme. This created problems for people who needed to register at the conference venue (paying there), as their talks were removed from the

programme. Session organisers also struggled here, finding talks disappearing from their sessions at very short notice with little time to correct this.

4. In the programme the order of authors was always changed so the presenter author was first – some members of the VERSIM community noted this was inappropriate, especially when students posters were being hand carried to the meeting by their supervisors (thus the student ends up as the later author in the programme).

5. Vida Zigman (Slovenia) reported to the meeting that there is a new and relevant journal which we may wish to publish in. The Journal of Space Weather and Space Climate is a new international open access and open source peer-reviewed journal. For the first year, publication is free of charge, after which there is to be a page fee to cover the open access nature. At the meeting it was discussed that this may limit the ability of our community to publish in the new journal. Vida is to find out what the charges are likely to be, once the one year free period has passed. There was a discussion on how there seem to be more and more journals and books advertising themselves with the goal of having the researchers pay to publish in them.

The VERSIM meeting broke up at around 7pm, most of the participants left together and went for a meal.