



**IGU Commission on Geographical Information Science
C04.13**

NEWSLETTER 1/2009

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Dear Colleagues,

I start this first newsletter of 2009 with sad news. As some of you already know, Professor Peter Burrough passed away peacefully in his sleep very early in the morning of 9 January, 2009. Sadly, Peter had been in decline for a couple of years. He was an important pioneer in our field who made substantial contributions. He will be greatly missed by all of us. Professor Peter Fisher, whom you all know, is, like Peter Burrough, a soil scientist turned GISc expert, is writing an obituary for publication in the *International Journal of Geographical Information Science*.

Better news is that the IGU Executive approved our request to extend the life of our Commission by another four years. The members of the IGU Executive Committee have divided among themselves responsibilities for serving as liaisons between the executive committee and the IGU's Commissions and Task Forces. Vice President Markku Löytönen has volunteered to fulfill that function for our commission.

As many of you are aware, 2008 was a very busy year for the Commission. In June we held our flagship conference. The 13th International Symposium on Spatial Data Handling 2008 (SDH08) 23 -25th June, SupAgro Campus, University of Montpellier, France, was held in conjunction with SAGEO (Spatial Analysis and GEomatics) An international colloquium of geomatics and spatial analysis / *un colloque international de géomatique et d'analyse spatiale*. *La conférence SAGEO a pour objectifs de: présenter les recherches récentes des domaines de la Géomatique et de l'Analyse Spatiale; réunir des communautés de chercheurs venant de disciplines diverses; promouvoir les relations entre les spécialistes développant et valorisant des recherches dans les organismes publics, dans les entreprises et dans les collectivités territoriales; et fournir un lieu d'information et d'échange sur les recherches et les développements de l'information géographique en général, à un niveau national et international.*

In this newsletter, in addition to details of conferences, details of the members of the incoming steering committee and what the Commission's objectives are for the next four years are also outlined. As you will see below, we also need to act on our proposal to set up the formal working groups within the commission discussed above. Their mission would be to organize small, specialized workshops with very focused publication outputs. Commission members willing to lead and organize these working groups should identify themselves. Please pass on this Newsletter to others whom you think may be interested in our Commission on Geographical Information Science.

Brian Lees
b.lees@adfa.edu.au



THE COMMISSION OBJECTIVES, FOCAL INTEREST AND RESEARCH THEMES, 2009-12

The following details have been extracted from our renewal proposal, which was approved by the IGU Executive in 2008 :

The mission of the Commission on Geographic Information Science (GISc) is to advance the study of geographical information science internationally, and to enhance the role and contributions of geographers in the development of Geographic Information Science and of Geographic Information Science in the development of geography. The commission creates a network of people and research centers in geography that are related to geographical information science and serve as a focus for the worldwide GISc education and research community. A goal of the commission is to establish international research and educational priorities in GISc and evaluate and promote the role of geography as a discipline. The Commission strives to promote the effective, efficient and responsible use of geographical information in society.

Work plan for 2008-2012

Meetings

The International Symposium for Spatial Data Handling will be held in 2010 and 2012.

The Commission will continue to organize sessions with the International Society for Photogrammetry and Remote Sensing in 2010 and 2012. We are having discussions to seek ways in which we can strengthen this collaboration to our mutual benefit. It would seem that joint organization of more frequent regional events would be both possible and sensible.

The productive collaboration with the IGU Commission C04.24 Land Use and Land Cover Change will continue. Additional collaboration and interaction will be sought with Commissions C04.01 Applied Geography and C04.29 Modelling Geographical Systems at IGU meetings.

We have already had discussions with Prof John SHI, the incoming Chair of [ISPRS Commission II \(Theory and Concepts of Spatio-Temporal Data Handling and Information\)](#), Prof William Cartwright, President of the [International Cartographic Association](#) and Professor LI Zhilin, Vice-President ICA, and Professor Abbas Rajabifard, the President elect of the Global Spatial Data Infrastructure Association about how we might co-operate with these organizations. The technical issues in GISc clearly can best be addressed in cooperation these organizations. In thematic application issues, we look forward to discussions with the IGU Commissiona C04.24 Land Use and Land Cover Change, and Commission C04.01 Applied Geography.



The fruits of discussions so far include a firm proposal that we collaborate with the International Society for Photogrammetry and Remote Sensing Commission II and IGU Commission C04.29, Modelling Geographical Systems, in running the next International Symposium for Spatial Data Handling which will be held in 2010, in Hong Kong. We have also agreed to collaborate in organizing the International Conference on Mapping and GIS with the [International Cartographic Association](#). We have already agreed with Professor Yee Leung, chairman of Commission C04.29 Modelling Geographical Systems, to co-operate in the organization of the International Symposium for Spatial Data Handling in 2010, and Geocomputation '09. Our 2010 flagship conference will therefore be a meeting at which two IGU Commissions and their ISPRS cousin will meet. We have also made similar arrangements, through Professor Vladimir TIKUNOV'S initiative, to include the [InterCarto/InterGIS](#) series of conferences as an area of Commission activity.

We have also, for 2010, organized a regional meeting at the IGU in Tel Aviv. We are grateful that Itzhak Benenson (benny@post.tau.ac.il) has agreed to be the local organiser for our IGU Commission on GISc in Tel Aviv..

This is very promising, but we are aware of a number of more focused, more specialized, GISc meetings where stronger links would be most desirable. This has influenced our most recent discussions. To this end, Professors Mauro SALVEMINI and Henk OTTENS have undertaken to build and reinforce links with the [Association of Geographic Information Laboratories for Europe \(AGILE\)](#) which is representing the scientific community at a European level and is also attracting a large international community to their annual conferences.

Publications

The Commission is committed to the publication of the Proceedings of the International Symposium for Spatial Data Handling. Scholarly publication of papers presented at the International Geographical Congress and Regional IGU meetings will be encouraged. The closer relationship with the major journals in our sub-field (*International Journal of Geographic Information Science, Transactions in GIS*) we now enjoy should assist in this process.

Membership

The Commission recognizes the enormous potential for expansion of its membership especially in Asia and Australasia. We plan to make a determined effort to establish the Commission as one of the pre-eminent international organizations in the very strong community of Geographic Information Scientists in this growing region. Formal records of membership and participation will be maintained and greater communication will be established with the IGU's National Committees to bring awareness of the mission and activities of the Commission.



In this context it is important to congratulate one of our Commissioners, Professor Mauro SALVEMINI on being a candidate for re-election as president of EUROGI for the next two years. EUROGI recently re engineered its statutes in order to gather into the association a different range of GI and SDI stakeholders. EUROGI has been the promoter of GSDI11 in Rotterdam and is more and more involved in projects aiming to best practices networking co funded by the European Commission. Eurogi has also some prominent international activities. Mauro suggests that, in the near future, we should think about a MOU with EUROGI.

Scholarly importance of the commission's work

In the past decades geographic information and technology has transformed activities ranging from research to business practices, a transformation that continues to accelerate. Whilst geographers have been involved with GISc from the outset, the first phase of the development of GISc lay largely with computer science. The second phase concentrated on the move from analog to digital spatial data, a concern mainly for geomatics. The third, and current phase, is largely applications oriented and is very much the domain of geographers. The past development of techniques for spatial analysis and some of the work on data types by geographers feeds directly into the current conceptual basis of GISc. Geography also continues to have a significant role in contributing to the effective and ethical use of geographic information science and technology. Intellectual exchange between Geographers and the burgeoning geospatial community worldwide will introduce non-geographers to many important geographical principles and insights that otherwise may fail to be recognized or will have to be reinvented. Given that many of the world's current problems have strong geographical dimensions, it is entirely appropriate that geographers take a leading role in the use and application of this powerful, geographic, enabling technology.

Innovations

We believe that we would find it easier to have a strong presence at meetings and workshops such as GIScience, Geocomputation and so on, if we were organized around a structure which not only had a very strong international representation, as the commission already has, but also strongly thematic working groups. Such a structure would enable us to initiate, and collaborate in, the organization of more specialized meetings within the scope of Geographical Information Science. From an editor's standpoint, it would also make the publication of 'Special Issues' much easier. Our publication record is good, but this should improve it.



Part of our plan for the International Geographical Union Commission on GISc for 2009-2010 is the formation of a set of formal working groups within the commission. Their mission would be to organize small, specialized workshops with very focused publication outputs. The number of working groups needs to be small, and their brief very tight. It would seem appropriate for an international organization to focus on the big challenges of the new millennium. Some of our early thoughts include;

- Climate Change
 - Food Shortage
 - Energy Scarcity
 - Urban Growth
 - Environmental Degradation
 - Natural Disasters
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- Coastal & Marine GIS research (to build collaboration with the IGU Commission for Coastal Systems – Leaders Ake Sivertun and Juri Rosaare)
 - Population Health (Leader Nadine Shuurman)
 - Spatial Data Infrastructures (Leader Mauro Salvemini)

All of these are areas where GISc has a role, and can have a stronger one. There are also areas where we should look inwards to the discipline.

- The relationship between GISc and Geography
- The role of GIS in Geography education

As a result, and in addition to the working group innovation above, we intend to build strong, co-operative links with intergovernmental, and supra-governmental organizations such as UNDP, UNEP and FAO over the next phase of commission activity. We believe that this will allow us to strengthen our role in education and technical skills transfer, and reinforce our role in contributing to the effective and ethical use of geographic information science and technology. As outlined in the report, intellectual exchange between Geographers and the burgeoning geospatial community worldwide will introduce non-geographers to many important geographical principles and insights that otherwise may fail to be recognized or will have to be reinvented.

In the latter part of 2008, I attended the 14th meeting of the Permanent Committee on GIS Infrastructure for Asia and the Pacific in Kuala Lumpur with the express intention of having discussions with the representatives of UNFAO (David Palmer) and UNECE group (Peter Creutzer). It is clear, from these discussions, that these organizations are very willing to co-operate with us. It is also clear, from the discussion with Peter Creutzer, that he was equally interested in seeking organizational funding. The UNFAO support for the PCGIAP meeting was very minor and real financial support is FAO



project specific. Both organizations work as conduits for donor funds to support specific projects. Only tightly focused sub-groups of the Commission could access funding from these organizations.

ACTION

We need, therefore to act on our proposal to set up these working groups within the commission discussed above. Their mission would be to organize small, specialized workshops with very focused publication outputs. Commission members willing to lead and organize these working groups should identify themselves. Clearly, if there is no leadership for any group, we must drop that activity.

Report on the 31st International Geographical Congress, Tunis 2008, by Henk Ottens, vice-chair IGU-GISc Commission 2002-2008

General observations

The congress was held in Le Kram Exhibition Palace near Tunis. There were about 800 regular attendants. The organization and the facilities were mediocre, but the hosts were helpful and friendly, so the whole conference was characterized by a good spirit. The social activities were lively and pleasant.

GISc Commission

Five (old and/or new) members were present: Åke Sivertun, Chenghu Zhou, Juri Roosare, Vladimir Tikunov and Henk Ottens. All attended (part of) the commission sessions. Åke Sivertun and Chenghu Zhou also attended the pre-conference meeting of the IGU Executive with the commission chairs. Chenghu Zhou had produced and brought some dozens of brochures with the proposed composition and plans of the 2008-2012 GISc commission and they were distributed at the meeting with the executive and the commission sessions. During the pre-conference meeting it became clear that the Executive would propose to the General Assembly to continue our commission. No further actions were necessary towards the Executive or the national representatives in the assembly. After the conference, our supervisor in the Executive, Markku Löytönen, told that he considered our commission to be a 'model' commission within the IGU and that he was very pleased with the plans. The General Assembly accepted the proposal to continue GISc without any discussion.

GISc sessions

Four GISc sessions were scheduled, each with four papers. Two of the sessions were chaired by Henk Ottens, the others by Karl Grossner and Nicole Bernex. The labels of the sessions were: GIS and Planning, Urban GIS, Milestones in GISc and GIS and



Hydrology. Six planned presentations were in French. There was a considerable no-show, 2-3 presenters per session showed up. Nevertheless, the sessions were interesting with lively discussions. As can be expected in a conference with many countries represented and a low acceptance threshold, scientific quality was variable but the enthusiasm of the presenters did surely compensate for that.

Other GISc-related activities at IGU2008

Plenary presentation by Roger Tomlinson on 'Changing the face of Geography: GIS and the IGU'.

A series of five workshops on GIS and cartography with 18 presentations.

A series of four workshops on Geographical Modeling with 14 presentations.

A session of the Geographical Modeling commission with four presentations.

A session of the Land Use and Land Cover Change commission on GIS/RS applications with four presentations.

A few GI software vendors at the exhibition.

Conclusions

Apparently, our commission has a good image among IGU Executive members. There is always a lot of GI-related content at IGU conferences, the SDH workshops are highly appreciated and the report of Greg and the proposals of Brian did give the, probably right, impression that we are performing well above average among the IGU commissions. With some of the planned new activities realized we will even do better.

COMMISSION MEMBERSHIP

Late in 2008, Professor Greg ELMES stepped down as Commission Chair due to deteriorating health. Professor Brian LEES replaced him. We wish Greg well in the future. We are very grateful for the help given by Professors ELMES and Anthony YEH during that transition. Following the Tunis meeting, Professor Henck OTTENS stepped down and Prof. Chengu ZHOU became Vice-Chair.

Brian G Lees

Professor of Geography

Head, School of Physical, Environmental & Mathematical Sciences,

The University of New South Wales at the Australian Defence Force Academy,

Editor-in-Chief, International Journal of Geographical Information Science

Canberra ACT 2600 Australia

b.lees@adfa.edu.au

phone: +61 2 626 88061

fax: +61 2 626 88786

mobile: +61 0438624444

