

Elements



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- ○ **PRESIDENTS COLUMN**

This is my last message as President of the Canadian Geophysical Union; your new executive will be chosen at the annual Business Meeting in Banff. I believe that the proposed executive will serve the CGU well. I note that for this and subsequent

executives, nominations or suggestions are encouraged. Following quite intense negotiation, (and subject to resolution of final details) the 1998 scientific meeting is to be in the new Quebec City Congress Centre, jointly with: GAC/AGC, MAC/AMC, APGGQ (Quebec Association of Geologist and Geophysicists) and IAH/AIH (International Association of Hydrogeology) in "Quebec98". Although the CGU sessions will be mainly separate, there will be several joint symposia. I believe that this Quebec City location, just outside the old city walls is an excellent venue. I expect a very strong attendance by CGU members. This will be the first annual CGU meeting in eastern Canada for several years and, although the continuing Banff location has been very successful, the 1998 location is an effort by your executive to better represent members from eastern Canada. The 1999 meeting is tentatively planned as a return to Banff, again subject to satisfactory negotiations with the Banff Centre.

I wish to draw attention to the new CGU secretariat at the University of Western Ontario (location of CGU Secretary David Eaton), with a part time staff member (email: cgu@seis.gp.uwo.ca). Please direct CGU business matters to this address. With this exception, the CGU executive and meetings organizers are entirely volunteer, and I wish to thank them all on behalf of the CGU membership. The success of the Canadian Geophysical Union depends upon their efforts.

Please note that the CGU is the primary home of Canadian representation in the International Union of Geodesy and Geophysics. Jointly with several other societies, international representatives to IUGG and its associations are proposed. If you have an interest or concern in Canada's international representation, please contact a CGU executive. And, do not forget the CGU newsletter ELEMENTS. I note that one of the services provided by ELEMENTS is to advertise positions in geophysics in Canada. Gary Jarvis and his colleagues depend upon you for material of interest and importance to members.

Thank you for your support over the past two years, and I wish the new executive well.

- Roy Hyndman

CANADA TO REMAIN IN THE OCEAN DRILLING PROGRAM, 1998-2003 .

We are most pleased to announce the success of our application to NSERC for renewal of Canada's participation in ODP for the period 1998-2003. This year's NSERC competition for large projects was exceedingly tough so we can feel especially good about the outcome. The NSERC selection committee noted that "Canadian membership in ODP represents a unique and valuable opportunity".

NSERC will fund the Canadian ODP Secretariat and the major portion of the annual subscription fee to ODP through its RPP Co-operative Activities Program. The GSC will fund the remainder for the subscription approximately in proportion to its participation in the program. NSERC has directed that the Secretariat remain at the University of Toronto until late 1998/early 1999 to coincide with the start of the new funding and the new phase of ODP. A competition for a new Secretariat from 1999 will be held by NSERC at an appropriate time in 1998.

Larry Mayer, Chair, CanadaODP Council

Robin Riddihough, GSC

Steve Scott Director, CanadaODP

CGU SECRETARIAT AT THE UNIVERSITY OF WESTERN ONTARIO A new initiative of the CGU Executive Committee is the establishment of a Secretariat for the CGU at the University of Western Ontario. The Department of Earth Sciences at the University of Western Ontario has kindly provided office space at no cost to the CGU. An experienced part-time administrative assistant, Pam Eaton, has been hired by CGU.

Duties of the Administrative Assistant include:

1. Handling routine CGU correspondence, including e-mail, and directing mail to the appropriate CGU executive member.
 2. Maintaining CGU records and files, including preparation and distribution of meeting material (agenda, minutes, etc.).
 3. Preparation and mailing out of dues notices to the CGU membership.
 4. Assistance in the preparation of the CGU Newsletter (Elements), on a request basis from the Newsletter editor.
 5. Assistance in the maintenance of membership database, on a request basis from the Treasurer.
 6. Assistance in preparations for CGU Annual Scientific meetings, on a request basis from the CGU Annual Meetings co-ordinator.
 7. Maintenance of the CGU Web site.
 8. Assistance in preparation of material for special projects that come up from time to time (e.g., preparation of documents for application to Revenue Canada for charitable status for a CGU Foundation, and preparation of a CGU membership kit describing benefits of CGU membership).
 9. Other administrative duties as required by the CGU Executive.
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Fourth International Convocation of Geophysical Societies Strasbourg, France - March 22, 1997

In conjunction with the ninth biennial meeting of the European Union of Geosciences, EUG 9, representatives of geoscience societies from several countries met to exchange ideas and discuss common issues. The meeting was organized by the AGU and hosted by the EUG. The information below was distributed to the attending society representatives. It is reprinted here as a matter of interest to Canadian geophysicists.

Participating Societies and Representatives

Canada

Canadian Geophysical Union

Membership size: 600

Web site: <http://www.cg.emr.ca/cgu/cgu.html>

Founded: 1974

Publications: Elements

Meetings held: annually

Representative: Gary Jarvis

Geological Association of Canada

Membership size: 2,600

Web site:

http://www.umanitoba.ca/faculties/science/geological_sciences/GAC/gac.html

Founded: 1947

Publications: GEOLOG Newsletter, Geoscience Canada

Meetings held: annually

Representative: Emlyn Koster

Croatia

Croatian Geological Society

Membership size: 320

Founded: 1951

Publications: Vijest (newsletter), Geologia Croatia

Meetings held: annually

Representatives: Bo idar Jan ikovi , Miljenko Rukavina

Egypt

Egyptian Geophysical Society

Membership size: 400

Founded: 1981

Publications: proceedings

Meetings held: annually

European Societies

European Union of Geosciences

Membership Size: 3,000

Web Site: <http://www.ipgp.jussieu.fr/EUG/Welcome.html>

Founded: 1981

Publications: Terra Nova

Meetings held: bi-annually

Representatives: Vincent Courtillot, Albrecht Hofmann,
Roland Schlich

European Geophysical Society

Membership Size: 6,000

Web site: <http://www.mpae.gwdg.de/EGS/EGS.html>

Founded: 1971

Publications: Nine scientific journals, four book series and a membership bulletin.

Representative: Heinrich Wänke

France

French National Committee of Geodesics and Geophysics

Membership size: 600

Founded: 1920

Publications: activity reports

Meetings held: annually

Representative: François Barlier

Germany

German Mineralogical Society

Membership size: 1,700

Web site: <http://www.mineral.tu-freiberg.de>

Founded: 1908

Publications: European Journal of Mineralogy

Meetings held: annually

Representative: H.A. Seck

Hungary

Association of Hungarian Geophysicists

Membership size: 600

Web site: <http://www.ggki.hu/MGE/mge.html>

Founded: 1954

Publications: Magyar Geofizika, and sponsors Geophysical
Transactions

Meetings held: annually

Representative: Em Márton

Hungarian Society of Surveying, Mapping and Remote Sensing

Membership size: 800

Founded: 1956

Publications: Geodézia és Kartográfia

Meetings held: semi-annually

Representative: János Szép

Iceland

Geoscience Society of Iceland

Membership size: 320

Founded: 1966

Publications: Jökull

Meetings held: monthly

Representative: Ágúst Gudmundsson

India

Indian Geophysical Union

Membership size: 325

Founded: 1964

Publications: proceedings and abstract volume

Meetings held: annually

Israel

Geological Society of Israel

Membership size: 400

Founded: 1951

Publications: sponsors Israel Journal, Guidebook of Earth Sciences

Meetings held: annually

Representative: Alan Matthews

Israel Association for Water Resources

Membership size: 315

Founded: 1978

Publications: proceedings

Meetings held: semi-annually

Representative: Eliyahu Rosental

Slovakia

Slovak Association of Geophysicists

Membership size: 20

Founded: 1994

Publications:

Meetings held: annually

Representative: Miroslav Bielik

South Africa

Geological Society of South Africa

Membership size: 1,800

Web Site: <http://www.geosoc.co.za>

Founded: 1895

Publications: Mineralization in Metamorphic Terraces, Min. Dep. and Transport Dep.

Metals, Sedimentary Basins

Meetings held: bi-annually

Representative: L.J. Robb

South Korea

Korean Space Science Society

Membership size: 350

Founded: 1984

Publications: Journal of Space Science

Meetings held: bi-annually

Representative: M.S. Chun

Netherlands

Geochemical Circle

Membership size: 140

Web Site: <http://www.kncv.nl/secties/gk/html>

Founded: 1972

Meetings held: bi-annually

Representative:- C.H. van der Weijden

Royal Dutch Geological and Mining Engineers Association Membership size: 1,300

Founded: 1912

Publications: Geologie and Mijnbouw

Meetings held: annually

Representative: Elisabeth Kusters

United Kingdom

Joint Association for Geophysics

Membership size: 800

Founded: 1979

Publications: JAG Newsletter

Meetings held: annually

Representative: Alan Douglas

USA

American Geophysical Union

Membership size: 35,000

Web site: <http://www.agu.org>

Founded: 1919

Publications: Journal of Geophysical Research, Geophysical Research Letters, Water Resources Research, Radio Science, Tectonics, Paleoceanography, Reviews of Geophysics, Global Biogeochemical Cycles

Meetings held: several per year

Representatives:- Robin Brett, Fred Spilhaus, Judy Holoviak

Geological Society of America

Membership size: 15,200

Founded: 1888

Publications: GSA Today, The Geological Society of America Bulletin, Geology

Meetings held: several per year

Representative: David Stephenson



CANADIAN GEOPHYSICAL UNION - HYDROLOGY SECTION (CGU-HS)

CGU-HS CANADIAN ISOTOPE HYDROLOGY ACTIVITIES

by John Gibson and Tom Edwards

Workshop on Water and Climate Studies in Canada using Isotope Tracers: Past, Present, Future

University of Waterloo, Waterloo, Ontario, 31 January - 1 February 1997

Co-sponsored by Hydrology Section-CGU, Environment Canada (Atmospheric Environment Service, Downsview and National Hydrology Research Institute, Saskatoon), and Waterloo Centre for Groundwater Research

This workshop was convened with the twin aims of reviewing the state of water and climate research in Canada using isotope tracers and investigating the establishment of a "Canadian Network for Isotopes in Precipitation", as a formal contribution to the international GNIP program (Global Network for Isotopes in Precipitation), which is the well-known offspring of long-standing IAEA/WMO efforts to document the distribution of water isotopes in the global water cycle. About 60 participants from university, government, and the private sector gathered for two days of presentations and discussions.

Background on international GNIP activities, the PAGES (Past Global Changes) perspective, and comments on experience gained from national isotope networks in Switzerland and Germany were provided in Plenary Lectures from Klaus Froehlich

(IAEA) and Ulrich Schotterer (PAGES). Special guests Emi Ito (University of Minnesota) and Carol Kendall (US Geological Survey) offered narrative on the current situation in USA regarding potential for developing a national precipitation network and the existing USGS isotopic data base from surface waters. Subsequent presentations were selected to sample the broad spectrum of past and present activities in Canada, falling into three general areas: assessment of existing isotopic data from past and ongoing precipitation sampling in Canada and efforts to define the nature of isotope-climate linkages; atmospheric studies, including discussion of carbon and oxygen stable-isotope signals in atmospheric carbon dioxide and links with the water cycle; and the use of isotope tracers in hydrologic, paleohydrologic, and ecologic studies of surface and ground waters, ground-ice, and the water isotope records preserved in other archives.

The presentations demonstrated clearly that substantial Canadian expertise exists in this field, complemented by the capacity and willingness to train young researchers. The discussions also led to consensus that an expanded network of 20-30 meteorological stations collecting monthly- composite precipitation samples for isotopic analysis was desirable and feasible, building on the informal network of sites in Canada currently contributing data to GNIP. The existing "CNIP" includes Ottawa (1953-present) and eight northern stations (1989-present), plus data in the GNIP archive from previous monthly-composite sampling campaigns at a number of other sites in the 1970s and 1980s. Various targeted research projects, including ongoing event-based precipitation sampling in Winnipeg (1992-present), have also generated abundant data that are not yet formally archived. A revitalized CNIP would constitute a valuable Canadian contribution to international water and climate studies, as well as providing a framework for nested campaigns requiring more intensive temporal or spatial sampling, such as the Mackenzie Basin Study of the Global Energy and Water Cycle Experiment (GEWEX- MAGS).

The workshop culminated in a provisional agreement to establish a CNIP Subcommittee, consisting of university and government researchers, within the proposed CGU-HS Committee on Isotope Techniques in Hydrology which would assume responsibility for overall scientific direction and the continuity of the program.

Aspects of the challenges and opportunities associated with CNIP will also be addressed at the upcoming ISOBALANCE Workshop.

**ISOBALANCE: An International Workshop on Application
of Stable Isotopes in Water Balance Studies
National Hydrology Research Institute, Saskatoon Saskatchewan, 14-18 July
1997**

Co-sponsored by the Hydrology Section-CGU, Water Resources Division - Indian Affairs and Northern Development- Yellowknife, Sustainable Forest Management Network of Centres of Excellence, the Mackenzie GEWEX Study and the Waterloo Centre for Groundwater Research.

Canadian and international researchers will gather at the ISOBALANCE workshop to present and publish reviews on isotope techniques in topical areas such as: runoff generation, evapotranspiration, precipitation, atmospheric water balance, GCMs, glacial and proglacial processes, large lake processes, and paleohydrology. The meeting is motivated by the need to disseminate the state-of-the- science to the broader hydrology research community, and to discuss the role of isotopic tracers in large-scale multi- disciplinary studies such as GEWEX (Global Energy and Water Cycle Experiment) including current and proposed activities within MAGS (Mackenzie GEWEX Study) and BALTEX (Baltic Sea Experiment).

The scientific program will feature keynote addresses from distinguished isotope experts including: J. Gat, D. Yakir and X. Wang (Israel), K. Froehlich and L. Araguas (IAEA, Isotope Hydrology Section), K. Rozanski (Poland), U. Schotterer (Switzerland), W. Stichler (Germany), M. Sklash (USA) and T. Edwards (Canada). Over 20 general scientific papers will also be presented to provide a cross-section of current research in Canada and around the world.

For registration information please contact: Dr. John Gibson, NHRI, 11 Innovation Blvd., Saskatoon, Saskatchewan S7N 3H5 Canada, Phone: 1-306-975-5744, Fax: 1-306-975-5143, email:gibsonj@nhri.v.nhrc.sk.ec.gc.ca. We particularly encourage participation of hydrologists who wish to discuss multi-disciplinary approaches.

NEWS FROM MEMBERS

Starting September 1,1996 Prof. Simonovic has assumed a new position as the Director of the Natural Resources Institute at the University of Manitoba. Professor Simonovic is currently President of the International Commission on Water Resources Systems (ICWRS) of the International Association of Hydrological Sciences (IAHS). The mandate of the Natural Resources Institute is: (a) to teach interdisciplinary resource management skills leading to the Master of Natural Resources Management degree; (b) to conduct applied research in natural resources management; and (c) to provide a forum for the examination of resource use issues and thus raise the level of public awareness and contribute to public policy.

Visit the Institute on the wide world web at:
http://www.umanitoba.ca/institutes/natural_resources

THE CGU EXECUTIVE COMMITTEE

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EDITOR'S NOTE: ELEMENTS, the newsletter for the Canadian Geophysical Union

is published and distributed to all CGU members twice each year. Publication is scheduled for March and September. We welcome submissions from members regarding meeting announcements or summaries, awards, division news, etc. Advertisements for employment opportunities in Geophysics will be included for a nominal charge (contact the editor). Notices of Post-Doctoral Fellowship positions available will be included free of charge. Submissions should be made to the editor: Dr. Gary T. Jarvis, Department of Earth and Atmospheric Science, York University, North York, Ontario, Canada, M3J 1P3. Telephone: (416) 736-2100 ext 77710; Fax: (416) 736-5817; Internet: jarvis@mantle.eats.yorku.ca.

Hydrology specific submissions may be sent to the associate editor - hydrology: Dr. Jean Stein, INRS-Eau, Universit, du Québec, Québec, Canada G1V 4C7. Telephone: (418) 654-3834; Fax, (418) 654-2600, Internet, stein@inrs-eau.quebec.ca

Electronic submission in ASCII format is encouraged.