



CANADIAN OCEAN SCIENCE NEWSLETTER
LE BULLETIN CANADIEN DES SCIENCES DE L'OCÉAN

Editorial Comment

The electronic Canadian Ocean Science Newsletter first appeared in July 2003. Over the intervening 21 months we have published 14 issues, including this one. The Newsletter is distributed free to over 400 subscribers.

The flow of contributions to the newsletter has been dwindling. This is a problem because, without diverse and timely contributions, the Newsletter loses its raison d'être. It would be regrettable if we had to stop publishing the Newsletter, feedback from our readers tells us that they like to receive it and enjoy reading it.

If you consider the Newsletter to be useful and interesting, I suggest that you consider making your own contributions to the Newsletter and thus help make it an organ that reflects the Canadian oceanographic community in all its diversity. I am sure that many of you have interesting and newsworthy articles already available that can be adapted for the newsletter. Some examples of potential contributions include: summaries of Ph. D. thesis that are written for an informed but general audience; short reports from scientific meetings; descriptions of scientific activities that you are involved with; meeting and workshop announcements; job announcements; collaborative project opportunities; executive summaries of annual reports; ocean science briefing notes; and so on. Past issues contain many other examples.

Dick Stoddart and I hope that you and your colleagues will be able to help us reversing the present downward trend in the number of contributions we receive. The Canadian SCOR committee has no desire to cease publishing the Newsletter, but we need the intellectual help and the moral support of the ocean science community to keep this venture going. Hence this appeal.

Bjorn Sundby
Chair, CNC/SCOR

Table of Contents, Newsletter Number 14, March 31, 2005
Table des matières, Bulletin numéro 14, 31 mars 2005

JOBS:

- [Senior Oceanographer](#)

OCEAN SCIENCE PROGRAMS

- [Invitation to comment on GEOTRACES Science Plan](#)
- [Workshop towards developing a Canadian contribution to the international GEOTRACES program](#)
- [W\(h\)ither IPY?](#)

PERSONNEL:

- [Geoff Holland goes to Australia](#)

GENERAL:

- [SCOR Electronic Newsletter #2, March 2005](#)

Senior Oceanographer

For over 10 years Coastal Ocean Associates Inc. has specialized in the provision of oceanographic consultancy services from its office in Dartmouth, Nova Scotia. COA provides a wide range of scientific and technical oceanographic services to the oil and gas industry, coastal industries, the engineering community and other marine sector interests. COA maintains an extensive wave and current database and a powerful suite of in-house modelling tools as well as an inventory of modern oceanographic equipment. We are currently seeking a Senior Oceanographer to join our Ocean Science team who will be responsible for the design of oceanographic data collection programs, numerical modeling, analysis of field data and model outputs, preparing oceanographic reports and providing scientific advice (oral & written) to clients. The Senior Oceanographer will contribute to product development, the preparation of work proposals and related corporate marketing initiatives. This position reports directly to the General Manager.

The successful candidate will possess a graduate degree in Physical Oceanography with at least 5 years experience providing contract oceanographic services. He or she will be a strong communicator and results-oriented team player. Interested applicants are invited to forward their resume and cover letter, in confidence, before May 30, 2005, to:

Coastal Ocean Associates Inc.
Ref: 2004-01 Senior Oceanographer
7 Canal Street, 2nd Floor
Dartmouth, NS
B2Y 2W1
Telephone: (902) 463-7677

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Email: coa@coainc.ns.ca

Invitation to comment on GEOTRACES Science Plan

GEOTRACES is designed to be an international study of the global marine biogeochemical cycles of trace elements and their isotopes. Early in 2004 a Planning Group was established under the auspices of SCOR (Scientific Committee on Oceanic Research) to prepare a Science Plan for GEOTRACES. A draft of that plan is now available for comment by the oceanographic community.

The Planning Group will meet in conjunction with the EGU meeting in Vienna (25-29 April, 2005) to discuss comments received from the community, and to begin revising the Science Plan with input from those comments. Comments should be submitted by 15 April, 2005 to ensure that they are compiled in advance of the Planning Group meeting.

The Science Plan is at <http://www.ldeo.columbia.edu/res/pi/geotraces/index.html>
Comments and questions should be e-mailed to the co-chairs of the Planning Group

Notes: 1) This is a temporary page while the GEOTRACES web site is being rebuilt.
2) Some figures in the draft Science Plan are purposefully at low resolution to reduce the size of the file. These will be upgraded in later drafts.

Bob Anderson, boba@ldeo.columbia.edu
Gideon Henderson, Gideon.Henderson@earth.ox.ac.uk
Co-Chairs, GEOTRACES Planning Group

Workshop towards developing a Canadian contribution to the international GEOTRACES program

Submitted by Roger Francois, rfrancois@eos.ubc.ca

We have submitted a proposal to Special Research Opportunities (NSERC) seeking support for the organization of a workshop that would assemble interested members of the community of marine biogeochemists in Canada to define a strong Canadian contribution to the international GEOTRACES program. The Canadian oceanographic community could play a pivotal role in GEOTRACES by taking responsibility for some of the ocean transects that are envisaged by the international program and by establishing repeat sections for time-series process studies off the Canadian coasts. In particular, GEOTRACES activities in the Arctic Ocean could be conducted under the aegis of the upcoming International Polar Year.

Although centered on the study of trace elements and isotopes (TEIs), the scope of the international GEOTRACES program is quite broad and we expect participation of scientists interested in trace metal – biota interactions, marine chemistry and geochemistry of trace elements and isotopes (TEIs) in the water column and sediment, tracers of particle dynamics and

carbon cycling in the ocean, tracers of ocean circulation, development of paleoceanographic proxies, contaminant dispersal, modeling and climate change studies. We are soliciting input from all potentially interested parties within the Canadian community to define an interdisciplinary but focused Canadian program. An invitation letter was sent to more than 45 scientists working at universities and governmental agencies across the country, encouraging them to also bring to the meeting their postdoctoral associates and graduate students. We have received an enthusiastic response and this is an open invitation to anyone within the Canadian oceanographic community who would be interested in contributing to the development of GEOTRACES in Canada.

The workshop will be held from June 7th to 9th at the University of British Columbia in Vancouver (Peter Wall Institute for Advance Studies), following the CMOS meeting (May 30th – June 3rd) and the C-SOLAS workshop (June 4th – 6th), both held at Park Plaza, Vancouver Airport Conference Resort. Depending on the level of funding received, we will reimburse travel expenses to the extent possible. Outlined below is a tentative workshop agenda.

Day 1 (June 7th, 2005):

- Brief introduction to the GEOTRACES international program and summary of the preceding C-SOLAS workshop
- Brief presentations (10-15 minutes) by all participants (or selected participants, depending on the numbers of attendees) of their research interests as they relate to the various themes of the GEOTRACES program:
 1. Input/output of TEIs (at interface with atmosphere, freshwater, sediment, margins, ridges); tracer field modeling (forward and inverse)
 2. Recycling within the water column (biological recycling, scavenging) and in sediments (diagenesis)
 3. Large scale distribution, speciation and physical forms of TEIs in the ocean
 4. Metal-biota interaction and impact of TEIs on ocean productivity and ecosystem structure
 5. Use of TEIs as tracers of modern ocean and paleoceanographic processes (primary production, particle flux, ocean circulation, etc..)
 6. GEOTRACES during IPY

Day 2 (June 8th, 2005):

The workshop will be subdivided into several working groups in accordance to the themes outlined above. The task of the working groups will be to identify the areas of excellence within the Canadian biogeochemical community and to develop a research program that will integrate the various interests and strengths represented within each theme.

Day 3 (June 9th, 2005):

Morning: Working group chairs from day 2 will give plenary presentations of the research program and underlying rationale proposed by each group.

Afternoon: Plenary discussion on how to mesh the various research projects into a coherent Canadian GEOTRACES program.

A workshop report will be sent to NSERC by the end of summer 2005 and will be used as a springboard to seek support for the research activities prioritized during the workshop. If the size of the attendance and the enthusiasm for the initiative warrant it, we will explore the possibility of establishing a new Research Network.

Organizers of the Canadian GEOTRACES workshop include: R. Francois (UBC), J. Cullen (UVic), T. Pedersen (UVic), K. Orians (UBC), A. Mucci (McGill), N. Price (McGill) and R. Moore (Dalhousie)

W(h)ither IPY?

Submitted by Rob Macdonald, MacdonaldRob@pac.dfo-mpo.gc.ca

The Canadian public is aware that climate change is upon us and it seems practically a given that any news-medium article on climate will include vanishing sea ice or threatened polar bears. In my opinion, the international science community has accomplished an extraordinary task of presenting what is understood about climate variability and change, first with the Intergovernmental Panel on Climate Change (IPCC) assessments and then with the recent Arctic Climate Impact Assessment (ACIA). These assessments have not just assembled data and provided a scientific synthesis of change, but they have been accompanied by an exceptional effort to present the conclusions to public and politicians and to those likely to be first and most impacted by change - Northerners. Furthermore, a strong message from these syntheses is that we urgently require broader geochemical datasets and time series to understand how change is unfolding, especially in the cryosphere. Given the size of Canada's Arctic and the importance of this issue to Canadians, it appears both puzzling and ominous that the Federal Budget, tabled on February 23rd, 2005, made no mention of IPY.

According to the 2005 Budget, Canada will continue to invest in Northern Research and Technology, specifically;

- Funding for Northern S&T has increased from \$66M (2000) to \$133M (2005).
- Re-commitment to spend \$51M over 10 years on Arctic shelf mapping.
- NSERC, SSHRC and CIHR budgets increased by \$75M/yr, part of which might support proposed IPY activities.

Undoubtedly, these expenditures will enable Canada to pursue some of its northern research agenda, but it seems clear to me that these 'enhanced business as usual' commitments entirely miss the requirement for launching a Canadian IPY plan as proposed in the submission to the International IPY committee. Remember, IPY is an International effort comprising six themes - *Status, Change, Global Linkages, New Frontiers, Vantage Point* and *Human Dimension* (see previous newsletter). The budget item assigned to Arctic shelf mapping, while perhaps securing sovereignty points for Canada, will do nothing to help with any of the IPY themes. The other budgetary items may or may not encourage work that could be fitted under IPY themes, but it seems unlikely that funds organized in this way will create coordination between Government,

University and Industry to the point of leading large-scale, international Arctic Ocean work. If Canada is to conduct any serious IPY ocean work, as proposed by a number of scientists, planning should already have started and that requires budget targets and ship schedules. The bottom line: we risk losing a crucial benchmark of change and declining to invest in the next generation of polar ocean scientists in Canada.

Geoff Holland goes to Australia

Geoff Holland will be going to Australia to chair a Review Panel for the Coastal Cooperative Research Centre in Brisbane. The CRC is one of well over a hundred such centres set up in the last ten to fifteen years, across the industrial spectrum, to "match the technology push provided by the strong research base with the demand pull of industry and other research users". The Panel will meet during the week of April 18.

SCOR Electronic Newsletter #2, March 2005

The international SCOR Electronic Newsletter #2 has just been published and is available at <http://www.jhu.edu/scor/SCOR-NL-2.pdf> Articles include:

- SCOR WG 120 on Marine Phytoplankton and Global Change Regulation
- IAPSO/SCOR WG 121 on Ocean Mixing
- SCOR/LOICZ/IAPSO WG 122 on Mechanisms of Sediment Retention in Estuaries
- SCOR WG 126 on The Role of Viruses in Marine Ecosystems
- SCOR/IOC Global Ecology and Oceanography of Harmful Algal Blooms (GEOHAB) Programme
- GEOTRACES
- SCOR/IGBP Integrated Marine Biogeochemistry and Ecosystem Research (IMBER) Project
- SCOR/IGBP/IOC Global Ocean Ecosystem Dynamics (GLOBEC) Project
- SCOR/IGBP/WCRP/CACGP Surface Ocean – Lower Atmosphere Study (SOLAS)
- SCOR Panel on New Technologies for Observing Marine Life
- Symposium on the Ocean in a High-CO₂ World
- SCOR-SCAR Interactions
- 2005 SCOR Executive Committee Meeting
- SCOR 50th Anniversary Meeting in 2008
- Travel Grants for Scientists from Developing Countries and Countries with Economies in Transition

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Previous newsletters may be found on the CNC/SCOR web site.
Les bulletins antérieurs se retrouvent sur le site web du CNC/SCOR.

Newsletter #15 will be distributed on May 18, 2005. Please send contributions to dick.stoddart@sympatico.ca
Bulletin #15 sera distribué le 18 mai 2005. Veuillez faire parvenir vos contributions à dick.stoddart@sympatico.ca

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