



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

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## JOBS

None submitted.

Looking for work? Try the CMOS site ([click](#))

## OCEAN SCIENCE PROGRAMS

### Marine Seismic Survey of Baffin Bay

Canada has started a marine seismic survey of Baffin Bay, after being granted approval to proceed by the Government of Nunavut. The project will contribute to a greater understanding of the undersea geology of a broad area of the eastern Canadian Arctic and inform creation of the Lancaster Sound marine conservation area ([click](#)).

### Neptune Canada Fall Installation Program

The fall installation program for NEPTUNE Canada got underway on September 11. The big task will be cable lays and equipment installation at Endeavour Ridge. In addition, new platforms and instruments are being added to the Folger Passage, Barkley Canyon and ODP 1027 locations. At Endeavour Ridge, a ROV will make at least 11 dives to the other-worldly hot vents and lava beds in this geologically active region. Plans call for installations of platforms and instruments at the main Endeavour vent field, the Mothra hydrothermal vent field and a regional circulation mooring ([click](#)). Photos and live video of the installation process are available for the next little while ([click](#)).

### IODP Science Plan

The Integrated Ocean Drilling Program is looking for comments from the scientific community on the draft of its new 10-year science plan. Input from the wider community to the IODP's science plan for the period starting 2013 has been requested to ensure that the document has broad support. The comment period runs only until September 21, 2010 ([click](#)), so act quickly if you want to be heard.

### SOLAS Mid-Term Strategy

The latest issue of the Surface Ocean, Lower Atmosphere Study (SOLAS) Newsletter ([click](#)) contains an overview of the newly released midterm strategy for the program. The focus of this program is biogeochemical interactions between the surface ocean and the lower atmosphere. The midterm strategy has seven themes:

- Sea ice biogeochemistry and interactions with the atmosphere
- Ocean derived aerosols: production, evolution and impacts
- Atmospheric control of nutrient cycling and production in the surface ocean
- Ship plumes: impact on atmospheric chemistry, climate and nutrient supply to the oceans
- Air-sea gas fluxes at Eastern boundary upwelling and Oxygen Minimum Zone (OMZ) systems
- SOLAS observatory and MOIN: the Minimalist OceanSITES Interdisciplinary Network
- SOLAS large scale field experiments: a compendium of proposals

Please take a look at the link above if you'd like to learn more.

## ArcticNet Cruise in Hudson Bay

*Submitted by Gary Stern, who was Chief Scientist on Leg 1a of the cruise*

From July 3<sup>rd</sup> to August 2<sup>nd</sup>, the CCGS Amundsen, as part of the 2010 ArcticNet cruise, successfully conducted the second intense sampling expedition in Hudson Bay. The first cruise occurred in September 2005. Over forty stations were sampled and over 3800 nautical miles (7965 km) travelled (Figure 1). The types of sampling included collecting box, gravity and piston cores to study the modern sedimentation and paleo-river discharge into the Bay, surface climate, air-surface fluxes and carbon exchange dynamics, seawater optical properties and oceanography, molecular microbial biodiversity, marine productivity (carbon and nutrient fluxes), contaminants, benthic and zooplankton ecology. Bottom mapping was conducted along the entire cruise track using the EM300 ship board multi-beam and sub-bottom profiler (Figure 2). In addition, fresh water sampling was conducted at eleven rivers with more extensive studies carried out near the estuaries of the Churchill and Hayes – Nelson Rivers (Figure 3) in the southwest, and the Rivière de la Grande Baleine in the southeast. These studies were conducted in an effort to document and study the transfers of freshwater, suspended sediments, nutrients and organic matter into Hudson Bay from its watershed, to trace their circulation through Hudson Bay and, in particular, to investigate their effect on the light regime in Hudson Bay. The cruise was a complete success with results expected to be available over the next year or two.

*Figure 1. ArcticNet Hudson Bay sampling cruise track (July 03 – August 02, 2010)*

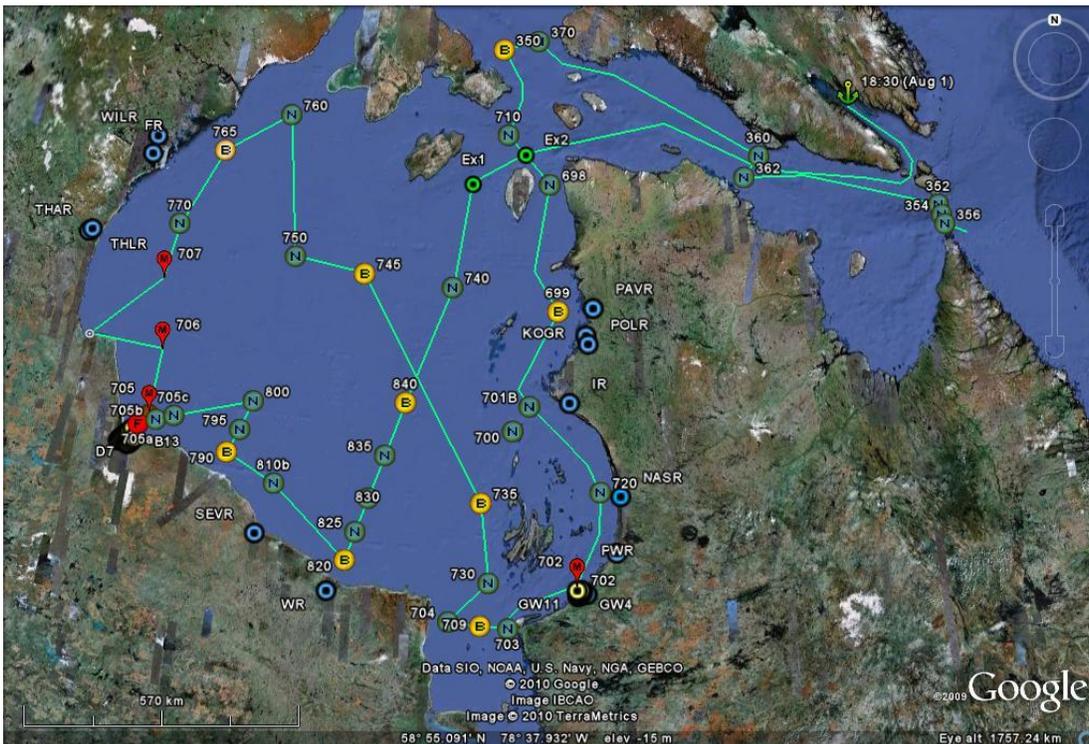




Figure 3. Nelson River estuary sampling



More information and the latest news about ArcticNet can be found on the program website ([click](#)).

## PERSONNEL

### Lawrence Mysak



Lawrence Mysak formally retired from his position as Canada Steamship Lines Professor of Meteorology at McGill on May 31, 2010 (and became CSL Emeritus Professor on June 1). In recognition of his contributions to McGill for the past 24 years he was an inaugural recipient of the "McGill University Medal for Exceptional Academic Achievement", which was awarded at the McGill Science Convocation on May 31. This medal, just created by McGill to honour retiring faculty, was awarded to only three professors this spring ([click](#)).

On June 1-2, 2010 at the 44th Annual Congress of the Canadian Meteorological and Oceanographic Society in Ottawa, Prof. Mysak was honoured with the "Mysak Session on Ocean and Climate Dynamics", which was organized by two of his former PhD students, Prof. William Hsieh at UBC and Prof. Bruno Tremblay at McGill.

## MEETINGS

### SCOR WG134 at ASLO 2011, Puerto Rico

Abstracts are invited for oral and poster presentations to Special Session 55 “Microbial Carbon Pump: A multidisciplinary focus on origins, cycling and storage of DOM in the ocean” at the ASLO 2011 meeting, to be held in Puerto Rico on Feb.12-17, 2011. The deadline for abstract submission is Oct.11, 2010.

In addition to the special session, SCOR WG134 on Microbial Carbon Pump in the Ocean ([click](#)) is also planning an ASLO Emerging Seminar immediately after the conference, on Feb.18-20, 2011; this is an open meeting and all are welcome to attend. For further information, please contact George Jiao ([click](#)).

### IUGG 2011 General Assembly

Abstract submission and registration are now open for the XXV IUGG General Assembly, to be held in Melbourne June 28 – July 7, 2011 ([click](#)). The scientific program includes three categories of symposia and a number of workshops on a wide range of geophysical themes.

- *Union Symposia* cover a wide range of themes of concern to the eight Associations that make up the IUGG. Invited speakers feature in these Symposia, supported by poster presentations. Several of the Union Symposia are expanded or followed in greater depth in Joint Symposia or in Association Symposia;
- *Lead (Inter-Associations) Symposia* with keynote speakers and scientists whose oral and poster presentations are accepted by the session convenors. The themes have been devised by at least two Associations, one of which is the lead Association. Some Joint Symposia are further developed separately in Association Symposia and Workshops.
- *Association Symposia* with keynote speakers and scientists whose oral and poster presentations are accepted by the session convenors.

## GENERAL

### Updated Repeat Hydrography Manual Available

The Global Ocean Ship-Based Repeat Hydrographic Investigations Program (GO-SHIP) was developed to provide sustained coordination for global repeat hydrography. One early priority for GO-SHIP was to revise the 1994 WOCE Hydrographic Programme manual.

In the 15 years since WOCE manual was published, many methods and techniques have changed and new sensors have been developed. ***The GO-SHIP Repeat Hydrography Manual: A Collection of Expert Reports and Guidelines*** ([click](#)) provides detailed instructions for the high quality collection and analysis techniques of numerous ocean parameters, both physical and biogeochemical. Sixteen chapters covering CTD methods, discrete samples, and underway measurements have been reviewed and revised by more than 50 experts. Chapters have been through a period of open community review and comment and have also been reviewed through an informal peer-review process. While most chapters were written specifically for this new version of the manual, several chapters are recently published guides that have been adopted as the GO-SHIP reference for specific variables.

## State of the Arctic Coast

The International Arctic Science Committee (IASC), Land Ocean Interaction in the Coastal Zone (LOICZ) and International Permafrost Association (IPA) have jointly produced a report on the state of the Arctic coast and adjacent marine regions ([click](#)). An update of the 2005 Arctic Climate Impact Assessment on the state of physical and ecological systems and human communities and activities, the report also puts forward a roadmap for integrated coastal systems research in the Arctic circumpolar region.

The report comprises four chapters, of which two (Chapters 2 and 3) form the core. Chapter 2 reviews current knowledge based on conventional disciplinary boundaries, with sections on physical perspectives, ecological conditions, and human dimensions. Chapter 3 takes a more integrated approach and includes sections on monitoring (change detection), modelling approaches and capabilities, assessing vulnerability, adaptive capacity and resilience in northern communities, and identifying institutional considerations including new approaches to governance in the context of rapid social and environmental change.

## Record Warmth in the Tropical Western Atlantic

Jeff Masters, who writes a blog for the weather website wunderground.com, reports that the Western Atlantic between 10° and 20° N has not only experienced the warmest August SST on record, but that the five warmest months ever in the tropical north-western Atlantic have all occurred this year. Using data from the Hadley Centre going back to 1850, albeit with many gaps, Masters has been looking at SST in the region between 20° and 80° W where East coast hurricanes are formed. He believes that strongly negative Arctic Oscillation and North Atlantic Oscillation patterns have played a large role in the record temperatures ([click](#)).

## Review of the IPCC

The InterAcademy Council's review of the IPCC's processes and procedures was released on August 30<sup>th</sup> ([click](#)). Among the recommendations of the review committee were the election of a different executive director to lead each review, strengthening the editors' and lead authors' consideration of review comments, and a more focused review.

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

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

Newsletter #53 will be distributed on Oct 29, 2010. Please send contributions to Bob Wilson, [wilson@telus.net](mailto:wilson@telus.net)  
Bulletin #53 sera distribué le 29 octobre 2010. Veuillez faire parvenir vos contributions à Bob Wilson, [wilson@telus.net](mailto:wilson@telus.net)

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