

## **Report of the Scientific Director #3**

For MEOPAR's Board Meeting on September 17, 2013.

(This is the third in a series of reports of the Scientific Director prior to Board Meetings).

The Research Management Committee was expanded, the MEOPAR Network started preparing for its 2<sup>nd</sup> Call for Proposals, the Partnership Program Plan was prepared for review and approval by the Board, and the Network continued to work on establishing closer ties to stakeholders.

### **Management**

Management reports are now contained within the report of the Executive Director. From now on Scientific Director reports will focus on science management, knowledge transfer and overall strategy aspects related to the Strategic Plan, Research Plan and parts of the Partnership Plan.

### **Research Management Committee**

As discussed at the past Board Meeting, three new members have been appointed to the Research Management Committee (RMC): Helen Joseph of the Department of Fisheries and Oceans, Veronique Boucher of Environment Canada and Pat Docking who retired recently from Transport Canada. We have already received significant input from these members who respectively bring expertise and awareness of government programs in oceans, atmosphere/climate and marine transportation.

A teleconference of the RMC was held on August 27. The meeting dealt primarily with introduction of the new members, planning of the 2<sup>nd</sup> Open Call for Proposals and reporting and updating of the Research Plan.

During the introduction of the new members, Pat Docking noted that MEOPAR could play a critical role in forming effective partnerships with the numerous agencies (federal, provincial, municipal) that are involved in most transportation and marine safety related issues. She also noted that many stakeholders are small and need a focal point for expanding their networking (national and international).

With respect to the 2<sup>nd</sup> Open Call, the main points decided upon were:

Timetable: Call for Proposals in October; Letters of Intent due by mid-December; Letters of Intent reviewed by end of January; full proposals due by mid-April; RMC and external review and recommendation to Board complete by end of May; mid-June decision by Board; network agreements and funding letters to be completed over Summer; project start in September/October.

Funding level: based on consideration of the funds already expended and committed for the first 3 years of funding for the initial projects and cores in comparison to funds initially allocated to research projects in the MEOPAR proposal, MEOPAR can afford to allocate at least \$3.5 million

and potentially significantly more to the two remaining planned Open Calls. Following discussion, the RMC agreed that the majority of remaining funds should be allocated to the 2<sup>nd</sup> Call on the understanding that any unallocated funds be retained for the 3rd Call (e.g. if the proposal numbers, relevance and/or quality are judged insufficient during the review process). A more detailed discussion of the funding allocation will take place at the Board meeting.

Topics: It was noted that the 2<sup>nd</sup> Call should be open to new, unexpected ideas and topics. RMC members were requested to consult and suggest potential topic areas and there is the possibility for alignment with government research programs. The following topics and areas were identified during the teleconference.

- Data management
- Offshore oil and gas;
- Tanker traffic; ports and hazardous good transport
- Extremes
- Social Science studies on Emergency Response and/or Climate Change response

Reporting from existing projects and cores. It was agreed that reports should be solicited from the Initial Projects and Cores in order that progress can be monitored. These reports should be provided by early November so that they can be evaluated by the Research Management Committee prior to the next meeting of the Board.

In a final short discussion, Ron Pelot introduced a suggestion of supporting a 3rd “Response Core” (in addition to the Prediction and Observation Cores) to focus on Social Science, Risk, Emergency Response issues etc. across the various projects. It was agreed that this was worthy of further consideration and could even fit with the 2<sup>nd</sup> Open Call for Proposals.

Communication: This is addressed in the Executive Director’s report. I note only that the MEOPAR web page now includes a portal linking to on-line ocean and coastal data resources around Canada.

On June 26, the official announcement of the Herring Cove met-ocean buoy took place at the Dalhousie Ocean Sciences Building and was attended by Minister Peter Mackay. We had an opportunity to inform Minister Mackay as well as a Provincial Minister, briefly, about MEOPAR.

## **MEOPAR Connections and Partnerships**

The Scientific Director, the Associate Scientific Director Ron Pelot, and the Executive Director Neil Gall have all been active in promoting MEOPAR and contacting potential partners and relevant communities. Examples of recent partnering activities include:

**Canadian Marine Pilot’s Association (CMPA).** As noted in the last report, MEOPAR (via its Observation Core) signed a consortium agreement with the Canadian Marine Pilots’ Association, the Halifax Marine Research Institute, the Atlantic Pilotage Authority, the Canadian Coast Guard and the Halifax Port Authority to acquire and operate a new 3m met ocean buoy within Halifax Harbour. The buoy will be deployed this month by the Coast Guard.

**Canadian Coast Guard (spill response).** Ron Pelot organized a meeting between CCG (Environmental Response, Maritime Region), DFO (Oceans & Coastal Management) and MEOPAR researchers. They are committed to engage in MEOPAR's spill/emergency response research themes, and will collaborate on a multi-party workshop on risk modelling in the Port of Saint John to be held in October.

**Defence Research and Development Canada's Centre for Security Science.** Neil Gall, Ron Pelot and Doug Wallace met with its Director, Dr. Mark Williamson, on August 16. The CSS is a joint endeavour with Public Safety Canada that provides science and technology (S&T) support and services to address Canada's public safety and national security priorities. Amongst other roles, it manages Canada's Emergency Responder Test and Evaluation Establishment. The meeting was wide-ranging covering overall mission and strategic objectives, funding mechanisms and possibilities and details of specific projects and areas of interest. In the end, it was clear that the CSS and MEOPAR shared potential for common interest and objectives in the general area of "maritime domain awareness" and the establishment and activities of "communities of practice" to assess and prepare for marine risks. At the end of the discussion it was concluded that there was sufficient common interest to allow for planning of a joint call for proposals.

**exactEarth Ltd.** Ron Pelot and Doug Wallace met with a representative of exactEarth (based in Cambridge Ontario) to discuss opportunities for setting up academic pricing of their Satellite-AIS vessel tracking data for use by MEOPAR researchers. Discussions are ongoing.

#### **The North Atlantic Ocean – A Shared Resource.**

Doug Wallace conducted numerous discussions following on from the EU-Canada-USA workshop on "The North Atlantic Ocean – A Shared Resource" which took place in Galway, Ireland in May, and which was reported on at the last Board Meeting. These included discussions with Alain Vezina (Regional Director of Science for the Maritimes Region of DFO), Blair Greenan (Bedford Institute of Oceanography), representatives of the St. Lawrence Global Observatory (Serge Demers, President of its Board of Directors and Claude Tremblay, Interim Executive Director), Brad de Young and John Cullen (Leads, MEOPAR Observation Core), Mr. Ron Newhook (Director of Research and Development, Marine Institute of Memorial University), representatives from the Marine Institute's SmartBay program, Jim Hanlon (Halifax Marine Research Institute), Sara Iverson and Fred Whoriskey (Ocean Tracking Network), Marcel Babin (Canada Excellence Research Chair for Remote Sensing of Canada's New Arctic Frontier, Laval University), Ru Morrison, Executive Director, Northeastern Regional Association of Coastal and Ocean Observation Systems (NERACOOOS).

The Galway Agreement aims to connect ocean observation and prediction efforts of Canada, the EU and the USA around the Atlantic Ocean. An issue for Canada is that most such efforts are presently not well connected across the country or even within most regions of Canada. Such efforts are variously supported by the Federal Government (DFO, EC), Universities and the private sector. There is a need to improve coordination and operation of the existing observation and prediction efforts within Canada to form a strong basis for participation in broader, international initiatives such as that arising from the Galway meeting. The need for this was agreed by all parties contacted. In the Gulf of St. Lawrence, the SLGO has made good progress

in this direction, however in the remainder of Atlantic Canada, the Arctic and on the West Coast, there appears to be a lot to be done.

Based on these discussions, there was general agreement that:

1. There is urgent need for joint planning and coordination of ocean observing infrastructure, operations and data management.
2. MEOPAR could play a key role in fostering this coordination across sectors
3. There is potential to look at the example of the US Integrated Ocean Observing System (IOOS) and learn from, or in some cases adopt, their approaches and experience
4. A stronger program of ocean observation and prediction would create opportunities for Canadian technology companies, consultants and provide stakeholders with valuable information
5. Serious consideration should be given to MEOPAR working initially towards creation of an Atlantic Canada Regional Association of Coastal and Ocean Observing Systems (ACRACOOS). (Not surprisingly there was not 100% agreement on this particular acronym....)

Such an activity could be replicated for Canada's Arctic and Pacific Coasts and the Canadian regional associations connected to similar associations along the US coast and in Europe. This activity is compatible with modeling work within MEOPAR's Theme 1 projects, with the Observation and Prediction Core structures, and with MEOPAR's Strategic Plan. Specifically, the activity would address the following network goals from the Strategic Plan:

- Promote an operational network for marine observation, prediction and response along Canada's coastline through a cooperative approach linking Government agencies, academia, municipalities, non-governmental organisations and ocean-related industries.
- Improve sharing of information and knowledge between communities, private and public sectors, non-governmental organizations, academia and government in order to improve response capability and resilience in the face of changing patterns of risk in the marine environment.
- Strengthen Canadian private-sector expertise in marine environmental observation, prediction and response and promote this expertise to address national and international problems (assuming involvement of private sector in ACRACOOS)
- Promote international cooperation in marine environmental observation and prediction, including adoption and leverage of international best practices and expertise for the benefit of Canadians.

If this basic idea meets with Board support, we will start working on specific steps, starting with presentation and discussion of the idea at the forthcoming "Ocean Smart" workshop in Rimouski (which will be attended by Zdenka Willis, Director of the US Integrated Ocean Observing System) and organization of a workshop involving Atlantic Canadian stakeholders, potentially including petroleum boards, as well as representatives of NERACOOS and the SLGO.

### **Partnership Program**

The proposed Partnership Program, which is being presented for Board approval, opens the door to allow MEOPAR to initiate and support workshops and Expert Fora in support of its Strategic

and Research Plans. A number of ideas for workshops and events have been suggested for support via the Partnership Program. These are listed below. In addition, we have had informal discussions with a number of companies that may be interested in forming cooperative research partnerships with MEOPAR.

### **Workshop and Expert Fora Suggestions to date**

A number of suggestions have been brought forward to date for workshops or Expert Fora by MEOPAR management, RMC members, researchers, and other stakeholders. A partial listing of suggestions is:

1. Ocean Smart (Monitoring, Data Management and Decision Making). MEOPAR will co-sponsor this Ocean Innovation Conference in Rimouski, October 20-23, 2013. Confirmed.
2. Saint John Harbour Workshop (October 2, see above). Confirmed.
3. Ocean Acidification (likely to be proposed as an Expert Forum). In discussion.
4. Towards Improved Coordination of Coastal and Ocean Observing Systems in Atlantic Canada (with DFO, EC, SLGO and NERACOOS). In discussion.
5. Liability and insurance of offshore and deepwater infrastructure (possibly Expert Forum with Insurance Industry). In discussion.
6. Maritime Transportation and Port Risks (potentially with EC, DFO and Transport Canada)
7. Climate change and extreme events of the marine environment (possible with ICLR)
8. Contamination/spills
9. Ocean modelling (MEOPAR will co-sponsor of the 6<sup>th</sup> International Workshop on Modelling the Ocean, to be held in Halifax in June 2014; Jinyu Sheng, organizer). Confirmed.
10. Coastal Zone Canada 2014. Halifax, June 15-19, 2014. MEOPAR event to be held in conjunction. Confirmed.
11. Arctic (many topics suggested)
12. Redefining Maritime Domain Awareness (potentially with DRDC-CSS)
13. Detection equipment (in-water; satellite; etc.)
14. Social Sciences and Emergency Response
15. International Best Practices and Standards for Environmental Impact Assessments of Deepwater Oil/Gas-related Activities (potentially in cooperation with Petroleum Boards of Nova Scotia and Newfoundland and Labrador).

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