



# MEOPAR

MARINE ENVIRONMENTAL OBSERVATION  
PREDICTION & RESPONSE NETWORK

## Call for Proposals

### Response Research Grants

### Proposal Guidelines 2015

## I. General Information about MEOPAR

Established in 2012, the Marine Environmental Observation Prediction and Response Network of Centres of Excellence (MEOPAR) is building partnerships and a team of Canadian researchers to address critical issues related to human activity in the marine environment, and the impact of marine hazards on human activities in coastal regions.

MEOPAR's vision is to inspire and enable Canadian leadership in marine environmental observation, prediction and response. MEOPAR delivers knowledge, technology, and people to enable Canada's communities and industry to enhance resilience and economic opportunity through an informed relationship with the changing marine environment.

MEOPAR's seven goals, through which it delivers on its long-term 15-year vision are:

**An operational network:** 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 organizations and ocean-related industries.

**Information and knowledge exchange:** 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.

**Northern hazard assessment:** Provide scientific information and evaluation of marine hazards to guide economic and community development in Canada's northern marine environment.

**Private-sector participation:** Strengthen Canadian private-sector expertise in marine environmental observation, prediction and response and promote this expertise to address national and international problems.

**International cooperation:** Promote international cooperation in marine environmental observation and prediction, including adoption and leverage of international best practices and expertise for the benefit of Canadians.

**Fundamental research:** Enhance resilience through development of new understanding of marine hazards and associated vulnerabilities, and improved ability to predict and project risk.

**Economic opportunity:** Create economic opportunity through enhancement of resilience as well as through commercialization and application of new approaches to marine observation and prediction.

The MEOPAR Network works closely with government agencies, industry and international partners to develop new mechanisms for the sharing of expertise, data, infrastructure, and approaches relevant to anticipating and responding effectively to marine emergencies. With a projected lifetime of up to 15 years, MEOPAR will have fundamental impacts on Canada's preparedness in the face of marine hazards.

MEOPAR's research program includes development and integration of science-based technologies and tools to improve Canada's ability to respond to marine emergencies as they occur, and anticipate and adapt to changes to the risk of marine extremes and emergencies over the next century. Over its first five years, MEOPAR's effort will focus on: a) establishment of new partnerships, working relationships and training programs; b) demonstration of new cooperative approaches to observation, prediction and response, and c) organization of effective transfer of knowledge concerning marine hazards. Specifically for the first five-year phase of NCE support (2012-2017), the seven principal objectives are to:

- Establish the first nodes of a new pan-Canadian network of integrated observing and prediction systems for strategically important locations.
- Develop new tools and technologies for rapid environmental assessment and forecasting during marine environmental emergencies.
- Link projection of future changes in storms, coastal flooding, waves on local scales with consideration of economic impacts, safety, planning, and policy.
- Assess the impact of long term, oceanic change on Canadian coastal communities, ecosystems and economic interests, including implications for resource management, regulation and policy.
- Introduce new approaches for training of highly qualified personnel with skills in the natural and social sciences and their use in solving problems related to marine risk.
- Implement new approaches for sharing natural and social science expertise, data and infrastructure in order to respond more effectively to marine emergencies.
- Establish an "Expert Forum" involving Canadian and international experts, policymakers and stakeholders for the illumination, evaluation and communication of emerging and new risks in the marine environment.

In order to achieve these five-year objectives, MEOPAR's research program presently comprises more than 50 projects. Projects are organized under two research themes:

**Theme 1** aims to improve the ability of government and private sector to respond to existing and emerging marine hazards on time scales of hours to seasons.

**Theme 2** aims to develop and test techniques aimed at improving the ability of government, the private sector, and coastal communities to anticipate, prepare and adapt to developing marine risks on time scales of seasons to a century.

The Network is also supported by a Prediction Core and an Observation Core. These provide crosscutting technical and scientific support across the projects.

In September 2015, a third Core was established to focus on Response. In the context of MEOPAR, **Response refers to the development of solutions** to address the likelihood and/or consequences of marine-related hazards. The scope thus includes but is much broader than the traditional concept of emergency response – it also encompasses investigations of vulnerability, preparedness, consequence analysis, prevention, mitigation, resilience, recovery, community planning, policy, and regulation.

***The Response Research Grants to be funded under this Call for Proposals will strengthen MEOPAR's capacity in the Response domain and thus its ability to address its strategic research objectives and goals.***

## II. Response Research Grants – Call for Proposals 2015

### A. Aims

A key goal of the Response Core is to support projects seeking to do more on Response. It is important to recognize that Response is a complex social-ecological process that involves much more than reacting to information about a possible extreme event. Predicting actual impacts requires a well-developed understanding of patterns of social vulnerability, as well as processes of decision-making and institutional design and resources that could influence preparedness and the capacity to respond appropriately to the new information generated through improved observation and prediction. For this reason, the development of robust methodologies and findings on current and potential alternative response capacities is essential if MEOPAR is to achieve its objectives.

The Response Research Grant program has three complementary aims:

- to expand MEOPAR's expert base and research capacity in the social sciences, law, policy, planning, etc. (hereafter referred to as "**the social sciences**");
- to strengthen the integration of social science and natural science research within MEOPAR;

- to develop more problem-solving approaches to marine hazards and risks that are informed by knowledge of societal contexts and decision-making processes.

## B. Project Types

Three types of proposals will be considered in this Call:

1. **Research partner** - Researchers with expertise in the social sciences could propose to partner with existing MEOPAR projects, becoming co-Principal Investigators (co-PIs) on these projects and designing research that would complement and strengthen a Response dimension of these existing projects;
2. **New initiative** - New initiatives could be proposed of an exploratory nature that would fit strongly with MEOPAR's Strategic Plan. These would serve as pilot projects that could be expanded upon in MEOPAR's upcoming 5-year renewal proposal.
3. **Postdoctoral fellowship** - Postdoctoral fellowships in the social sciences could be proposed with a focus on Response topics. The projects would be proposed by the prospective postdocs, ideally to work on issues that cut across MEOPAR projects, with a supervisor from within the Network. The proposal should be written by and focused on the prospective postdoctoral fellow; however, it must be submitted by the supervisor, who would hold the funds and be responsible for reporting.

## C. Project Duration and Funding Levels

For the Response Research Grants Call for Proposals 2015, MEOPAR will support 15-month projects starting in January 2016. This initiative has a \$250,000 budget. Approximately 5 awards of \$50,000 each may be made; however, proposals with smaller or larger budgets will also be considered within the overall budget envelope. Research must be completed by the end of March 2017.

## D. Project Areas and Topics

MEOPAR encourages a wide variety of project topics related to its research mandate. This Call seeks projects that address social science topics that are closely aligned with MEOPAR's strategic plan and research focus on marine risk and response. The aim is to strengthen MEOPAR's contributions in these areas and enhance the connectivity and integration of social science with natural science research.

Applicants are strongly encouraged to establish links with existing MEOPAR projects. This may be through formal cooperation with an existing MEOPAR research project or through a clear explanation of how a distinct research focus is relevant to, and might be integrated with, other MEOPAR research.

Descriptions of existing projects are available through our website at <http://meopar.ca>. Proponents are encouraged to contact MEOPAR's Executive Director, Mr. Neil Gall, to

obtain more details and discuss how their interests align with current projects.

Other types of engagement are also encouraged. Research may involve stakeholders from multiple sectors (i.e., academia, private sector, government, NGOs) in various roles, such as participating in project definition, providing data, participating as subjects in the research and/or as end-users for the project outcomes. ***MEOPAR is especially interested in supporting proposals that have clear evidence of end-user involvement in the identification of the research topic to be addressed and the formulation, support and conduct of the research itself.*** Possible “end-users” could include, but are not limited to: the marine transportation industry, professional fish harvesters, offshore oil and gas operators, coastal communities, environmental organizations, government departments and agencies with an ocean-focused mandate, ocean technology companies, and others. Support from external partners (in-kind and/or cash) is beneficial, but is not a requirement for the proposal. Proposals should clearly explain the nature of the participation and any commitments.

## **E. Eligibility and Collaboration**

These grants are specifically aimed at university faculty members and postdoctoral fellows with expertise in the social sciences. Interdisciplinary researchers with related training are also encouraged to apply. Proposals may be submitted by a single researcher or a small team.

For Type 1 (research partner) and Type 2 (new initiative) proposals, the Principal Investigator must hold a full-time academic appointment at an eligible Canadian university, in a social science or interdisciplinary unit.

For Type 3 (postdoc) proposals, the prospective postdoctoral fellow must be able to hold a postdoctoral appointment at an eligible Canadian university. Ph.D. students, recent graduates within 5 years of receiving their Ph.D., and postdoctoral fellows (including those currently supported on MEOPAR research grants) are eligible for postdoctoral fellowships under this Call. The prospective Response Research postdoc must have completed all degree requirements and be eligible to start a postdoctoral position by January 2016. The proposal must be formally submitted by a faculty mentor/supervisor who is a current MEOPAR investigator. Preference will be given to proposals that enable the postdoc to gain experience with a different supervisor in a different discipline, and ideally at a different institution, than in his or her prior training. Funding from the postdoctoral fellowship can be used for salary and/or research expenses.

In terms of receipt of MEOPAR funding, investigators are limited to submitting a single application in response to this Call for Proposals. Researchers who are currently serving as principal or co-principal investigators on MEOPAR grants are not eligible to apply (except as supervisors for postdoctoral proposals).

## F. Procedure

Applicants should consult MEOPAR's Strategic Plan and Research Plan, both of which are available online at <http://meopar.ca/>.

***The proposal can be a maximum of 13 pages long, single-spaced (no more than six lines per inch), regular 12-point font, with margins of 0.75".***

The Proposal must follow the following format:

**1) Cover Page (1 page maximum)**

- Title and contact information for Principal Investigator;

**2) Summary (on 1 separate page but with 500 word maximum)**

- The summary is intended to explain the proposal in language that the public can understand. Using simple terms, briefly describe the nature of the work to be done. Indicate why and to whom the research is important, anticipated outcomes, and how the field, MEOPAR, and Canada will benefit. This plain language summary will be available to the public if the proposal is funded;

**3) Alignment with MEOPAR Strategic Objectives (1/2 page maximum)**

- Specific contributions of the research to MEOPAR's Vision and connection to MEOPAR's Strategic Goals & Objectives;

**4) Research Plan, Approach & Outcomes (3 pages maximum)**

- Problem(s) to be addressed, including overview of the state-of-the-art;
- Methodological approach;
- Anticipated outcomes;
- Innovation and significance of research;
- Timeline or Gantt chart;
- Connections and perspectives, if applicable (e.g., connections to researcher's prior or current research activities, future perspectives beyond lifetime of the award);

**5) Budget (1 page maximum)**

- Detailed budget (by year) according to Table 1 below;
- Budget notes and justification;

**6) Linkages and Support (1 page maximum)**

- Linkages to other MEOPAR activities and/or other existing projects;
- End-user involvement;
- External partnerships (other academia, businesses, government, non-governmental organizations);

**7) HQP Focus (1/2 page maximum)**

- Number and roles of highly-qualified people (HQP) to be engaged in the project;
- Plan for innovative training of HQP to be involved in the project;
- For postdoctoral proposals, career development plan for postdoc;

**8) Excellence of the Researcher(s) (2 pages maximum)**

- Relevant qualifications of the Principal Investigator, including expertise in Response-related areas and selected relevant publications;
- Experience with interdisciplinary and collaborative research;
- Experience with engaging end users;
- Qualifications of collaborators, if relevant;

**9) References (1 page maximum)**

- Citations to academic and other professional publications;

**10) Letter of Support (2 pages maximum)**

- Maximum of two, 1-page letters of support from MEOPAR investigators, partner agencies, and/or end-user organizations. For Type 1 (research partner) proposals, a letter must be included from the Principal Investigator (PI) of the MEOPAR project that the proponent would like to join. A second, optional letter may also be included from a partner agency or end-user organization. For Type 2 (new initiative) proposals, up to two optional letters may be included. For Type 3 (postdoc) proposals, one letter must be from a MEOPAR investigator who has agreed to mentor the postdoctoral fellow and assume responsibility for managing the funding and compliance of the grant. A second, optional letter may also be included from a partner agency or end-user organization.

## **F1. Notes to Procedure**

### ***F.1a Budget***

A detailed budget with specific breakdowns and justification for each category is required for the proposals. For example, in the “Personnel” section, please be specific about the number of people to be hired and their status (Masters student, PhD candidate, postdoctoral fellow, research associate etc.). If listing an “Equipment” category, please specify the type of equipment, approximate cost and rationale for purchase. If listing a “Travel” category, please include information such as the intended destinations and number of people traveling. Please differentiate between travel required for the research activity and travel related to knowledge mobilization (e.g., travel to conferences).

The budget should follow the format in Table 1. Please indicate whether partner contributions are in the form of cash or in-kind. Note that the timing of Year 1 is January-March 2016, as the funding will not be released until January 2016 and MEOPAR's fiscal



year closes on March 31.

**Table 1: Project Budget** (funds in \$k)

	<b>YEAR 1</b>	<b>YEAR 2</b>	<b>TOTAL</b>
	Jan/16 - Mar/16	Apr/16 - Mar/17	
	3 months	12 months	
<b>CATEGORY</b>			
<b>A. PERSONNEL</b>			
PhD Students @ \$xxk/yr	0.0	0.0	0.0
Postdocs @ \$xxk/yr	0.0	0.0	0.0
Masters @ \$xx/yr	0.0	0.0	0.0
Research Associates @ \$xxk/yr	0.0	0.0	0.0
Technicians @ \$xxk/yr	0.0	0.0	0.0
Other (Specify)	0.0	0.0	0.0
<b>TOTAL PERSONNEL COSTS</b>	0.0	0.0	0.0
<b>B. DIRECT COSTS</b>			
Materials & Supplies	0.0	0.0	0.0
Travel	0.0	0.0	0.0
Relocation Costs	0.0	0.0	0.0
Professional Services	0.0	0.0	0.0
Operations & Subcontracts	0.0	0.0	0.0
Publication Costs/Dissemination	0.0	0.0	0.0
Equipment (Specify Items >\$10k)	0.0	0.0	0.0
Other (Specify)	0.0	0.0	0.0
<b>TOTAL DIRECT COSTS</b>	0.0	0.0	0.0
<b>TOTAL COSTS (A.+B.)</b>	0.0	0.0	0.0
<b>C. OTHER FUNDING RECEIVED</b>			
In-Kind	0	0	0
Other	0	0	0
<b>TOTAL OTHER FUNDING RECEIVED</b>	0	0	0

**F.1b HQP**

Applicants should provide a description of the main focus of each supported HQP, and when possible, specific names of those to be engaged. As an NCE, MEOPAR is mandated to assist in the training and development of the next generation of Canadian researchers. As such, MEOPAR has initiated a training network for those HQP involved in MEOPAR-funded projects to give them professional development opportunities they would not normally receive from their program of study. MEOPAR's definition of HQP includes Bachelor's students, Masters students, PhD candidates and postdoctoral fellows. In addition to the training at the network level, each project is encouraged to provide creative training and professional development opportunities for their HQP, which can be described in the HQP section.

Type 3 (postdoc) proposals must include a career development plan in the section. The plan should be co-written by the supervisor and postdoctoral applicant, and should explain how the proposed research would fit within the applicant's career plans. Applicants holding existing postdoc positions must explain their availability and commitment to the proposed research. A brief justification must be provided if a postdoc intends to stay at the same university as their immediately preceding training (as a doctoral student or postdoctoral fellow), which must include a description of how the work will differ from their preceding work.

#### ***F.1c Letters of Support***

Separate letters of support can be included with the proposal. These may be from an external partner (e.g., collaborating agency or end-user organization), from a MEOPAR mentor (in the case of proposals for postdoctoral research), or from the PI of a current MEOPAR project that this proposal is seeking to partner with. ***A maximum of 2 letters of support, no more than 1 page in length, will be accepted.***

#### **G. Submission**

***The application deadline for this CALL is 4:00 pm Atlantic Daylight Savings Time, October 16, 2015.*** Proposals received after this deadline will not be accepted. Applications must be submitted electronically in PDF format to Janet Marshall, Executive Assistant, at [janet.marshall@meopar.ca](mailto:janet.marshall@meopar.ca).

The Corporate Centre of MEOPAR will receive proposals and provide an initial compliance screening. ***Proposals that do not follow these requirements explicitly will be returned to the applicant(s) and given one 24-hour period to comply and resubmit. Proposals that still do not comply with these criteria will be removed from the competition and will not be considered.***

#### **H. Evaluation**

Proposals will be reviewed and assessed by MEOPAR's Research Management Committee (RMC) and additional outside, expert reviewers as needed. The RMC's recommendations on the Proposals will be forwarded to MEOPAR's Board of

Directors for approval in December 2015. Financial awards will be in place by the end of January 2016, contingent on signing of Network Agreements.

The criteria for the review of the Proposals will be:

<b>1</b>	<b>Alignment with MEOPAR Objectives</b>
<b>1.1</b>	<b>MEOPAR Strategic Goals</b>
	<i>The proposed research activity <b>must</b> link strongly and convincingly to MEOPAR's goals and objectives as listed in Section I.</i>
<b>2</b>	<b>Merit of the Proposal</b>
<b>2.1</b>	<b>Research Focus on Response</b>
	<i>The proposed project <b>must</b> be focused on an important topic related to the development of solutions to address the likelihood and/or consequences of marine-related hazards.</i>
<b>2.2</b>	<b>Innovation / Originality</b>
	<i>The proposed project <b>must</b> be highly innovative and/or original, with the potential to produce significant advances.</i>
<b>2.3</b>	<b>Project Feasibility</b>
	<i>The proposed objectives, milestones, research methodology, and budget <b>must</b> be clearly described, appropriate, and realistic.</i>
<b>3</b>	<b>Linkages and Support</b>
<b>3.1</b>	<b>Synergies with Other MEOPAR Initiatives</b>
	<p><i>The proposed project <b>must</b> enhance the Response-related research capacity of the Network by demonstrating synergies with other MEOPAR initiatives. Expectations depend upon the type of project being proposed:</i></p> <ul style="list-style-type: none"> <li><i>(a) for Type 1 (research partner) projects, the research must complement and strengthen a Response dimension of an existing MEOPAR project;</i></li> <li><i>(b) for Type 2 (new initiative) projects, the research must fit strongly with MEOPAR's Strategic Plan and address a key gap in the Network's Response research capabilities;</i></li> <li><i>(c) for Type 3 (postdoctoral fellowship) projects, the research must have a MEOPAR investigator confirmed as a mentor and ideally address a topic that cuts across MEOPAR projects.</i></li> </ul>
<b>3.2</b>	<b>End-User Involvement</b>
	<i>End-users <b>must</b> be involved in the proposed research. Their involvement in the project/question formulation is encouraged. End-users can be defined as government, industry or other stakeholders external to academia.</i>
<b>3.3</b>	<b>Builds on Other Relevant Initiatives</b>
	<i>Applicants are encouraged to demonstrate convincing integration with and/or extension of other existing national and international initiatives.</i>
<b>3.4</b>	<b>Leverage</b>

	<i>Proposals should demonstrate quantifiable cash and/or in-kind contributions from external sources. NSERC guidelines should be followed for the valuation of in-kind contributions.</i>
<b>4</b>	<b>Training of Highly Qualified People (HQP)</b>
<b>4.1</b>	<b>Participation of HQP</b>
	<i>The proposed project <b>must</b> have extensive involvement and well-defined responsibilities and opportunities for the integration of HQP. Students and postdoctoral fellows are considered to be HQP. For postdoctoral applications, the proposed project <b>must</b> enable the postdoctoral fellow to gain new research and collaboration experiences.</i>
<b>5</b>	<b>Researcher Excellence</b>
<b>5.1</b>	<b>Excellence of the Researcher</b>
	<i>The accomplishments and potential of the applicant <b>must</b> be of high quality, impact and relevance.</i>
<b>5.2</b>	<b>Interdisciplinary and Collaborative Capacity</b>
	<i>Proposals are encouraged from applicants with experience in conducting interdisciplinary research and/or multisectoral collaborations.</i>
<b>5.3</b>	<b>Experience Engaging End Users</b>
	<i>Proposals are encouraged from applicants with demonstrated experience in engaging end users in their research.</i>
<b>5.4</b>	<b>International Participation</b>
	<i>The team may include convincing international participation with clear relevance/utility to Canada (please note that MEOPAR funds cannot be transferred to international partners).</i>

Questions about MEOPAR's Response Research Grants can be referred to:

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