**Antarctic Research Voyages - *RV* *Tangaroa***

**Expression of Interest for Ship Time**

**Voyage 1 February March 2018**

**Voyage 2 January February March 2019**

**Introduction**

*RV Tangaroa* has been funded to undertake two 2 voyages to the Antarctic/Ross Sea sector over the next four years. Expressions of Interest (EOIs) are sought from the New Zealand science community (international collaboration shall be proposed by a NZ science community lead) that require the use of Tangaroa to undertake existing or proposed Crown funded research. Preference will be given to projects that meet New Zealand’s current Antarctic/Southern Ocean research strategies and priorities (see below).

While the voyages will be led by New Zealand, preference will also be given to voyage projects that include international collaboration and support (including coordination with other international research vessels).

The final objectives and plans for the voyages will be peer reviewed for science excellence, and will be submitted to the *Tangaroa* Advisory Group (TA Group) for approval.

It is expected that a number of proposals will be received and the Antarctica Working Group (see below) will be responsible for assessing the EOIs and developing a focussed coherent voyage programme.

**Antarctica Working Group**

The working group that will assist with the assessment of the EOI’s and final research focus of the voyages will consist of the following members (or suitable delegated replacements).

Rob Murdoch (Chair)

Mike Williams – Director Deep South

Gary Wilson – NZARI/Antarctic NZ/University of Otago

Jillian Dempster - MFAT

Ben Sharp/Alistair Dunn - MPI

Tim Naish - Victoria University Wellington (Antarctic Research)

Vaughan Stagpoole - GNS

Rochelle Constantine – University of Auckland

Matt Pinkerton, NIWA

Lou Hunt – MFE

Dave Lundquist - DOC

**Voyage Length and Objectives**

MBIE have funded the vessel for voyages in the summers of 2018 and 2019, each with a likely length of 36-45 days (including mobilisation). The voyages have been placed together (1 year apart) to allow opportunity for the deployment and subsequent recovery of scientific equipment and/or moorings if required. The voyages are to support project activities funded by government stakeholders. Applicants must be prepared to have scientists at sea for the full voyage period (transfers to Scott Base or other vessels cannot be guaranteed). Voyage objectives and track will be determined by the Antarctica Working Group, based on the EOI applications received. These voyages are intended to be a collaborative and are expected to have a Ross Sea/Southern Ocean experienced voyage lead. While it is likely that an array of scientific objectives will be received, an integrated programme of research will be planned from the EOIs, also recognising where possible requests for opportunistic data collection, both in transit and within the study region(s).

**Relevant Science Strategies & Priorities**

NZ’s relevant Antarctica interests include:

* Scientific research - supporting, and where appropriate leading, high quality scientific research in the Antarctic and the Southern Ocean.
* Scientific research and monitoring supporting the Ross Sea MPA
* Biodiversity protection - conserving, protecting and understanding the biodiversity of Antarctica and the Southern Ocean, particularly the Ross Sea region. This includes promoting, protecting and managing representative special areas and enhancing biosecurity.
* Conservation - managing marine living resources of the Southern Ocean, and in particular the Ross Sea, in a sustainable way; working with CCAMLR and the Antarctica Environmental Protocol to support strong environmental standards and sustainable economic benefits.
* Environmental stewardship - demonstrating and advocating for best practice in environmental stewardship and all other activities throughout Antarctica, particularly in the Ross Sea region.

The [*New Zealand Antarctic and Southern Ocean Science Directions and Priorities 2010-2020* document](http://antarctica.recollect.co.nz/nodes/view/44196) establishes themes and priorities for New Zealand Antarctic science. At a high level, these are grouped into:

1. **CLIMATE, CRYOSPHERE, ATMOSPHERE AND LITHOSPHERE**: Improved understanding of the past and current state of Antarctica, its significance and implications of the role of Antarctica in global change, and implications of global change for Antarctica.
2. **INLAND & COASTAL ECOSYSTEMS**: Improved understanding of inland and coastal ecosystems of the Ross Sea region leading to enhanced knowledge, conservation and protection priorities in Antarctica.
3. **MARINE SYSTEMS**: Improved conservation and resource management of the Antarctic marine environment.

Other key documents outlining research priorities that should be considered include:

* *A draft plan for research and monitoring in the Ross Sea region, in association with spatial marine protection -* prepared jointly by New Zealand and USA representatives and submitted to CCAMLR in 2013 in support of the Ross Sea Region Marine Protected Area proposal, and provides guidance on the research the New Zealand government has identified as high priority to support its objectives in international forums. Note that it is intended that this draft document will be substantially revised and updated during 2017 (including a dedicated workshop for that purpose). Objectives for the MPA remain as described. See <https://www.mfat.govt.nz/en/environment/antarctica/ross-sea-region-marine-protected-area> for relevant science documents and the proposal.
* The Deep South Research Plan
* Future direction for scientific research and monitoring supporting the Ross Sea MPA
* Focus on Antarctic, Southern Ocean and Sub Antarctic Research (2013-2018)

**Voyage Requirements**

Those submitting an EOI should note that the following resources, equipment and activities will need to be covered by the applicant, along with any associated costs:

* All science/survey personnel directly relevant to your specific objectives.
* Equipment (note that NIWA owned science equipment may be available for hire) and project specific consumables for the voyage.
* Comprehensive Medicals (contact NIWA for further detail) and basic marine survival training for all your science/survey personnel participating on the voyage.
* Any additional vessel crew required (Dynamic Positioning operators if required, additional deck crew for labour intensive voyages) and extra fuel used if the vessel is required to use its Dynamic Positioning System for significant periods.
* All your own project logistics including travel to and from the vessel for science/survey personnel and loading of equipment.
* All project specific ship to shore satellite phone communications by science/survey staff during the voyage.
* Insurance for equipment loss or damage during the voyage (NIWA will not cover liability for any third party equipment lost or damaged during the voyage).
* NIWA technical personnel required to run vessel sounders (e.g., EM302/TOPAS etc) if required.
* Production of project specific Health and Safety Plans, JSEA’s and SOP’s for any update to procedures or new procedures.
* Any required HSE Audit or due diligence exercises that are required for the specific project or by the applicant or their collaborators.
* Parties are required to adhere to NIWA’s Health & Safety requirements. This may require medicals or training by science/survey personnel in advance of the voyage.
* The requirement to read, understand and sign NIWA’S Acknowledgment of Risk and Safety DutiesAgreement (Provided with Marine Services Agreement).
* Obtaining required consents, permits and permissions for your specific objectives.
* Data management – The applicant must define the data streams from the voyage and intended ownership and access of the data, which must be consistent with the New Zealand Government Open Access and Licensing Framework (NZGOAL).

Applicants should contact Rob Christie at NIWA directly (rob.christie@niwa.co.nz) for further information on logistical requirements and costs.

**EOI Submission Date**

All EOIs must be submitted to NIWA (Rob Christie, rob.christie@niwa.co.nz) by **Wednesday 30 November 2016** using the EOI template provided below. Please inform NIWA of any proposed EOI’s that are being considered but not finalised for whatever reason. EOIs are not expected to be longer than 2-3 pages. Further information will be sought should you project be included in the voyage programmes.

**EOI TEMPLATE**

|  |  |
| --- | --- |
| Proposal Title |  |
| Organisation |  |
| Project Leader | ***Name and brief outline on vessel going experience.*** |
| Address |  |
| Phone |  |
| Email |  |
| Proposed Project ObjectivesDescribe the outcome to be achieved and why these are required/relevant to NZ’s Antarctic/Southern Ocean Strategic Directions | ***Please bullet point the following:**** ***Overall voyage science objective(s)***
* ***Strategic rationale***
 |
| Vessel requirements  | ***Note: this will be a collaborative voyage so please identify logistical requirements on the vessel to undertake the proposed project (e.g., personnel, vessel sampling time, deck space, laboratories, winches etc). Identify if these can be run in parallel with any other activity.*** |
| Proposed Project Methodology  |  |
| Consents, Permits and PermissionsIdentify any anticipated specific consents for the proposed project. |  |
| International collaboration and supportDescribe any international collaboration associated with the science and/or voyage, including in kind/funding support.  |  |
| FundingProvide estimate of funds available to support the project. |  |