

COMNAP RINGS Collaboration Project

COMNAP Project Proposal Template. V1 (Oct 2008)



COMNAP - The Council of Managers of National Antarctic Programs

PROJECT PROPOSAL

PROJECT DETAILS

Project Title	COMNAP RINGS Collaboration		
Project Manager	John Guldahl		
Chair or Vice Chair Oversight	TBD		
Start Date	November 2023	End Date	2026

Project Objectives

RINGS is a collaborative effort to better understand coastal regions of the Antarctic Ice Sheet primarily using airborne geophysics. RINGS began as a SCAR Action Group in 2021 and SCAR has confirmed its support through 2026, with provision for extension. The objective of the SCAR RINGS Action Group is to facilitate coordinating regional survey efforts and relevant research programs so that the current knowledge gaps at the ice-sheet margin are filled to better understand current and future Antarctic contributions to the sea-level rise. See <https://www.scar.org/science/rings/home/>.

Current data availability in the coastal regions is largely constrained by logistics capability. RINGS objectives can only be enabled through COMNAP Member national Antarctic programs. After consideration, the COMNAP AGM 2023 supported “RINGS synergies” through development of a COMNAP project, here referred to as COMNAP RINGS. Since the AGM, there have been discussions with SCAR EXCOM members on collaboration on the project and they are supportive of the collaboration.

From a COMNAP perspective, the objective of the project is to establish a network within COMNAP or utilise the already well-established regional groups to provide logistics knowledge for efficient survey planning, and eventually communicate and better coordinate regional logistic support of RINGS. As most RINGS events are being carried out by region, COMNAP RINGS will utilize the already well-established COMNAP regional groups as communication networks for planning and implementation, thereby making best available use of offered/available national Antarctic program assets, contributing national Antarctic program expertise, and sharing lessons learned to ensure success in the initiatives led by national Antarctic programs.

Strategic Fit

The IPCC identified future sea level rise as a critical consequence of changes in Antarctic ice with the Antarctic coastal zone determining Antarctica’s ice future over the coming centuries. Yet, there is much uncertainty and critical knowledge gaps related to the Antarctic coastal zone. The SCAR Horizon Scan (Kennicutt et al., 2015, DOI: 10.1017/S0954102014000674) listed 11 questions directly related to the ice-sheet and sea-level rise. The COMNAP Antarctic Roadmap Challenges (ARC, 2016) noted in regard to the ice-sheet and sea-ice that access to the coastal regions, more detailed geophysical imaging and mapping of the ice-sheet and wider availability of deployed airborne sensors are critical requirements to fill knowledge gaps. The RINGS goals are therefore aligned to these ARC-identified strategic access, infrastructure and logistics requirements for the Horizon Scan identified critical science. RINGS implementation will require coordinated and sustained effort from COMNAP Member national Antarctic programs and many national Antarctic program scientists are participants in the SCAR RINGS Action Group.

The first regional RINGS survey will take place in 2023/24 in Dronning Maud Land and Enderby Land

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(DML/EL RINGS). At COMNAP AGM 35 (2023) it was agreed that, through COMNAP we would enhance the conversations to better collaborate on RINGS, would communicate and enhance synergies in order to support the implementation of RINGS and contribute to its success. RINGS relies on national Antarctic program assets and expertise to enable the science support it requires to gather this initial data. Lessons learned will be applied through COMNAP to other regions of the Antarctic and future RINGS missions. This is a direct fit within the COMNAP Science Facilitation Expert Group.

A working paper on DML/EL RINGS was submitted to ATCM45 in June this year by 10 nations and SCAR, which proposed (1) to take note of its importance, (2) make appropriate efforts to enable regional surveys, and supplemental ground-based and vessel-based work in an internationally coordinated manner, and (3) to support and contribute to the DML/EL RINGS as appropriate. This paper was supported by the ATCM. The RINGS Action Group organized a workshop in Trieste, Italy, in September 2023 associated with the SCAR INSTANT conference to plan surveys in East Antarctica and discussion for West Antarctica during the annual West Antarctic Ice Sheet Workshop later in the year. A similar workshop is being considered for RINGS Peninsula during the SCAR OSC in Chile 2024 or on the margins of COMNAP AGM 2024 in Argentina.

Project Outputs and Outcomes

In collaborating on RINGS, COMNAP and SCAR again demonstrate the importance of the science/science support nexus in order to deliver outcomes related to the SCAR Horizon Scan questions and to address access, infrastructure and technology needs as identified in the COMNAP ARC.

SCAR RINGS Action Group found that key data for sea-level projections are severely limited with much of the data collected being very close to Antarctic research stations and not much further beyond. RINGS seeks to address this limitation.

Project outcomes will include those also required by SCAR from the RINGS Action Group and will lead to the publication of geographical information and a map showing completed and planned surveys, reporting annual achievements to COMNAP and exchange of information as the project advances on the COMNAP project website.

Project Timeframe

Initially through 2026 reviewed as necessary based on the lessons learned from Regional RINGS implementation and past-season activity.

Resource requirements

COMNAP RINGS will require administrative support from the Secretariat and through arrangements at AGMs, and possibly intercessionally (between AGMs). There is no financial support required. Participants will be supported by their national Antarctic program. Resource requirements can be reviewed as required.

In Scope

Enabling communications, networking especially regionally within COMNAP and COMNAP Member national Antarctic programs.

Ensure COMNAP and COMNAP Member national Antarctic programs are recognised for their contributions to RINGS. (Logo use).

Actively delivering messaging to social media, to the COMNAP Membership and to the ATCMs, in a well-coordinated manner with SCAR and RINGS Action Group.

Out of Scope

Developing the science strategy.
Requiring national Antarctic programs to participate.

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Stakeholders			
Active – Involved in the project	Project contributors that may influence the project outcomes	May be positively or negatively affected by the outcome of the project	
<p>AAD, AWI, BAS, PRIC and NPI, have already expressed an interest to be involved. All NAPs through their nominated representatives are invited to join the COMNAP RINGS project.</p>	<p>SCAR Action Group members and especially RINGS Chair (Kenny Matsuoka); SCAR EXCOM especially the SCAR Vice President for Science; The COMNAP EXCOM, especially the COMNAP Chair who is also the EXCOM Officer with oversight of the Science Facilitation Expert Group.</p>	<p>Positive: Fill knowledge gaps identified by IPCC, SCAR and COMNAP. Negative: National Antarctic programs that cannot commit assets or resources to RINGS may feel unable to participate on the COMNAP RINGS collaboration. We should strive to be inclusive.</p>	
Related Projects or other comments			
<p>COMNAP would like to see the COMNAP logo utilized on RINGS outreach in addition to the logos of those national Antarctic programs actively involved in the RINGS Action Group.</p>			
ENDORSEMENT / SUPPORT / APPROVAL			
PROJECT MANAGER ENDORSEMENT			
Project Manager		Signature	Date
SPONSOR SUPPORT / APPROVAL			
<p><i>Support / Approval Comments?</i></p>			
COMNAP Chair or Vice Chair	Name	Signature	Date