



Situating ARCSAR within International Arctic Fora

The Arctic and North Atlantic Security and Emergency Preparedness Network (ARCSAR) commenced project operations in 2018 with the express purpose of supporting practitioners involved in security and emergency response operations in the ANA region. By bringing together first responders, researchers, industry, and those involved in governance and policymaking, ARCSAR's mission is to establish international best practices and innovation platforms for security and emergency response institutions in the Arctic and North Atlantic. This project, which is funded through the EU Framework Programme for Research and Innovation Horizon2020, is working to develop solutions to threats stemming from increased commercial activity in the region, including traffic through the Northern passages, cruise traffic, and offshore oil and gas activity.

ARCSAR's work thus far has been prolific, and we are gaining momentum towards our directives and goals. Our mission is to contribute in a unique way to the existing efforts in the region, while ensuring a wide variety of viewpoints, experiences and perspectives are brought to bear on issues of Arctic and North Atlantic safety and security. However, there are a number of other international organizations that operate with similar targets and goals, and the purpose of this paper is to highlight overlapping priorities and missions, while identifying the unique strengths of the ARCSAR network.

More specifically, this paper will outline how ARCSAR's work closely aligns with the EU Commission, the Arctic Council, including two of the Council's six working groups EPPR and PAME, and the Arctic Coast Guard Forum.



EU Commission’s Arctic Policy

In April 2016, the European Commission outlined a series of Arctic Policy Goals, with a view towards advancing an integrated European Union Arctic Policy agenda. ARCSAR’s work aligns well with four of the policy goals outlined in the Joint Communication to the European Parliament and the Council (April 2016).¹

EU Commission Arctic Policy Overlapping Goals

2.1 Facilitating the translation of research findings into the development of commercially viable cold-climate technologies and services	2.4 Assessing the critical gaps in maritime navigation and communication capabilities	2.5 Enhancing the safety of navigation in the Arctic through innovative technologies and the development of tools to monitor increasing maritime activities in the Arctic	3.0 Increasing international cooperation on Arctic issues, highlighting the importance of constructive cooperation, where complex issues are addressed through negotiated solutions, and where common platforms can be established in response to emerging risks
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ARCSAR’s Innovation Arena is an example of an intervention which manifests the Commission’s Arctic Policy goals. This social idea management platform was created to support the improvement of Arctic and North Atlantic search and rescue, and oil spill response capabilities. At present, there are 81 challenges being developed in the Innovation Arena pertaining to 8 different content areas: Communication; Lifesaving Appliances and Cold Survival Issues; Navigation and Voyage Planning; Personnel, Training and Education; Pollution; and Vessel Structure and Equipment. Our international network consortium of practitioners, operators and academics are actively collaborating in the ARCSAR Innovation Arena to craft solutions to safety and security gaps and deficiencies, with an eye towards commercial viability. ARCSAR’s work involving research, science and innovation in the areas of sustainable development in and around the Arctic, and international cooperation on Arctic issues, align well with the EU’s Policy agenda.



The Arctic Council

The Arctic Council is a high-level forum that promotes cooperation, coordination, and interaction among the Arctic States, Arctic indigenous communities and other Arctic inhabitants. In general, the Council focuses its work on matters related to the environment, sustainable development, and scientific cooperation through six standing Working Groups with input from expert groups and ad-hoc task forces.² Of these working groups, two in particular have similar missions to ARCSAR, Emergency Prevention Preparedness and Response (EPPR), and Protection of the Arctic Marine Environment (PAME).

In 2016, the Arctic Council outlined four primary goals pertaining to maritime activities in their Arctic Marine Strategic Plan (AMSP; 2015-2025). These goals include: improving knowledge, and promoting safe and sustainable use of the Arctic marine environment (**Goals 1 and 3**), and strengthening the capacity to adapt to changes on the part of Arctic inhabitants (**Goal 4**).³ Translating these goals into actionable steps, the AMSP also proposed a number of strategic actions, 13 of which have a high degree of overlap with the goals and mission of ARCSAR.

Arctic Council's Arctic Marine Strategic Plan Overlapping Goals

7.1.1	Strengthen scientific cooperation and joint monitoring among the Arctic states, and with other states, organizations and stakeholders involved in Arctic research or traditional and local knowledge, with a focus on prioritizing research issues, filling knowledge gaps, and developing mechanisms to share and exchange observational data.			
7.1.2	Improve, synthesize, and respond to emerging knowledge across all disciplines and sectors to include government, academic and industry information, and traditional and local knowledge.			
7.1.5	Enhance local involvement in the collection of information and monitoring of the marine environment including by using traditional and local knowledge.			
7.1.7	Continue the development and standardizing of data sharing and management at a circumpolar level.			
7.1.8	Improve awareness of Arctic shipping activity and its impacts, promote expanded information sharing of ship traffic data among Arctic states and, as appropriate, other stakeholders, and update selected parts of the 2009 Arctic Marine Shipping Assessment (AMSA) Report, including those pertaining to the volume, composition and destination of Arctic shipping, shipping			
		7.1.9	Strengthen, where feasible, the collection, observation, monitoring and dissemination of relevant data on the Arctic marine environment. This could include hydrographic and bathymetric data; oceanographic data (including tides and currents) and meteorological information for numerical modeling and forecasting.	
		7.1.10	Strengthen the development of circumpolar procedures for, and improve remote sensing capabilities to support, ice detection, monitoring, and forecasting and improve the provision of near-shore and offshore ice information (current and forecast conditions).	
		7.3.2	Improve the understanding of risks and risk reducing measures related to Arctic shipping and oil and gas exploration and development activities, including gap analysis and sharing of best practices related to oil spill prevention, preparedness and response to emergencies in the Arctic.	
		7.3.3	Explore whether there are substances in addition to oil that would benefit from additional pollution preparedness and response cooperation among the Arctic states.	
		7.3.4	Support the research, development, and implementation of oil spill detection, mitigation measures, and response technologies in ice-covered and ice-infested waters.	
		7.3.11	Promote cooperation to improve and expand a) hydrographic and bathymetric data collection and b) Safety of Navigation services and products (including nautical chart and publication production) to support safe and efficient marine shipping in the Arctic.	
		7.4.1	Improve meaningful engagement of Arctic indigenous peoples and other Arctic inhabitants in relevant decisions, including through the consideration and use of traditional and local knowledge (TLK) in avoiding or mitigating negative environmental, subsistence, and cultural impacts, as well as in maintaining or increasing well-being and socioeconomic opportunities.	
		7.4.2	Facilitate coastal community exchanges between Arctic states to improve sharing of knowledge and experiences and to strengthen the dialog with relevant business and industry in the Arctic in order to foster the conservation and sustainable use of the Arctic marine environment.	

ARCSAR’s project work, development goals and network activities, exemplify different components of these 13 action steps, and therefore advance the objectives set forth by the Arctic Council. In particular, our network demonstrates a successful application of action 7.4.2, by facilitating exchanges that improve sharing of knowledge and experience with relevant business and industry. The industry operators and organizations which are part of the ARCSAR network, contribute critical knowledge and experience, additional available resources, and ensure greater cooperation in future endeavors. Examples of deliverables which result from bringing safety responders and industry representatives together include an instructional video we produced on how to behave under helicopter medevac to be used on board expedition cruise ships, and an online computer based On Site Coordinator course to be used by cruise ships in training their crew to respond to ANA specific conditions. ARCSAR’s network is making important contributions, by bringing all perspectives to the table, and crafting solutions that ensure safe, responsible development in the ANA region.

Emergency Prevention Preparedness and Response (EPPR)

The goals of the EPPR, as a working group of the Arctic Council, also closely align with the mission of the ARCSAR network.

The EPPR is mandated to contribute to the prevention, preparedness and response to environmental and other emergencies, accidents, and Search and Rescue. While not an operational response organization, members of the Working Group conduct projects to address gaps, prepare strategies, share information, collect data, and collaborate with relevant partners on capabilities and research needs that exist in the Arctic.⁴

The EPPR also explicitly recognizes a shared responsibility for Arctic safety, search and rescue, and environmental preservation with industry, and encourages working together to examine emerging trends, research and best practices.

EPPR’s Objectives which Overlap with ARCSAR’s Mission

<p>1 Defining the risk potential for emergencies due to commercial activities in the Arctic</p>	<p>2 Improving prevention measures aimed at reducing accidents which could result in environmental emergencies in the Arctic</p>	<p>3 Improving emergency preparedness and response programs at local, national, regional and international levels, including arrangements for mutual assistance, to ensure they are commensurate with the level of risk that exists</p>	<p>4 [Increasing] information sharing</p>
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Additionally, the EPPR has developed two expert working groups to focus more specifically on the 2011 Arctic Council member agreements pertaining to Search and Rescue (SAR) and Environmental Response (MOSPA). Both the SAR EG⁵ and the Marine and Environmental Response EGs⁶ are tasked with analyzing exercises and live incidents in order to identify lessons learned, enhance cooperation and highlight best practices in emergency response preparedness.



ARCSAR is currently working alongside EPPR to identify the feasibility of an Arctic North Atlantic Lessons Learned Arena, which would facilitate sharing best practices and lessons identified from exercises and incidents. Included in this Arena would be lessons learned from ARCSAR's own yearly Joint SAR and Oil Spill Response exercises, which provide the opportunity to participate in, and learn from, staged tabletop exercises.

Our Innovation Arena also provides a venue to work on defining risk and improving prevention measures related to search and rescue, and oil spill response capabilities in the ANA region. Our Intranet site allows network members to interact with a wide variety of participants from various backgrounds (i.e., SAR & OSP practitioners, authorities, SME's, academics, scientists, governments, and indigenous community representatives). Finally, our workshops engage our network participants to identify first-hand, on-the-ground observations of important gaps in existing preparedness and safety protocols. These activities resulted in the preparation of a Mapping of Knowledge and Innovation Needs, which is guiding our next steps as we continue to identify risks and craft interventions which will improve emergency response capabilities in the region.

There is clearly much that can be accomplished from the coinciding interests represented in our network, and from the cooperative relationships being built between different Arctic and North Atlantic stakeholders, working together towards the common goal of safe, sustainable ANA maritime operations.

Protection of the Arctic Marine Environment (PAME)

Another Arctic Council working group with overlapping interests with both EPPR and ARCSAR is the Protection of the Arctic Marine Environment Group (PAME). In particular, ARCSAR's work largely aligns with three of PAME's ongoing projects: the Arctic Shipping Best Practice Forum, Arctic Shipping Status Reports and the Arctic Marine Tourism Project, all of which are discussed briefly below.

- ***The Arctic Shipping Best Practice Information Forum**, which seeks to facilitate the exchange of information among Arctic stakeholders to promote effective compliance with the IMO's Polar Code. These stakeholders include ship owners and operators, Flag, Port and Coastal States, classification societies, marine insurers, financial institutions funding Arctic activity, and indigenous and local communities.⁷*
- ***The Arctic Shipping Status Reports** project uses the Arctic Ship Traffic Database (ATSD) to quantify levels of Arctic shipping, including number, type, size, and flag of ships sailing in the Arctic. Additional points of information include shipping routes, distances traveled, aggregate air emissions, fuel types, and traffic destinations in the Arctic.⁸ Using these data, illustrative fact sheets are created for use by Arctic stakeholders.*
- ***The Arctic Marine Tourism Project (AMTP)** aims to develop voluntary practices that support and guide sustainable and responsible Arctic marine tourism. AMTP supports further exploration of the potential benefits of sustainable Arctic marine tourism while being mindful that these benefits are best realized through active and collaborative engagement among coastal communities, government agencies, industry, academia, and other stakeholders.⁹*

In parallel, ARCSAR also works to develop best practices pertaining to search and rescue, and environmental protection stemming from increases in ship traffic in the Arctic and North Atlantic. Our workshops have explored the capability gaps that exist between the ideals of the Polar Code and existing resources, for example with regard to lifesaving appliance and cold survival, navigation and voyage planning, technology needs, and cold climate oil spill technology, just to name a few. Examples of topics currently being worked on in ARCSAR's Innovation Arena include "Meeting Polar Code Requirements", and "Development of a user-friendly 'Arctic Tool Box' for oil spill management". Finally, as mentioned earlier, our network is also unique in that it brings together members representing a variety of Arctic interests. One of our strengths is in the close working relationships shared by our network members, which include representatives of Arctic tourism organizations (e.g., AECO) and first responders, all of whom meet yearly to stage Joint exercises that increase situational awareness and information sharing.

Arctic Coast Guard Forum (ACGF)

The Arctic Coast Guard Forum is an operations based organization which seeks to foster safe, secure, and environmentally responsible maritime activity in the Arctic. The ACGF is constituted of representatives from all Arctic countries (e.g., Canada, Denmark, Finland, Iceland, Norway, Russia, Sweden and the United States). While some directives and objectives may receive greater attention depending on which country currently occupies the position of Chair (a position which rotates every two years in concert with the Arctic Council), there are 10 primary objectives which consistently guide all work of the Forum. Most of these objectives have some degree of overlap with the mission and goals of ARCSAR, however four particularly correspond to our mission.

ACGF Objectives which Overlap with the Mission of ARCSAR¹⁰

1 Strengthening multilateral cooperation and coordination within the Arctic maritime domain	2 Facilitating safe and secure maritime activity in the Arctic region	3 Building a common operational picture to ensure proper protocols for emergency response coordination and safe navigation	4 Supporting high standards of operations and sustainable activities in the Arctic through the sharing of information, including best practices and technological solutions to address threats and risks
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Like the ACGF, ARCSAR's primary mission is to facilitate safe and secure maritime activity in the Arctic North Atlantic region, through the cultivation of strong international relationships focused on ensuring the highest standards of operations. We are building opportunities for information sharing, and focus on the development of best practices that fill in existing safety gaps. Our Joint SAR exercises and our networking activities build shared mental models of operations protocols which aid in emergency response coordination. Once again, our unique strength comes from the inclusion of a variety of different viewpoints and perspectives that are represented in Arctic and North Atlantic maritime activities, all of which ensure more comprehensive response protocols.

In Conclusion

As is evident from the discussions above, ARCSAR is contributing to the advancement of important international goals and directives. Our current work coincides with many of the objectives that have been put forth by leading Arctic international fora, and we will continue advance important initiatives aimed at increasing safe and secure Arctic and North Atlantic maritime activities. Our planned next steps will continue to build upon our achievements, while prioritizing target areas for improvement. We are working towards developing innovative solutions for crisis management, and evaluating successful case studies and standardizing technological advancements for emergency preparedness in the region. Working together with a wide variety of stakeholders, the ARCSAR network will continue to advance our shared goals while continuing to capitalize on our unique strengths.



Endnotes

¹ High Representative and the European Commission, 2016. Joint Communication to the European Parliament and the Council on an Integrated European Union Policy for the Arctic. JOIN (2016) 21 Final.

² <https://www.pame.is/document-library/amsp-documents/174-amsp-2015-2025/file>

³ <https://www.pame.is/document-library/amsp-documents/174-amsp-2015-2025/file>

⁴ EPPR Strategic Plan. https://oaarchive.arctic-council.org/bitstream/handle/11374/2108/EDOCS-3877-v1-2016_03_16_EPPR_Strategic_Plan_Final.pdf?sequence=1&isAllowed=y

⁵ <https://www.eppr.org/sar>

⁶ <https://www.eppr.org/mer/>

⁷ https://www.pame.is/images/03_Projects/Forum/Docs/Forum_ToR-final_agreed_version_20_Sep_2017.pdf

⁸ <https://www.pame.is/shortcode/pame-work-plan/445-pame-work-plan-2019-2021/file>

⁹ *Ibid*

¹⁰ <https://www.arcticcoastguardforum.com/about-acgf>