

NAMRO – Arctic and North Atlantic Mass Rescue Operation Guidelines

Interreg Northern Periphery and Arctic Programme (NPA)

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MRO guidelines

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ARCTIC AND NORTH ATLANTIC MASS RESCUE OPERATION GUIDELINES

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1. Introduction

The Arctic and North Atlantic regions are established destinations for expedition cruise operations and are also crossed by several polar air traffic corridors used by large commercial aircraft. Over the past decade, passenger vessel traffic in these areas has increased both in volume and vessel size, with operations extending further into remote and sparsely serviced locations. Taken together, these developments increase the potential for incidents involving large numbers of persons in distress at sea, where search and rescue (SAR) authorities may be required to manage situations that exceed routinely available resources.

Incidents of this nature are commonly referred to as Mass Rescue Operations (MROs). The International Maritime Organization (IMO) defines an MRO at sea as a SAR operation “characterized by a need for immediate response to a large number of persons in distress such that capabilities normally available to SAR authorities are inadequate” in the International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual, Volume 1 published in 2022. MROs involve not only the recovery of persons in distress, but also their transfer to a place of safety, understood as a location where survivors’ lives are no longer at risk and where their basic human needs can be met as specified in the IAMSAR manual.

MROs are generally considered low-probability, high-consequence events. The likelihood of occurrence is relatively low due to the safety standards and redundancy measures applied to modern passenger vessels and aircraft. At the same time, the potential consequences in terms of loss of life are significant. Because these events occur infrequently, SAR authorities and other responders may have limited operational experience, training, or established procedures specifically tailored to MROs. This underscores the importance of advance planning, common understanding, and preparedness measures developed prior to any incident to mitigate loss of life.

The primary responsibility for coordinating an MRO rests with the Rescue Coordination Centre (RCC) responsible for the SRR in which the incident occurs. However, by their nature, MROs often necessitate the timely mobilisation and coordination of resources from other regions and States. Effective management therefore depends on established arrangements for

international cooperation, shared situational awareness, and clarity regarding available capabilities and support mechanisms.

Against this background, the North Atlantic Mass Rescue Operation (NAMRO) Guidelines are intended to support RCCs and other SAR authorities in preparedness and planning for MROs, with particular emphasis on the coordination of international assistance across the Arctic and North Atlantic region. The aim and scope of the Guidelines are set out below.



Figure 1 Search and Rescue Regions (SRRs) in the Arctic and North Atlantic

1.1 Intention of the Guidelines

The aim of the North Atlantic Mass Rescue Operation (NAMRO) Guidelines (the Guidelines) is to establish common principles to support a harmonised approach to preparedness for maritime search and rescue operations involving the rescue of large numbers of persons in

distress. Particular emphasis is placed on arrangements for requesting, providing, and coordinating international assistance.

The Guidelines are intended to support SAR authorities in identifying potential resource requirements, improving awareness of available rescue resources across the region, and clarifying relevant request and response procedures. They also promote the use of common terminology, enhance consistency between States and organisations, and identify relevant stakeholders in order to facilitate effective coordination.

The Guidelines are primarily intended for use in contingency planning, education, and training. They are not designed to be used as an operational manual during an ongoing SAR operation, as decisions during a Mass Rescue Operation must be taken immediately by the responsible coordination authorities based on established procedures, training, and situational awareness. References to response-phase considerations are therefore included solely to inform preparedness activities, planning assumptions, and the development of procedures in advance of an incident.

The Guidelines do not replace existing international guidance, including the International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual or the International Maritime Rescue Federation's Mass Rescue Operations Guidance. They supplement these documents by providing region-specific information relevant to the Arctic and North Atlantic, particularly with regard to resource awareness and international assistance arrangements.

1.2 Intended Users of the Guidelines

The primary users of the Guidelines are SAR authorities and planners at the operational and organisational levels who are responsible for preparedness for, and coordination of, Mass Rescue Operations. This includes Rescue Coordination Centres (RCCs) and other national authorities with equivalent responsibilities.

The Guidelines may also be used by other public authorities, emergency services, and organisations that contribute resources or support functions during or following an MRO, as

well as by responding SAR units, including private and voluntary organisations. In addition, commercial operators such as cruise companies, ferry operators, and airlines may use the Guidelines to enhance their understanding of MRO-related challenges and to inform the development and alignment of their own contingency plans.

1.3 Contributors and funding

The NAMRO Guidelines build on earlier work conducted under the Arctic and North Atlantic Security and Emergency Preparedness Network (ARCSAR) project, funded through the European Union Horizon 2020 research and innovation programme, and address gaps identified through that work. The structure and format of the Guidelines were inspired by the Nordic Handbook for Search and Rescue in a Maritime Radiological or Nuclear Emergency (RNSARBOOK), funded by Nordic Nuclear Safety Research (NKS).

The Guidelines were developed with the objective of supplementing, and not conflicting with, international standards and guidance issued by the International Maritime Organization (IMO), the International Civil Aviation Organization (ICAO), and the International Maritime Rescue Federation (IMRF).

The NAMRO project was funded through the European Union Interreg Northern Periphery and Arctic programme, with contributions from all participating organisations, and was conducted over an 18-month period from 2024 to 2026. The project was coordinated by the Norwegian Search and Rescue Agency, with partner contributions from the Icelandic Coast Guard and Munster Technological University (Ireland), and associated partner contributions from Maritime Rescue Coordination Centre Tórshavn, the Association of Arctic Expedition Cruise Operators (AECO), and the United Kingdom's HM Coastguard.

2. Potential for Mass Rescue Incidents in the Arctic and North Atlantic Region

The Arctic and North Atlantic (ANA) region presents a distinct set of conditions that shape the risk, scale, and complexity of mass rescue incidents. Extensive maritime areas, long coastlines, large and sparsely populated regions, and demanding environmental conditions together create a context in which incidents involving large numbers of persons in distress may rapidly exceed routinely available search and rescue (SAR) capabilities. This chapter provides contextual background to illustrate why Mass Rescue Operations (MROs) in the ANA region represent a particularly demanding preparedness challenge and why a coordinated, international approach is required.

Human activity in the ANA region is diverse and increasing. Maritime traffic includes cruise vessels, ferries, merchant shipping, fishing fleets, offshore installations, and recreational craft, while the region is also crossed by major international air traffic corridors. Accidents or emergencies affecting these activities may result in large numbers of persons in distress at sea or in remote coastal and inland areas. While land-based mass rescue incidents fall outside the scope of these Guidelines, experience from major natural disasters demonstrates how quickly response systems can be overwhelmed. Within the ANA region, however, maritime and aviation incidents constitute the most probable scenarios requiring large-scale rescue efforts.

MROs in the ANA region are inherently complex and resource-intensive. Long distances to incident sites, limited supporting infrastructure, challenging meteorological and environmental conditions, and extended response times can significantly affect both survivability and the effectiveness of rescue operations. In many situations, the management of an incident will require the mobilisation and coordination of resources from outside the affected Search and Rescue Region (SRR), placing particular emphasis on preparedness for international cooperation.

2.1 Maritime Mass Rescue Operations in the Arctic and North Atlantic Region

Maritime incidents with the potential to escalate into MROs may occur throughout the ANA region, from heavily trafficked coastal waters to remote offshore and high-latitude areas. Environmental factors such as weather, sea state, ice conditions, darkness, and distance to rescue assets have a decisive influence on both survival prospects and response options. These factors may limit the speed and scale at which external assistance can be provided and place increased demands on coordination and planning.

Passenger vessels, and in particular cruise ships, are often highlighted in discussions of maritime MRO risk due to the large number of persons on board. Although such vessels are equipped with lifesaving appliances in accordance with international requirements, a fundamental principle of maritime SAR is that the vessel itself may, under certain conditions, represent the safest place for survivors while immediate hazards are being mitigated. The ship's own preparedness, emergency management capability, and ability to maintain a safe environment during the initial phase of an incident are therefore critical, particularly when external assistance is delayed.

Other maritime scenarios with the potential to result in large-scale rescue operations include incidents involving ferries and other passenger vessels, offshore accidents, and situations where multiple vessels are affected simultaneously within the same geographical area or weather system. Together, these scenarios illustrate the range of maritime MRO risks present in the ANA region and underline the importance of preparedness, coordination, and adaptability.

2.2 Aviation related Mass Rescue Operations in the Arctic and North Atlantic Region

Search and rescue responsibilities in the ANA region are closely linked to the structure of air traffic services. Search and rescue regions largely correspond with Flight Information Regions (FIRs), within which Air Navigation Service Providers (ANSPs) play a key role in the early detection of aviation emergencies and the provision of alerting services to the relevant Rescue

Coordination Centres (RCCs). Timely and accurate alerting is therefore a critical factor in aviation-related MRO scenarios.

Aviation incidents may vary widely in scale and impact depending on aircraft type, the nature of the emergency, terrain, meteorological conditions, and the number of persons involved. High-energy impact accidents are often associated with severe consequences and place significant demands on SAR and supporting emergency services. In the ANA region, aviation-related rescue operations may be further complicated by remoteness, challenging terrain, adverse weather, and long distances to suitable landing sites or medical facilities.

2.3 Multiple and Concurrent Incidents

In certain situations, MROs may arise from multiple or concurrent incidents occurring within a limited geographical area, for example during severe weather systems affecting several vessels or aircraft at the same time. Such situations can place considerable strain on SAR resources, requiring RCCs to maintain situational awareness across wide areas while prioritising the allocation of limited air and sea assets. The potential for concurrent incidents further increases the complexity of preparedness and highlights the importance of coordination mechanisms and mutual support arrangements.

2.4 Incidents of Increased Complexity

In addition to the inherent challenges associated with maritime and aviation MROs, certain factors may significantly increase the overall complexity of major incidents in the ANA region. These factors may require enhanced coordination across organisational levels and areas of responsibility and may challenge established procedures. The Guidelines highlight three such variables: operations in Arctic areas characterised by long distances and limited infrastructure, incidents involving intentional acts, and events involving chemical, biological, radiological, nuclear, or explosive (CBRNE) hazards.

2.4.1 Arctic and the North Atlantic Area

Arctic areas within the ANA region are generally sparsely populated, but there is a continuous presence of people in transit or engaged in maritime, aviation, industrial, and community activities. Although catastrophic incidents in these environments are relatively infrequent, SAR services must maintain the capability to respond effectively as long as human activity continues. Of particular concern is the growth in cruise traffic in polar waters, which may involve large numbers of passengers operating far from established SAR infrastructure.

Operations in Arctic and sub-Arctic environments are affected by long distances, limited availability of resources, and harsh and rapidly changing weather conditions. Low temperatures, icing, extended periods of darkness, fog, and rapidly developing low-pressure systems can all increase risk and complicate response efforts. Communication challenges arising from limited satellite coverage and sparse ground-based infrastructure further add to the complexity of operations. While communication systems continue to develop, limitations persist, underscoring the need for preparedness, redundancy, and a high degree of self-reliance in remote areas.

2.4.2 Intentional Acts

Intentional acts, such as criminal activity, terrorism, or sabotage, may in certain circumstances escalate into catastrophic incidents requiring SAR involvement. In such cases, SAR operations are conducted in close coordination with law enforcement or other competent authorities. The presence of intentional acts may affect access, timing, and coordination arrangements and represents an additional complexity factor that must be considered in preparedness planning.

2.4.3 CBRNE

CBRNE incidents are rare but may have far-reaching consequences if they occur. Such events present particular challenges related to safety, access to specialised expertise, and the need for appropriate equipment and training. Potential sources include industrial accidents, incidents involving hazardous cargo or specialised vessels, and intentional acts. National arrangements for managing CBRNE incidents vary, and effective response relies on early identification of hazards and timely engagement with relevant expert authorities.

The Nordic Handbook for Search and Rescue in a Maritime Radiological and Nuclear Emergency, together with the Action Cards for Maritime RNSAR, is a Nordic cooperative initiative that provides operational guidance for the organisation of SAR operations in radiological and nuclear maritime incidents. The handbook presents structured operational procedures, while the action cards translate these procedures into practical decision-support tools intended to facilitate coordinated and effective response during such events.

3 Frameworks, Cooperation, and Principles

This chapter sets out the foundational elements that underpin effective search and rescue (SAR) services in the Arctic and North Atlantic, with particular emphasis on cooperation, shared principles, and the international legal and institutional frameworks within which SAR activities are conducted. These elements constitute the stable and enduring basis of the SAR system and apply irrespective of incident type, scale, or probability.

The chapter first presents the international legal, operational, and guidance framework governing SAR. This includes the conventions, regulations, and manuals that define State obligations, assign responsibilities, and provide practical guidance for SAR organisation and operations across both maritime and aeronautical domains. Together, these instruments establish the formal framework within which cooperation is exercised and principles are applied in practice.

The chapter then addresses cooperation and coordination as a fundamental prerequisite for SAR. Given the transboundary nature of maritime and aeronautical activities, and the geographic characteristics of the region, SAR operations frequently require close interaction between multiple States, Rescue Coordination Centres (RCCs), authorities, and supporting actors. Effective management of major and complex incidents depends on established mechanisms for coordination, information exchange, and mutual assistance across jurisdictions.

Finally, the chapter outlines common principles derived from internationally recognised guidelines and operational experience. These principles reflect best practice for managing large-scale emergencies and provide a shared reference for planning, leadership, coordination, and decision-making. They are particularly relevant in the Arctic and North Atlantic context, where environmental conditions, distances, and limited infrastructure place additional demands on preparedness and response.

3.1 International Legal, Operational and Guidance Framework for Search and Rescue

The international framework for search and rescue (SAR) is founded on a set of complementary legal instruments and guidance documents that together define States' obligations, establish responsibilities for vessels and aircraft, and provide the organisational and operational basis for national, regional, and global SAR cooperation across maritime and aeronautical domains.

The United Nations Convention on the Law of the Sea (UNCLOS, 1982) constitutes the overarching legal framework for activities at sea, regulating the use and management of maritime areas, including territorial waters, the continental shelf, and the high seas. UNCLOS establishes a fundamental duty to render assistance to persons in distress at sea and requires coastal States to promote the establishment, operation, and maintenance of adequate and effective SAR services. These obligations apply irrespective of circumstances and extend to situations of crisis and armed conflict. UNCLOS therefore provides the core public international law foundation for State responsibility in maritime SAR and reflects principles that are widely recognised as part of customary international law.

The International Convention for the Safety of Life at Sea (SOLAS, 1974) operationalises these general obligations through binding technical and operational requirements for shipping. SOLAS establishes standards for ship construction, equipment, and operational practices aimed at preventing accidents and improving survivability when incidents occur. Chapter V contains explicit provisions relating to assistance to persons in distress. Regulation 33 reinforces the master's obligation to render assistance, while Regulation 7.3 requires passenger ships to maintain plans for cooperation with SAR services. This latter requirement is of particular relevance for Mass Rescue Operations (MROs), as it directly links shipboard emergency preparedness to the wider SAR system. SOLAS thus constitutes a central technical and operational pillar of maritime SAR preparedness and response.

The International Convention on Maritime Search and Rescue (SAR Convention, 1979) establishes the global framework for organising and coordinating maritime SAR activities. It

provides for the division of the world's oceans into Search and Rescue Regions (SRRs) and requires States to establish and operate Rescue Coordination Centres (RCCs). The Convention sets out principles for organisation, coordination, and information exchange between States in maritime emergency situations. The 2004 amendments are of particular importance in an MRO context, as they clarify that the State responsible for the SRR in which survivors are recovered bears responsibility for ensuring that a place of safety is provided for disembarkation. These provisions enhance predictability, legal clarity, and cooperation during large-scale rescue operations.

International civil aviation SAR is governed by the Convention on International Civil Aviation (Chicago Convention, 1944). The Convention is supported by a series of annexes that establish technical and operational standards for aviation safety. Annex 12 addresses search and rescue and sets requirements for the organisation, operation, and maintenance of SAR services in the aeronautical domain. It obliges States to establish and operate rescue coordination centres, ensure adequate response capacity, and coordinate with other States to provide effective assistance both within national airspace and in international airspace and waters. These provisions ensure interoperability and continuity between maritime and aeronautical SAR services.

The technical foundations for global distress alerting and communications are provided by the Constitution and Convention of the International Telecommunication Union (ITU). The ITU framework governs the international use of radio frequencies and satellite orbits and ensures that distress and safety communications are prioritised and protected from harmful interference. States are required to manage false distress alerts and ensure that both civil and military systems comply with principles of interference control. This framework underpins international alerting systems such as COSPAS-SARSAT, the Global Maritime Distress and Safety System (GMDSS), and aviation emergency communication systems, and is essential to the ability of RCCs to receive, process, and manage distress signals reliably.

Operational and procedural guidance for the implementation of these legal obligations is primarily provided through the International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual, jointly published by the International Maritime Organization (IMO) and the

International Civil Aviation Organization (ICAO). IAMSAR constitutes the internationally recognised reference for SAR organisation, coordination, and execution. Volume II (Mission Coordination) contains specific guidance on the management of complex and large-scale incidents, including Mass Rescue Operations, while Volume III (Mobile Facilities) sets out procedures and requirements applicable to SAR units and is required to be carried on board all merchant ships. Updates to IAMSAR, including enhanced guidance on night search operations and SAR related to offshore installations, entered into force on 1 January 2026.

Additional IMO instruments supplement the IAMSAR framework. MSC/Circ.1186 provides guidance on training requirements for SAR personnel involved in major incidents, recognising the specialised competencies required for MRO management. MSC/Circ.1183 addresses the use of external support, acknowledging that SAR authorities may need to draw upon commercial shipping, military assets, and non-governmental resources during large-scale operations. Humanitarian considerations are addressed through IMO Resolution MSC.167(78), which sets out the Guidelines on the Treatment of Persons Rescued at Sea and establishes that survivors must be treated humanely and delivered to a place of safety without discrimination.

Taken together, UNCLOS, SOLAS, the SAR Convention, the Chicago Convention, the ITU framework, IAMSAR, and associated IMO instruments constitute a coherent and comprehensive legal, technical, and operational framework for search and rescue. For Rescue Coordination Centres, this framework defines both the legal foundation and the practical context for preparedness, coordination, and response across maritime and aeronautical domains, including during complex and largescale Mass Rescue Operations.

3.2 International Cooperation and Coordination in Search and Rescue

For Rescue Coordination Centres (RCCs), international cooperation is a core operational requirement rather than an exception. Many search and rescue regions are contiguous or overlap in areas where incidents may quickly acquire a cross-border dimension. As a result, RCCs maintain continuous operational links with neighbouring coordination centres and other

relevant authorities. These arrangements enable the management of incidents that span jurisdictions, support time-critical decision-making, and allow resources to be deployed flexibly beyond national responsibility lines when circumstances require it. Regional and international cooperation mechanisms are therefore an integral part of the SAR system and are reinforced through global and regional legal frameworks, including the SAR Convention, UNCLOS, and relevant regional SAR agreements. In practice, areas of coordination responsibility may be adjusted temporarily during major incidents, capacity limitations, or where geographic or environmental conditions necessitate such arrangements.

The SAR Convention establishes clear expectations regarding coordination between States. Article 3.1 provides that States should cooperate with neighbouring States in the conduct of search and rescue operations when required. This is further elaborated in Articles 3.1.7 and 3.1.8, which emphasise mutual assistance, operational cooperation, and the development of agreements and procedures that enhance the overall effectiveness of SAR services. These provisions reflect the understanding that no single State or RCC can maintain all necessary capabilities at all times, and that cooperation is essential to address large-scale or complex incidents.

The cooperative framework established under the SAR Convention is complemented by provisions of UNCLOS, including the right of innocent passage set out in Article 17. When read together with Article 3.1.2 of the SAR Convention, States are encouraged to allow prompt access for foreign rescue units where this is necessary to locate casualties and render assistance to persons in distress. While such access is not framed as an absolute obligation, UNCLOS permits passage in accordance with Article 18, paragraph 2, and such practices are widely recognised as part of customary international law, particularly in situations involving emergencies or the provision of humanitarian assistance to persons, vessels, or aircraft in distress.

Effective search and rescue (SAR) services are fundamentally dependent on cooperation. SAR is not carried out by a single authority, but through an integrated, cross-sectoral system in which multiple public authorities, private actors, and supporting organisations contribute in accordance with their respective mandates. The efficient and timely use of available resources

relies on established arrangements for coordination, information exchange, and mutual assistance, both within individual States and across national boundaries.

3.3 Common principles for large scale incidents

The common principles outlined in this section are derived from internationally recognised guidelines and established best practice for the management of large-scale emergencies. In particular, they reflect principles set out by the International Maritime Organization (IMO), the International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual, and comparable international and regional preparedness frameworks. Together, these sources provide a shared and widely accepted foundation for planning, coordination, and decision-making during catastrophic incidents in the Arctic and North Atlantic.

Mass Rescue incidents in the Arctic and North Atlantic place significant demands on search and rescue (SAR) services and the wider emergency preparedness system. Challenges typically arise across multiple dimensions, including leadership, organisational structures, resource availability, transport capacity, communications, and public information management. In many cases, the capacity of medical services, both at the incident site and within receiving healthcare systems, will be a decisive factor in determining the ability to save lives. Experience from major maritime and natural hazard events in the region demonstrates that effective incident management depends on strong baseline preparedness and the ability to mobilise public, private, commercial, and voluntary actors across large distances and multiple jurisdictions.

Operational conditions in the Arctic and North Atlantic differ markedly from those in more populated and temperate regions. Vast distances, limited infrastructure, severe weather, low temperatures, sea ice, seasonal darkness, and rapidly changing environmental conditions affect both the execution of SAR operations and the safety of responding personnel. These factors must be considered in all phases of preparedness and response.

Many response assets operate with long transit times, under harsh environmental constraints, and with limited redundancy. Effective information sharing, early establishment of situational awareness, and close coordination across agencies and States are therefore critical. At regional, national, and local levels, emergency managers may activate crisis leadership and coordination structures to support statutory responsibilities, while medical and support services often reinforce staffing and capacity to manage an anticipated surge in casualties.

Evaluations of major incidents consistently show that successful outcomes depend on well-established cooperation between maritime, aeronautical, land-based, and health-sector responders. Such cooperation is typically developed over time through routine SAR operations, joint missions, and exercises, and forms the foundation for effective planning, communication, coordination, and leadership during catastrophic events.

During major incidents in the region, SAR coordination is usually escalated rapidly across tactical, operational, and strategic levels. Shared situational understanding is established at an early stage, rescue activities are initiated, and arrangements for reception and triage of affected persons are prepared prior to onward transport to medical facilities or evacuation centres. Tactical elements—including maritime SAR units, aircraft, voluntary responders, governmental incident units, and local emergency services—reinforce the response throughout the entire chain until all affected persons are accounted for. Operational capacity is strengthened through the mobilisation of personnel to rescue coordination centres, emergency operations centres, and multi-agency crisis teams, while strategic leadership maintains oversight, sets priorities, and ensures alignment across national and regional structures. Co-location and cross-agency decision-making frequently enhance situational awareness and provide a robust basis for effective and timely action.

International SAR practice recognises three urgency phases: uncertainty, alert and distress.

The uncertainty phase indicates that the situation requires attention but does not justify immediate deployment of SAR units. The alert phase is used when persons may require assistance but are not yet believed to be in immediate danger. The distress phase is used when

persons are, or are believed to be, in imminent danger and require immediate rescue. These classifications support prioritisation and structured escalation.

4 Preparedness for Mass Rescue Operations

This chapter addresses preparedness for Mass Rescue Operations (MROs), with particular focus on the arrangements that must be established in advance to enable an effective response when an incident occurs. Preparedness and response are closely linked: preparedness defines the organisational, procedural, and capability foundations upon which response depends, while response performance is determined largely by the quality of preparation undertaken beforehand.

Preparedness for MROs requires a structured and systematic approach. Planning must be based on realistic assumptions regarding scale, complexity, access, communications, transport, and the availability and limitations of resources. Given the potential for rapid escalation and the involvement of multiple authorities and States, preparedness arrangements must be sufficiently robust to support coordination across organisational and national boundaries, while remaining adaptable to the specific circumstances of an incident.

Plans should define procedures for alerting and mobilisation, command and coordination structures, triage and evacuation arrangements, and the designation of landing sites and reception facilities. Effective communication and information management are essential throughout all phases, requiring robust systems for both operational coordination and external information dissemination.

The elements addressed in this chapter—risk assessment, planning, international coordination arrangements, resource awareness, and training and exercising—together provide the basis for enabling SAR authorities and partners to manage MROs in a coordinated and effective manner under time-critical conditions.

4.1 Risk Assessment and Planning for Mass Rescue Operations

The risk of a Mass Rescue Operation is generally characterised as low probability and high consequence. While such incidents occur infrequently, their potential impact necessitates a high level of preparedness. Risk assessment provides the analytical foundation for MRO

planning by enabling authorities to identify credible scenarios, assess potential consequences, and develop realistic planning assumptions for response and recovery.

Risk assessment for MROs should, as far as practicable, follow established national practices and methodologies used for the assessment of major emergencies within the relevant coastal State. This approach facilitates the identification of common consequences and enables existing emergency plans—such as pre-established mass-casualty arrangements at potential landing or reception points—to be integrated within the broader MRO planning framework. Additional guidance is provided in the IAMSAR Manual, Volume I, Chapter 6.3 and Appendix L, as well as in recognised national methodologies for societal risk analysis.

When developing a reasonable worst-case scenario, it is important to include intelligence on passenger vessel operations within the region, including vessel types, capacities, and operational patterns. This may include regular scheduled routes throughout the year, as well as seasonal operations during peak periods. Factors to be considered include vessel size and passenger capacity, geographical remoteness and navigational hazards, shipping density, historical incident data and identified high-risk areas, changes in operational patterns over time, and relevant local knowledge held by pilots, harbour authorities, and vessel operators.

Vessel traffic density analyses and routing heatmaps derived from Automatic Identification System (AIS) data are valuable tools for understanding where passenger vessels operate and for identifying areas of elevated risk or planning priority. Such analyses may also illustrate changes in traffic patterns over time and thereby support the identification of emerging risk areas. AIS-based information may be obtained through coastal State authorities or through open-source platforms, including regional maritime data services.¹

Risk assessments should be reviewed at regular intervals to ensure continued relevance and to reflect changes in operational patterns, technology, infrastructure, and environmental conditions. The appropriate review cycle will depend on the rate of change within the region but is typically conducted at intervals of approximately three to six years. The outcomes of

¹ see for example EMODnet Map Viewer, <https://emodnet.ec.europa.eu/geoviewer/#/>

these reviews should inform ongoing planning, mitigation measures, and preparedness activities related to MROs.

4.2 International Coordination and Request Procedures

In the context of an MRO, national SAR resources may be insufficient to meet operational demands, making international assistance a foreseeable planning requirement. Preparedness for international coordination therefore includes the establishment of relationships, agreements, procedures, and shared understanding that enable timely and effective cooperation between Rescue Coordination Centres (RCCs) and other authorities.

Preparedness arrangements should include predefined procedures for requesting and providing assistance, supported by agreed communication channels and information-exchange protocols. Clear and structured requests are essential to enable assisting RCCs to assess the situation and identify relevant capabilities. Planning assumptions should therefore address the information required to support such requests, including the nature and scale of the incident, the number of persons involved, prevailing conditions, and the types of assistance anticipated. The clarity and completeness of this initial communication will directly influence the speed and relevance of the response.

To facilitate this process, organizations should maintain predefined templates and protocols for information exchange. These should cover key operational details such as the type and location of the incident, the number of persons involved, prevailing conditions, and the nature of injuries or hazards. Additionally, the request should specify the types of assets or capabilities needed, the urgency of the support, and any logistical arrangements such as rendezvous points and communication channels.

Coordination between Rescue Coordination Centres (RCCs) should be supported by existing bilateral or multilateral agreements, including Memoranda of Understanding (MOUs), which outline procedures for mutual assistance. These agreements should be regularly reviewed and exercised to ensure operational readiness.

For practical implementation, a standardized request format is recommended. This format should be concise yet comprehensive, enabling the receiving RCC to quickly assess the situation and determine the most appropriate response. A detailed template for such requests is provided in chapter 5 of this manual.

By establishing clear procedures and maintaining readiness for international coordination, SAR organizations can significantly enhance their capacity to respond effectively to large-scale maritime emergencies.

International coordination arrangements are typically underpinned by bilateral or multilateral agreements, including memoranda of understanding. Such arrangements should be maintained, reviewed, and exercised regularly to ensure that procedures remain current and that coordination mechanisms function as intended.

4.3 Resources

Resources relevant to MROs in the Arctic and North Atlantic can broadly be divided into two categories: resources that form part of the established SAR system, and resources that are not routinely employed in SAR operations. For established SAR resources, organisational structures, competencies, equipment, and operating procedures are generally known, although availability and response times may vary significantly across the region.

In large-scale incidents, it must be anticipated that resources outside the established SAR system may need to be incorporated into the response. Such resources may include commercial vessels, offshore assets, military capabilities, or specialised technical and medical support. Preparedness planning should therefore account for the need to integrate unfamiliar actors and capabilities in a controlled and coordinated manner.

Resource availability may change rapidly during an incident due to environmental conditions, endurance limitations, or competing demands. Long distances, prolonged operations, and challenging operating environments may further constrain effective capacity. These factors

reinforce the importance of advance awareness of potential capabilities beyond national resources.

To support preparedness, planning, training, and exercising, the NAMRO Guidelines introduce a Capability Matrix as a tool for enhancing shared understanding of resources that neighbouring RCCs may be able to contribute in support of an MRO. The matrix provides a high-level overview of indicative capabilities across States and is intended to support realistic planning assumptions, scenario development, and early consideration of potential assistance needs. It does not represent commitments, guarantees of availability, or tasking arrangements, and availability will always be assessed on a case-by-case basis.

Resource inventories and capability awareness tools, including the Capability Matrix, are therefore intended to support SMCs and RCC personnel before an incident occurs, by enabling informed preparation and by facilitating faster and more appropriate coordination when assistance is required.

		Faroes	Iceland	Norway	UK	Ireland	Notes
Search Planning	Environmental Data feeds outside own SRR	●	●	●	●	●	Support another coastal state with environmental data for purposes of search planning etc. RED- no; YELLOW- of a coarser quality; GREEN- of same quality
	Subject Matter Expertise eg search planning	●	●	●	●	●	Expertise that can support operations, such as SMC tactical advice, specialist knowledge and subject matter expertise for maritime and inland disaster response. RED- no; YELLOW- to some extent; GREEN- yes with no problems
	Rescue Asset Capabilities (provision of situational awareness)	●	●	●	●	●	Provision of advice and technical knowledge, situational awareness of various capabilities of vessels operating within a coastal state SRR (e.g. offshore support, dive support, tug availability etc.) RED- no; YELLOW- to some extent; GREEN- yes with no problems

	Forecasts / weather impacts						Support another coastal state with forecast weather from own met data providers and feeds in support of SAR operations and search planning; RED- no; YELLOW- of a coarser quality; GREEN- of same quality
SAR Assistance and on scene support	Fixed Wing search and locate						Long range search and locate, ACO capability, Visual, Infra-red and Radar search capability in support of SAR missions RED- NO; YELLOW- yes in SRR; Green theoretical deployment capability
	Fixed Wing survival equipment deployment						Aerial deployment from long-range fixed wing aircraft of life rafts and survival equipment such as beacons, aid packs and visual markers; RED- NO; YELLOW- yes in SRR; Green theoretical deployment capability
	UAV fixed wing search and locate						Use of fixed wing UAV assets to provide situational awareness, search and locate and / or radio comms relay in support of SAR operations
	UAV rotary wing search and locate						Use of short endurance rotary UAV assets to provide situational awareness, search and locate in support of SAR operations; RED- NO; YELLOW- commercial type not very relevant for int deployment; green_ relevant for int deployment
	Rotary Wing search and rescue (Light, Medium, Heavy helicopters)						Long range search and locate, ACO capability, Visual, Infra-red and Radar search capability in support of SAR missions; Winch equipped rotary wing aircraft able to extend beyond the SRR of the coastal state in support of SAR operations
	ACO Capability						Addresses either in-person, maritime assets or aircraft assets that can be deployed into a different SRR. RED- NO; YELLOW- yes in SRR; Green theoretical deployment capability
	Rotary Wing Paramedic deployment						SAR rotary wing aircraft have paramedic winchman / additional paramedic that can be deployed to a distress vessel or other location
	Ocean-going Towing Vessel / Tug						Coastal State has a state-owned or contracted ocean-going tug / MPV that can extend into another's coastal state waters in support of SAR

	On Scene Coordination						Provision of state-owned or contracted vessels that are able to provide OSC function in support of SAR operations (e.g. military or government owned ships)
	Salvage and Stabilisation capability						Provision of technical and tactical advice in support of a vessel master or responders at scene during SAR missions to prevent worsening of vessel stability or danger to crew and passengers
	Technical Rescue onboard casualty vessel						Provision of technical rescue assets delivered onboard the casualty vessel for the purposes of rescuing trapped persons and / or assisting vulnerable, sick and injured persons to a place of safety / evacuation
	Offshore Firefighting & advice						Provision of technical and tactical advice in support of fire-fighting operations onboard the casualty vessel
	Surface Vessels						Provision of surface rescue craft (e.g. lifeboats, and vessels that offer temporary refuge) by the coastal state to another in support of SAR operations;
	Subsea SAR						Provision of sub-surface search and locate, and search and rescue operations such as technical rescue divers and deep-sea rescue submersibles.
	CBRNE Advice & Response						Tactical and technical advice in support of SAR response operations that involve elements of CBRNE
	Ship-based Medical Treatment Advice & Support						Deployment of medical expertise and trauma care capability to a distressed vessel, ship's lifeboats or life rafts in support of survivors while waiting for rescue

4.4 Training and Exercising

To prepare for a Mass Rescue Operation it is important that responders are prepared through training and exercising to develop their awareness, competency and capability in managing the response to an incident. The response to an MRO incident will likely put demands on responders that are beyond normal operational experience and so an essential part of MRO preparedness is to ensure that staff at all responder levels are suitably trained and exercised in delivery of their role in the event of an MRO.

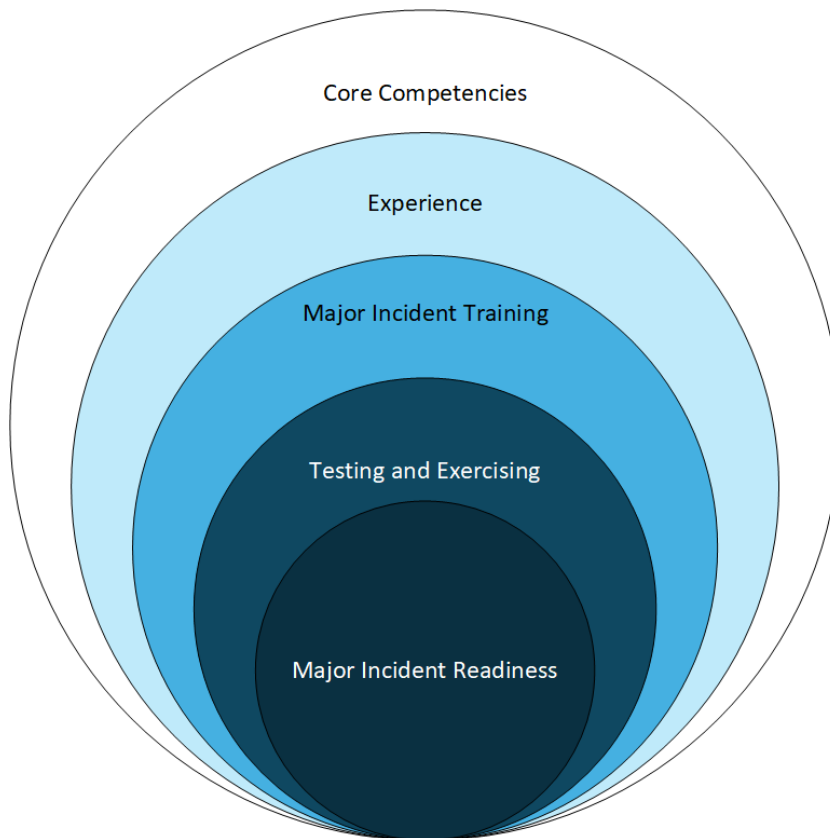
An MRO is a low likelihood incident, which means that many responders will not experience an MRO, possibly for their entire career. However, when an MRO does occur, those who do respond need to be suitably prepared to ensure that the rescue effort is effective in saving lives and reducing threat to the environment. This preparedness is only achieved through effective training and exercising.

Competency is achieved through training staff in roles at all command, control and coordination levels (operational, tactical and strategic)² such that everyone in response whatever their role understands the actions that need taking to meet the demands of the incident.

The challenge around competency in response to an MRO (or any other Major Incident) is that the responder is required to use knowledge and practice that are used every day (core competencies), but in a way that is delivered at scale, under intense time pressure, and with multiple concurrent and often conflicting priorities while managing limited resources and information. This capability to be effective during a major incident response requires more than just core competencies, but a mix of experience, additional training and, importantly, practice. This means focussed training building upon embedded knowledge and refined through exercise.

² Tactical and operational levels are interchangeable in the hierarchy of some countries.

The diagram below shows the relationship between the four areas of development and experience that lead to readiness for Major Incident response.



Core Competencies:

Core competencies are those skills and capabilities that comprise the minimum skill requirements for each responder role.

Experience:

Experience in this context is exposure over time to a variety of incidents that embed learning such that each person in their role are able to deliver their duties without recourse to detailed guidance or direction from supervisors when dealing with routine incidents.

Major Incident Training

Building on core competencies and experience, Major Incident training provides the individuals and teams with knowledge and skills for provision of command and control when dealing with

a Major Incident. This includes knowing how to work collaboratively with other emergency services, establishing coordination in complex, fast moving situations with many diverse first responders and rescue services, and the link with survivor support providers such as councils, health services, immigration officials, press and vessel operators. Understanding of the emergency response framework that applies to the coastal state in which they operate is also required, particularly with regards to Strategic and Tactical coordination groups.

Training and Exercising

This is an important step in merging all the competency, experience and training into readiness for response to an actual incident. Testing of plans and capabilities ensures that they are sufficient to meet the demands of an incident. Testing is usually a single-agency practice, used to refine plans and identify any weaknesses before trying them in a multi-agency environment. Exercising is best done in a multi-agency setting so that the maximum benefit can be gained from shared experience and understanding of each others capabilities and working practices.

To ensure that a high standard of readiness and operational response is maintained across regions, it is important to test plans and capabilities through joint exercises which test cross-border coordination. Countries should seek to plan and deliver exercises regularly which provide the opportunity to make use of the Capability Matrix and any existing agreements regarding mutual support to other coastal state authorities. To ensure continuity of knowledge and experience among coordinating staff and responders, such exercises are best undertaken no more than 3 years apart, or less. Opportunities to include MRO capabilities within existing exercise frameworks can make this process more efficient. For example, the NATO led Dynamic Mercy bi-annual exercise series may offer an opportunity to test elements of this plan and the Capability Matrix within a wider exercise programme. It is also useful to consider a mix of simulation (command post or table-top exercises) and live (real-world play) exercises and track these to ensure that all aspects of the plans and capabilities are tested without any areas being missed off across a period of several years.

Major Incident Readiness

This is the synergy of all the above, delivered in response to a real-life incident. In practice, readiness is a multi-agency matter, built on plans and capabilities invested in a number of organisations who would be involved in the overall response.

5 Handling Mass Rescue Operations

Mass Rescue Operations (MROs) present unique challenges that require coordinated action by multiple agencies. Such operations often exceed the capacity of routine search and rescue (SAR) resources and involve the mobilisation of a wide range of national and international assets. Large-scale SAR incidents are frequently characterised by delayed or incomplete initial information, a high degree of uncertainty regarding the number and condition of persons in distress, and the near-simultaneous deployment of multiple SAR units from different organisations and States.

The initial phase of an MRO will often appear disordered and difficult to control. Experience shows that a certain degree of friction and apparent chaos is inherent in the early stages of large-scale incidents. Effective management is supported by an early focus on actions that can be undertaken with the information and resources available at the time. Initial progress, such as establishing communication, confirming the basic situation, identifying immediate life-threatening conditions, and initiating first rescue actions, contributes over time to increased control and a clearer situational picture.

Throughout the operation, the overarching objective remains the preservation of life and health, in accordance with the obligations and principles set out in the IMO/ICAO International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual and relevant regional SAR agreements.

An effective collective response depends on clear coordination, shared situational understanding, and predefined roles among all participating actors. This includes maritime rescue coordination centres, emergency services, voluntary organisations, and local authorities. The response is typically required to be scalable and adaptable to the evolving nature of the incident.

Key enabling factors include clearly defined responsibilities, integrated coordination across relevant domains, and systematic preparedness through established, maintained, and regularly exercised plans.

5.1 Incident Management Structure

MROs place substantial demands on coordination and leadership functions at all levels. Personnel operating at tactical, operational, and strategic levels will often require reinforced staffing to manage increased workloads, extended operational periods, and a high volume of communication and decision-making. When large numbers of resources are engaged, particularly those that do not routinely operate together, the complexity of coordination increases significantly. Effective coordination is therefore essential to ensure that all resources are used in accordance with their capabilities and contribute effectively to the overall response.

The scale of a catastrophic incident will typically necessitate strengthened staffing across all levels of command. Maintaining an appropriate span of control and limiting the number of parallel communication channels are critical to preserving situational awareness and enabling effective task execution. Ensuring adequate staffing capacity is therefore a central leadership consideration throughout the incident.

The IAMSAR Manual defines three formal SAR coordination roles: the Search and Rescue Mission Coordinator (SMC), the On-Scene Coordinator (OSC), and the Aircraft Coordinator (ACO). While many States apply additional roles and structures within their national systems, multinational operations in the Arctic and North Atlantic require that all participating actors have a clear and shared understanding of coordination and leadership responsibilities at tactical, operational, and strategic levels. This understanding should be established and communicated at an early stage, including to resources deploying from outside the region.

Resources deploying from other States may be unfamiliar with local geographical, operational, or logistical conditions. Preparedness arrangements should therefore include the provision of practical information to external units, such as communication procedures, coordination arrangements, landing zones, refueling options, medical capacity, evacuation routes, and environmental constraints. This supports safe and effective integration into established command and coordination structures.

Incident management is typically organised across three interconnected levels: a strategic level responsible for overall intent, priorities, and coordination between States and major organisations; an operational level responsible for planning, coordinating, and supporting the execution of SAR activities; and a tactical level responsible for directing and carrying out tasks at or near the incident site.

This structure is aligned with the IAMSAR framework, under which a Rescue Coordination Centre (RCC) is led by an SMC. Depending on national arrangements, the RCC may function as a Maritime Rescue Coordination Centre (MRCC), an Aeronautical Rescue Coordination Centre (ARCC), or a Joint Rescue Coordination Centre (JRCC). Where appropriate, the SMC designates an OSC and an ACO in accordance with IAMSAR guidance. In many States, these SAR-specific roles are integrated within, or closely linked to, national incident command or emergency management structures.

5.1.1 Strategic level (SAR Authority)

The strategic level establishes overarching objectives, intent, and priorities for the SAR response. This includes confirming the legal and operational framework for cooperation between national and international actors, ensuring that sufficient resources—such as personnel, equipment, logistics, and funding—are made available to the operational level, and coordinating with political authorities, other government sectors, and international partners. The strategic level is also responsible for public communication relating to policy matters and significant developments during the incident.

Strategic entities must be capable of processing complex and, at times, incomplete information from multiple sources. They maintain a comprehensive, high-level situational picture that supports longer-term planning, international coordination, and the management of Search and Rescue Regions (SRRs), while enabling the operational level to focus on the conduct of SAR activities.

5.1.2 Operational Level (SAR Mission Coordinator – SMC)

The operational level, typically led by an RCC/SMC or equivalent authority, translates strategic intent into operational planning and tasking. This level develops, maintains, and updates the overall SAR plan; assigns tasks and areas of responsibility to tactical units and coordination functions such as the OSC and ACO; and coordinates the activities of maritime, aeronautical, and land-based Search and Rescue Units (SRUs).

The operational level integrates contributions from national emergency services, military assets, voluntary organisations, commercial operators, and international SAR partners. It maintains oversight of the operation, adapts plans and tasking in response to new information, and ensures that operational risk assessments are conducted and updated as required.

In large or complex incidents, the scale of activity and volume of information may exceed what can be managed by a single coordinator. In such cases, dedicated functional leadership roles may be established, for example for search planning, maritime coordination, air coordination, logistics, medical coordination, or information management. Planning and operations cells may be formed, liaison officers designated between key organisations and States, and sector boundaries defined with appointed sector coordinators where the incident area is extensive or geographically divided.

Clear leadership structures and lines of authority should be established and communicated. All participating organisations and SRUs should have a common understanding of overall SAR authority, coordination responsibilities at or near the incident site, information-exchange arrangements between tactical, operational, and strategic levels, and procedures for handling requests for support, offers of assistance, and changes in the operational situation.

5.1.3 Tactical Level (On Scene Coordinator – OSC)

The tactical level comprises the direct execution of SAR tasks and includes SRUs and other responding units operating at or near the incident site, such as vessels, aircraft, and

land-based teams. It also includes the OSC appointed by the SMC, the ACO when multiple aircraft are involved, and any additional tactical coordinators designated to manage specific functions or geographic sectors.

At this level, search, rescue, evacuation, and medical assistance are carried out in accordance with the operational plan. Tactical commanders and SRUs maintain situational awareness in the immediate incident area, provide structured situation reports to the operational level, identify emerging hazards, recommend adjustments to plans, and ensure the safety of personnel and assets. Differences in training, procedures, and experience among participating units, particularly in multi-State or multi-sector operations, are best addressed through early guidance, joint briefings, and consistent use of IAMSAR terminology.

Spontaneous or self-deployed responders, such as nearby vessels, aircraft, or local communities, may become involved in the SAR effort. While such resources may lack formal organisation or training, they can contribute significantly if integrated in a controlled and safe manner. Early identification and managed integration of such resources may therefore be considered where this supports life-saving efforts without compromising safety or established coordination arrangements.

5.2 First notification of an MRO Incident

Initial indications of an incident form the basis for establishing a shared situational understanding. Early information may be received through distress alerts or notifications, emergency calls to a Rescue Coordination Centre (RCC), coastal radio stations, air traffic control services, or other emergency services such as police, fire, or ambulance authorities.

When the SAR system becomes aware of an actual or potential distress situation, the information gathered and initial actions taken are of critical importance. It should be assumed that survivors may be present and that survival prospects decrease over time. Information is therefore assessed promptly to determine whether a distress situation exists, its urgency and scale, and which immediate actions may be required.

Based on available information, the responsible RCC will assess the potential scope of the incident. Where the initial assessment is constrained by limited or uncertain information, operational attention should nevertheless focus on the potential scale of the situation. Early warning of resources and the initiation of requests for international assistance may therefore proceed in parallel with continued efforts to clarify incident details.

5.3 Initial alert measures

SAR notification processes provide a structured method for mutual alerting across agencies and, where relevant, across national boundaries. Through these processes, a shared understanding of the situation is established, coordination responsibilities are clarified, resource needs are identified, and communication arrangements are defined.

In MRO scenarios in the Arctic and North Atlantic, early alerting of resources is particularly important, even when the operational picture remains incomplete. Assets may have long transit times and limited endurance in extreme conditions, making it necessary to alert resources beyond the immediate area, including national and multinational capabilities. Requests for assistance from neighbouring States are therefore often initiated at an early stage.

Requesting support from neighboring countries should come at the earliest possible opportunity. Both the requesting country and relevant supporting countries should commit personnel to handle the requests for assistance and practical issues that arise as part of this process (i.e. host nation support). Such outreach should be guided by existing protocols, bilateral agreements, and pre-identified points of contact. To enable rapid mobilization, relevant contact details and responsibilities should be readily accessible in operational plans.

International assistance may also involve actors outside the RCC network, including other SAR organizations, private providers, and government authorities. Early dialogue is important to ensure that the resources offered are aligned with the operational needs. The receiving authority should clarify these needs and communicate them clearly to avoid duplication and ensure relevance.

In practice, assistance may be requested through several parallel channels. Health authorities may activate bilateral arrangements with foreign counterparts for mass casualty support, while RCCs may request operational resources directly from other RCCs. Requests for military assistance are normally routed through national defense structures, although in SAR operations they may also be coordinated via the national RCC.

There are two main approaches to requesting international assistance:

- Specific Requests – Directly identify the types and quantities of resources needed.
- Request of needed effect – Present the status of the incident, including complexity, challenges, and operational gaps.

The latter approach allows assisting nations to assess and recommend contributions based on their own capabilities and experience. It also opens the possibility of receiving support that may not have been initially considered but proves valuable in the operation.

Legal and administrative consideration and jurisdictional boundaries and responsibilities should be clarified early to avoid delays or conflicting decisions. Cross-border movement of personnel and assets should follow pre-agreed procedures. All documentation and reporting must comply with international standards to ensure accountability and transparency

The following template may be used for requesting assistance from applicable countries through their respective Rescue Coordination Centres or other relevant authorities. These should be followed up with voice calls to highlight the urgent nature of the request.

Subject

[Brief Incident Description]

Message Header

To: [Recipient RCC or authority]

From: [Requesting RCC or authority]

Reference: [JRCC Case ID]

DTG: [UTC]

Situation Overview

Incident Type	[Type of incident]
Position	[Latitude, Longitude]
Number of Persons Involved	[Estimated number]
Injuries	[Nature and severity]
Weather Conditions	[Current and forecasted]
Time of Last Update	[DTG]

Type of emergency:

(one or more of the following alternatives)

- ☒ Natural disaster (earthquakes, storms, storm surges, river flooding, avalanches)
☐ Forest fire
☐ Urban calamity (major fire, collapsed buildings, etc.)
☐ Industrial calamity (explosion, mining accident, collapsed dam, etc.)
☐ Environmental emergency (chemical spill, oil spill, etc.)
☐ Sanitary/phytosanitary emergency
☐ Maritime emergency (SAR, missing persons at sea) NB! IMO/ICAO procedure
☐ Aeronautical emergency (SAR, missing airplanes/passengers) NB! IMO/ICAO procedure
☐ SAR on land (missing persons)
☐ Traffic accident (highway accident, railway accident)
☐ CBRN-emergency (chemical, biological radiological, nuclear emergency) NB! IAEA procedure
☐ Medical emergency (mass or medically complex casualties, pandemic victims, etc.)
☐ Other emergency (including major military accidents)

Required Assistance

Priority 1: [Number] x [Type of effect needed/needed resource] (Reason)

Priority 2: [Number] x [Type of effect/needed resource] (Reason)

Priority 3: [Other Support] (Reason)

Coordination & Logistics

Rendezvous Point	[Latitude, Longitude]
Communication Channels	[Primary and alternative channels]
On-Site Contact Person	[Name, phone number]
Estimated Duration	[Short-term / Long-term]

Additional Information

[Any other relevant operational, logistical, or contextual details that may support the response effort]

Once the requested (supporting) countries have established whether they are able to assist or not, a reply to the requesting country should be sent at the earliest opportunity with the following alternate sitrep information:

Identification	Identification of the unit/country replying to the request for assistance, reference to the MRO incident, country sitrep nr in case of update
Situation	Initial description if country is able to support or not, what actions are ongoing to verify ability to provide resources to the MRO rescue effort
Resources	Up to date overview of resources that have confirmed their participation and that respond to the effect needed with detailed information such as, but not limited to; - Resource specifications ○ Type of craft ○ Number of persons ○ Type of assistance offered ○ Fuel type ○ Communication - Arrival date and time - Other information
Future plans	Other future capacities that may become available

5.4 Operational Planning

Operational planning for MROs is conducted within established SAR frameworks, including principles and procedures set out in the IAMSAR Manual. Planning typically addresses the coordination of a large number of simultaneous resources and may include the designation of an On-Scene Coordinator (OSC), the establishment of airspace coordination functions (ACO), and the organisation of incident command and sub-command structures.

Planning arrangements account for interaction with crisis management structures at local, regional, national, and cross-border levels. Given the multinational character of SAR

responsibilities in the Arctic and North Atlantic, coordinated planning is essential to ensure coherence and effectiveness.

Depending on the scale and complexity of the incident, a joint incident (coordinator) commander may be appointed, or a multinational coordination group may be established. This group should include representatives from all participating nations and organizations. Resources such as vessels, aircraft, and personnel—must be allocated based on availability, capability, and proximity to the incident site.

The operation should follow a unified plan that defines roles, responsibilities, and decision-making structures. Coordination must extend across all phases of the rescue effort, from initial response to survivor reception.

Adequate staffing of coordination functions is a critical planning consideration. Key personnel should not be overloaded with excessive tasks or communication demands, and reinforced staffing arrangements support sustained and effective coordination over time.

5.4.1 Some important aspects of operational planning for MRO

Risk Assessment and Resource Mapping. Identify potential worst case scenarios based on geography and weather. Map resources and assess capacity gaps. Consider limitations in access, communication, and transport.

International responders may be unfamiliar with local infrastructure, procedures or informal practices. The receiving authority must anticipate these gaps and provide clear guidance on communication/frequencies, operational expectations, local routines and unwritten practices. Host Nation Support may include, but not limited to, such areas as; logistics, legal, operational guidelines, briefing materials, finance, immigration and customs.. Formalised or written procedures addressing accommodation, transport, fuel, administrative support for incoming foreign SAR crews should be prepared in advance to the fullest extent possible

Helping international teams understand the local context increases their ability to operate effectively under demanding conditions. For example, when receiving air or maritime support from another country it may be prudent to provide briefing packs that include basic information on landing zones, fuel availability, reception centres, hospital locations communication protocols, etc. must be clearly provided. Providing.

Establish Call centre for next of kin to provide information. Embassies of involved nations will also be able to use the same centre for status overview of their own citizens.

For supporting nations. Backfilling capability – what impact will sending resources / assets to another country on mean for own national preparedness. Risk assessment should be done from the outset with compensating measures implemented as much as possible.

5.5 Communication and Information Management

This chapter addresses communication and information management as a core enabling function across both preparedness and response. The chapter is structured to reflect the progression from arrangements established in advance of an incident to the application of those arrangements during an ongoing search and rescue (SAR) operation, with particular attention to operations conducted far from shore and in high-latitude environments.

Effective communication and information management during major incidents depend on arrangements that are established in advance. Preparedness activities should therefore focus on ensuring that structures, systems, and procedures are in place to support a shared situational understanding once an incident occurs.

Situational understanding is developed through the systematic collection, validation, and exchange of information from multiple sources, including emergency services, SAR units, vessels, aircraft, and relevant technical systems. Preparedness planning should ensure that mechanisms exist for the continuous sharing of information on needs, observations, and actions taken, so that all Rescue Coordination Centres (RCCs) and responding actors can access current, relevant, and consistent situational information.

Electronic systems and digital tools may support situational awareness by providing visual representations of resource positions and incident development, including tracking, mapping, and sensor-based information. In practice, however, RCCs and participating actors may not have access to identical systems or data sources. Differences may exist in the scope of information available, update frequency, and technological solutions in use. Preparedness efforts should therefore recognise such asymmetries and include measures to compensate for them through structured information sharing and clear communication.

Preparedness planning must also take into account the communication challenges associated with operations far from land or at high latitudes. SAR operations in such environments may need to rely on MF/HF radiotelephony and digital modes, satellite-based voice and data systems, and, where available, long-range VHF relayed through aircraft or elevated sites. Each of these systems has inherent limitations related to coverage, capacity, reliability, latency, and vulnerability to atmospheric, geographic, or technical disruption. Preparedness activities should therefore include an assessment of available long-range communication systems and their limitations.

As part of preparedness, communication arrangements should be defined and documented. Communication plans should identify primary and secondary communication systems and frequencies for different categories of units, specify the structure, content, and frequency of situation reports (SITREPs), and define procedures to be followed in the event of communication failures, including the use of pre-designated relay units. The language to be used for operational communication should also be specified and will typically be standardised maritime and aeronautical English, in accordance with IMO and ICAO practice.

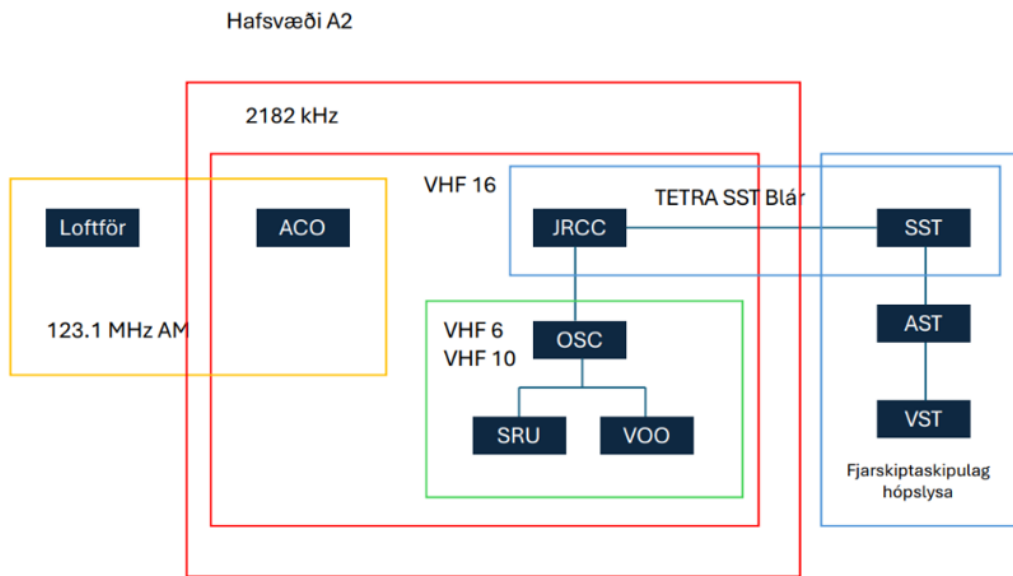


Figure 2: The example above is from the Icelandic SAR Agency and shows aspects of an MRO communications plan. A dedicated person responsible for detailed planning and execution of such a plan is highly recommended.

During the management of major incidents, it is essential that all RCCs involved establish and maintain a shared situational understanding among participating actors. A common situational picture provides the basis for effective coordination, appropriate use of resources, and timely decision-making across organisational and national boundaries.

Situational understanding during the response phase is maintained through the continuous collection, validation, and exchange of information from all available sources. Information on evolving needs, observations, and actions taken should be shared without delay to ensure that all RCCs and responding actors operate on the basis of the same situational picture. Where differences in access to systems or data result in information asymmetries, RCCs should actively compensate for these through proactive information sharing and clear, unambiguous communication.

Effective long-range communication during response operations requires disciplined communication practices. Distress, urgency, and safety messages must be prioritised in accordance with established procedures, and non-essential traffic should be avoided on

channels with limited capacity. Standardised message formats and phraseology should be used to reduce the risk of misunderstanding and to minimise transmission time. Established procedures for relaying messages must be applied when direct communication cannot be maintained.

SAR operations conducted at extended distances from shore or in high-latitude areas shall ensure access to reliable long-range communication systems. These may include MF/HF radiotelephony and digital modes, satellite-based voice and data services, and VHF communications extended via aircraft or elevated relay stations. Each system should be used with due consideration of its limitations with regard to coverage, capacity, reliability, latency, and susceptibility to environmental or technical disruption.

Distress alerting in remote areas shall incorporate the Cospas-Sarsat system, which provides global detection and localisation of 406 MHz emergency beacons, including EPIRBs, ELTs, and PLBs. RCCs shall treat such alerts as primary indicators of distress and initiate verification and response procedures without undue delay. As Cospas-Sarsat is principally a one-way alerting system, arrangements should be made to establish two-way communication with the distress source or associated units whenever practicable.

Satellite communication systems with polar or near-global coverage, particularly low Earth orbit (LEO) systems such as Iridium, should be utilised to ensure continuity of voice and data communications. In areas where terrestrial infrastructure is unavailable, such systems should be considered the primary means of two-way communication. Operators should remain aware of potential limitations related to terrain shielding, equipment performance, and user handling.

Commercial satellite distress and messaging services, such as Garmin inReach and similar devices, as well as consumer satellite-enabled emergency functions, including smartphone-based SOS messaging, should be recognised as supplementary alerting systems. These services typically provide position reporting and short text messaging via dedicated coordination centres, which may forward distress notifications to RCCs. RCC procedures should include the identification, verification, and integration of such alerts into the SAR

response, taking into account limitations related to message format, bandwidth, power supply, and user interaction.

Throughout the response phase, the RCC or other coordinating authority shall ensure that all participating units, including those without long-range communication capability, receive essential operational information. This should be achieved through appropriate relay arrangements using vessels, aircraft, satellite-equipped units, or coordination centres associated with distress alerting services.

Communication across tactical, operational, and strategic levels should support a shared situational understanding, timely decision-making, and the continuous adaptation of plans and priorities. At the strategic level, communication focuses on overall incident development, resource status, international coordination, and matters relevant for policy and high-level decisions. At the operational level, communication concerns execution of the SAR plan, allocation and reallocation of Search and Rescue Units (SRUs), changes in the operational environment, and coordination with parallel activities. At the tactical level, communication supports immediate safety, task execution, local situational awareness, and structured feedback to the operational level.

Regular, structured SITREPs based on agreed templates from IAMSAR Vol II are essential during the response phase to maintain alignment between levels, ensure a consistent understanding of the situation, and reduce the need for ad hoc requests for information.

6 Beyond SAR: Planning for the Full Rescue Chain

The IAMSAR Manual defines rescue as an operation to retrieve persons in distress, initiate first aid, and deliver them to a place of safety. A place of safety is defined as a location where the rescue phase ends, where life is no longer threatened, and where basic human needs, such as food, shelter, medical care, and transport, can be met. The reception centre represents the endpoint of the rescue phase and the final stage of the evacuation chain. Effective operation of the reception facility therefore depends on maintaining a clear situational understanding and an up-to-date overview of evacuees *en route* to the centre, enabling coordinated planning and allocation of personnel, medical services, and other resources.

6.1 Reception Centres and Assembly Areas for Evacuees

The establishment and operation of onshore reception centres or assembly areas for evacuees following maritime and offshore incidents are normally the responsibility of the competent national or local authorities, in coordination with other relevant actors. At these facilities, key activities typically include registration and accountability of evacuees, initial health assessment and triage, and onward transport to appropriate facilities or destinations.

The selection of reception centres should take into account healthcare capacity, availability of security and support personnel, transport capacity, and other logistical considerations. In incidents involving large numbers of evacuees, particular attention should be given to both indoor and outdoor space requirements. Where maritime assets are used for evacuation, the choice of landing site or quay must be compatible with the size and characteristics of the vessels involved, as well as prevailing weather and sea conditions. Where necessary, multiple reception centres may be established to manage capacity and flow. The distance between the reception centre and the persons in distress has a direct impact on transport time and resource utilisation. Transport time must be balanced against the suitability and operational capability of the reception facility, the safety and welfare of evacuees, and the overall effectiveness of the rescue operation. Decisions regarding the location of reception centres should be made in consultation between the responsible Rescue Coordination Centre (RCC)

and relevant local or regional authorities. Where appropriate, additional coordinating entities or specialist resources may be consulted, for example when helicopters or large vessels are used for evacuation.

6.2 Person accountability - tracking missing persons

Experience from major incidents and exercises has shown that maintaining accurate accountability of the number of persons involved, and their location within the evacuation chain, is challenging. Nevertheless, accounting for all affected persons—from departure from the initial location until arrival at a place where their basic needs can be met—remains a critical priority.

Effective person accountability serves several essential purposes. First, it establishes the scale and scope of the incident, providing the basis for organising, prioritising, and scaling the SAR operation. Second, it enables receiving facilities to prepare for the number of evacuees, their anticipated needs, expected arrival times, and the pace of evacuation. Finally, accountability is necessary to confirm that all individuals involved have been rescued and delivered to a place of safety.

Large-scale incidents may result in evacuees being distributed across multiple reception centres or temporary holding locations. In some cases, vessels, aircraft, or provisional facilities may receive and accommodate evacuees for extended periods. This dispersion increases the complexity of accountability and underscores the need for robust information-sharing arrangements throughout the evacuation chain.

Experience has also shown that achieving complete accountability during the initial phase of an incident may be extremely difficult. In certain situations, it may be appropriate to prioritise rapid life-saving action without full numerical control from the outset. Attempting detailed counting too early may consume critical time and reduce overall operational effectiveness. Measures should therefore be implemented to ensure thorough accountability further along the evacuation chain, for example at reception centres or designated evacuation points (EPS).

It should also be recognised that incidents may begin with incomplete or inaccurate estimates of the number of persons involved, or without the ability to rapidly establish an exact figure.

6.2 Media Strategy and Public Information

The news media represents an obvious source of pressure. Their response to a major rescue operation will be rapid, intense, and continuous. Leading news organisations are well organised and competitive, and, due to their international reach and access to immediate communication systems, they will seek information around the clock.

Friends and family of persons involved in an incident, or who may be involved, will also quickly seek information, either because they have been alerted by news media or social networks, or because they have heard directly from those affected. In the early stages of a major incident, far more people may be concerned and therefore seeking information than are actually affected. An incident reported as involving “an offshore oil platform,” “a passenger aircraft,” “a cruise ship,” or “a ferry” may trigger concern among individuals who have friends or family connected to such units in the general area. Even if the specific unit is identified at an early stage, which is recommended, many people may not know for example, the name of the ferry used by those close to them.

Senior leaders, government officials, and similar actors will also exert pressure for information. This is partly because they are required, for strategic reasons, to obtain details as early as possible, and partly because they are publicly accountable and must provide public statements that are as accurate as possible. They form part of the wider public information network.

Finally, and most importantly, information should where possible, be communicated to persons in distress. The Rescue Coordination Centre should keep those responsible on board vessels, aircraft or installations in distress informed to fullest extent possible. The responsible, in turn, should inform their own personnel. On passenger vessels, passengers should be kept informed by the ship’s crew. In some mass rescue scenarios, affected individuals may not have

such intermediaries. Where possible, means should therefore be established to communicate directly with them.

The pressure generated by these relationships can be considerable. News media have a role to fulfil and will do so regardless of whether they are assisted or not. Senior and public figures likewise have responsibilities that make it difficult to deny them access. Concerned friends and relatives present distinct emotional challenges and will also be determined to obtain information. If not carefully planned for, this pressure may negatively affect the emergency response.

This risk of disruption, combined with the public accountability of responding organisations, makes it necessary to have a media strategy that can be implemented rapidly at the outset of a major rescue operation. For optimal effect, this strategy should encompass all responding organisations. If one organisation provides one message to the media and another provides a different message, both may be subjected to increased pressure as journalists attempt to establish “the truth.”

6.2.1 Engagement with the News Media

Engagement with the news media should be positive, professional, and coordinated with other responding organisations. Journalists are professionals performing their role, and there is little benefit in refusing to provide information. Journalists require information and will obtain it from somewhere, potentially from less reliable sources, if official channels are not available.

This does not mean, however, that everyone contacted by a journalist should provide a statement. There should be an agreed and reliable source of information, known throughout the organisation, to which media enquiries can be directed. Personnel directly involved in managing an incident should not be distracted from their operational responsibilities, but they may nevertheless be approached by journalists and others seeking information. They must

therefore be aware of whom such enquiries should be referred to. The same applies to other personnel within the organisation, even if they have no direct role in the response.

All responding organisations should coordinate their communication with the news media. This does not imply that all organisations will convey identical messages, as different actors will naturally focus on different aspects of the response. Coordination is nevertheless essential to ensure consistency and to avoid contradictory or misleading information.

Information concerning persons in distress or rescued beyond general numerical figures, should be released only by an officials working closely with the organisation responsible for the affected unit, and with hospitals or other relevant authorities. No other responding organisation should release personal or sensitive information to the media.

Information provided to the media should be clear and easily understood. Jargon, abbreviations, and acronyms should be avoided. Journalists are unlikely to be experts in maritime operations or search and rescue, and they will generally not be familiar with the detailed planning and procedures associated with mass rescue operations. Simplicity, clarity, and factual accuracy should therefore guide all communication.

News media will seek visual material, including video footage, still images, and interviews. Individuals directly involved in an incident may share images or video through social media or directly with media organisations and may choose to speak to journalists themselves. Unrestricted media access to incident sites, reception centres, or similar locations should not be permitted, as this may be intrusive, hazardous, and potentially disruptive to rescue operations.

The overarching objective is to cooperate with the news media to the greatest extent possible. Effective cooperation can reduce the volume of public enquiries and misdirected media contacts, facilitate the dissemination of essential information, such as contact details for concerned friends and family, and provide access to material collected by the media, particularly imagery, which may also constitute a valuable source of information.

The principles outlined above provide the foundation for media engagement and public information preparedness. The following section describes how these principles are applied and operationalised during an ongoing search and rescue operation.

6.2.3 Media and Public Information Management during SAR Operations

During a search and rescue (SAR) operation, the Rescue Coordination Centre (RCC), acting as the coordinating authority, is responsible for managing communication related to the incident. The scope and intensity of media handling will depend on the nature, scale, and consequences of the event. Where appropriate, the RCC coordinates public communication with other relevant actors, including operators, public authorities, and cooperating organisations, to ensure that information released is accurate, consistent, and up to date.

In practice, this may involve the RCC establishing a single, clearly defined point of contact for the media at an early stage, such as a designated spokesperson or a dedicated information line. In larger incidents, regular media briefings may be conducted at fixed intervals. These briefings should provide verified information on the development of the situation, the rescue effort, and general figures, while avoiding speculation or details subject to rapid change. Written press releases may be used to ensure that all media outlets receive the same information and to limit the burden on operational personnel.

When a vessel, aircraft, or installation is in distress, the responsible operator should align its external communication with the RCC so that information provided to the media corresponds with the official situational picture. For example, an operator may communicate information related to its own unit, crew, or passengers, while the RCC communicates about the overall SAR operation, the deployment of resources, and coordination between responding actors. This division of responsibilities helps clarify roles and reduces the risk of conflicting messages.

The RCC should seek to provide the media with factual and verifiable information within the limits imposed by privacy protection, confidentiality obligations, and other legal or ethical considerations. This may include communicating the number of persons involved or rescued

without disclosing identities, medical conditions, or other sensitive details until such information has been properly confirmed and authorised for release. Updates should be provided as the situation evolves, while safeguarding the integrity of the operation and the interests of those affected.

All responding organisations are expected to communicate only confirmed information and to refrain from speculation or the dissemination of unverified details. Each organisation should restrict its statements to matters within its own area of responsibility and avoid commenting on aspects of the incident that fall outside its mandate. For example, local emergency services may provide information on their own land-based response while referring questions regarding overall SAR coordination or international assistance to the RCC.

Media handling must be conducted in a manner that does not interfere with the rescue operation itself. At the same time, it is important that persons directly affected by the incident are kept appropriately informed. This includes ensuring that masters, crews, and, where relevant, passengers receive timely and adapted information, both when they are receiving assistance and when they are involved in assisting others.

Significant media attention should be anticipated during major SAR incidents. In events involving passenger transport, individuals on board may share images, video footage, and personal accounts in real time through social media and other channels, and such material may rapidly be disseminated by traditional news media. This fast developing media picture underlines the importance of early, coordinated, and credible communication by the RCC and other responding organisations throughout the response phase.

Where more than one RCC is involved in the management of a SAR incident, clear arrangements for communication responsibilities are essential. As a general principle, the RCC with primary coordination responsibility for the incident should lead external communication related to the overall SAR operation, including strategic messaging and consolidated situational updates. Supporting RCCs should align their public communication with the lead RCC and limit external statements to information within their delegated areas of responsibility, unless otherwise agreed. Early clarification of roles and communication

channels between the involved RCCs reduces the risk of inconsistent messaging and supports a coherent and credible public information approach during complex or cross-regional SAR operations.

7 Concluding Remarks and Way Forward

These Guidelines have been developed to support preparedness for Mass Rescue Operations (MROs) in the Arctic and North Atlantic region. They bring together shared principles, established frameworks, and practical considerations relevant to planning, coordination, and cooperation across national and organisational boundaries. Taken together, the Guidelines are intended to promote a common understanding of the challenges associated with MROs and to strengthen the collective ability of Search and Rescue (SAR) authorities and partners to manage such events effectively.

The Guidelines do not replace existing international conventions, manuals, or national procedures. Rather, they supplement established SAR doctrine by providing region-specific context and by highlighting aspects of preparedness that are of particular relevance in the Arctic and North Atlantic, including long distances, limited infrastructure, harsh environmental conditions, and the frequent need for international assistance. Their value lies in supporting advance planning, training, exercising, and institutional learning, rather than in providing instructions for use during an ongoing operation.

Mass Rescue Operations are characterised by uncertainty, time pressure, and the involvement of many actors who may not routinely work together. Experience shows that outcomes in such incidents depend to a large extent on the quality of preparation undertaken beforehand: the extent to which roles and responsibilities are understood, coordination arrangements are established, capabilities are known, and personnel are familiar with the complexity they may face. The Guidelines are intended to contribute to this preparedness by fostering shared expectations and a common reference framework across the region.

The Arctic and North Atlantic operating environment, patterns of activity, and available capabilities will continue to evolve. For this reason, the Guidelines should be regarded as a living reference that may be reviewed and refined over time, informed by exercises, operational experience, and changes in international practice. Continued dialogue and cooperation between SAR authorities, operators, and other stakeholders will remain essential to maintaining and strengthening preparedness for Mass Rescue Operations.

Ultimately, the purpose of these Guidelines is to support the collective effort to preserve life and health during rare but high-consequence events. By encouraging deliberate preparation, shared understanding, and effective cooperation, they seek to contribute to safer outcomes for persons in distress and to a more resilient search and rescue system across the Arctic and North Atlantic region.

Annex 1: Capability Matrix

What is the Capabilities Matrix

The Capabilities Matrix, that is organised on a country-by-country basis. It identifies – at a high level – the capabilities that individual nations may be able to deploy, to support search and rescue operations taking place in other territories, i.e. outside their own jurisdictions. The potential capabilities are listed in tabular format, with an indicator colour opposite each one, for each nation. There is a summary table that presents the information in a condensed manner; and in addition, each country has a similar, more detailed table, that contains additional notes on the respective capability, for that country.

What the Matrix is not

The Capability Matrix is not a guarantee that particular countries will be able to provide MRO operational support at any given time, which will depend on multiple factors pertaining to the operational conditions at the time. It is also not intended to substitute for training and exercises, which are valuable in building relationships between RCCs, embedding institutional knowledge and upskilling RCC personnel. The Matrix specifically does not attempt to replace any aspect of the IAMSAR Guidelines. It also does not address finer details regarding Host Nation Support that can be provided by each country. It is not guaranteed that all specific points of information are complete; and it is acknowledged that there may be errors in the information. The level of detail is deliberately ‘high-level’.

How to Use the Capability Matrix

The Capability Matrix can be used in 2 main ways.

1. Training and Exercising

Training and exercising are key activities for RCCs, that are organised on a continuous ongoing basis, to ensure current personnel develop relevant skills and that those skills are maintained. The Matrix can be used for transnational exercises, to conduct exercises between the RCCs of multiple nations. The Matrix provides a resource to identify potential

sources of international assistance, and the primary contact points to begin the process of mobilising those supports.

2. Mass Rescue and other major emergency response Operations

In the event of an incident requiring a MRO or other major operation, for which the responsible RCC determines that it does not have the necessary capabilities to respond effectively, the Matrix provides an initial resource to the RCC for mobilising international assistance. The Matrix provides the responsible RCC with information that might otherwise be at risk of erosion from the institutional knowledge-base e.g. as experienced RCC personnel retire. The RCC can consult the Matrix; identify nations that might be able to mobilise assets to assist; and initiate contact with the correct organisation within those countries, using the information in the Matrix. It is the responsibility of each RCC to check, correct and keep the matrix updated.

How could the Matrix be expanded to other countries

It is assumed that these guidelines and matrices can be expanded upon by the inclusion of additional countries' information. This would add value by allowing a greater geographical range of application of the guidelines. To begin that process, a duly appointed RCC could undertake a capabilities self-audit.

United Kingdom

	Capability	Notes	Contact	Response Time
Search Planning	Environmental Data feeds outside own SRR	HMCg has global environmental data feeds into drift modelling software which can be used for search planning.	Contact UK JRCC for environmental data for search planning.	30 minutes

	Subject Matter Expertise	HMCG has constant availability of SMC to support maritime response for SAR, and on call expertise for Pollution and Salvage. HMCG also maintains expertise in areas such as coastal rescue and inland flooding.	Contact UK JRCC for any SME requirements. JRCC will contact the appropriate party.	30 minutes
	Rescue Asset Capabilities	The UK Coastguard maintains an Emergency Towing Vessel that operates North of Scotland. UK MRCCs can also assist in identifying availability of non-government vessels, such as tugs.	Contact the UK JRCC for identifying availability of vessels with specialist capability.	For ETV, response time is dependent on distance.
	Forecasts / weather impacts	Met Office forecasts have partial overlap with adjacent coastal state SRRs. EMAC can provide a weather forecast for the whole of the North Atlantic.	Request can be made through the Resilience Team - resilience@mcga.gov.uk to discuss requirement,. Contact JRCC out of office hours.	~1-4 hours
SAR Assistance and on scene support	Fixed Wing Search and locate	Capability delivered through civil contract fixed wing and military P8 patrol aircraft. Can assist neighbouring coastal states with fixed wing search capability (where search area is in range and/or refueling options exist)	Request for assistance via JRCC-AR who will assist with suitable asset.	Civil Fixed Wing up to 60mins. Military 3 hours plus
	Fixed Wing survival equipment deployment	Capability delivered through P8 or A400 RAF aircraft and Civil Fixed Wing	Request for assistance via JRCC-AR who will assist with suitable asset.	Civil Fixed Wing 45 - 60mins. Military 3 hours plus
	Uncrewed Aerial Vehicle search and locate	The UK has no fixed wing UAV capability.		
	Rotary Wing UAV SAR	The UK has rotary wing UAVs. The availability will depend on ongoing operational commitments.	Request for assistance via JRCC-AR who will assist with suitable asset.	15 - 45 Mins
	Rotary Wing search and locate (helicopters)	Range dependent on aircraft type and equipment fit and variable across partner SRRs	Request for assistance via JRCC-AR who will assist with suitable asset.	15 - 45 Mins
	Rotary Wing winch capability	All UK civil SAR contracted helicopters have a winchman-paramedic (combined role).	Request for assistance via JRCC-AR who will Task a suitable SAR-H.	15 - 45 Mins

Rotary Wing Paramedic deployment	All UK civil SAR contracted helicopters have a winchman-paramedic (combined role).	Request for assistance via JRCC-AR who will Task a suitable SAR-H.	15 - 45 Mins
Ocean-going Towing Vessel / Tug	UK has a contracted Emergency Towing Vessel located in north Scottish waters	The UK JRCC should be contacted in the first instance.	Determined in discussion with HMCG Operations
On Scene Coordination	UK can utilise vessels of opportunity or government/ military assets (where available) for On Scene Coordinator roles. In the absence of a suitable vessel, UK Coastguard will undertake OSC duties remotely from an RCC	For SAR incidents, these vessels may be contacted directly to appoint OSC. However, if guidance or support in appointing OSC to a UK government vessel is needed, the UK JRCC can be contacted.	Determined in discussion with HMCG Operations
Salvage and Stabilisation capability	Secretary of State's Representative (SOSREP) team can provide support in terms of salvage response. SOSREP have access to the MCA Framework which give us access to salvors, independent advisers, towage companies etc.	SOSREP is listed as an emergency contact for the UK and close working relationships are held with international authorities so that international incidents can be swiftly resolved.	Determined in discussion with HMCG Operations
Technical Rescue onboard casualty vessel	UK air and surface SRUs are capable of assisting injured persons from a vessel. For technical rescue of trapped persons, request may be made to the Navy to see if they can support any request. Capability depends on asset location and availability at the time	Contact UK JRCC for tasking of appropriate rescue capability	15 mins for SRUs. Several hours for Royal Navy
Offshore Firefighting & advice	Advice can be obtained from civil fire fighting authorities through the Fire & Rescue Maritime Response group of fire authorities. Military assets may be able to provide some intervention means.	The UK JRCC can be used as a first point of contact. They will contact the appropriate parties.	60 mins
Surface Vessels	RNLI Lifeboats can operate at a range of up to 100 nautical miles in support of neighbouring states. Lifeboats have survivor capacities of up to 124.	Contact UK JRCC for tasking of surface SRUs.	15 mins from tasking to launch
Subsea SAR	Capability being developed	N/A	N/A

	CBRNE Advice & Response	Secretary of State's Representative (SOSREP) team can provide support in terms of salvage response. SOSREP have access to the MCA Framework which give us access to salvors, independent advisers, towage companies etc.	SOSREP is listed as an emergency contact for the UK and close working relationships are held with international authorities so that international incidents can be swiftly resolved.	Determined in discussion with HMCG Operations
	Ship-based Medical Treatment Advice & Support	UK can utilise vessels of opportunity or government/ military assets (where available) for provision of medical expertise on scene. Specialist medical support may be available from shore based organisations (ambulance, military) in certain circumstances.	Deployment outside the UKSRR unlikely but may be possible in certain circumstances (eg. Offshore oil and gas). Contact with UK JRCC as the first point of contact.	Determined in discussion with HMCG Operations

Faroe Islands

	Capability	Notes	Contact	Response Time
Search Planning	Environmental Data feeds outside own SRR	Environmental and weather data support for drift calculations and search planning may be limited outside own SRR	MRCC Torshavn	Longer
	Subject Matter Expertise	Support for search planning and operational advice at SMC level. Maritime incidents	MRCC Torshavn	Short
	Rescue Asset Capabilities	Technical knowledge of rescue assets and capabilities for both sea and air domain from the MRCC	MRCC Torshavn	Short
	Forecasts / weather impacts	Maritime: Able to provide Weather data (forecast/historical) from Faroese Met Office in support of SAR operations and search planning.	MRCC Torshavn	Short/Longer

SAR Assistance and on scene support	Fixed Wing Search and locate	Fixed wing can be requested from Denmark or through MARCOM HQ or requested from neighbouring countries for own SRR.	MRCC Torshavn	Longer
	Fixed Wing survival equipment deployment	N/A	N/A	N/A
	Uncrewed Aerial Vehicle search and locate	N/A	N/A	N/A
	UAVs, short endurance, search and locate	These are onboard both CG vessels, range limited to Visual Line Of Sight.	MRCC Torshavn	Longer
	Rotary Wing search and locate	Theoretical capacity of deployment of AW139 (M) Range 561 NM, 15 pax. SAR capability, double hoist. Needs to take bilateral agreements into account.	MRCC Torshavn	Short/Longer
	Rotary Wing winch capability	Theoretical capacity of deployment of AW139 (M) Range 561 NM, 15 pax. SAR capability, double hoist. Needs to take bilateral agreements into account.	MRCC Torshavn	Short/Longer
	Rotary Wing Paramedic deployment	Theoretical capacity of deployment of AW139 (M) Range 561 NM, 15 pax. SAR capability, double hoist. Needs to take bilateral agreements into account.	MRCC Torshavn	Short/Longer
	Ocean-going Towing Vessel / Tug	Limited towing capacity CG BRIMIL bollard pull 60T, no counter pollution equipment onboard	MRCC Torshavn	Longer
	On Scene Coordination	Both CG vessel are only 12 personnel, so endurance in OSC role is limited if the operation is demanding because of fatigue.	MRCC Torshavn	
	Salvage and Stabilisation intervention	N/A	N/A	N/A

	Technical Rescue on casualty vessel	No MIRG team in Faroe Islands	N/A	N/A
	Offshore Firefighting & advice	No MIRG team in Faroe Islands	N/A	N/A
	Surface Vessels	2 CG vessels and sometimes 1 Danish Ocean Patrol Vessel in SRR	MRCC Torshavn	Longer
	Subsea SAR	CG vessels equipped with divers 30m and underwater drone/camera 100 M for harbour use.	MRCC Torshavn	N/A
	CBRNE Advice & Response	This is through cooperation with Danish Emergency Management Agency (Beredskabsstyrelsen) HAZMAT and CBRNE for advise in own SRR only.	MRCC Torshavn	Longer
	Ship-based Medical Treatment Support	(Limited- Patch and Dispatch) CG vessels carry ship Medicine Chest A, and navigators are educated in medical care (STCW VI/4.1 & 4.2)	N/A	N/A

Iceland

	Capability	Notes	Contact	Response Time
Search Planning	Environmental Data feeds outside own SRR	Environmental and weather data support for drift calculations and search planning may be limited outside own SRR	JRCC	Environmental data (Oil and Ice Longer): 1-2 days
	Subject Matter Expertise	Support for search planning and operational advice at SMC level. Maritime: JRCC /Land: National Police	Maritime/air: JRCC / Land: National Police	Short

	Rescue Asset Capabilities	Technical knowledge of rescue assets and capabilities for both sea and air domain from the JRCC and assets and capabilities on land from the National Police	Maritime: JRCC / Land: National Police	Immediate
	Forecasts / weather impacts	Maritime: Able to provide Weather data (forecast/historical) from Icelandic Met Office in support of SAR operations and search planning.	JRCC/Icelandic Met office	Short
SAR Assistance and on scene support	Fixed Wing Search and locate	Deployment capability with Dash 8 Q-300. It is not located in Iceland all year around. Has a range of approximately 2100 nautical miles plus 45 minutes of back-up fuel.	JRCC	Longer
	Fixed Wing survival equipment deployment	N/A	N/A	N/A
	Uncrewed Aerial Vehicle search and locate	N/A	N/A	N/A
	UAVs, short endurance, search and locate	Theoretical deployment of drones from ICG, volunteer units (ICE-SAR, etc.) and National police. Terms and conditions for deployment needs to be clarified.	JRCC/National Police	Short
	Rotary Wing search and locate /SAR (Light, Medium, Heavy helicopters)	Theoretical capacity of deployment of Airbus Helicopters H225, 613 NM (1135 KM), 19 pax. SAR capability, double winch.	JRCC	Short
	Rotary Wing winch capability	Theoretical capacity of deployment of Airbus Helicopters H225, 613 NM (1135 KM), 19 pax. SAR capability, double winch.	JRCC	Short
	Rotary Wing Paramedic deployment	Theoretical capacity of deployment of Airbus Helicopters H225, 613 NM (1135 KM), 19 pax. SAR capability, double winch.	JRCC	Short

	Ocean-going Towing Vessel / Tug	ICG patrol vessels, primary state-owned vessels can support SAR. One CG patrol vessel is equipped with counter pollution equipment	JRCC	Longer
	On Scene Coordination	ICG patrol vessels are the primary state-owned asset for this purpose	JRCC	Longer
	Salvage and Stabilisation intervention	N/A	N/A	N/A
	Technical Rescue on casualty vessel	No MIRG team in Iceland	JRCC	Longer
	Offshore Firefighting & advice	6 firefighters + 1 team leader on each ICG patrol vessel (Not MIRG)	JRCC	Longer
	Surface Vessels	ICG patrol vessels and other rescue crafts. Rescue boats from ICE-SAR, terms and conditions for deployment need to be clarified.	JRCC	Longer
	Subsea SAR	Special operation department has divers and equipment for down to 50mtr. depths. ICGV have minimum of two SAR divers that can operate down to 30mtrs. with SCUBA - LIMITED	JRCC	Longer
	CBRNE Advice & Response	Special operations and EOD unit	JRCC	Shorter
	Ship-based Medical Treatment Support	Limited capability as we have limited resources of doctors and we would deploy them with R/W on board the vessel, not life boats or -rafts. ICG vessels have Medicine Chest A, and navigators are educated in medical care (STCW VI/4.1 & 4.2)	JRCC	Longer

Norway

	Capability	Notes	Contact	Response Time
Search Planning	Environmental Data feeds outside own SRR	Limited support of environmental data, weather data in support of drift calculations and search planning may be degraded outside own SRR.	JRCC	Immediate
	Subject Matter Expertise	Support for search planning and operational advice at SMC level. Both in-house and external SAR matter experts can be made available at short notice.	JRCC	Immediate
	Rescue Asset Capabilities	Technical knowledge of rescue assets and capabilities for both sea and air domain.	JRCC	Immediate
	Forecasts / weather impacts	Able to provide Weather data (forecast/historical) from national met service in support of SAR operations and search planning.	JRCC/Met Service	Immediate
SAR Assistance and on scene support	Fixed Wing Search and locate	Deployment capability with P-8 Poseidon, C-130 J Hercules and NoCG/Coastal administration aircraft. Limited ACO capability on P-8.	Military via JRCC	Longer
	Fixed Wing survival equipment deployment	Not available	Military via JRCC	Longer
	Uncrewed Aerial Vehicle search and locate	Not available		N/A
	UAVs, short endurance, search and locate	Theoretical deployment of drones from volunteer units (Red Cross, etc.) and national police. Terms and conditions for deployment needs to be clarified.	JRCC	Longer
	Rotary Wing search and locate	Capacity for int deployment of AW-101 (SAR Queen). Additional offshore SAR helicopters are on request.	JRCC	Short

	Rotary Wing winch capability	Capacity for int deployment of AW-101 (SAR Queen). Additional offshore SAR helicopters are on request.	JRCC	Immediate
	Rotary Wing Paramedic deployment	Capacity for int deployment of AW-101 (SAR Queen). Additional offshore SAR helicopters are on request.	JRCC	Short
	Ocean-going Towing Vessel / Tug	NoCV are the primary state owned assets. Private anchor handling vessels and towing vessels on request.	Military via JRCC	Longer
	On Scene Coordination	NoCV are the primary state-owned asset for this purpose. Other military vessels on request.	Military via JRCC	Longer
	Salvage and Stabilisation intervention	Contact with salvage operators. Deployment based on commercial transaction.	JRCC	Longer
	Technical Rescue on casualty vessel	Norwegian MIRG (RITS) teams are trained to be airlifted (by AW-101) onboard a casualty vessel to rescue vulnerable/injured or trapped persons and bring them to a place of safety	JRCC	Short
	Offshore Firefighting & advice	Norwegian MIRG (RITS), NoCG vessels, St.by (FiFi) vessels from offshore industry can provide technical and tactical advice in support of fire-fighting operations onboard a casualty vessel	JRCC	Short
	Surface Vessels	Large capacity from merchant fleet, offshore industry, SAR vessels and military naval units	JRCC	Longer
	Subsea SAR	Limited sub-surface search and locate capability (technical rescue divers and deep-sea rescue submersibles). Some commercial ROV assets available. ISMERLO for relevant stakeholders.	JRCC	Longer
	CBRNE Advice & Response	Medical advice from CBRNE center (Ullevål hospital). RN through separate channels. MIRG through JRCC.	JRCC	Immediate

	Ship-based Medical Treatment Support	Capacity for int deployment of rescue helicopters with trauma care capability (MD). Additional offshore SAR helicopters on request.	JRCC	Short
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Annex 2: Exercise directive

The exercise directive included in this annex is designed as a practical starting point that can be adapted and used by organisations with minimal preparation. Its intention is to lower the threshold for conducting initial Mass Rescue Operation exercises, allowing stakeholders to test coordination and procedures without requiring extensive planning or resources.

EXERCISE ATLANTIC RUSH

Version Control

Nr	Date	Status	Description
1			
2			
3			

STARTEX. 07-01-2026 at 0930UTC

FROM:

EXERCISE DIRECTIVE STAFF, see below section 9

TO:

MRCC 1

JRCC 1

JRCC 2

MRCC 2

JRCC 3

APPROX TIMINGS

0900 In-brief for MRCC's 0930 STARTEX

0930 Inject 1

1130 Reflections on inject 1

1200 Lunch

1230 Inject 2

1430 Reflections on inject 2

1500 ENDEX

1515 HOTWASH

MESSAGE DISCIPLINE:

All messages used in the exercise, must start EXERCISE ATLANTIC RUSH, and end with EXERCISE EXERCISE EXERCISE.

This is important to avoid misunderstandings and to inform possible third parties that there is an ongoing exercise.

The exercise will continue until terminated by ENDEX message and confirmed by participants via the TEAMS channel, e-mails, and followed up with phone calls to participants. At 1500 UTC, latest.

In the event of real-world SAR coordination or other information that requires attention of players, communication will be prefixed the words NO DUFF.

SCENARIO

The cruise ship *Bodhisattva* is on passage from Reykjavik, Iceland to Stavanger, Norway. while on the *Bodhisattva* is a privately owned cruise liner of some vintage, operated by the Millenium Spirit Movement of Florida, USA. Built in 1976, the ship was recently recommissioned for use by the Millenium Spirit Movement as a mobile

retreat. It departed the USA early December on a world cruise, some three months later than scheduled due to technical issues and defects.

The *Bodhisattva* has 1,148 passengers and 146 crew (total of 1,294 persons) onboard.

On the morning of 7 January 2026, the *Bodhisattva* experienced a blackout and loss of propulsion while in transit from Reykjavik, Iceland to Stavanger, Norway. At the time of the Blackout, the *Bodhisattva* was seeking shelter due to severe weather and approaching the island of Suðuroy, Faroe Islands from the west with the intent of sheltering on the east side of the island.



The *Bodhisattva* drifts rapidly to the east and deploys its anchors, coming to anchor less than 0.25Nm from the shore near Famjin, Suðuroy, in position 61 31.65N, 006 54.47W. The ship's master declare a Mayday and MRCC Tórshavn has initiated a SAR response.

Wind: WSW F9; Sea State: High; Visibility: Good, becoming poor in rain; Air Temp: 12C; Sea Temp: 8C; Cloud Base: 900ft

The exercise will involve three injects that follow the initiating event described above. Each inject will be given to the Faroes MRCC who will be in contact with the other RCC as the exercise goes on. The injects present the

coordinating RCC and RCCs in other countries with a challenge in respect of resources and communication between each participating country.

The weather in the exercise area is as stated above. The weather in other area as local conditions at the time of the exercise.

AIMS AND OBJECTIVES

Aim:

To test and improve the North Atlantic MRO capabilities through response to a reasonable worst-case scenario involving a large passenger vessel incident.

Objectives:

Allow RCC staff the opportunity to practice communication between RCCs in response to a significant incident that results in international assistance requests being made between nations.

Demonstrate capability in respect of response and coordination to a significant maritime incident.

Use the Request of Assistance form in the proposed format provided by NAMRO.

Obtain feedback and input to the guidelines and matrix prior to final publication

COMMUNICATIONS:

Exercise language is English

MIKE DELTA to be used instead of MAYDAY

MIKE DELTA RELAY to be used instead of MAYDAY RELAY PAPA PAPA to be used instead of PAN PAN etc.

For e-mails put in subject: EXERCISE ATLANTIC RUSH.

All emails sent between RCCs should be copied (CC) to:

Radio Frequencies
N/A

Agency/Unit	Call Sign	Telephone Numbers and Email for this exercise only
MRCC 1		
JRCC 1		

JRCC 2		
MRCC 2		
JRCC3		

SPECIAL INSTRUCTIONS:

Participants should not contact third parties that have not been identified specifically to them in previous communications. Please contact countries' distaff in Section 8 below, in case of uncertainty or wanting to contact resources not previously identified.

The Teams meeting link for all online sessions is given below:

Meeting-ID:

Password:

DISTAFF CONTACTS:

(Who you need to call if you have a question about the incident or its participants).

Country 1	[Name]	Phone	email
Country 2			
Country 3			
Country 4			
Country 5			

Exercise ATLANTIC RUSH

NAMRO Project

INJECTS
7 Jan 2026

Inject 1 – T+0hrs

The sea state prevents safe deployment of ship's life rafts or lifeboats. A high swell and breaking seas are impacting the ship and making landing by small craft on the west side of Suðuroy untenable. The ship's captain has requested assistance for the evacuation of passengers and crew.

The wind is forecast to reduce to F6-7 and veer to the north-west within 3 hours.

- RCCs to consider what rescue capabilities are available, identify capability gap and communicate between partners
- RCCs to plan for deployment of any requested effect (time to scene, monitoring in transit, handover to coordinating RCC, logistics)
- Consideration of back-filling capability (consider other nation assets)

Inject 2, Part 1 – T+8hrs

Note: At T+6 hrs, the Bodhisattva restarted its main engines and the captain made the decision to proceed to sea and move the vessel to either Vágsfjørður or Trongisvágssfjørður. Evacuation efforts remained underway but heavy seas continued to prevent use of ship's lifeboats or life rafts.

Wind: NW F7, Sea State: High becoming Moderate, Visibility: Good, Air Temp: 6C, Sea Temp: 8C, Cloud Base: 1500ft

The *Bodhisattva's* captain took the vessel south about to relieve stress of weather. However, on departing the vessel made contact with a submerged rock and the ship began to list to port as it took on water. As the *Bodhisattva* neared the south of the island the main engines stopped again and the captain made the decision to abandon the vessel. Ship's lifeboats and life rafts are deployed and an abandonment begins.

Inject 2, Part 2

Captain of the *Bodhisattva* reports that 20 people remain unaccounted for and are presumed trapped in the vessel. The *Bodhisattva* has shifted from its position and capsized fully, only its hull remaining above water. The vessel is aground still, but rescue craft alongside report the superstructure may be collapsing as the forward part of the hull continues to sink. Surface rescue craft report that banging can be heard from within the upturned hull.

- Some passengers and crew are trapped onboard and require rescue from internal cabins and engineering spaces as they are unable to make their way to deck level for rescue without assistance

First impression Report / After-action review:

- What happened?
 - worst case scenario (MRCC 1)? Was it shared with other RCCs?
 - process & discussions in each country
- What went well, and why?
- What can be improved and how?
- What can we learn from this?
- What planning activities were most effective?
- What would you do differently next time?