

SAR – FØROYAR

MRCC - Tórshavn

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PREFACE

The maritime search and rescue (SAR) service in the Faroe Islands is managed by MRCC Tórshavn. The service is organized in accordance with Faroese law, International Standards and agreements made with other countries.

In order to inform the public and relevant parties regarding the organization of SAR work in Faroese waters, MRCC Tórshavn has created this SAR manual covering the SAR work in the Faroe Islands.

- 1. The Ministry of Fisheries, through the <u>Maritime Rescue Coordination Centre (MRCC</u> Tórshavn) is responsible for SAR provisions in Faroese waters.
- 2. The SAR work is regulated by international standards and regulations and the overall aim and objective is to offer swift assistance to people in distress at sea.
- 3. The SAR-Faroes manual should be read in conjunction with other external guidance regarding SAR arrangements.
- 4. The users of the SAR-Faroes manual are encouraged to identify any inaccuracies that require correction or change. Such observations should be sent to MRCC Tórshavn for review.

The Manual is organized into two parts:

- Part 1, Management and Organization
- Part 2, SAR Plan and Procedures

The intention of the manuals is to provide up to date information and guidance on how SAR operations are carried out in Faroese waters.

Director MRCC Tórshavn Permanent Secretary Ministry of Fisheries

ABBREVIATIONS IN SAR CONTEXT

AAC	Aircraft Asset Coordinator
A/C	Aircraft
ACC	Area Control Centre
ACO	Aircraft Coordinator
AES	Aeronautical Earth Station
AFIS	Aerodrome Flight Information Service
AIP	Aeronautical Information Publication
AIS	Aeronautical Information Service
АКО	Arktisk Kommando (JOC)
ALERFA	Alert phase - Tilbúgvingastøðið
AM	Amplitude Modulation
AMS	Aeronautical Mobile Service
AMSS	Aeronautical Mobile Satellite Service
AMVER	Automated Mutual-assistance Vessel Rescue
ARCC	Aeronautical Rescue Coordination Centre
ARSC	Aeronautical Rescue Sub-Centre
ATC	Air Traffic Control
ATS	Air Traffic Services
С	Coverage Factor
C/C	Cabin Cruiser
C/S	Call Sign
CASEVAC	Casualty Evacuation
CES	Coast Earth Station
CIRM	Centro Internazional Radio-Medico
COSPAS	Satelite Navigational system
CRS	Coastal Radio Station
CS	Creeping line Search
CSC	Creeping line Search, coordinated
CSP	Commence Search Point
CSS	Coordination Surface Search
CW	Continuous Wave
D	Total Drift
De	Total Drift error
DATUM	Centre in search area
DETRESFA	Distress phase - Neyðstøða

DF	Direction Finding
DITCHING	Forced landing of aircraft at sea
DMB	Datum Marker Buoy
DME	Distance Measuring Equipment
DTG	Date/Time group
ELT	Emergency Locator Transmitter
EPIRB	Emergency Position Indicating Radio Beacon
ERC	Emergency Response Centre
ERP	Emergency Response Plan
ERT	Emergency Response Team
ESS	Expanding Square Search
ЕТА	Estimated Time of Arrival
ETD	Estimated Time of Departure
FEF	Forbindelses Element Færøerne (AKO)
FISK	Ministry of Fishery - Fiskimálaráðið
FM	From
FVE	Fiskiveiðieftirlitið (Fishery inspection)
HELO	Tyrla (Helicopter)
HFS	Food & Environmental Agency (Heilsufr. StarvsSt.)
IAMSAR	IMO/ICAO Search and Rescue Manual
ICAO	International Civil Aviation Organization
INS	Inertial Navigation System
INTERCO	International Code of Signals
IP	Initial Position
ITU	International Telecommunications Union
JOC	Joint Arctic Command (AKO)
JRCC	Joint Aeronautical Maritime Rescue Coordination Centre
JRSC	Joint Rescue Sub-centre
KS	Klaksvíkar Sjúkrahús (Hospital)
КТ	Knot(Nautical Mile per hour)
L	Search sub-area length
LCB	Line of Constant Bearing
LES	Land Earth Station
LKP	Last Known Position
LO	Liaison Officer
LOP	Line of Position
LS	Main Hospital - Landssjúkrahúsið

LSB	Lower Side Band
LW	Leeway
LØGR	Løgreglan (Police)
M/V	Merchant vessel
MCC	Mission Control Centre
MCW	Modulated Carrier Wave
MEDEVAC	Medical Evacuation
MEDICO	Medical Advice, usually by Radio
MERSAR	Merchant Ship Search And Rescue Manuel
MIL	Military
MODU	Mobil Offshore Drilling Unit
MRCC	Maritime Rescue Coordination Centre
MRSC	Maritime Rescue Sub Centre
MSI	Maritime Safety Information
NOTAM	Notice to Airmen
OIM	Offshore Installation Manager
OSC	On Scene Commander
POD	Probability Of Detection
RCC	Rescue Coordination Centre
SAR	Search and Rescue
SMC	SAR Mission Coordinator
SOLAS	Safety of Life at Sea
SPOC	Single Point of Contact
SRR	Search and Rescue Region
SRU	Search Unit
SRS	Search and Rescue Sub- region
SRU	Search and Rescue Unit
SS	Suðuroyar Sjúkrahús (Hospital)

PART 1

GENERAL ARRANGEMENTS AND POLICIES

1.1 SAR POLICY AND STANDARDS

International SAR Conventions, Policy, Standards and Agreements in Maritime SAR Manuals and conventions, adopted and published by the International Maritime Organization (IMO), are the foundations on how a SAR operation is planned and carried out and are recognized internationally. The international Convention on Maritime Search and Rescue (SAR) was adopted by an international conference held in Hamburg, Germany in April 1979. The Kingdom of Denmark joined the SAR convention on the 18th of April 1986.

The purpose of the convention is to ease cooperation between member states and to establish the legal and technical background for an international SAR plan. The SAR convention states that member states must:

- Coordinate their SAR organizations
- Coordinate their SAR operations with neighboring countries when necessary
- Enter into agreement with the neighboring countries which states the conditions when SAR
- operations go beyond boundaries or areas of responsibility
- Arrange SAR facilities in conjunction with neighboring countries in order to coordinate and inform about available resources, and test common procedures and communication regularly, so help can reach those in distress as fast and efficient as possible

The IMO and ICAO has published a manual <u>called</u> the International <u>A</u>eronautical <u>M</u>aritime <u>S</u>earch <u>and R</u>escue Manual (IAMSAR) which deals with the organization of rescue work and gives guidelines on how a SAR operation should be carried out. The manual handbook calls upon all coastal states to follow the guidelines in the manual.

Annex 12 of the ICAO convention was adopted by The Kingdom of Denmark in March 1975 and is valid for all member states. The purpose of this convention is to set international guidelines and recommend procedures for aviation rescue and to make the international cooperation as effective as possible. Annex 12 states that member states shall:

- Assist aircraft in distress, and help survivors from an aviation accident without consideration to nationality
- Establish a rescue center in their SAR area
- Inform others states as to which area(s) they provide SAR service
- Coordinate their search and rescue services
- Enter into agreements with neighboring countries regarding conditions when SAR teams from other countries can enter their territory and ensure that such conditions do not hinder any rescue work.

SAR Policy and Arrangements in the Faroe Islands

SAR arrangements in the Faroe Islands are based on the international standards as outlined above. Responsibility, coordination, planning and performance of SAR operations in Faroese territory is based on arrangements, facilities and resources as outlined in this Manual.

SAR arrangements in the Faroe Islands regarding sea and aviation, have also been established in accordance with the international conventions adopted by the Kingdom of Denmark. The purpose of these arrangements is to optimize any rescue work performed.

Maritime SAR in the Faroe Islands is the responsibility of the Faroese Authorities, according to the Home Rule Act from 1948, where the Faroese Parliament is the legislative body and the Faroese Government the executive body.

This was modified on the 1st of January 1969, when an agreement was made between the Faroe Islands and Denmark, and the responsibility for maritime SAR operations was transferred to The Danish Military in the Faroe Islands (FRK).

In 1978 the Faroese Coastguard service was established under the Ministry of Fisheries and a law was passed which determined that the Faroese Coastguard, now the Fishery Inspection Service, should administrate the Faroese part of the SAR services.

In April 2002 MRCC Tórshavn was established under the Ministry of Fisheries and took over as the leading body in SAR operations in Faroese territory, with the Fishery Inspection Service and the Danish Military reverting to a supporting role.

In 2012 MRCC Tórshavn and the Faroese Fishery Inspection Service merged in to one, The Faroe Fisheries, Surveillance and Salvage Agency, with the name VØRN. This is an old Nordic name with the meaning defense.

Aviation SAR in Faroese territory is regulated by bilateral agreements made between The Kingdom of Denmark, The United Kingdom of Great Britain and Northern Ireland and Iceland respectively and responsibilities are detailed below in this manual.

Similarly, SAR on land in the Faroe Islands is the responsibility of the Police in the Faroe Islands, also detailed below in this manual.

1.2 AUTHORITIES AND ADMINISTRATIVE STRUCTURE

Minister of Fisheries

The Minister of Fisheries, on behalf of the Faroese Government, is responsible for Fisheries Management, Fisheries Research, Whaling, National Emergency Preparedness, Search and Rescue, and Meteorological Services.

Ministry of Fisheries and Infrastructure

Permanent Secretary, Ministry of Fisheries

The Permanent Secretary in the Ministry of Fisheries advises and supports the Minister and manages and oversees, the Faroe Fisheries, Surveillance and Salvage Agency and other bodies under the Ministry. The Permanent Secretary also chairs the Crisis Management Board, see page 20.

The Faroe Fisheries, Surveillance and Salvage Agency (VØRN)

The Faroe Fisheries, Surveillance and Salvage Agency (VØRN) includes among others, operation management of fishery inspection vessels and coastguard facilities in Faroese waters. The Head of the Faroe Fisheries, Surveillance and Salvage Agency reports directly to the Permanent Secretary of the Ministry of Fisheries.

MRCC Tórshavn

MRCC Tórshavn is a department of The Faroe Fisheries, Surveillance and Salvage Agency (VØRN). The director of MRCC Tórshavn is responsible and accountable for the activities of MRCC Tórshavn. Among the tasks is to manage MRCC Tórshavn on a daily basic and to lead and coordinate the activities regarding Search and Rescue (SAR). The director of MRCC Tórshavn reports directly to the Head of the Faroe Fisheries, Surveillance and Salvage Agency (VØRN).

SAR Mission Coordinator (SMC) at MRCC Tórshavn

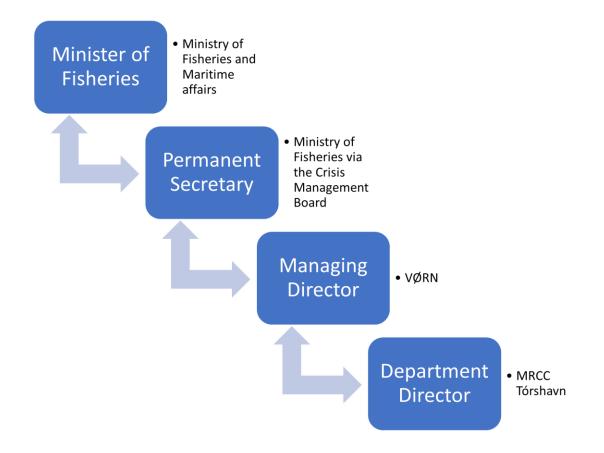
A <u>SAR Mission C</u>oordinator (SMC), normally the Officer of the Watch at MRCC Tórshavn, will be appointed in the event of the MRCC being mobilized for a SAR operation. The SMC is in charge of the coordination of all the rescue work with regard to the specific rescue operation.

Crisis Management Board

Regulations dated from 17th of June 2019 make provision for the setup of a Crisis Management Board for MRCC Tórshavn regarding incidents at sea. In addition to monitoring the management and performance of MRCC Tórshavn the role of this Board is to provide a linkage between MRCC Tórshavn and the Government via the Ministers in the event of a major incident.

The Crisis Management Board is chaired by the Permanent Secretary of the Ministry of Fisheries but also includes other key Ministerial members and other stakeholders. Details are found in the diagram.

Administrative and Management Structure Overview:



Operational Management, Authorities, Roles and Responsibilities

The operative management of all Faroese SAR operations is performed by MRCC Tórshavn, who are authorized to activate and manage allotted resources in SAR operations. The SAR Mission Coordinator (SMC) will lead the decision making at MRCC Tórshavn related to the rescue operation.

The management of such operations includes:

- The decision to start and terminate a SAR operation
- The duty to organize and direct activated units
- The authority to let another MRCC station or a competent local body to take over the SAR operation partly or fully.

Maritime Rescue

MRCC Tórshavn makes necessary provisions for leadership and execution of SAR operations within the Faroese area of responsibility. These provisions contain guidelines for the coordination between, e.g., the police, JRCC UK, JRCC Bodø and JRCC Iceland as well as the cooperation with other national and international authorities who provide resources for maritime rescue.

MRCC Tórshavn is authorized to receive distress calls from Faroese ships and vessels within Faroese

territory. A cooperation agreement has been established between MRCC Tórshavn and JRCC Denmark and JRCC Reykjavik to ensure that MRCC Tórshavn receives all distress calls from Faroese ships transmitted via Inmarsat satellite (COSPAS/SARSAT), and notification about all distress calls from vessels within the Faroese territory. See map on page 38 of the area of responsibility for maritime rescue.

Aviation rescue

JRCC UK and JRCC Iceland respectively, make necessary provisions for executions of SAR operations within the part of the Faroese SAR area for which they are responsible for aviation as outlined in the agreements signed between MRCC Tórshavn and these bodies. See map on page 39 of the areas of responsibility for aviation rescue.

Rescue on shore

MRCC Tórshavn is also responsible for coordination of helicopter operations regarding rescue work ashore, whenever the assistance of the rescue helicopter is required. The Chief of Police is responsible for SAR on land and is responsible for coordinating the operations with MRCC Tórshavn and/or other local authorities. The Chief of Police may appoint one person in each police district and make them responsible for working out and executing a local rescue plan for the area.

1.3 STRUCTURE OF MRCC, FACILITIES AND INTERNAL ORGANIZATION

MRCC Tórshavn

MRCC Tórshavn is located at the address Tinghúsvegur 64, 100 Tórshavn. MRCC Tórshavn consists of a main operations room, with segregated support areas together with other offices and meeting areas. MRCC Tórshavn is manned 24 hours a day, 365 days a year.

The coastal radio station Tórshavnradio is co-located with MRCC Tórshavn and operates under the same management. Hence all radio communication with MRCC Tórshavn will be guided through Tórshavnradio. Details of frequencies can be found in below in this Manual and contact details for MRCC Tórshavn can be found on the webpage, <u>www.vorn.fo</u>.

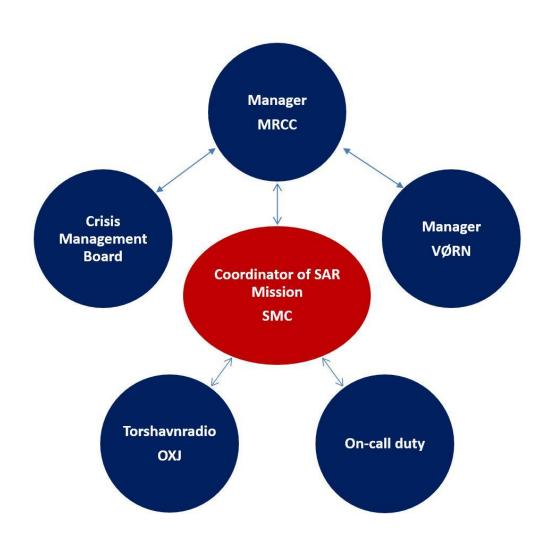
The watch keeping staff at Tórshavnradio operates in direct and visual contact with the staff at MRCC Tórshavn. The main tasks of MRCC Tórshavn are:

- To coordinate SAR operations. MRCC Tórshavn coordinates all maritime SAR operations in Faroese territory. This role is covered in more details in Part 2 of this manual.
- To act as the point of contact for ISPS alerts for Faroese vessels and foreign authorities regarding ISPS matters.
- To provide Maritime Assistance Services (MAS) to vessels in the Faroese territory.
- To act as the point of contact for notification regarding oil spills and pollution in the Faroese territory and facilitate communication with Landsverk, see <u>www.lv.fo</u>, which is responsible for the clean-up work.

To support the SMC function at MRCC Tórshavn a team of emergency response staff will be assembled at the "Liaison Board" at MRCC Tórshavn. The members at the "Liaison Board" are called in depending on the nature and extent of the incident and their background and expertise in relation to the task at hand. The principal function of the "Liaison Board" is:

- To provide technical advice to the SAR Mission Coordinator (SMC)
- To provide linkage with relevant parent organizations and participating agencies and exchange information to and from MRCC as the situation dictates.
- Provide support /facilities

The structure of MRCC Tórshavn during a SAR incident is illustrated in the diagram. Expanded details of the role and responsibility of the various positions including the "Liaison Board" can be found in Part 2 to this Manual.

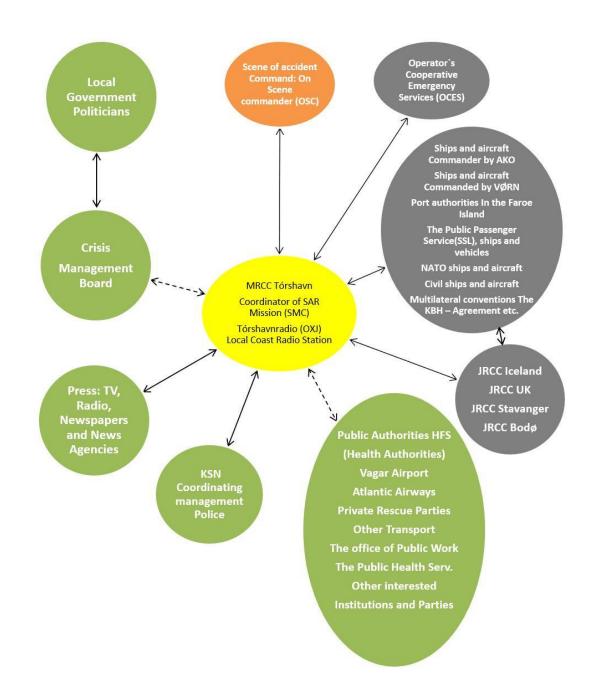


Example of Internal Structure of MRCC Tórshavn during a SAR Operation

1.4 MRCC EXTERNAL SUPPORT, LINKAGES AND CO-OPERATION/SUPPORT AGREEMENTS

External linkages to both National and International support organizations, bodies and other mutual support agencies are illustrated in the diagram below. Expanded roles and responsibilities can be found in Part 2 of this Manual.

1.5 BRIEF OUTLINE OF SAR FACILITIES AND CAPABILITIES



SAR Facilities

MRCC Tórshavn has at their disposal two Faroe based SAR helicopters as part of an agreement with Atlantic Airways. Both SAR helicopters are the type of Augusta Westland 139. The agreement states that one helicopter shall be always at disposal. Further details on these aircrafts, range, helipads and fueling facilities can be found in Part 2 of this Manual. These aircrafts have other roles in the Faroe Islands, but MRCC has priority on their use if needed for SAR work.

Further MRCC Tórshavn has access to the MH-60R Seahawk helicopter occasionally based on the Danish Navy frigate detached to the Faroe Islands and will receive full support from the frigate when it is available and within range. A formal agreement is in place regarding this support.

MRCC Tórshavn has at their disposal the two Faroese rescue vessels whenever required for a SAR operation.

In addition, four smaller all-weather lifeboats are available for SAR work and these boats are operated by voluntary rescue teams and are called out by MRCC Tórshavn. These boats are positioned in Klaksvík, Tórshavn, Eiði and Sørvágur/Miðvágur. See map on page 42.

More details on available units and capabilities are contained in Part 2 of this Manual.

In special circumstances and when SAR missions are carried out at the extremity of the areas covered by any adjacent country in the area, support can be requested from neighboring countries in accordance with International Conventions. An agreement between the Faroe Islands and the United Kingdom of Great Britain and Northern Ireland is in place. In addition, there is a formal agreement with JRCC Iceland in place. Also, an agreement on cooperation on aeronautical and maritime search and rescue in the Arctic (the Arctic SAR Agreement from 2011) is in place. The contracting parties are Canada, the Kingdom of Denmark, the Republic of Finland, Iceland, the Kingdom of Norway, the Russian Federation, the Kingdom of Sweden, and the United States of America.

1.6 REGULATIONS RELATING TO ADMINISTRATION MANAGEMENT BOARD

Aim and objective

The function of the Crisis Management Board is to provide a linkage between the political system and the coordinating authority of MRCC Tórshavn and the Chief of Police in relation to major maritime disasters or severe accidents. The Crisis Management Board has special assignments in connection with major incidents in Faroese waters.

The Crisis Management Board is responsible for the coordination between the political system and MRCC Tórshavn regarding special requirements from the coordinating authority. The management of MRCC Tórshavn can decide when it is necessary to establish the Crisis Management Board. The Crisis Management Board can also assemble if the Chair of the Board or other representatives of the Board deems it necessary.

The duties of the Crisis Management Board are:

- To make sure that the political authority in the Faroe Islands is informed about the circumstances regarding the incident.
- To give advice and make the Faroese political authorities aware of the emergency response given.
- To give the Faroese political authorities advice regarding media handling.
- Inform and deal with representatives from foreign authorities.
- To ensure the correct flow of information and coordinate necessary media briefings, brief representatives from non-government organizations and other stakeholders.
- If required a financial controller will be called in to the Liaison Board to assist in financial decision making and planning. This role will be fulfilled by the financial department from the Ministry of Fisheries, possibly supported by financial key members from other Ministries if required.

Administration

The Crisis Management Board is composed of the Prime Minister's Director together with Permanent Secretaries from all Faroese Government Departments, the director of the Federation of Faroese Municipalities, the Chief of Police and a representee from the Joint Arctic Command. If deemed necessary, the Danish High Commissioner in The Faroe Islands can join the Board.

The Permanent Secretary of the Ministry of Fisheries is a member of the Crisis Management Board and chairs the meetings. The chairman can delegate this task to another member, if deemed necessary based on the nature of the incident. The Crisis Management Board is, as a starting point, mobilized by the request of the chairman. Any of the other members of the Crisis Management Board have the right to confront the chairman and require the establishment of the board. The chairman then calls for a meeting to be held.

The management of MRCC Tórshavn has the responsibility to contact the chairman of the Crisis Management Board when MRCC Tórshavn considers that assistance is needed from the board.

Guidance and procedures

The Crisis Management Board should develop procedures and guidance for its activities. Guidance and procedures must as a minimum be considered:

- Cooperation and communication with the management of MRCC Tórshavn and the Legal Department of the Ministry of Fisheries or other relevant departments.
- Other on-going activities relevant in disaster management and damage control.
- Information dissemination arrangements in connection with incidents e.g., addresses and telephone numbers for members of the Crisis Management Board, relevant authorities and organizations.
- Information to the authorities and the public.
- Reports regarding the incident.

The chairman of the Crisis Management Board must ensure that procedures and guidance's are appropriate and effective and that the procedures are always kept up to date.

PART 2

ORGANIZATION AND INTERNAL STRUCTURE OF MRCC

2.1 ORGANIZATION AND INTERNAL STRUCTURE OF MRCC

MRCC Tórshavn

MRCC Tórshavn is located at the address Tinghúsvegur 64, Tórshavn. The premises consist of a main operations room, with segregated support areas, offices, and meeting areas. The station is manned 24 hours a day, 365 days a year. Communications details of MRCC Tórshavn can be found at www.vorn.fo

Tórshavnradio is located within the same facilities as MRCC Tórshavn and is under the same management. In SAR operations MRCC Tórshavn and Tórshavnradio operate as one unit in visual contact with each other.

MRCC Tórshavn and Tórshavnradio have the following main tasks:

- 1. To coordinate maritime SAR operations. The control and management are done according to national and international laws and agreements. Support is called in to assist in this coordination depending on the nature of the incident.
- 2. To act as the single point of contact regarding notices of oil spills and pollution. MRCC Tórshavn relays these notices and activates the relevant administrations responsible for investigation and clean-up of oil spills and pollution.
- 3. To act as a single point of contact regarding ISPS alarms sent from Faroese vessels and to activate the relevant administrations with ISPS duties laid upon them.
- 4. To act as a Maritime Assistance Service (MAS) for shipping as stated in international agreements regarding MAS services.
- 5. Continuing watch on VHF channel 16.
- 6. Issue navigational (NAV) and meteorological (MET) warnings.
- 7. Receive DSC distress alerts.

The structure and organization of MRCC Tórshavn during a SAR operation is illustrated in the diagrams below.

MRCC Tórshavn manages and coordinates maritime SAR activities. The appointed Search Mission Coordinator (SMC), usually the Officer of the watch, makes decisions in liaison with the <u>On Scene</u> <u>Commander (OSC)</u> and other staff members at MRCC Tórshavn.

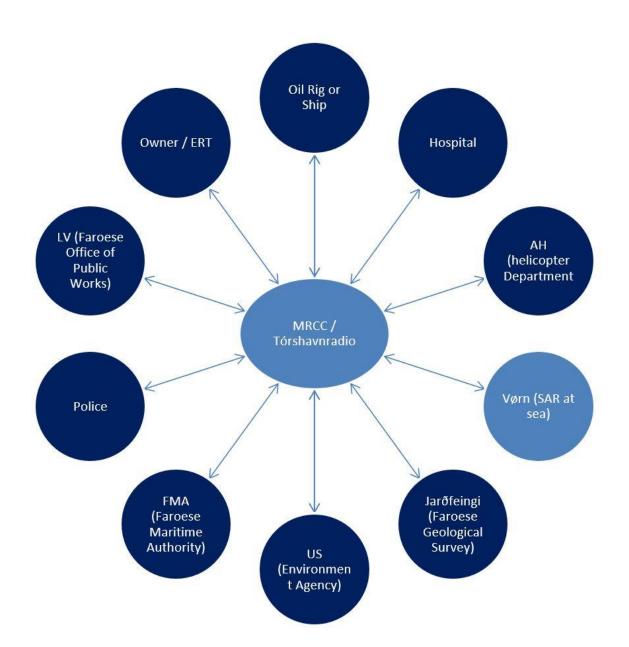
To support the SMC and his team a relevant group of liaison officers will be called in to muster at the **Liaison Board** depending on the nature of the incident. Mustering of representatives for the **Liaison Board** will be at the request of the SMC.

When mustered the members at the **Liaison Board** have supporting roles to the SMC and deal with the communications with their respective organizations drawing on their technical expertise and capabilities.

It is the responsibility of the SMC to initiate International Support/Mutual Aid if needed. Criteria to be considered when deciding to activate International Assistance are:

- Identified resources for immediate rescue are not available in the Faroe Islands,
- Local resources are exhausted or unavailable
- Specialist resources not available in the Faroe Islands are required
- Neighboring countries rescue units are better located to aid immediate recovery of persons or vessels in distress
- The incident is an aviation incident for which existing arrangements with Iceland and UK already exist to take responsibility for such events

Communication links to/from the Liaison Board for oil installations and ships will normally be as follows:



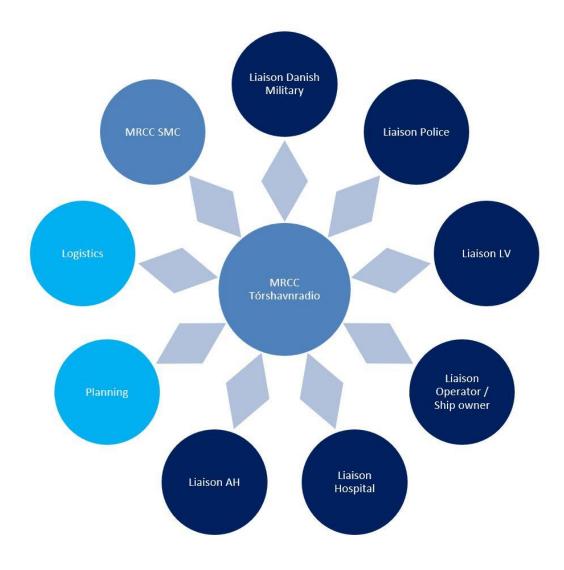
2.2 Crisis Management Board

The Crisis Management Board provides a link between the MRCC and the political system in the event of an SAR incident. In the event of a major incident the Board will be mustered at the request of the Chairman, being the Permanent Secretary in the Ministry of Fisheries, or if the SMC of a SAR incident requires the Board to be mustered.

Communications between MRCC and the Board during an incident will be channeled through the SMC and the Chairman respectively. If the incident is sufficiently demanding to require full time liaison between the MRCC and Crisis Management Board then the SMC

will consider either handing over the SMC responsibility to another person or nominating another person to the Crisis Management Board link role.

Example of the Liaison Board during a SAR Operation



Other possible roles at the Liaison Board

Planning Coordinator

Off duty personnel from the Coast Guard can be called in to provide a planning role if required. Such a role could e.g., deal with forward planning of resources, support requirements, weather forecasting etc.

Logistics Coordinator

This role could be fulfilled by key members from the Faroese Public Transport and Ferry Agency or other relevant party. The primary responsibility will be to coordinate and procure additional external logistical support required for the SAR operation at hand.

Press Spokesman

When a SAR operation is carried out the Manager of MRCC Tórshavn will act as the media spokesman regarding the progress of the SAR work. In large scale operations press releases will be done in cooperation with other involved relevant partners.

2.3 CRITERIA FOR SAR OPERATIONS

Initial stages

When any authority, vessel, or person in the Faroe Islands receives a maritime distress call or is being made aware of a maritime distress situation, the receiver shall immediately alert and without hesitation notify MRCC Tórshavn. Based on the information given, MRCC Tórshavn will evaluate the task at hand, and:

- Call out relevant rescue units and personnel
- Gather further information concerning the incident and coordinate the rescue work.

The criteria for mobilization of SAR units will be based on various factors and a thorough evaluation of available information. Mainly the following will be considered by MRCC Tórshavn and determine any further actions:

- Whether the incident is in Faroese territory or in reach of Faroese rescue units and personnel or vessels are in distress.
- Any report of missing persons or any vessel overdue
- Request for assistance from a neighboring country's MRCC
- Serious offshore exploration incident
- Medevac by helicopter in the Faroe Islands or from ships in Faroese- or adjacent territory.

Internal procedures for handling of emergencies and coordination of rescue work at MRCC Tórshavn are in place at MRCC Tórshavn. This system is audited by an external auditor once a year and all procedures are prepared in accordance with the requirements in the internal procedures.

The Police are normally alerted in cases involving accidents in and adjacent to harbors. If helicopter assistance or any maritime search units are required, the police must immediately relay the available information to MRCC Tórshavn which will coordinate the maritime rescue work in close cooperation with the Police. In most cases a liaison officer from the Police will be called to the Liaison Board at MRCC Tórshavn to facilitate a swift and efficient rescue work.

Coordinating rescue work on land is the responsibility of the Police. According to the contract made between the Ministry of Fisheries and Atlantic Helicopters the rescue helicopter must be called out by MRCC Tórshavn only. Hence the Police will call out the Helicopter for rescue on land via MRCC Tórshavn and coordinate accordingly.

The task to inform next of kin of any people involved in maritime accidents is the task of the owner of a vessel or platform as stated in the International Safety Management system implemented by the IMO. The regulations require the respective company to set up an Emergency Response Team to deal with an emergency. If serious or fatal injuries occur the task to contact next of kin is normally done by the Police.

MRCC Tórshavn is authorized, by the Faroese authorities, to activate any assisting body in a SAR situation. If any adjacent RCC, due to special circumstances, requires resources from MRCC Tórshavn, this will be made available upon request if possible and vice versa.

If an aviation accident occurs in Faroese territory either JRCC Reykjavík or JRCC UK will be alerted as they are responsible for aviation emergencies in Faroese territory. Normally the responsible organization will coordinate with MRCC Tórshavn according to the agreements made with JRCC Iceland or JRCC UK, respectively. In aviation emergencies the AFIS VAGAR at Vágar Airport is operating as a substation of Reykjavík ACC and is activated and deactivated by Reykjavík ACC.

2.4 SAR PLAN

The SAR plan at MRCC Tórshavn is divided into three areas:

- 1. Main arrangements
 - Notification of loss
 - Search
 - Emergency
 - Medical evacuation.
- 2. Special arrangements
 - Maritime rescue expertise regarding coordination of resources, communication etc.
 - Information about rescue resources, capabilities, location, contact details etc.
 - Maps, charts, communication lines, maritime radio station, backup systems.

• Contracts and Agreements with relevant organizations

3. Alerting arrangements

- Comprehensive alert and communication strategies and call out procedures for rescue units.
- A maritime radio station, Tórshavnradio, for alerting of shipping in the area.
- Strategies for alerting Governmental agencies or Ministries in serious emergencies.

2.4.1 MAIN ARRANGEMENTS

Notification of loss is a situation when a vessel has not arrived as expected or communication with the vessel or person cannot be established as planned. The time span for this period can vary but often the MRCC Tórshavn is only informed when some time has passed since last report from the vessel or person in question. Hence the task of MRCC Tórshavn is to gather as many facts and information about the vessel as possible and narrow down a possible search area. This work will often result in a large uncertainty in determining the position and hence a large area must be searched increasing the load on available resources to search the area.

A Search for missing persons or a vessel is often undertaken when notification of loss has occurred, and contact cannot be made and therefore a search plan is the next natural step. The task of MRCC Tórshavn is:

- To estimate the relevant position (known as datum) of the missing vessel when the search commences and the first unit can arrive at the position.
- To stipulate the most likely route the missing vessel may have used.
- To determine the search area
- To allocate search units, i.e., vessels and aircraft for the search
- Point out an OSC and stipulate the search area for each unit
- To provide the search units with special procedures and assignments, in close cooperation with OSC.

Identification of datum will be done by calculating the most likely position of the vessel as fast as possible as time is a crucial factor. Likely useful information sources are:

- Information from the Distress Call
- Information from people who have seen or have knowledge of the distress
- Bearings of radio or distress signals
- The last known position of the missing vessel
- Information on when and where the vessel in question is bound
- Gather additional information about the intended voyage, bunkering, oil consumption, quipment, and experience of those on board

- Knowledge of where and when the missing vessel usually sails or e.g., is fishing
- Weather and current conditions.

Stipulation of search area will then be done based on an evaluation of the information found and MRCC Tórshavn stipulates datum and search area. The search area is expanded according to the time which has passed since the incident occurred. To aid this work on the computer program Search and Rescue Information System (SARIS) developed by BMT Cordah is used. This database contains various drift models for objects ranging from persons in the water to large vessels, including ocean current information. The result is held up against manual calculations, estimations, experience, and feedback from allocated resources. The available information can change during the search, and it is important to evaluate all available information continuously throughout the search.

When a search is established in between the islands of the archipelagic it is often difficult to define the search area. The SARIS program mentioned above has its limitation when drift and currents are calculated close to shore and between the islands, although useful information can be obtained from the program. Considerations should as a minimum be made to the following when datum is determined:

- Wind direction and local current conditions in the fjord
- Possible grounding of the vessel
- People might have made it onto land or rocks
- The missing vessel might be deviated from the route or entered harbors.

Accurate knowledge about wind and current is crucial in stipulating the correct search area. MRCC Tórshavn has databases and other necessary information available to stipulate the search area. When deemed necessary MRCC Tórshavn will seek additional information from people with useful local knowledge.

For maritime search where several units are involved an *On Scene Coordinator (OSC)* will normally be appointed by MRCC Tórshavn. When this is done, consideration will be made to the capability to relay information to and from MRCC Tórshavn to the units on the scene. Also, the OSC task requires some knowledge about how a search is organized and manpower must be available to deal with the vast amount of information during this work.

The responsibility of the appointed On Scene Coordinator (OSC) is to operate in close cooperation with MRCC Tórshavn and deal with the following on scene:

- Organize, lead, and coordinate the search
- Hand out search areas for vessels participating in the search
- Inform MRCC Tórshavn about the situation and send SITREP (situation report) to the Rescue Center and the participating vessels
- Inform MRCC Tórshavn when and where objects, persons or the missing vessel is

found

- Gather information from survivors regarding the situation and missing persons
- Evaluate and ask for additional search units or release units from the search

To optimize the work a variety of search patterns have been developed and are recognized internationally for use in maritime search. The OSC usually decides in close cooperation with MRCC Tórshavn which search pattern is used. The most used search patterns are:

- Sector Search
- Expanding Square Search
- Parallel Track
- Creeping Line Ahead

In addition to this some other search terms and names are used internationally:

- Back Track
- Datum Line
- Key search
- Herring Bone Search

An Emergency is a situation where people are in great danger and immediate rescue is required. When MRCC Tórshavn receive an emergency call or someone has seen an emergency signal or an accident at sea, normally the following procedures will be followed:

- Notify nearest vessels and available rescue units
- Notify the SAR helicopter crew
- Request Tórshavnradio to send Mayday Relay
- Gather more information
- Appoint an On Scene Coordinator (OSC)
- Inform the Police and, if needed, request additional assistance
- If necessary, inform other RCC's and request for assistance
- Inform hospitals if necessary
- Send SITREP to the participants and to other RCC's
- If necessary, contact AFIS Vagar Airport to inform the civil aviation authority
- If necessary, contact Joint Arctic Commands Liaison Element in Faroe Islands, to inform the military aviation authority
- Coordinate transfer of rescued people from ships and airplanes
- Inform the Faroese Maritime Authority, Police or Aviation Authority if the circumstances of the accident need an investigation
- Issue navigational warnings or safety information related to the search

MRCC Tórshavn calls off a search based on the following:

- The missing vessel is found and the emergency is over
- There is no hope of finding the missing units or persons
- Fatigue is setting in amongst the rescue units
- The search environment is a great risk factor for the rescue staff

When a search is called off, MRCC Tórshavn informs all the participants and the Police, that the search has been called off. Immediately after the decision is made a SITREP will be issued and sent to all participating units.

When **Medical evacuation** (**Medevac**) from a ship is required, MRCC Tórshavn coordinates the incident in close coordination with the helicopter crew, the vessel and the medical staff at the hospital.

2.4.2 SPECIAL ARRANGEMENTS

Media handling

Media handling related to maritime rescue work is handled by MRCC Tórshavn which issues press releases and informs the media about incidents they have coordinated. Normally a press release will be issued during the incident and again when the incident is over. If MRCC Tórshavn has assisted a foreign Rescue Center, the media will be directed to the Rescue Center which coordinated the incident.

Names of persons involved in a maritime accident are kept confidential during the search. The Police are the only authority who can release the names of persons dead and inform relatives accordingly. Therefore, all questions regarding names or personal information should be directed to the Police.

Ministry of Fisheries has a contract with a private contractor, Atlantic Airways, regarding a SAR Helicopter Service. The SAR helicopter type is Agusta Westland 139 with a range of approximately 200 nm, depending on the weather conditions. According to the contract the SAR helicopter shall be air born within 60 minutes. The average scramble time is normally less than 60 minutes. In severe weather conditions there is a slight risk, that the SAR helicopter is unable to lift off.

An agreement is made between MRCC Tórshavn and the Danish Military in the Faroe Islands, Joint Arctic Command, regarding use of their resources for rescue work. Normally the military has a Danish frigate in Faroese waters with facilities for a Sea Hawk helicopter onboard. When available, this will be used in rescue work as well, and a liaison officer will be called to MRCC Tórshavn.

A SAR agreement has been made between JRCC UK and MRCC Tórshavn regarding assistance across the areas of responsibility. This deals with mutual support if the need arises and either is not capable of dealing with an emergency due to lack of resources.

An agreement has been signed between JRCC Iceland and MRCC Tórshavn dealing with the handling of aviation incidents in Faroese territory. Iceland is responsible for the Faroese airspace north of 61 degrees and the agreement states that a maritime search will be handed over to MRCC Tórshavn. The AFIS at Vagar Airport will, in case of an emergency, assist JRCC Iceland to determine DATUM calculations.

The agreements mentioned above are all made in collaboration with the following international standards:

- United Nations Convention on the Law of the Sea 1982
- International Convention of Maritime SAR 1979 (Jan 2000)
- International Convention on Safety of Life at Sea 1979 (SOLAS) and amendment

2.5 LOG AND RECORD KEEPING

The various units involved in a SAR operation should use checklists and procedures in accordance with the IAMSAR manual to make sure that all tasks are carried out as intended.

The checklists should contain a description of the information details to be obtained and actions to be carried out.

The units must keep and maintain an up-to-date list with contact information details of institutions and other units of the rescue service. Contact details of other relevant parties should also be available.

The various units should keep a detailed running log and report all relevant information to MRCC Tórshavn. The following should be logged:

- Time and position for every observation or incident of importance
- Arrival and departure on scene
- Which steps have been taken and results achieved
- Summary of communication
- Transmission- and receiving times for messages
- The search area and how the search was carried out
- Information about survivors, injured, and dead

Copies must be given to MRCC Tórshavn at the end of an incident. The information will be used to evaluate the efficiency of the search and to improve the performance of the entire rescue work. It should be noted that all units play significant roles by doing their part, although it can be difficult to see the large picture during the search. Hence it is important that MRCC Tórshavn issues SITREP's at regular intervals.

Situation report (SITREP)

The OSC shall keep the RCC, and all the participating units informed about all circumstances concerning the operation. This is done by sending SITREP frequently. What a SITREP should contain depends on the OSC and the operation in question, but all SITREPs should be done in accordance with IAMSAR manual, vol. 2, appendix I

2.6 COMMUNICATIONS COMPETENCY AND TRAINING

General

Communication in a SAR operation is normally through MRCC Tórshavn and Tórshavnradio and aviation radio stations.

MRCC Tórshavn

MRCC Tórshavn is the coordinating body in SAR operations in Faroese territory. The station is manned 24 hrs. a day, and can be contacted by telephone, telefax, e-mail, AFTN, Inmarsat/C or Tórshavnradio. See www.vorn.fo for details.

Tórshavn radio

Tórshavnradio is manned with radio operators 24 hrs. a day, and can be contacted on the distress frequencies, working frequencies (VHF and MF), DSC, telephone, telefax AFTN and e-mail. See list of frequencies.

MRCC Tórshavn and Tórshavn radio are joint departments under the same management and thus the communications in SAR operations will normally be through Tórshavnradio. The maritime radio station has continuous listening watch on distress and working channels. See list of frequencies for details.

Communication with aircraft

Aircrafts landing and departing from the Faroe Islands are communicating with AFIS at Vagar Airport. Communication with aircrafts passing Faroese SAR territory goes through Reykjavik ACC (BIRD FIR) or Scottish ACC (EGPX FIR).

Radio communication with aircrafts in a SAR operation

The aviation radio centers are:

- The AFIS at Vagar Airport Aircrafts landing at Vagar Airport or operating in Faroese designated area of responsibility (Vagar TIZ), communicate with Vagar Airport AFIS. AFIS is only operating when the airport is open for traffic, normally during daytime.
- Reykjavik ACC and Scottish ACC Reykjavik ACC and Scottish ACC communicate with civil aircrafts passing through Faroese SAR territory.

• MRCC Tórshavn and Tórshavn radio MRCC Tórshavn can be contacted regarding SAR matters if contact has been established.

See page 43 regarding location of aircraft communication antennas in Faroe Islands.

Frequencies used to communicate between units:

Distress frequencies used by aviation

- 121,500 MHz (civil aviation)
- 243,000 MHz (military aviation)

AFIS Vagar listens on 121,500 MHz when the airport is open.

Aviation communication centers often continue to use the frequency on which the distress signal was received. This is done to avoid communication problems.

Frequencies used to communicate between flying units:

- See below for frequencies.

Radio communication with ships in a SAR operation

The communication centers for ships are:

• Tórshavnradio *Tórshavnradio has radio equipment to be used in SAR operations. It must be agreed which frequencies to use. See below frequencies.*

See Map page 44 for location of ship communications antennas in Faroe Islands.

Distress frequencies used by ships

The civilian fleet uses the following distress frequencies:

- o 2182 kHz telephony
- VHF Channel 16: 156,800 MHz
- DSC VHF Channel 70: 156,525 MHz digital
- DSC MF 2187,5 kHz, digital

Tórshavnradio has continuous watch on:

- VHF Channel 16: 156,800 MHz
- o DSC VHF Channel 70: 156,525 MHz digital
- o DSC MF 2187,5 kHz, digital

How to receive calls from and locate emergency transmitters

GMDSS transmitters

Radio stations and ships receive digital distress calls on DSC 2187,5 kHz and VHF DSC. Distress voice communication is then changed to MF 2182 KHz and VHF CH 16. The position for the distressed vessel is normally included in the DSC-call but can be determined

by radio bearings from two or more ship stations if equipped with DF.

Cospas/Sarsat and Iridium reports.

The Cospas/Sarsat and Iridium satellites can receive distress calls and determine the position. The frequencies used by satellites are:

- o 406,025 MHz (Cospas/Sarsat emergency transmitter)
- o 1610 to 1626,5 MHz (Iridium emergency transmitter)

Apart from being used primary as emergency frequencies by the aforesaid units, the emergency transmitters are also used in lifeboats as EPIRB's (Emergency Position Indicating Radio Beacon) and as ELT's (Emergency Locating Transmitter). These transmitters can also be used by people travelling in e.g., the wilderness.

Other means of communication

• Cellular phones (Mobile Cellular phone and Satcom) More and more ships use cellular phones in their ship-ship and ship-land communication. The cellular phones are:

- Mobile Cellular phone (near land)
- Satcom (all over the world)

Ships in distress shall use their GMDSS equipment for all emergency transmissions. Thus, all radio stations and ships in the area can receive the distress signal and swift assistance can be obtained.

Frequencies: The civil air traffic uses the frequencies from:

117,975 MHz to 137,000 MHz

121,500 MHz is the distress frequency for civilian air traffic 243,000 MHz is the distress frequency for military air traffic

The frequencies that can be used in communication between aircrafts and ships or shore stations are:

2182 kHz, 3023 kHz, 4125 kHz, 5680 kHz, 6215 kHz, 8291 kHz, 8364 kHz, 12290 kHz, 16420 kHz,

156,300 MHz (VHF Channel 6),

156,600 MHz (VHF Channel 12) 156,800 MHz (VHF Channel 16) 121,500 MHz, 123,100 MHz,

Aircrafts can communicate with other aircrafts on: 123,100 MHz and 282,800 MHz

The Faroese Rescue helicopters:

The Faroese rescue helicopters can communicate on SATCOM, aeronautical- and maritime VHF. The rescue helicopters are also equipped with AIS and a direction finder which makes them able to locate signals from 118 MHz to 136 MHz.

Frequencies that vessels can use in a SAR operation are:

The civilian maritime fleet communicates on these frequencies:

2 MHz to 30 MHz 154 MHz to 174 MHz

2182 kHz Call and distress frequency 2187,5 kHz DSC digital distress

156,800 MHz (VHF Channel 16) Call and distress frequency 156,525 MHz (VHF Channel 70) DSC digital call and distress

Tórshavnradio can communicate on these frequencies:

2187,5 kHz DSC (digital)	
2066/1641 kHz	Duplex
2102/1758 kHz	Duplex
2182 kHz	Simplex
3023 kHz	Simplex
4125 kHz	Simplex
5680 kHz	Simplex
6215 kHz	Simplex
8291 kHz	Simplex
8364 kHz	Simplex
12290 kHz	Simplex
16420 kHz	Simplex

(VHF Channel 70): 156,525 MHz DSC (digital)	
(VHF Channel 6): 156,300 MHz	Simplex
(VHF Channel 8): 156,400 MHz	Simplex
(VHF Channel 9): 156,450 MHz	Simplex
(VHF Channel 12): 156,600 MHz	Simplex
(VHF Channel 13): 156,650 MHz	Simplex

(VHF Channel 14): 156,700 MHz	Simplex
(VHF Channel 16): 156,800 MHz	Simplex
(VHF Channel 23): 157,150/161,750 MHz	Duplex
(VHF Channel 24): 157,200/161,800 MHz	Duplex
(VHF Channel 25): 157,250/161,850 MHz	Duplex
(VHF Channel 26): 157,300/161,900 MHz	Duplex
(VHF Channel 60): 156,025/160,625 MHz	Duplex
(VHF Channel 61): 156,075/160,675 MHz	Duplex
(VHF Channel 62): 156,125/160,725 MHz	Duplex
(VHF Channel 63): 156,175/160,775 MHz	Duplex

120,200 MHz 124,850 MHz 125,000 MHz 126,000 MHz

The air traffic tower Vagar (AFIS) can communicate on these frequencies: 124,850 MHz

121,500 MHz

Cospas/Sarsat:

406,025 MHz

Competency and Training

The aim of the Management of MRCC Tórshavn is to attract employees with the highest possible maritime knowledge and experience, both from domestic waters and worldwide trade. The employees must meet the job requirements and competency standards based on internal procedures. This system also sets the standards for training and education and is audited yearly by an external audit.

Training and exercises are held each year, both with local and international partners. All exercises are evaluated, and conclusions and lessons learned are implemented.

2.7 LOCAL SUPPORT AND ASSISTANCE WITHIN FAROE ISLANDS

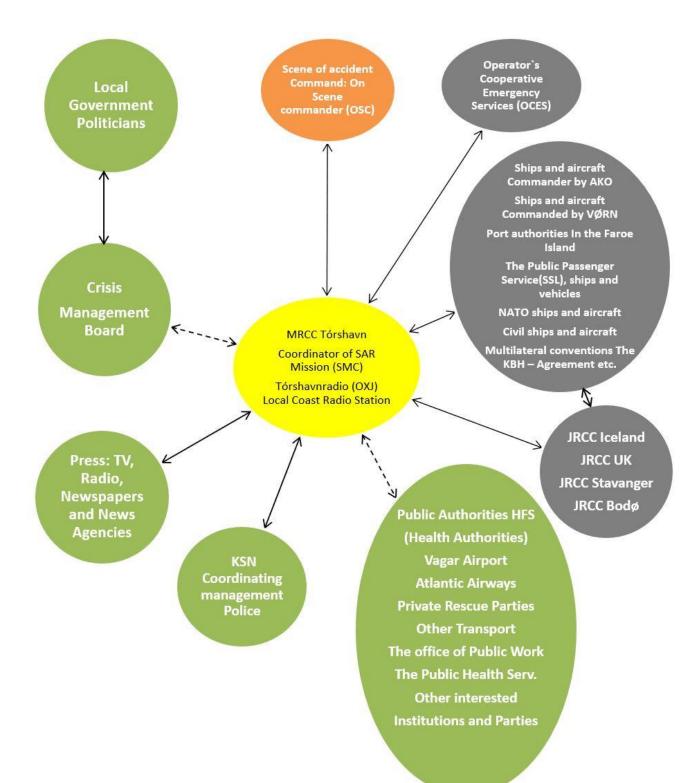
In the event of an incident occurring which cannot be dealt with by resources normally available for MRCC Tórshavn, agreements have been made with organizations/bodies within the Faroe Islands to provide back up, special resources, personnel and logistical support as the situation dictates. These bodies can be found in the left- and right-hand boxes on next page.

The decision to request additional support and resources is the responsibility of the SMC. This decision will be based on the assessment of the rescue work and the quality of the work performed, bearing in mind the need to carry out a speedy and successful rescue operation. In this respect the SMC should also consider the necessity for international assistance.

2.8 INTERNATIONAL ASSISTANCE AND MUTUAL AID

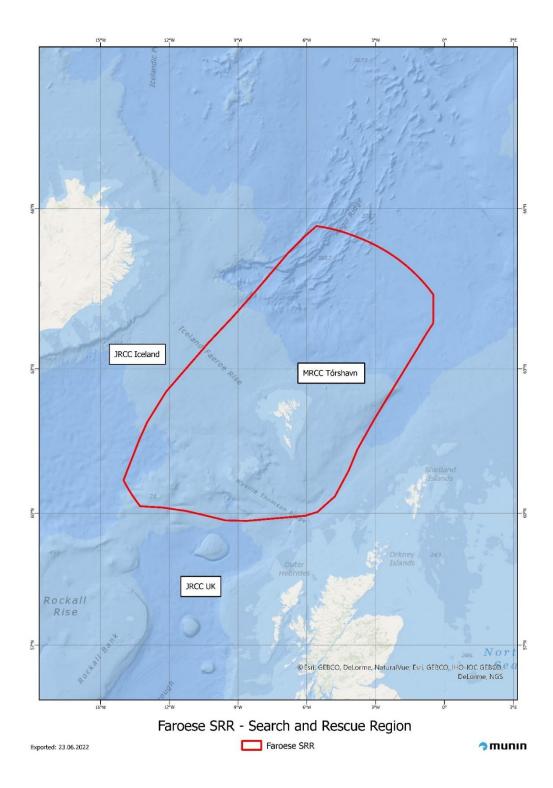
It is the responsibility of the SMC to initiate International Support/Mutual Aid. Criteria to be considered when deciding to activate International Assistance are:

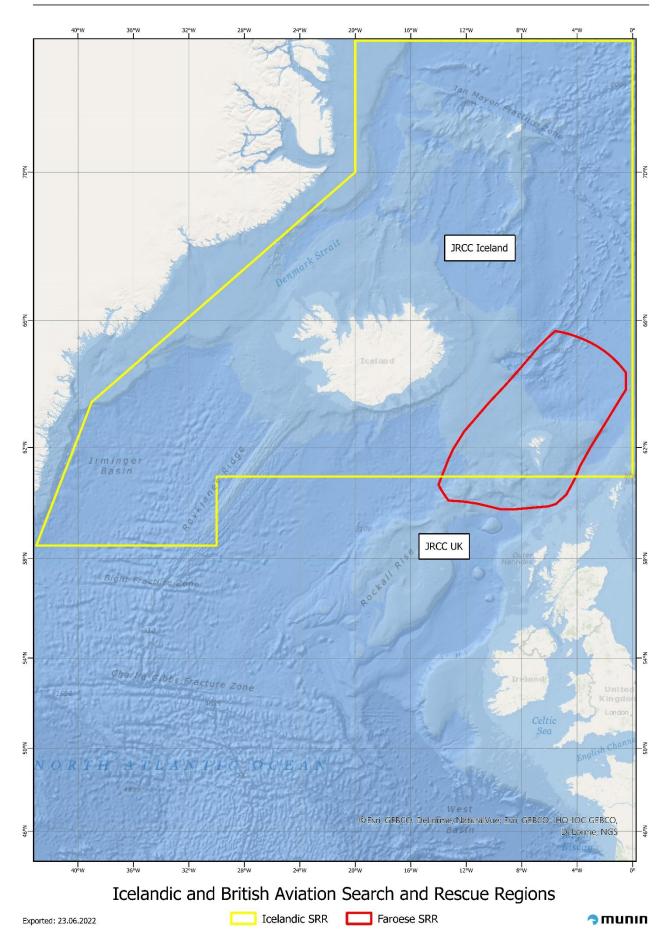
- Identified resources for speedy rescue are not available in the Faroe Islands,
- Local resources are exhausted or unavailable
- Specialist resources not available in the Faroe Islands are required
- Neighboring country rescue services are in a better position to aide speedy recovery of persons or vessels in distress
- The incident is an aviation incident for which existing arrangements with Iceland and UK already exist to take responsibility for such events

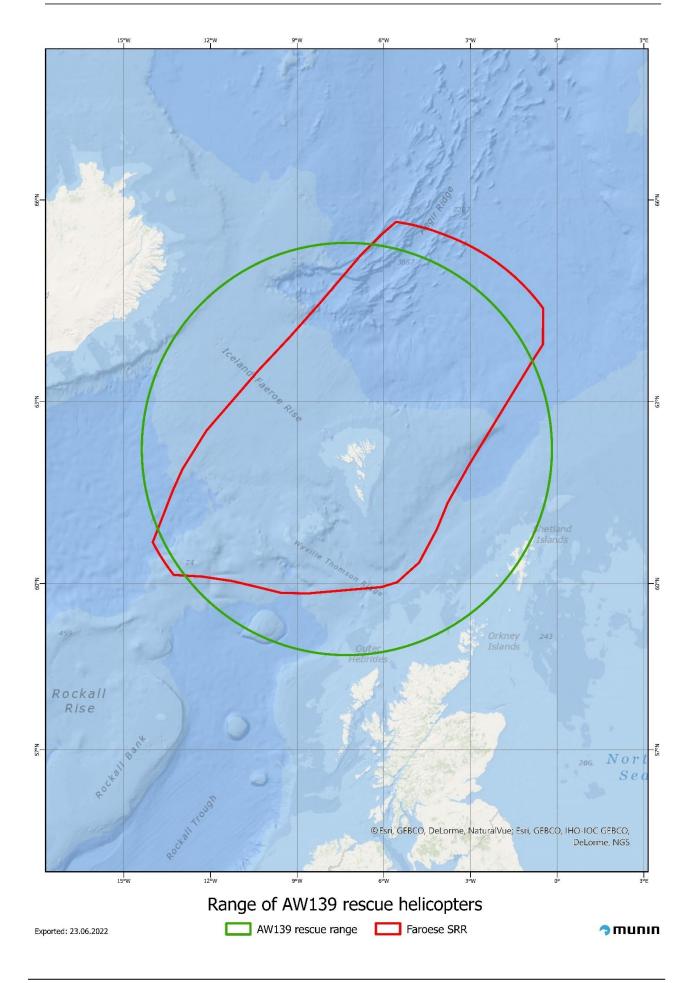


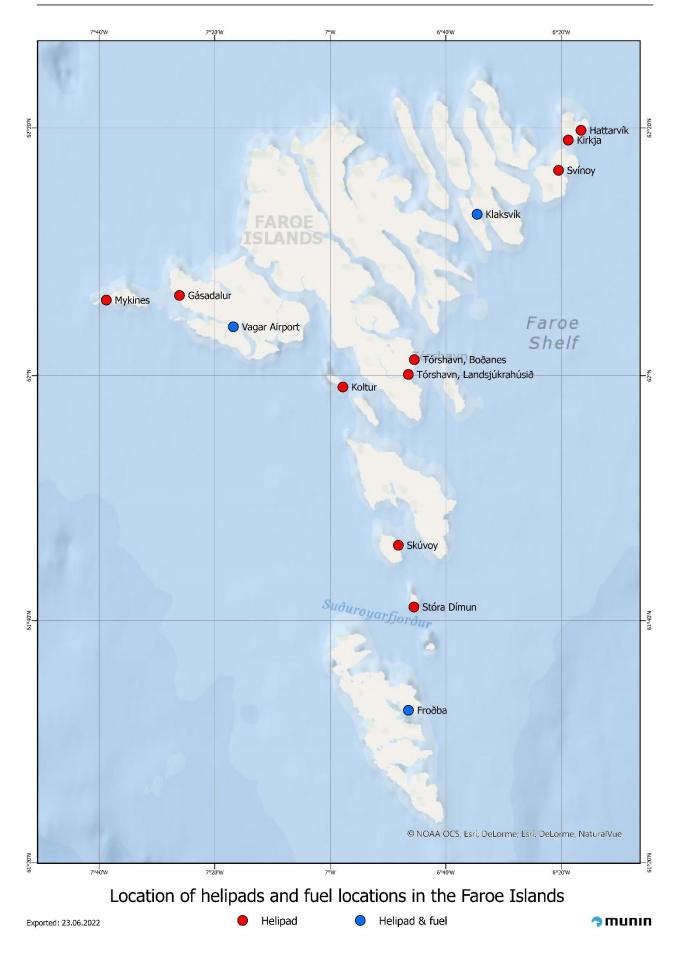
Example of international assistance and mutual aid:

3.1 MAPS AND CHARTS SHOWING BOUNDARIES OF RESPONSIBILITY

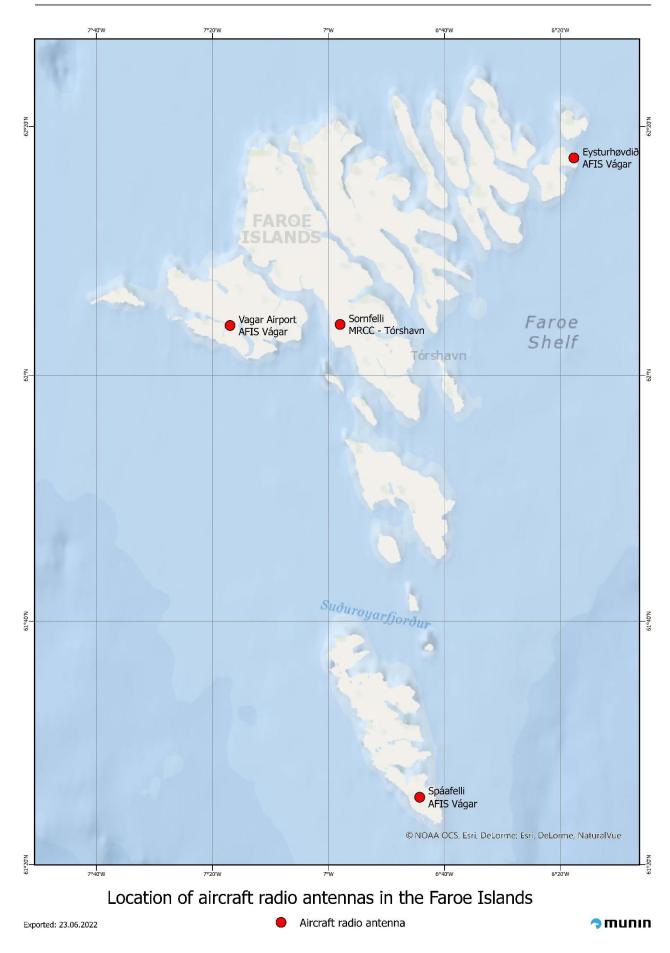


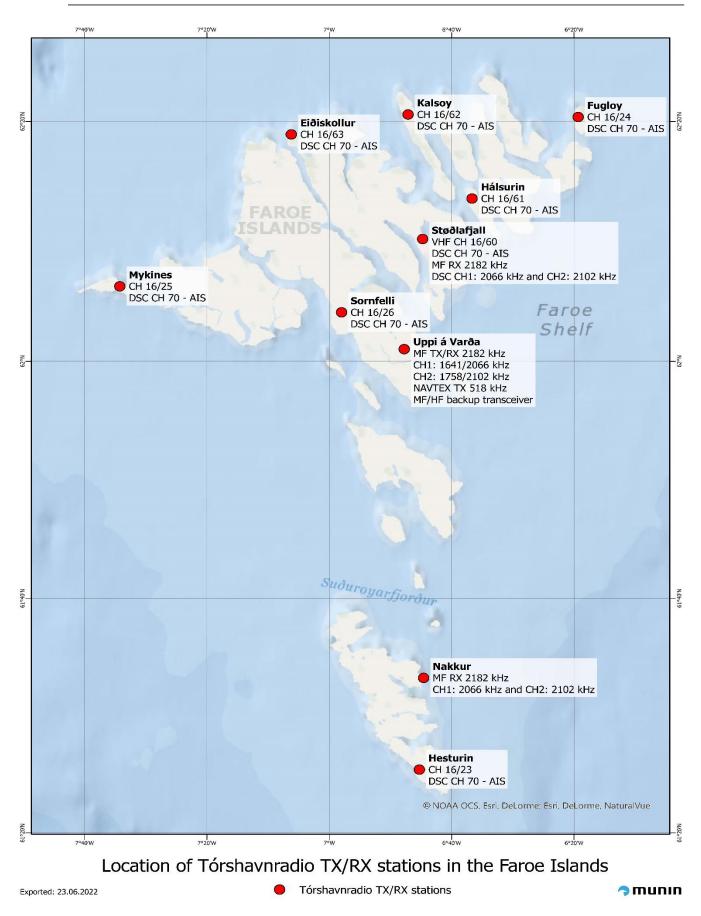












3.2 SAR RESOURCES – DETAILS OF PRIMARY AIRCRAFT, VESSELS ETC.

Faroe Islands SAR Helicopters

Helo AW139

Name	Augusta Westland 139
Call Sign	OY–HIH
Distinctive	AW 139
Crew	2 (4)
Max speed	167 Kts = 310 Km/H
Communication equipment	Maritime VHF radio, AIS, SAT phone
Range	200NM = 370Km
Load capacity	1600 Kg
Passengers	15
Hoist	External hoist(double) max load 272kg
Stretcher	Yes (2)
Medical doctor	
Other	FLIR-Night sun-Direction Finder VHF. EVS.

Helo AW139

Name	Augusta Westland 139
Call Sign	OY-HIL
Distinctive	AW 139
Crew	2 (4)
Max speed	167 Kts = 310 Km/H
Communication equipment	Maritime VHF radio, AIS, SAT phone
Range	200NM = 370Km
Load capacity	1600 Kg
Passengers	15
Hoist	External hoist(double) max load 272kg
Stretcher	Yes (2)
Medical doctor	
Other	FLIR-Night sun-Direction Finder VHF. EVS.

Helo Danish Seahawk MH-60R

Name	Seahawk MH60R
Callsign	DANISH NAVY HELICOPTER
Distinctive	MH-60R
Crew	2-3
Max speed	180 Kts = 333Km/H
Communication equipment	HF, MIL VHF, Satcom and Maritime VHF CH 16
Range	230NM = 426Km
Load capacity	225Kg Sling 270Kg
Passengers	5
Hoist	Yes
Stretcher	Yes
Medical doctor	Yes
Other:	Day / Night capability. L: 19,76 m H: 5,18 m. W: 10,7 t

Faroese Fishery Inspection Vessels

Navn	"BRIMIL" XPYM MMSI 231121000
Type of vessel	Rescue and inspection vessel
Hull	Steel
GT	1503 GRT
Length	63,6 m.
Breadth	12,6 m.
Draught	6,5 m. max
Air draught	24 m.
Eye level	12 m.
Main engine & HP	1 pcs. Bergen Diesel 1800 HP
	1 ncs Bergen Diesel 3600 HP
Max. speed (knot)	17 kn
Economic speed	11,5 kn
Range (nm)	With 300.000 ltr. of Bunker = 5500 nm
Fuel capacities	320.000 ltr
Crew	12 pers.
Crew capacity	30 pers.
Portable pumps	4 pcs.
Firefighting equipment	2 pumps with accessories
(For assistance to other vessels)	
Towing equipment (Bollard pull 62 mt)	500 mtr. 36 mm. wire on towing winch
Towing wires	1 x 220 mtr. x 80 mm. Synthetic rope
Number of boats, type and size.	1 x 220 mtr x 52 mm Synthetic rope 2 pcs. aluminum boarding boat with 230 HP water jet engines.
Lifesaving equipment	47 pcs. lifebelts, 29 pcs. Immersion suits
Life rafts	$4 \times 25 \text{ pers} + 1 \times 6 \text{ pers}$
Radio equipment	Radio GMDSS, Inmarsat $C + B +$ Iridium GMDSS
	5 pcs. VHF's.
Compass	2 pcs. GYRO + 1 pcs. Magnetic compass
Radar equipment	3 pcs. Furuno radars
Decca	
Echo sounder	2 pcs. Furuno
Weather Limitation	None
Other:	2 x 3 pcs scuba divers, 2 x 4 pcs smoke divers.
	1 pcs FLIR
	Oil tanks: $2 \times 89 \text{ M}^3$
	1 x 97 M ³
	$1 \times 110 M^3$

Faroese Fishery Inspection Vessels

Name	"TJALDRIÐ" XPRT MMSI 231006000
Type of vessel	Rescue and inspection vessel
Hull	Steel
GT	436,87 GRT
Length overall	44,5 m.
Breath	10 m.
Draught	4,2 m.
Air draught	
Eye level	
Engine type	2 MVM of 1200 hp. (single pitch propeller)
Max. Speed (knot)	15 kn. (range 4500 nm.)
Economic speed	12 kn. (range 7000 nm.)
Range (nm)	9000 nm
Fuel capacity	190 m ³
Crew	11
Crew capacity	15
Portable pumps	3
Firefighting equipment	2 pcs. Pumps with accessories
Towing equipment	350 m. 4" wire on towing winch
Towing wires	2 x 220 m. of 75 mm., & 2 x 220 m. of 48 mm. polyester
Number of boats, type and size	1 Zodiac + 1 pcs. smaller MOB. boat.
Lifesaving equipment	32 pcs. life vests, 8 pcs. Life rings
Life rafts	2 pcs.
Radio equipment	GMDSS-radio station
Compas	1 pcs. GYRO + 1 pcs. Magnetic compass.
Radar equipment	2 pcs. Raytheon + 1 pcs. Furuno
Decca	1 pcs.
Ecco sounder	2 pcs.
Weather limitations	None
Other:	2 x 4 pcs. Scuba divers, 2 x 2 pcs. Smoke divers.

Rescue boat Lív

Name	"Rescue Lív" XPWB MMSI 231585000
Type of vessel	Rescue vessel
Hull	Prepreg. Epoxy. Composite, Polyester, Divinycell, fibreglass
GT	19,3 t
Length	14,71 m.
Breadth	4,81 m.
Draught	2,84 m.
Air draught	
Eye level	
Engine & HP	2x Scania DSI 14 58 M 44 V 497 kW/675 hp each
	Gear : Servogear HD 180 og HD 195
	VP-propeller, straight shaft 70 mm
Max. speed (knot)	22-23 kn.
Economic speed	18-19 kn.
Range (nm)	250 nm
Fuel capacities	2500 L
Crew	4/5
Number of berths "crew capacity"	4
Portable pumps	1 x hydraulic 114 m3/h
	2 x Weda 10N, 30 m3/h
	1 x Jabsco, 17,5 m3/h
Firefighting equipment	2 x Fire Pro, Aerosol in engine room
(For assistance to other vessels)	2 x portable fire extinguishers
Towing equipment	1 x towing hook Mampey TCX 50/7
	1 x towing hook (MEST)
	1 x hydr. anchorwinch
	1 x hydr. capstan
Towing equipment	Bollard pull 7t
Number of boats, type and size	
Lifesaving equipment	As the law prescribes
Liferafts	2 x Viking DK+ SOLAS B, 6 pers.
	1 x Viking DK+ SOAS B, 8 pers
Radio equipment	Mil.VHF, Civ. VHF, MF/HF

Compass	1 x magnetic compass, 1 x GPS compass
Radar equipment	1 x Furuno 2115, 3 cm
Direction finder/GPS	1 x GPS v.card
Echo sounder	Furuno FCV-585
Weather limitation	None
Other:	Helo stretcher - Spine board - Medicine chest

Rescue boat Ziska

Name	"Rescue ZISKA" XPZQ MMSI 231879000
Type of vessel	Rescue vessel
Hull	Fibre glass
GT	57 T
Length	19,6 m.
Breadth	5,7 m.
Draught	1,4 m.
Air draught	
Eye level	
Engine & HP	MAN Diesel 2 x 735 KW and Perkins 44 kW generator
Max. speed (knot)	25 kn.
Economic speed	17 kn.
Range (nm)	No limit
Fuel capacities	5000 ltr
Crew	
Portable pumps	Yes
Firefighting equipment	
(For assistance to other vessels)	
Towing equipment	10 T pollard pull
Towing wires	
Number of boats, type and size	1 MOB boat
Lifesaving equipment	As the law prescribes
Liferafts	
Radio equipment	Mil.VHF, Civ. VHF, MF/HF
Compass	1 Pcs. magnetic compass
Radar equipment	1 Pcs. 3 cm
Direction finder/GPS	1 Pcs.
Echo sounder	Yes
Weather limitation	
Other:	Helo stretcher - Medicine chest- Deck Crane

Rescue boat Sverri

Name	"Rescue SVERRI" OW2371 MMSI 231108097
Type of vessel	SAR
Hull	Fibre glass
GT	21 T
Length	14,80 m
Breadth	4,40 m
Draught	1,35 m
Air draught	6,20 m
Eye level	
Engine & HP	Volvo Penta D11 - 600Hk 2x IPS 800 system
Max. speed (knot)	31 knots
Economic speed	26 knots
Range (nm)	300 nm
Fuel capacities	2000 L
Crew	4
Number of berths "crew capacity"	4
Portable pumps	2 - 1 Honda 48T/t and 1 Electric submerible pump 18T/t
Firefighting equipment	Portable fire extinguishers
(For assistance to other vessels)	
Towing equipment	Bollard pull 6,2 T
Towing wires	100 m and slip hook
Number of boats, type and size	2
Lifesaving equipment	Jason Craddle net in stb Defibrillator. 20life jacket.First
	Aidkit
Liferafts	2 (1 x 12 persons and 1 x 8 persons)
Radio equipment	2VHF, VHF-DSC, HF, HF-DSC, 4 Hand VHF
Compass	Magnetic and Furuno Satelite compass
Radar equipment	1, 48 nm
Direction finder/GPS	3 GPS and 1 Plotter
Echo sounder	HD Echo sounder
Weather limitation	None
Other:	FLIR Camera. 220 V on deck. Microwave and Toilet.

Rescue boat Vón

Name	"Rescue VÓN" XPVX MMSI 231108758
Type of vessel	Interceptor 48 SAR Self Righting
Hull	FRP - Fibre reinforced plastic
GT	19 T
Length	15,5 m
Breadth	4,3 m
Draught	1,2 m
Air draught	6,2 m
Eye level	2 m
Engine & HP	2 x 478kW Scania DI13 087M Waterjet
Max. speed (knot)	30 knots
Economic speed	25 knots
Range (nm)	200 nm
Fuel capacities	1,85 m3
Crew	2-5 persons
Number of berths "crew capacity"	Main cabin 4-5 crew. Forward cabin 10 passanger/survivor
Portable pumps	2 x electrical pumps 5001/min
Firefighting equipment	1 x electrical pump 400 l/m
(For assistance to other vessels)	
Towing equipment	Hook. Bollard pull 3 T
Towing wires	190 m. 16 mm Dyneema
Number of boats, type and size	
Lifesaving equipment	Firstaid kit – Defibrillator -Oxygen - Stretcher
Liferafts	Viking liferaft 8persons + 12persons
Radio equipment	2x VHF-DSC, AIS Class A MF/HF Radio
Compass	Magnetic. Raymarine Fluxgate.
Radar equipment	Raymarine Quantum 2 Doppler – 24 nm x-band
Direction finder/GPS	3 x Raymarine Axiom MFD
Echo sounder	Raymarine RVX1000 High-Performance 3D CHIRP Sonar
Weather limitation	All weather capabilities, up to Beaufort Force 10 and 6 m
	wave
Other:	Flir M364C - Total max disaster crew & survivor 20 persons

Danish Military Vessel: Thetis-class

Name	THETIS-class
Type of vessel	Rescue and inspection vessel
Hull	Steel
GT	3500 t
Length	112,5 m
Breadth	14,5 m
Draught	6,0 m
Air draught	27 m
Eye level	15 m
Engines & HP	3 x 3500 HP
Max. speed (knot)	22 kn
Economic speed	17 kn
Range (nm)	
Fuel capacities	360 m ³
Crew	64 pers
Hospital	4 berths
Number of berths "Crew capacity	64 + 13 pers
Portable pumps	4 Pcs bilge pumps
Firefighting equipment	Transportable extinguishers, 4 pcs. fire pumps (As
(For assistance to other vessels)	Bilge pumps)
Towing equipment	Yes
Towing wires	1 Towing Wire (220 m. steel wire) 2 pcs. Synthetic
	rone (200 m 1)
Number of boats, type and size	2 pcs. 10 pers. Boarding boats
Lifesaving equipment	According to SOLAS
Life rafts	8 x 100 pers. and 2 x 50 pers
Radio equipment	VHF, UHF, HF
Compass	Gyro, Fluxgate
Radar	3 pcs
Echo sounder	2 pcs.
Other:	Doctor on board
L	

Danish Military Vessel: Knud Rasmussen-class

Name	KNUD RASMUSSEN-class
Type of vessel	Rescue and inspection vessel
Hull	Steel
GT	2050 t
Length	71,8 m
Breadth	14,6 m
Draught	4,95 m
Air draught	23 m
Eye level	
Engines & HP	
Max. speed (knot)	17 kn
Economic speed	
Range (nm)	3000 nm
Fuel capacities	
Crew	18 pers
Hospital	
Number of berths "Crew capacity	43
Portable pumps	
Firefighting equipment	
(For assistance to other vessels)	
Towing equipment	Yes
Towing wires	Polypropylene towing ropes, braided 54
	mm each 220 meters. Breaking strength 79 t.
Number of boats, type and size	Wire lead for towing rope 1 x SAR boat (LCP Class), 1 x inflatable RIB (10 pers), 1 x
	inflatable RIR (8 pers)
Lifesaving equipment	According to SOLAS
8 1 I	
Life rafts	6 x 25 pers
Radio equipment	2 x VHF, 2 x VHF DSC, MF/HF, GMDSS
Compass	2 x gyro compasses
Radar	2 x FURUNO (3 cm), 1 x FURUNO (10 cm) 1 x TERMA
	SCANTER
Echo sounder	
Other:	FLIR, Hydraulic crane (15 t), Sonar