Overview

The IMRF’s mass rescue operations (MRO) guidance is provided in 30 separate chapters at www.international-maritime-rescue.org. For downloadable documents referenced in this chapter please use the drop-down menus or return to the MRO project main page under ‘Resources’. For a general introduction please see chapter 1, ‘Complex incident planning – the challenge: acknowledging the problem, and mass rescue incident types’.

This chapter discusses:

- the meaning of ‘communication’, and the communications problem in an MRO
- the need for good communications before, during and after the MRO
- SAR cooperation plans
- communications planning
  - alerting
  - interagency communications
  - who is involved, what are their information needs, and what are the priorities?
  - best use of communications facilities
  - long-range communications
  - communication of geographic information
- an MRO communications plan structure
- communications during an MRO: implementing the plan, and its limitations
  - communications discipline
  - the SAR SITREP format
  - survivor communications
  - public communications
- communications after the MRO
Communication, and the communication problem

1.1 The word ‘communication’ may be defined in several ways. For our purposes we mean by it the successful transfer of information – instructions, reports, questions and suggestions – without delay, misunderstanding, repetition or omission, so that all who need that information acquire it rapidly and understand it fully.

1.2 There is a great deal of information in an MRO, available or to be acquired, and it is of vital importance that it should flow efficiently and quickly.

1.3 The right people need to be alerted, as soon as possible, to the need for an MRO; they need to be able to understand their part in it; and they need to be given both the information they require to play that part and the means to ask questions and make suggestions and reports. They need to understand the priorities; they need to have access to communications systems; and they need to understand how the planned communications structure works.

1.4 ‘Communication’ underpins the whole response – at the planning stage, during the incident itself, and afterwards, when lessons can be identified and learned. Without effective communication there is no effective planning, coordination, command or control. And, without effective communication, we will not be able to improve our response (individually, organisationally, nationally, regionally or globally) so that more lives are saved next time – for there will always be a ‘next time’, somewhere. The need for good communication is obvious.

1.5 Yet if there is one thing that is always mentioned in any report on a mass rescue operation, or any other complex incident or complex incident exercise, it is that there were failures of communication. Somewhere, at some time during the event, there were misunderstandings or delays because information was not communicated or was not communicated well enough, there being too little information, or too much to take in, or because information was misdirected, contradicted or repeated unnecessarily. The need for good communication is obvious, and yet we keep making mistakes.

1.6 Granted the circumstances this is understandable. A highly complex operation, bringing together people and organisations which do not work together regularly with those who do, will inevitably involve some communication difficulties. The aim of the SAR Coordinator who oversees the planning (see chapter 18) and the SAR Mission Coordinator who oversees its implementation (see chapter 19) must be to understand where communication problems may occur and to strive to minimise them.

2 Communications before the MRO: the planning stage

2.1 It is a consistent theme of the IMRF MRO guidance that mass rescue operations – indeed, any complex emergency response – should be planned for generically and that those who may have to implement the plan should understand their part in it: see chapters 1, 2 and, particularly, 5. Planning, training, testing and ‘ownership’ of the plan all depend upon successful communication, and successful communications during an incident depend to a great extent on successful communications at the planning stage.

2.2 This is true even for those who could not be involved directly at the planning stage – ships which just happen to be in the area when the emergency occurs, for example. Simply being told that there is a plan is a start, coupled with the underlying knowledge to be expected of the professional seafarer and the guidance available to him or her in Volume III of the IAMSAR Manual. MRO planners should allow for the involvement of such units as they develop the plan and should agree a means of swiftly communicating the necessary details to them – where to go, who to talk to, what to prepare for, etc.
2.3 Communications are always easier if you know the person you are talking to. It has been well said that we should not be ‘exchanging business cards’ during the emergency. Most people who may have to conduct an MRO together can be introduced beforehand, to plan together and acquire mutual understanding of roles, responsibilities, capabilities and limitations.

2.4 Good communication is based on clarity and trust. An honest appraisal of actual capability is very important at the planning stage, and planners should seek to ensure that any misunderstandings based on unfamiliarity are properly addressed.

3 Search and rescue cooperation plans

3.1 The ‘exchange of business cards’ idea underlies the SAR cooperation plans established by the IMO following the Estonia disaster in 1994. In view of reports that passenger ships involved in the response to the sinking had little knowledge of the SAR services available to them, and the SAR authorities had little knowledge of the ships’ capabilities, a new Safety of Life at Sea (SOLAS) Convention regulation was adopted; regulation V/7-3:

“Passenger ships [on international voyages] shall have on board a plan for cooperation with appropriate search and rescue services in the event of an emergency. The plan shall be developed in cooperation between the ship, the company, as defined in regulation IX/1 [that is, the ship’s operating company ashore], and the search and rescue services. The plan shall include provisions for periodic exercises to be undertaken to test its effectiveness. The plan shall be developed based on the guidelines developed by the Organization [the IMO].”

3.2 The IMO guidelines referred to in the regulation are currently contained in MSC Circular 1079, Rev.1 ‘Guidelines for preparing plans for cooperation between search and rescue services and passenger ships’. Although the regulation is restricted to ships engaged in international voyages, its provisions are applied by some States to all passenger ships. This is recommended.

3.3 The SAR cooperation planning process recognises three very important facts about any incident involving a passenger ship.

3.4 First, the International Safety Management (ISM) Code requires shipping companies to plan to support their staff aboard a ship faced with an emergency. Reputable passenger shipping companies have developed their response planning to a high degree. Their shoreside staff have a major part to play in the response to any emergency, particularly as regards the ‘recovery’ phase, meaning here the return to normality after the incident, which in this case will include looking after passengers and crew after they have been brought to ‘places of safety’ (see chapter 11). Companies managing ships responding to someone else’s emergency will also have a role to play.

3.5 Second, the master of the ship in distress will inevitably be extremely busy. S/he will be leading the onboard response to the emergency, and will usually be expected to talk to the company team ashore too, explaining the situation and arranging back-up. And s/he may be expected to talk to the Rescue Coordination Centre leading the SAR response. The potential for overload is obvious.

3.6 Third, the company team ashore and the RCC must nevertheless have information to enable them to respond appropriately. But, while some of that information must come from the ship (incident-specific information such as damage reports), not all of it need do so. Some can be exchanged beforehand.
3.7 This is what the SAR cooperation plan is for. It provides contact information which enables the RCC to exchange information with the company team ashore so that, ideally, the casualty’s master is not asked the same questions twice.\(^1\) It also provides some basic information about the ship herself, necessary to the RCC’s planning. This too saves time having to ask questions, and (if kept up-to-date) will be more reliable than information passed in a hurry at the time of the incident. The IAMSAR Manual, Volume II Chapter 6.15.20, says:

“Unnecessary communications with the master of a ship or pilot in command of an aircraft in distress must be minimized, and this should be taken into account in advance planning. Exchanges of information by use of SAR Plans of Cooperation for passenger ships, and by other agreed means, will reduce the need to ask the pilot or master for this information during a crisis. Responders requiring this information should be directed to a source ashore or on the ground that is prepared to handle many potential requests; the response teams at the shipping company or the airline involved, for example.”

3.8 For ferries and other ships working in a fixed area the SAR cooperation plan also provides information on the RCC and the SAR services available locally. For ships that operate over a wide area, as many cruise ships do, for which the distribution of information to all the SAR services they may come into contact with is impractical, a SAR Cooperation Plans Index has been established, enabling the relevant Plan to be found by the RCC responding to an emergency.

3.9 The Plans are also useful, in the same ways, when a passenger ship is responding to someone else’s emergency, as an additional SAR facility. The Plan provides information important to the RCC, saves time asking questions, and enables the RCC and the company ashore to mutually support the master.

3.10 It should be noted that the SAR cooperation plans are not emergency plans in themselves. They are primarily communications tools, facilitating the linking of emergency plans. MSC Circular 1079 Rev.1 should be referred to for further detail.

3.11 The regulation also requires “periodic exercises”, to test the plan. Again, refer to MSC Circular 1079 Rev 1, and to chapter 28.

3.12 SOLAS regulation V/7-3 only applies to passenger ships on international voyages, but the principle is recommended for other units that may become involved in MROs – domestic passenger ships, for example, and offshore installations. A prior exchange of information of this type will be very beneficial in any emergency.

4 Communications planning

4.1 Good communications are crucial to the effective coordination of an MRO: see chapter 17 and other guidance in this part. As the IAMSAR Manual notes, at Chapter 6.15.7 of Volume II:

“All involved in the overall multi-agency, multi-jurisdiction, multi-mission and possibly international response to major incidents must clearly understand who is in charge, the respective roles of all involved, and how to interact with each other. SAR authorities may be responsible for all or part of the MRO functions, and must be able to coordinate their efforts with other responders

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\(^1\) There have been cases of the company and the RCC communicating with each other via the ship in distress, which is ridiculous. Direct contact must be established between company and RCC – and the SAR cooperation plan helps with this.
under the overall direction of another authority within or outside their own agency. It is therefore essential for as many potential MRO responders as practicable to plan and train together.”

4.2 The communications necessary to achieve this extraordinary level of coordination will be built on the existing systems and procedures used for ‘ordinary’ emergency response: a new, unfamiliar system would be counter-productive. Existing plans need to be enhanced, however, to ensure that they will be effective in this highly complex situation. Communications planning should therefore be a specific part of the overall MRO or complex incident planning process. As noted above, communications frequently fail to some extent in these circumstances: we can at least plan to make this less likely.

4.3 IAMSAR Volume II goes on to say, at Chapter 6.15.32-33, that:

“Communication plans must provide for a heavy volume of communication use as a major incident will normally involve many responding organizations that need to communicate effectively with each other from the beginning. It is likely that the volume of communications at the beginning of an MRO will be very high and potentially confused. This must be prepared for and managed until the situation becomes more stable. Advance arrangements should be made as necessary to link communications systems that are not inherently interoperable. Interagency communications must be based on terminology understood by all involved.

“Efficient MRO responses depend upon efficient communication, and efficient communication requires planning, understanding of the plan by those who will have to put it into effect and its rapid implementation at the time of the incident. The following are some of the factors MRO communications planners are recommended to consider:

- Who is likely to be involved in the response to a MRO, including supporting organizations and others with legitimate interest (eg, officials, family members of victims, the news media, etc)?
- What are their information needs likely to be?
- Where do they fit in the overall command, control and co-ordination (and, therefore, communications) structure?
- What are the information priorities?
- What communications facilities do the responders have?
- Are there enough people to operate the communications systems, over a potentially long period? The planning should include provision for relief personnel.
- How should these facilities best be used to avoid overload? How should a large amount of data (such as search plans or passenger lists) be communicated?
- Do people know what to say and who to talk to? Do they understand their unit’s place in the communications network, other units’ roles, and the overall information priorities? Are they aware of the importance of clear procedures and communications discipline?
- Are there likely to be language difficulties, including potential misunderstanding of technical language?
- Who will control and keep order on the various parts of the communications network and do they understand this particularly important role?
- To what extent are different responders’ communications systems and procedures interoperable? Can communications hubs be established or liaison officers exchanged to help explain priorities, procedures and technical language?
- Can common communications devices be provided to responding units to enable direct communications between them?
4.4 We examine these points further below.

5 Alerting

5.1 The first and most important communication in an MRO is to raise the alarm; to recognise the operation for what it is – one requiring an extraordinary response – and to notify all who may have to respond.

5.2 When the MRO is generated by an accident to a ship, offshore installation or airliner, an alert should be quickly received from that unit or from its parent authority. Ideally, it will include an honest appraisal of the situation that will enable responders to react appropriately. Unfortunately experience shows that this is not always the case, and the SMC will have to assess the extent of the emergency on the basis of whatever information is available. There will be other circumstances in which the SMC must make the same judgement as to whether an MRO is required – when many vessels are overwhelmed simultaneously, for example.

5.3 Early information must be assessed by the SMC, and nominated personnel – at the RCC or immediately contactable by it – must be empowered to declare that an MRO is required. For a maritime MRO anyone receiving the first alert must ensure that it is passed to the relevant RCC without delay. The declaration of a major incident requiring extraordinary responses, such as an MRO, should not be taken lightly, and suitable training should be provided to personnel who may have to make the call. However, in cases of doubt, it is better to alert people to the possible need for an MRO while further information is sought, so that they can begin their own preparations, than to wait until the situation is certain. It is better to alert then stand down than to alert too late.

5.4 Declaring a major incident also has the effect of announcing that, whatever others may need to do, your own organisation’s capacity is likely to be stretched to the limit of normal capability – and possibly beyond it. Even if they are not immediately involved the declaration tells other possible responders that something big is going on, and enables them to react in turn, possibly including offers of assistance.

5.5 The dissemination of the alert is usually best done by ‘cascading’ information in various pre-planned streams. In the early stages at least, the RCC will be the primary focal point for incident information – but the RCC must not be expected to alert everyone with an interest. Instead, the RCC alerts the first points of contact in each planned stream – a senior officer, perhaps, to pass on information to Government; a contact point for the shoreside response services; a counter-pollution officer; a press officer, and so on. The RCC passes information to these officers; they pass it on according to need.

5.6 The aim is to quickly ‘wake up’ every organisation which might have a part to play in the MRO, and to initiate the communications links that will subsequently be required. Efficient alerting is fundamental to

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2 The ‘Vessel Triage’ system developed by the Finnish Border Guard and their partners is an aid to this process. Details may be found at www.raja.fi/vesseltriage.

3 ‘Cascading’ here means passing information from person to person or organisation to organisation down pre-planned routes. Instead of working down a list of shoreside response agencies, for example, to instigate the setting up of landing points, reception centres and so on, the RCC can have just one contact to notify. That contact then passes the alert on to primary contacts in the relevant shoreside organisations. They pass it on to their response units, and so on.
efficient response. Time lost at this stage can never be regained, and overlooking key responders can have dire consequences. Planning the alerting process is a vital part of the MRO plan overall.

5.7 Part of the process will be alerting the resources needed to fill the ‘capability gap’ (see chapter 4). To some extent this may be an unusual procedure – but it must not be delayed on that account.

5.8 Additional SAR facilities such as shipping in or approaching the area (see chapter 13) should be alerted as soon as practicable, usually by various forms of broadcast action — although some units (a ferry, for example, or an offshore installation) may have been specifically included in the MRO plan and can be contacted direct. Early alerting allows these additional facilities more time to get ready.

5.9 Regional and specialist resources identified as other means of helping fill the capability gap (see chapters 14 & 15) should also be alerted as appropriate and as soon as possible.

5.10 MRO planners should note that the alerting process itself can impede response. If staff at the RCC, for example, who should be planning and coordinating the MRO, are instead engaged in working down a long checklist of people who must be alerted, delays will be introduced and onward coordination will become harder. The ‘cascade’ system works here too. The RCC should alert SAR units and additional facilities as in ordinary SAR operations, but the further alerting required in an MRO can be initiated by an on-call officer. Which functions fall to the RCC and which to the first links in the cascade should be assessed at the planning stage.

6 Interagency communications

6.1 In an MRO there will be many responding organisations needing to communicate with each other from the beginning of the incident — or as soon as they are alerted to it, at least. We may assume that each organisation has developed effective internal communications systems and procedures and that, except in catastrophic incidents which adversely affect the responders themselves, these systems will be operating. But they may not be interoperable with other organisations’ systems.

6.2 The questions MRO planners need to ask include:

- Do the organisations that need to work together in an MRO know each other’s telephone numbers — not the numbers of switchboards whose staff may be under instruction to block calls during a crisis, but the numbers of the right people to take specific calls?
- Do they have compatible communications systems? Can they share radio frequencies?
- Do they have enough people as well as equipment to handle the MRO communications load?
- Do they talk the same language — not just at the obvious level of English, Spanish or Chinese, but also as regards technical language (or ‘jargon’), including abbreviations and acronyms?\(^4\)
- Do they share the same underlying aims and priorities?

\(^4\) A classic case of different use of ‘language’ among English-speakers in maritime emergencies is the use of the word ‘casualty’. Maritime SAR people use the word interchangeably to mean the vessel in distress or people in need of assistance, whether injured or otherwise, relying on context to make their meaning clear to each other. But medical responders ashore use the word to mean an injured person. A simple message that ‘20 casualties will be landed at the jetty’ can thus be misunderstood. It may not be possible to standardise the meaning of the word across organisational cultures but, if its dual meaning is known, responders can ensure that the message is passed clearly: ‘20 people will be landed: 5 stretcher cases, 5 walking wounded, 10 uninjured...’
6.3 It is not essential to provide communications systems that all potential responders can use in common, especially if this facility will only be used rarely. There are benefits to doing so; but planners should also consider how a common system is likely to be used in practice. Everyone using one radio frequency, for example, may sound good in principle – but if everyone attempts to use it at once the system will fail. A common system, if provided, is usually best reserved for overall control or coordination and used only by nominated lead personnel to work specifically at the interagency level. Organisations’ own in-house communications should be kept on the separate systems that staff are already used to.

6.4 An alternative to sharing a single system is to exchange communications or liaison officers, as discussed in chapter 17. Having someone from each major response organisation physically present in the lead coordination centres and at the tactical and strategic coordinating groups has considerable benefit. These officers need not be decision-makers themselves so long as they have ready contact with the decision-makers in their own organisations. They can then pass information and requests quickly, and in language that their own organisation understands. They will also be able to provide information about their own organisation’s needs, capabilities and limitations.

6.5 It is not necessary to exchange liaison officers with every responding organisation. Usually an officer from each group of responders will suffice: an officer from the RCC should be able to represent all the organisations providing designated maritime SAR units, for example, and a single officer should be able to represent all the medical organisations responding.

6.6 Each liaison officer needs a desk and a dedicated telephone at the centre they are deployed to, giving them space to work and basic communications capability if the systems they bring with them fail. A means of keeping them up to date with what is going on should also be provided: regular briefings should be a part of this, and may be sufficient.

6.7 More widely, it should be remembered that communications systems need people as well as equipment to be effective. The best equipment is useless without someone available and able to operate it, and a communication is only complete when it has been received as well as transmitted. This principle should be remembered at every stage of the MRO communications planning process. It can be too easy to think of communications only in terms of equipment. Whether extra equipment is needed for an MRO or not, there will be much more to communicate. More communicators may be required.

6.8 Technical language difficulties can be overcome by agreeing to avoid jargon. More general language difficulties may require the involvement of interpreters: services are provided worldwide and can be hired in at need. The problem of technical language should still be borne in mind in these circumstances. A general linguist may mistranslate it, so ‘plain language’ should still be used.

6.9 Confusion can also occur when people with differing aims are communicating. Both sets of aims may be legitimate, but the two parties need to understand that this is so. SAR people may have little time for, say, pollution prevention questions while an MRO is in progress, but the pollution control officer still needs information to allow action to be taken, even if protecting the environment is agreed to take second place to lifesaving. The planners should ensure that the necessary information can be acquired, usually by a cascade system (see above), without impeding higher priority tasks.

7 Who is involved, what are their information needs, and what are the priorities?

7.1 As discussed in chapters 1 & 5, MRO planners should identify all those who will potentially be involved in an MRO. Organisations with a rescue response role should be invited to identify their own information needs – what they will need to know at the outset and as the response develops.
7.2 Officials with an interest in the MRO but no rescue response role should be asked to do the same. These will include senior Government officials (with the duty, inter alia, to inform Government ministers etc), counter-pollution and salvage authorities, border control officers, accident investigators, port state control officers, and so on.

7.3 MRO planners should also consider the likely information needs of others with a legitimate interest in the event – the families and friends of people involved, the news media, and the general public, at least as regards people in the area of the emergency or who may otherwise be directly affected by it. See chapter 7, and ‘Public communications’, below.

7.4 MRO planners should then seek agreement on priorities. It is generally accepted that lifesaving takes precedence over pollution control; and protecting the environment takes precedence over salvaging property – but organisations with roles to play in the latter responses will need early information too, even if, in the event of a clash of priorities, they give way to SAR. Similarly, accident investigators and Government ministers need early notification, and the news media and others will be demanding information. For various reasons it must be provided. But what are the priorities? Everyone may think they have an immediate need, but not everyone can be told everything at once.

7.5 It is important here to plan a communications structure that will split up the information loads into manageable sections, usually by cascading information as discussed above in the context of first alerting. The same procedure should be adopted for subsequent information dissemination.

7.6 The communications structure should follow the command, control and coordination structure, and will tend to do so naturally if that structure is clearly delineated and understood. See chapter 17. People should be discouraged from ‘short-circuiting’ the agreed structure, which can cause confusion. Everyone involved should be encouraged to ensure that the structure works smoothly and efficiently, without information being held up. This will tend to reduce the desire, or need, to short-circuit the plan.

7.7 The RCC should be left as free as possible to support the SMC in alerting the resources necessary to the response and then keeping them informed. This includes the shoreside responders responsible for establishing the place(s) of safety to which survivors will be brought. Few parts of the MRO can spring directly into action: preparation time is necessary. Similarly, everyone needs the latest information relevant to them as soon as possible. The cascade system works well in both cases. Information can be passed more quickly by dividing it into streams, and can be tailored to the recipient’s needs by the primary contact.

7.8 The cascade system also helps deal with the issue of priorities, because the various recipients get the information they need more rapidly. However, within each stream of information there should be key officers who will determine the priority of information flow based upon the priority of actions required – the SMC, On Scene Coordinator and Aircraft Coordinator so far as the maritime side of the operation goes, and the various coordinators of the shoreside operation. Determining the priorities overall is a function of the strategic coordinating group.

7.9 The authority of these officers must be built into the communications plan. They may not command the units they are coordinating, but they should have clear control of the relevant communications. The RCC, acting on behalf of the SMC, should control communications relating to the at-sea elements of the MRO.

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5 In some cases salvage companies will be able to provide rescue assistance, by supporting the casualty vessel or installation so that it does not need to be evacuated at sea, for example. Here we are considering the information needs of salvors operating in their normal capacity.
This means maintaining radio discipline (see below) and ensuring that the different parts of the communications network stay connected and do not overload. This authority is delegated to the OSC and ACO, and to any sub-coordinators nominated, for their particular parts of the operation.

7.10 It should be noted here that seniority does not automatically give priority in communication. The commander of a small rescue unit with vital information about people at risk takes priority, for the moment, over a senior officer asking what the president should tell the nation... These priorities, and the communications control authority vested in the leading coordinators, should be acknowledged in the plan, and by all involved.

8 Best use of communications facilities

8.1 The communications facilities available to the responders should include:
   - face-to-face communications, within teams and by the use of communications or liaison officers (see above and chapter 17)
   - video links
   - voice communications, using radio, telephone or satellite systems
   - written communications, usually transmitted by email, messaging systems, fax, or satellite services
   - internet-based crisis management systems.

8.2 Face-to-face communication is much more effective than other means – including video links, as anyone who has ‘teleconferenced’ will probably agree. Where physical co-location can be arranged, it will be of great benefit to communication – but it cannot be arranged for everyone in an MRO. The results of face-to-face communications also need to be recorded and shared as necessary.

8.3 Video links are a useful ‘second-best’, especially for coordination conferences. Whoever is chairing the conference, however, must be particularly aware of participants not physically present and actively seek to ensure that they can hear, understand and contribute to the discussion. Again, careful record-keeping and subsequent sharing of information need to be attended to.

8.4 Video links showing what is happening on-scene are also of great value to the SMC and others not present. ‘A picture is worth a thousand words’, they say – and saving some of those thousand words will make other communications more efficient. But the remote viewer should exercise some caution: a video link is still not the same as being on-scene, assessing the situation first-hand.

8.5 Voice communications remain the core facility – but there are problems of misunderstanding here too, as well as the risks of inappropriate prioritisation and overload. Radio discipline, clarity and overall control, as discussed above and below, will help address these issues; and the principal means of dealing with the intense traffic load in an MRO is, as discussed, to divide it appropriately. In all cases, once again, the results of conversations should be recorded and shared as necessary and without delay.

8.6 An additional means of dealing with overload and record-keeping is to use written communication, sending and receiving it by various electronic means. Complex messages containing large amounts of information, such as search plans, passenger manifests and detailed situation reports, should always be sent this way if practicable. This avoids blocking up voice communications channels better used for other purposes, and it also helps avoid clerical errors in transcribing the information. Clerical errors can lead to much unnecessary work, and an unnecessary additional communications load accordingly.
8.7 Widely available messaging systems can also be very helpful for facilitating simple communication, and
for recording and sharing it automatically and instantaneously. Written communication has its problems
– it takes longer and can be more open to misinterpretation – but it has benefits too. Think, for example,
of a bridge or operations room team where everyone is talking into a radio or telephone. The team are
communicating – but not with each other! Messaging (including summaries of individual conversations)
can keep groups better informed.

8.8 More sophisticated internet-based crisis management systems are an extension of this point. They can
provide an effective means of spreading information rapidly, as stand-alone communications links or in
combination with other links, such as the use of communications or liaison officers (see above). Systems
such as these can be used to share information with multiple agencies simultaneously. Enabling all
responders – or at least all with internet access – to have the same information at the same time is a
major benefit to information dissemination and understanding.

8.9 When using written means of communication, however, the sender must remember another
fundamental principle of good communication: for it to work, there must be a receiver too. An email or
other written message has not been communicated until it has been read and understood. It is no use
while it sits unread on an unattended machine. The best way to ensure this does not happen is to back
the message up with a telephone, radio or satellite call, making sure that the intended recipient is aware
of the message and that s/he knows who to contact if uncertain of any of its meaning.

8.10 In summary, there will be ‘bottlenecks’ in communications. There will be much information to pass and
a limited capacity to pass it. MRO responders should make the best use they can of all the facilities
available: communicating face-to-face where possible; using voice communications in a disciplined way;
and using monitored written communication systems, especially to transfer large blocks of information.

9 Long-range communications

9.1 Communications systems used for short-range SAR operations, relying on direct 'line of sight' between a
transmitter and receiver, may not be suitable for long range communications between units on scene
and the RCC. The following alternatives should be considered:

- HF and MF radio systems
- satellite communications systems
- position tracking systems, including those that enable two-way communications
- the use of high-flying aircraft to relay VHF radio communications between the RCC and units on-
  scene
- relay of information to and from SAR aircraft through Air Traffic Service units
- relay of information by ships at sea able to communicate with SAR aircraft on marine band VHF
  frequencies, whilst a shore based RCC uses satellite, MF or HF communications to communicate
  with the relaying ship(s)
- relay of information by surface units positioned between the scene and the RCC.

10 Communication of geographic information

10.1 Volume II Chapter 5.21.4 of the IAMSAR Manual notes that:

"SAR agencies must be able to understand how geographic information is communicated among
the SMC, OSC, ACO and various SAR facilities. This becomes an even greater challenge when SAR
facilities transition between maritime and land-based SAR operations or in large-scale disaster operations that involve many different SAR facilities that may have different ways to communicate position information.”

10.2 MRO planners should consider how the SMC should use position information from external sources – who may provide it in different formats – and communicate it accurately and efficiently to the various aeronautical, marine or land-based SAR facilities in forms that they can use.

11 An MRO communications plan structure

11.1 IAMSAR Volume II Appendix C outlines an MRO communications plan structure, based on the diagram below. The fundamental principle illustrated in the diagram is again that of breaking up the communications workload into coordinated groups, to ease the pressure. IAMSAR Volume II Appendix C says:

“Efficient communications in major maritime response incidents are best arranged by dividing communications between several different frequencies. The number of frequencies used may vary, depending on the circumstances, but is unlikely to exceed five. The diagram shows a major incident with numerous surface and air units responding and several different activities taking place on scene and, in support, ashore. The communications plan set up to deal with this incident is relatively simple so that all those responding may readily understand it. It needs to be established from the outset.

“The primary coordinating frequency – initially VHF FM channel 16 but a common working frequency may be assigned to ensure channel 16 is available for other distress alerts – is used by the casualty, the OSC, the ACO and, if possible, the SMC. If the incident is out of the SMC’s VHF range, the SMC will communicate primarily with the OSC by satellite or MF or HF radio communications. Other units on scene should monitor the primary coordinating frequency if possible, to be kept up to date by SITREPs etc [see below], but will not usually transmit on it.
“Surface SAR units and other surface units such as ships responding to the distress alert will use a second frequency – usually VHF FM channel 6 – controlled by the OSC.

“Aircraft may also use this second frequency under the OSC’s control, if suitably equipped. An ACO should be designated if responding aircraft are not equipped with marine VHF or in cases where it would be more efficient to control them separately (such as multiple aircraft on scene). The aircraft will then use a third frequency – usually VHF AM 123.1MHz – controlled by the ACO.[6]

“If other activities are taking place on scene, additional frequencies may be used for the necessary communications. If a helicopter, for example, needs to winch to or from a ship, these two units should switch to a mutually compatible frequency not already in use, returning to the main working frequencies after the winching operation is complete. Another example would be a search being conducted as part of the overall SAR operation. In this case, the units assigned to the search will switch to a mutually compatible frequency controlled by a search coordinator. This coordinating unit reports to OSC or RCC, as appropriate.

“In a major incident, such as an MRO, there will need to be significant exchange of information with authorities ashore: the operators of a ship or aircraft casualty, harbour and other receiving authorities, shoreside emergency services providing support, authorities and agencies concerned with counter-pollution and salvage operations, and so on. These many organizations should communicate via the RCC, not directly with units on scene. This enables the SMC to maintain a clear overall picture of the response. Efficient procedures for this aspect of the communications plan can and should be pre-planned. The exchange of liaison officers is recommended.”

11.2 It is important that all units responding should know who to call, and they should be told when first alerted whether this should be the RCC or, for units on or approaching the scene, the OSC or ACO. It is also important to clearly identify these latter units. They should adopt ‘On Scene Coordinator’ or ‘Air Coordinator’ as appropriate as their callsign.

11.3 The OSC and ACO are key links in the maritime communications network because they are key links in the coordination network. Their relationship with the SMC, and with each other, including the sort of information they will need to exchange, is discussed in chapters 19, 20 & 21.

11.4 The IAMSAR Manual does not designate other coordination links specifically but, as discussed in chapter 17, the principle of dividing the workload to make it easier can be taken further as appropriate in the circumstances, to include ‘sub-coordinators’ such as a search coordinator, an on-board coordinator, a land SAR coordinator, and so on. In planning the potential coordination network, MRO planners should ensure that these sub-coordinators also have clearly descriptive callsigns.

11.5 Care should be taken to ensure that all aircraft and surface units involved in an operation are capable of complying with the communications procedures planned. The communications plan illustrated above requires only that surface units should be able to communicate with the OSC (and/or a separate search coordinator), and aircraft with the ACO.

11.6 An exception to this will be when direct communications are required between a surface unit and an aircraft; for example when a helicopter is to land on or winch to a ship. In such cases the OSC and ACO will nominate a separate working frequency for the two units to use during this specific operation (if they have compatible radio systems), to avoid interference with other on-scene traffic.

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[6] For further information on communications in multiple-aircraft cases, see IAMSAR Volume II Chapter 7 and Appendix T.
Ideally the SMC, OSC, ACO and casualty (the units inside the red primary coordination circle above) should all be able to communicate with each other. However, the casualty’s commander will be under great pressure, including the pressure of internal communications, and, as discussed in chapter 20, it may be preferable to restrict external communications with the casualty to either the OSC or the RCC, with that unit taking responsibility for ensuring that the other key players are kept up to date. There is also likely to be a separate search coordinator on the primary coordinating frequency and, if the emergency has happened on or near the shoreline, a land SAR coordinator too. Both may be asked to communicate only with the OSC or SMC, to ease the load on the commander of the casualty. So may an ACO if there is relatively little aircraft activity.

It is not necessarily the case that the casualty commander, SMC, OSC and ACO should conduct these communications personally. The actual communicating can be done by suitably trained officers – but it remains essential that these communicators should be able to report directly and, so far as possible, immediately to the relevant person.

There are benefits to conducting communications on an open radio net – others can keep up to date with what is going on, for example, by monitoring the traffic. But there are also benefits to using a private circuit – a satellite call, for example. People may feel that they can speak more freely and thus establish a better working relationship. The SMC / OSC / casualty links fall into this category. Specialist teams deployed aboard may also wish to open direct links. Care should be taken, however, to ensure that key information is properly shared among all those who may need it. Individuals who receive privately information which should be shared are responsible for ensuring that this is done.

Although the detail discussed above relates to communication during the MRO itself, the principles of an efficient communications plan need to be established at the planning stage. The details will differ, depending on the requirements of the particular incident, but the principles should not.

Communications during the MRO: implementing the plan, and its limitations

Communications during the operation itself should, of course, be based on the communications plan agreed by as many responders as possible before the event, at the planning stage. Those responders who could not be part of the planning – the masters of ships that simply happen to be in the area, for example – should be borne in mind by the planners and should be introduced to the appropriate part of the plan as efficiently as possible (see chapter 5).

This is actually a relatively simple process because, however complex the plan overall, most individuals involved do not need to understand the whole of it, only where they ‘fit’. A passing ship responding to the RCC’s Mayday Relay, for example, can simply be told to call the On Scene Coordinator on VHF Channel 6 and to await further instructions.

We noted at the beginning of this chapter, however, that, despite careful planning, there will inevitably still be difficulties in MRO communications. These will stem from the amount of information that needs to be communicated and the time it takes to become available; the rarity of this sort of event and unfamiliarity between at least some of the responders; and the changing nature of the event as time goes by. Not all of these difficulties can be ‘planned out’, and no plan can cover every eventuality in detail.

Everyone involved in the response can help it succeed by understanding these limitations and by accepting the need for a greater level of communications discipline than may normally be required.
12.5 First, no-one should expect perfect information. Everyone should, of course, strive to provide it; but it is simply unrealistic to expect all information received to be complete or completely correct. At least in the early stages of the response information is likely to be partial, based on hurried assessments, and prone to error accordingly. In most incidents requiring an MRO, no-one, including those aboard the casualty, is likely to have a clear picture of what has happened or what might happen next. Responders should understand this, and should plan as broad a response as possible, ready to deal with all identifiable possibilities until the situation becomes clearer and the plan can become more focussed.

12.6 Following on from this, no-one should expect the situation, or the detailed plan put together to address it, to remain the same. Things will change. Some things will get better, some will get worse. Information will be incomplete; it may be wrong; it will change as time passes. All responders should be aware of this and be prepared to adapt, and the communications plan should be flexible enough to deal with these changes and to keep everyone abreast of the current situation, insofar as it can be determined.

13 Communications discipline

13.1 There will be a natural tendency among responders to want to know everything, and to want to know it immediately. There will be a lot of questions – and, as discussed above, the answers may be unsatisfactory for some time. There will also be a natural tendency for anyone possessing information to want to pass it on as soon as possible: this is an emergency, after all! Both tendencies should be resisted. There is a need for communications discipline. ‘Less can be more’, as the saying goes.

13.2 Not everyone needs to know everything. Most responders only really need to have information that will help them conduct their particular part of the operation. That said, a broad overview helps everyone see how they fit in, and should give them a sense of the overall priorities. This overview can be provided by providing general situation reports, or SITREPs: see below.

13.3 As regards their own part of the operation, responders need to consider priorities overall and the means of communication available to them before they attempt to ask questions or provide information. They should keep to the communications plan whenever they can, only departing from it in the most urgent circumstances and after it has apparently failed. And they should be disciplined in their use of communications facilities so that they can send or receive information as clearly and efficiently as possible. By doing these things they can facilitate communications overall, for they will be less likely to block channels someone with higher-priority information wants to use, and they will be more likely to communicate what they themselves need to say successfully.

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7 For example... The master of a ship with a major fire initially believes that it is best to begin to evacuate the ship. The SMC prepares accordingly, but is also able to offer the master firefighting support. This is accepted, and the evacuation is postponed when it begins to seem that the fire can be contained. The master asks for medical support on board in addition, to keep ship’s staff deal with people affected by the fire. In the meantime the crew are still trying to account for everyone known to be aboard. Then fire breaks out elsewhere, and the decision is made to evacuate after all. Some injured people are taken off by the helicopters which delivered the fire and medical teams; others by other SAR facilities which have been standing by; most are leaving using the ship’s own evacuation systems. Responders ashore are setting up reception facilities. Who is going to be taken where? How many injured are there? Is everyone accounted for? With the best will in the world, the master does not know – but is trying to find out. Meanwhile crew members are struggling to accurately count people aboard the survival craft (which may not be their primary concern in any event), and a fishing vessel picks up people from a life raft and heads for a nearby port without telling anyone...

8 A useful comparison might be made with ‘smart’ highways. In heavy traffic conditions the speed limit on smart highways is reduced. Perhaps counter-intuitively, everyone gets to where they want to go more quickly because traffic flow is improved. But the system does depend on its users following the rules.
13.4 If possible, any responder wishing to communicate should consider the following before pushing the appropriate button:

- Do I need to communicate at all? Is the information I want already available to me, or has the information I have already been passed to the appropriate recipients?
- Is this the most appropriate communications facility for what I have to say? If I have a large amount of information to send, for example, can I send it in written form?
- Is my message of higher priority than other traffic on this part of the network? If not, can it wait? If it cannot wait, can I use another system?
- Who do I need to communicate with? Is the person I am about to talk to the person with the information I need or to whom I should pass the information I have? If not directly, should I still communicate with this person because the communications plan says that I should, accepting the delay caused by a relay in order to help preserve order overall?
- How can I communicate my question or information efficiently, saving time and avoiding confusion? Is the person I will be communicating with sufficiently fluent in my language? Will s/he understand the technical language I want to use? Can I plan what I am going to say so that it will be fully understood without the need for further explanation?

13.5 This may seem a lot to ask in the middle of an MRO! But it isn’t really. It only requires a few moments’ thought before pressing that button. Even if all the questions above cannot be readily answered, that pause should enable the sender to collect his or her thoughts so that the transmission will be clear and free from hesitation and repetition – all of which will save time and facilitate information flow.

13.6 As to the specific question of language, people who do not share a common language at all can still communicate if both have access to the International Code of Signals (‘Interco’), or by routeing their communications via a third party able to provide an interpretation service, or by using a translation app. Such apps are increasingly prevalent and increasingly reliable – if not yet entirely so. Technical language should be avoided: plain words and simple phrases are more likely to be translated correctly, whether using an app or an interpreter. Where some language is shared, another IMO publication, Standard Marine Communication Phrases, is also helpful.

13.7 Technical language should always be used with caution. It can be wonderfully precise if all parties to the conversation understand it, but very confusing if they do not. Responders should be ready to use plain language instead; and should be particularly cautious about using acronyms and abbreviations – especially ones so familiar that they tend to be used without the speaker noticing them.\(^9\) Acronyms and abbreviations are usually best spoken or spelt in full if there is any doubt about their being understood.

13.8 Finally, responsibility for communications discipline does not rest only with the sender. All units responding to an MRO should also be ready to receive information, on the radio channels allocated to them or the telephone numbers they have identified for the purpose. This means monitoring the radio and having someone standing by the telephone, as well as frequently checking equipment that may be used to send written information.

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\(^9\) The ‘SMC’ is an abbreviation commonly understood in the SAR world – but people in the shipping industry may be more familiar with it as the ‘Safety Management Certificate’ than as the ‘SAR Mission Coordinator’.
The international SAR situation report format

14.1 An internationally agreed means of transferring information about any SAR incident, including an MRO, is the SAR situation report or ‘SAR SITREP’. This procedure is explained in the IAMSAR Manual. An extract from Volume II Appendix I follows, and the format may also be found in Volume III, Appendix D.

“Situation reports (SITREPs) are used to pass information about a particular SAR incident. RCCs use them to keep other RCCs, RSCs [Rescue Sub Centres], and appropriate agencies informed of cases which are of immediate or potential interest or as a briefing tool where an RCC is requesting assistance or action(s) from another RCC or organization. The OSC uses SITREPs to keep the SMC aware of mission events. Search facilities use SITREPs to keep the OSC informed of mission progress. The OSC addresses SITREPs only to the SMC unless otherwise directed. The SMC may address SITREPs to as many agencies as necessary, including other RCCs and RSCs, to keep them informed. SITREPs prepared by an SMC usually include a summary of information received from OSCs. Often a short SITREP is used to provide the earliest notice of a casualty or to pass urgent details when requesting assistance. A more complete SITREP is used to pass amplifying information during SAR operations. Initial SITREPs should be transmitted as soon as some details of an incident become clear and should not be delayed unnecessarily for confirmation of all details.

“For SAR incidents where pollution or threat of pollution exists as a result of a casualty, the appropriate agency tasked with environmental protection should be an information addressee on SITREPs.

“A SITREP format has been adopted internationally [...].

“Short form: To pass urgent essential details when requesting assistance, or to provide the earliest notice of casualty, the following information should be provided:

TRANSMISSION  (Distress/urgency)
DATE AND TIME  (UTC or Local Date Time Group)
FROM:  (Originating RCC)
TO:
SAR SITREP (NUMBER)  (To indicate nature of message and completeness of sequence of SITREPs concerning the casualty)
A. IDENTITY OF CASUALTY  (Name/call sign, flag State)
B. POSITION  (Latitude/longitude)
C. SITUATION  (Type of message, eg distress/urgency; date/time; nature of distress/urgency, eg fire, collision, medico)
D. NUMBER OF PERSONS
E. ASSISTANCE REQUIRED
F. COORDINATING RCC

“Full form: To pass amplifying or updating information during SAR operations, the following additional sections should be used as necessary:

G. DESCRIPTION OF CASUALTY  (Physical description, owner/charterer, cargo carried, passage from/to, life-saving equipment carried; attach photography, if available)
H. WEATHER ON SCENE  (Wind, sea/swell state, air/sea temperature, visibility, cloud cover/ceiling, barometric pressure)
J. INITIAL ACTIONS TAKEN  (By casualty and RCC)
K. SEARCH AREA  (As planned by RCC)
L. COORDINATING INSTRUCTIONS  (OSC designated, units participating, communications, 
AIS and/or LRIT data available on ships in the vicinity)

M. FUTURE PLANS

N. ADDITIONAL INFORMATION  (As appropriate, pictures, maps or links to websites 
where further information is available, include time SAR operation terminated)

“Notes

(1) Each SITREP concerning the same casualty should be numbered sequentially.

(2) If help is required from the addressee, the first SITREP should be issued in short form if 
remaining information is not readily available

(3) When time permits, the full form may be used for the first SITREP, or to amplify it.

(4) Further SITREPs should be issued as soon as other relevant information has been obtained. 
Information already passed should not be repeated.

(5) During prolonged operations, "no change" SITREPs, when appropriate, should be issued at 
intervals of about 3 hours to reassure recipients that nothing has been missed.

(6) When the incident is concluded, a final SITREP should be issued as confirmation.”

14.2 The chief value of a standard format is that superfluous material can be omitted, saving time. Thus those 
using the SAR SITREP do not need to say or write ‘Identity of Casualty’: the paragraph heading ‘A’ 
suffices.\textsuperscript{10} There is also no need to repeat information already sent, with the exception of the first 
paragraph, which acts as a continuing identifier. Referring to the format above, it can be seen that 
updating SITREPs need contain no more than paragraphs ‘A’ and ‘N’. Other paragraphs are completed 
only if the information previously sent under those headings has changed.

14.3 Those units on-scene able to monitor the main coordination channels as well as their working channel – 
having the necessary equipment and people available to do so – can be kept up to date by broadcast 
SITREPs; and/or the reports can be passed on by the OSC and ACO on the working frequencies. SITREPs 
in text form can also be passed by other means, including to shoreside responders.

15  \textbf{Survivor communications}

15.1 Because they may have information of importance to the ongoing SAR operation, the (sometimes 
overlooked) question of communications with survivors is discussed in chapters 10 & 11. There we note 
that we should consider survivor communications in three categories: providing information to survivors; 
acquiring information \textit{from} survivors; and providing communications facilities for survivors to use for 
their own purposes – principally contacting their family and friends to assure them of their survival. This 
last will usually only be possible at places of safety, but should be planned for there.

15.2 Survivors should be given as much information as can be managed (and as is appropriate) at all stages of 
the emergency and the response. This includes information given to them on board the casualty. Without 
information they can trust, they may take matters into their own hands – which will usually worsen the 
situation.

15.3 ‘Panic’ is an over-used word. People use it inappropriately in describing reactions in emergencies, often 
meaning only that they or others were running or shouting. But both are reasonable responses, especially

\textsuperscript{10} The SITREP format is very logically laid out and can be understood to a great extent even by someone who does not have the IAMSAR ‘key’ to hand.
if you do not know what the correct response is. People will naturally try to save themselves and their loved ones. If not aware of or convinced by alternatives, they will turn to flight. People running are difficult to control, but this is not necessarily ‘panic’. ‘Panic’ is better used to describe unreasonable behaviour, to which people may resort if they cannot see a means of escape. It involves loss of personal control and may make the individual unable to comprehend instructions and dangers. Both uncontrolled flight and incipient panic can be avoided by good communication of a reasonable emergency plan.  

15.4 While information provision and crowd management will be matters for the casualty’s crew during an evacuation, they become important to rescue unit crews as people are picked up and transferred to places of safety. If it is best for people to remain aboard a supported casualty unit, or in survival craft, the careful provision of information becomes even more important. Most people will want to leave the scene of the emergency and will need convincing that it is better for them to stay where they are. As noted in chapter 10, they will be easier to manage if they are kept well-informed.

15.5 This principle continues to apply in reception centres at the place(s) of safety. People will want to know where missing friends and family are, how their various other needs will be attended to, and why they cannot just be allowed to go home. Providing clear and frequently updated information should be a planned aim, as noted in chapters 7 & 11. Suitable spokespeople and liaison officers should be appointed: information boards and screens are also useful. When possible, survivors should be given access to communications systems so that they can reassure family and friends.

15.6 Again as discussed in chapters 10 & 11, survivors can provide information as well as require it. They may have information of value to the ongoing rescue effort and/or information of value to the investigation of the incident underlying the MRO. Arrangements need to be put in place to acquire this information.

15.7 As discussed above, a common language or other means of making oneself understood is essential to all communication. Responders should be particularly careful not to use technical language in talking with survivors, and should be sensitive to their likely mental condition. They will be upset, perhaps disorientated, perhaps still frightened: these factors need to be taken into account at a purely human level – but also for a better chance of communications success.

15.8 Where there are more basic language difficulties, interpretation services can be used, even if the interpreter is remote from the two people needing to talk, and translation apps will be useful – or there may be other survivors who can help. It should also be remembered that humans have a remarkable facility for making themselves understood by sign language, if the effort is made.

15.9 In summary, survivors are not just ‘objects’ to be retrieved and brought ashore. They are human beings with an urgent need for information and, possibly, with important information to give. Responders should plan how best to communicate with them.

16 Public communications

16.1 Public communications will also be part of the communications load and must therefore be part of the plan too. Unlike communications with survivors, the news media will ensure that this aspect is not overlooked at the time of the emergency, at least as far as their own needs are concerned. On the other

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11 Why, for example, did more people not jump into the sea to escape Costa Concordia as she listed, staying instead in spaces on the down-slope side of the ship, at risk of becoming trapped if she rolled onto her side? We can argue that this was because they understood the lifeboat concept and trusted the ship’s staff who could be seen to be implementing it. There was a plan that made sense, and which was well-communicated, at least by the junior staff who took control.
hand those with direct responsibility for managing the MRO should not have to do any more than provide information, via the cascade system preferably, to public relations officers who will take on responsibility for working with the news media direct.

16.2 It must be remembered however, and planned for, that ‘public communications’ is not only about the news media. A very important group, not at risk themselves but who should still be of direct concern to responding authorities, are the families and friends of those who are, or are believed to be, at risk. As well as keeping these people informed, SAR responders will need information from them about those at risk, including any contact they may have had with them by cellphone, for example, or on social networks. Family and friends’ reception centres should be included in this active, and two-way, communications process, in the same way as described for survivor reception centres above.

16.3 It will usually also be the case that the responding authorities will be putting out information direct to the public, by broadcasts, websites and other electronic means, notices in key areas, and so on. Responders should also be ready to receive and assess information provided by the general public.

16.4 These aspects are considered in further detail in chapter 7.

17 Communications after the MRO

17.1 There will continue to be a very large communications load after the mass rescue operation is over at sea – that is, after all who can be have been delivered to places of safety, and after searches on-scene have been concluded. The ongoing support of survivors will require much exchange of information, as will other recovery work such as counter-pollution and salvage operations. There will also be accident investigation and possible criminal or other investigation work going on, and MRO responders will be asked to contribute to this.

17.2 As regards the MRO itself, it is very important that it too should be considered in retrospect by those who participated in it, led by, or with the participation of, the SAR Coordinator (see chapter 18), primarily so that any lessons that can be learned from it are identified and shared as appropriate. See chapters 29 & 30 in this respect.

17.3 Good, clear, honest and inclusive communication remains as important in accident and response investigation and analysis, after the MRO, as it was in the planning and action stages.

18 Summary

- Successful communication means the transfer of information without delay, misunderstanding, repetition or omission, so that all who need it can acquire it rapidly and understand it fully.
- Successful communications during an MRO depend to a great extent on successful communications at the planning stage, including pre-exchange of up-to-date background information.
- There is a great deal of information to handle in an MRO. The information needs of all who may be involved should be identified, and priorities agreed, at the planning stage.
- It is vital to good communication to recognise when an MRO is required and to notify all likely responders, including agencies whose resources are needed to fill the ‘capability gap’.
- The communications structure should follow the command, control and coordination structure, and will tend to do so naturally if that structure is clearly delineated and understood.
o A communications system covering the whole MRO is unnecessary if liaison officers can be exchanged between the major coordination centres.

o Dissemination of information to responders is best done by cascading it in pre-planned streams.

o All responders should be able to have an overall understanding of the operation – but no-one needs to know every detail.

o Divide MRO communications into manageable parts. It is important that all units responding should know who to call, and that the SMC, OSC and ACO in particular should be clearly identified.

o Survivors should be given as much updated information as is appropriate; and they may be able to provide information of importance to the ongoing operation.

o Public communications should be part of the plan, via the news media and more directly, especially as regards communications with the family and friends of people involved.

o Good, clear, honest, disciplined and inclusive communication is important when planning for MROs; when conducting them; and when analysing them afterwards.

19 Further reading

19.1 The IAMSAR Manual is the principal source of guidance on maritime SAR communications, in an MRO and in general. Volumes I & II cover various aspects of communications planning: in particular see Volume II, Chapters 2, 5.21.4, 6.15.7, 6.15.20 & 6.15.32-33, and Appendix C: ‘MRO communications in a maritime incident’. Volume III contains good guidance for ships and aircraft on scene, including on-scene communications at Sections 8 & 9 and the SAR SITREP format at Appendix D. Guidance on multi-aircraft SAR communications may be found in Volume II Chapter 7, and Volume III, Sections 10 & 11.

19.2 IMO’s MSC Circular 1079, Rev.1, explains the SAR cooperation planning process between passenger ships and SAR services. IMO’s International Code of Signals and Standard Marine Communication Phrases are also useful.

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