

Chapter 7: Conclusion of SAR Operations

General

- 7.1.1 SAR Operations enter the conclusion stage when:
- The target is located and the survivors are rescued;
 - The emergency beacon has been located and the survivors rescued, or if there was no distress, the beacon has been turned off;
 - Information is received that the target is no longer in distress;
 - All known persons on board are accounted for, or it has been determined that there is no longer a chance of survival; or
 - The SAR Authority determines that further searching has no significant chance of succeeding and either suspend or terminate the search.
- 7.1.2 The authority to end a search rests with different levels within the SAR organisation, depending on the circumstances. In particular, the SAR Authority is responsible for deciding when to suspend or terminate an unsuccessful search where lives were known to be at risk.
- 7.1.3 The SAR Authority may delegate to the SMC the authority to conclude the operation in all other circumstances (i.e. when the SMC determines that the target is no longer in distress and in situations where an identified beacon has ceased transmitting).

7.2 Conclusion of a Successful SAR Action

- 7.2.1 When the target of a search action has been located and the survivors removed to a place of safety, the RCC shall ensure:
- All people and organisations involved in the SAR action are stood down;
 - All appropriate agencies are notified;
 - Next of kin are fully informed;
 - Shipping is advised of any hazard caused by abandoned vessels etc;
 - Arrangements are made for the recovery of dropped survival equipment e.g. rafts;
 - The collection of all maps, worksheets, notes, messages in chronological order and file on a SAR incident file; and
 - That administrative and financial procedures are completed.

7.3 Suspension of a Search when the Target is not Found

- 7.3.1 When it is determined that further search would be of no avail, the SMC shall consider recommending the suspension or termination of the SAR operation. However, search action shall not be suspended or terminated, nor the distress phase cancelled without the specific concurrence of the SAR Authority.
- 7.3.2 The decision to suspend a search shall not be made until a thorough review of the search is conducted. The review will focus on the probability of there being survivors from the initial incident, the probability of survival after the incident, the probability that the survivors were in the search area, and the effectiveness of the search.

- 7.3.3 The review should:
- a) Examine search decisions to ensure that proper assumptions were made and that planning scenarios were reasonable;
 - b) Reconfirm the certainty of initial position and any drift factors used in determining the search area;
 - c) Re-evaluate any significant clues and leads;
 - d) Examine datum computations and data calculations;
 - e) Confirm that all reasonable means of obtaining information about the target have been exhausted;
 - f) Review all intelligence material to ensure no information was overlooked;
 - g) Examine the search plan to ensure that:
 - i) Assigned areas were searched;
 - ii) The probability of detection was as high as desired; and
 - iii) Compensation was made for search degradation caused by weather, navigational, mechanical or other difficulties;
 - h) Consider the survivability of the survivor/s, taking into account:
 - i) Time elapsed since the incident;
 - ii) Environmental conditions;
 - iii) Age, experience and physical condition of (potential) survivors;
 - iv) Survival equipment available; and
 - v) Studies or information relating to survival in similar circumstances;
 - i) Consider the rescue plan to ensure that:
 - i) Best use was made of available resources;
 - ii) Contingency plans were sufficient to cater for unexpected developments; and
 - iii) Coordination with other agencies was effective in ensuring best treatment of survivors.
- 7.3.4 Before an unsuccessful search is suspended or terminated, the SAR Authority shall make arrangements to ensure that the next of kin are fully briefed on the complete search effort, including conditions in the search area, other salient operational factors and the reasons for proposing the suspension or termination of the search.
- 7.3.5 Consideration may be given to notifying the decision to suspend or terminate search effort at least one day prior to suspension of operations. This provides the next of kin at least one more day of hope while giving them time to accept that the search cannot continue indefinitely. Accordingly, the SMC should maintain regular contact with the relatives during the conduct of the search, providing access to the RCC if practical and appropriate.
- 7.3.6 In a case where foreign nationals are involved, liaison shall occur with the Department of Foreign Affairs and Trade.
- 7.3.7 The reasons for suspending a search shall be clearly recorded.
- 7.3.8 When a SAR action is discontinued or a search is suspended, the RCC shall inform all authorities, units and facilities that have been activated and/or alerted.

- 7.3.9 On occasions, after the suspension of a search, it may be necessary for the Police or Defence to continue to search for bodies and/or aircraft/vessel wreckage. In such cases the SAR Authority that had responsibility for the coordination of the search and rescue operation may, where possible:
- Provide briefings on the path of the aircraft/vessel prior to disappearance, last known position, area searched and related intelligence;
 - Review intelligence to assist search;
 - Source aircraft for transport or search purposes; and/or
 - Provide drift information.
- 7.3.10 Should any other organisation, such as the operating company, wish to continue with or initiate an independent search, the SAR Authority that had responsibility for the coordination of the search and rescue operation should ascertain whether there is any new intelligence that provides grounds to resume or continue the search. Under the circumstances where there is new intelligence, it should be evaluated and if considered valid the search should be continued or resumed. Where there is no new intelligence, then the SAR Authority may assist the requesting organisation by:
- Briefing the aircraft/vessel's path prior to disappearance, splash/crash point, area searched and related intelligence;
 - Advising the possible location of suitable search aircraft; and/or
 - Providing drift information.

7.4 Reopening a Suspended Search

- 7.4.1 If significant new information is received, reopening of a suspended case should be considered. Reopening without good reason may lead to unwarranted use of resources, risk of injury to searchers, possible inability to respond to other emergencies, and false hopes among relatives.

7.5 Records and Reports

- 7.5.1 Records relating to search and rescue operations, including air searches on behalf of other organisations, shall be retained for periods as required under the relevant legislation and regulation.
- 7.5.2 When a search has been terminated without locating the target or its occupants, all records, charts etc. shall be retained and be accessible to SAR staff to allow easy resumption of search activity should further intelligence be received.
- 7.5.3 Reports on SAR Actions shall be generated as required for Coroners Inquiries, Management purposes and for training requirements.

7.6 Incident Debriefs

- 7.6.1 Following an incident the conduct of a debrief of agencies and groups involved should be considered. The purpose of incident debriefs are to establish opportunities for improvement in the operation of the national SAR system.
- 7.6.2 Incidents worthy of debrief may include those where:
- Lives have been lost;
 - Large and complex searches have been conducted;
 - Multi agency involvement occurred; or

- d) Where coordination, communication or response challenges were experienced during the incident.
- 7.6.3 This list is not exhaustive and the conduct of a post incident, multi-agency debrief is at the discretion of the SAR Authority in overall coordination of the incident with mutual agreement of other SAR Authorities and agencies involved.
- 7.6.4 Post incident debriefs should be used to:
- a) Establish opportunities for improvement in the operation of the National SAR System; and
 - b) Ensure current policies and procedures are appropriate.
- 7.6.5 The SAR Authority with overall coordination is to:
- a) Decide the need for a debrief in consultation with other SAR participants;
 - b) Organize and host the debrief unless otherwise agreed by the participants;
 - c) Establish a venue that maximizes opportunity for participation in, and learning from, the debrief;
 - d) Capture and share the opportunities for improvement arising;
 - e) Initiate changes to the National SAR Manual as appropriate arising from the debrief; and
 - f) Include lessons learned from debriefs in their jurisdiction reports to the annual National SAR Council meeting.
- 7.6.6 Participation at debriefs may be restricted to particular SAR Authorities and agencies depending on the issues that are likely to arise and would be a decision for the SAR Authority with overall coordination for the incident.
- 7.6.7 SAR Authorities that participate in the debrief will meet their own attendance costs, unless otherwise agreed by the participants.
- 7.6.8 The debrief should include the opportunity for all significant parties involved in the incident to contribute and learn from it.

7.7 Case Studies

- 7.7.1 Case studies may be conducted at the direction of the SAR Authority. IAMSAR provides guidance on case studies as follows.
- 7.7.2 Sometimes a SAR case has a surprise ending, as when the survivors are found by someone not involved in the search effort in a location outside the search area, or they are found, alive and well, in the search area after the search effort has been suspended. There are also occasions when there seems to have been an unusual number of problems in spite of the best efforts of the SAR personnel. Finally, there may be important and valuable lessons to learn from a SAR incident and the subsequent response of the SAR system that would be revealed only by a careful after-the-fact review.
- a) A SAR case study is an appropriate method for addressing those aspects of an incident that are of particular interest. Individual aspects of interest could include problems with communications, assumptions made, scenario development, search planning, or international co-ordination. SAR case studies or incident reviews also provide opportunities to analyse survivor experiences and lifesaving equipment performance. Survival in hostile environments is affected by many variables, including the physical condition of the survivors, survivor actions, reinforcement given by rescue crews prior to rescue, and the effectiveness of safety or survival equipment. Knowing more about these factors can help the SAR system become more effective.

- b) When used to review and evaluate all aspects of a response to an incident, SAR case studies are one of the most valuable and effective tools for improving SAR system performance. Therefore, SAR case studies or reviews should be performed periodically even when no problems are apparent. There is almost always room for improvement, especially in large, complex cases. The most important outcome, however, is that early detection and correction of apparently small problems or potential problems will prevent them from growing into serious deficiencies later.

7.7.3 To get a balanced view, more than one person should conduct SAR case studies. The case study team should include recognized experts in those aspects of the case being reviewed. To achieve maximum effectiveness, case studies should not assign blame, but rather, should make constructive suggestions for change where analysis shows that such change will improve future performance.

7.8 Performance Improvement

7.8.1 Constant improvement in the performance of the SAR system should be a clearly stated goal of SAR managers. One method to encourage performance improvement is to set up goals whose degree of attainment can be measured by key performance data. This data should be collected, analysed, and published on a routine basis so that individuals can see how the system as a whole is doing, and how their performance is contributing to the achievement of the established goals. Routine reports from the SMCs to the SAR managers can be used for monitoring system performance and highlighting areas where improvement is possible through changes in policies, procedures, or resource allocation.

