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Fisheries and Oceans Canada
Canadian Coast Guard

Défense nationale
Pêches et Océans Canada
Garde côtière canadienne

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CAMSAR III

CANADIAN AERONAUTICAL AND MARITIME SEARCH AND RESCUE MANUAL

Volume III – Mobile Facilities

(ENGLISH)

**Supplement to the
IAMSAR Manual, Volume III**



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1.01 Ground Search Parties

Search Techniques

1.01.1 Ground search parties are normally utilized either to conduct a search covering a small area of ground or to aid in the evacuation of personnel and equipment from crashes or during emergency incidents.

1.01.2 Search Patterns – Normally, ground search patterns will conform to either the parallel sweep or contour type of search. Variations and modifications of these basic patterns may be required because of local terrain factors. The two most common patterns are:

- .1 Parallel Sweep – This is the most common type of ground search pattern. It is normally accomplished by forming up a number of people in a straight line evenly spaced apart. The distance between them will vary depending on the terrain and the object of the search. Everyone must be able to see everything between themselves and the persons on each side. The persons on each end of the line are known as flankers and they are responsible for the guidance and control of the search line. In commencing to search an area, the number one flanker usually tries to follow a natural boundary of some type or a predetermined compass course. During the first leg of the search, the party moves on the number one flanker, advancing in the abreast formation. The number two flanker should blaze or mark a trail so that when the party comes to the end of the first leg they can pivot about the number two flanker and proceed in the opposite direction on the second leg. The party will now move on the number two flanker who is searching along his blazed trail. The number one flanker will now be blazing a trail to follow on the third leg. This method is continued until the search area is completely covered.
- .2 Contour Search – This type of search is a modification of the parallel sweep and is conducted in hilly or mountainous terrain. The search party commences searching at the highest point and a parallel sweep is carried out encircling the hill or terrain.

1.01.3 Search Control – The control of a search party is difficult to maintain. The most experienced personnel should be assigned as flankers with other experienced personnel strategically placed along the line of search to assist in party control. To keep control and ensure full coverage of an area, parties should not consist of more than ten people.

1.01.4 The party must proceed slowly and all members must maintain their correct spacing. Each person should maintain their distance from the person on their directing flank and also try to remain in line. Continuous contact is essential. It is a common fault for most to try to proceed too fast and as a result, the control of the search party is lost and full coverage is not ensured.

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1.01 Ground Search Parties

1.01.5 Incident Proximity Signs – All members of the search party should be instructed to watch for the object of the search and any sign that may indicate the proximity of the object of the search, such as:

- .1 broken or disturbed trees or underbrush;
- .2 presence of smoke;
- .3 pieces of clothing or wreckage;
- .4 drops of oil or fuel;
- .5 odour caused by decomposition;
- .6 presence of scavengers;
- .7 unusual sounds; and
- .8 unusually disturbed areas.

Ground Search Briefing

1.01.6 The following points shall be included during the briefing of a ground search party before it sets out on a search operation or rescue mission:

- .1 full details of the missing aircraft or persons;
- .2 the type of terrain the party will encounter if known;
- .3 map references of the area and routes to be followed to the search area of the crash site;
- .4 aerial support which will be provided;
- .5 special equipment that is to be carried;
- .6 equipment that will be supply dropped;
- .7 action to be taken on locating the missing object or on arrival at the crash site; and
- .8 communications procedures and use of ground-air signals.

On-scene Procedures

1.01.7 Mandatory Equipment – The leader of the ground search party shall ensure that each member of the ground party is adequately equipped for the operation and that the following items are carried:

- .1 large scale maps of the area;

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1.01 Ground Search Parties

- .2 photographs of the surrounding terrain if available;
- .3 at least one transmitter and receiver with spare batteries capable of operating on VHF FM 149.08 MHz (Canadian SAR interagency frequency [SAR IF]) and HF 5717 kilohertz, or one portable SATCOM device capable of commercial telephone access and at least one of the on-scene working frequencies, including SAR IF;

NOTE: The on-scene working frequencies are listed in *CAMSAR II, section 2.02 – SAR Radio Frequencies and Channels*.

- .4 a copy of the ground/air visual code; and
- .5 a list giving the number, rank, and name of each member of the party.

1.01.8 Each member of the ground search party shall be completely equipped with proper clothing and footwear. Each member shall carry a knife, a whistle, a package of matches, and a compass. They shall carry sleeping bags, rations, signalling panels, flashlight, and signal flares if the party is to remain out overnight.

1.01.9 Proceeding On-scene – Unless personnel are themselves familiar with the terrain in which an operation is being conducted, search parties shall include, if available, at least one competent guide who is familiar with the area. The SAR Mission Coordinator (SMC) shall arrange the rate of remuneration with the guide prior to the departure of the party.

1.01.10 Normally, single file is the best method of advancing through bush. If the party must spread out in order to find a trail or crash site, continuous contact shall be maintained between all members of the party. One effective method is to number the members consecutively and then the leader can give command, "NUMBER", to verify all are present.

1.01.11 The greatest care shall be taken that the party remains together. Should it be necessary to divide the party, each section shall be in the charge of a competent leader. If a member of a party is unable to continue, he shall not be sent back alone. If a party or any member of it becomes lost, the international distress signal of firing three shots should be used. The recognized acknowledgement is one shot. If no firearms are carried, the distress signal should be given by whistle or three loud sounds by any available means.

1.01.12 Search parties shall not travel at night unless the nature of the emergency warrants such action.

1.01.13 Ground search personnel operating watercraft shall observe all water safety regulations. Suitable life preservers shall be worn by all personnel using any type of maritime craft or raft.

1.01.14 Crash Site – On locating a crash site, the ground search party shall determine the number of survivors and deceased persons and inform the covering aircraft or search

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1.01 Ground Search Parties

centre. If all persons who were aboard the missing aircraft are not immediately accounted for, the search shall continue in the event that someone has left the crash site or parachuted.

1.01.15 The leader of a ground search party shall ensure that no person, whether military or civilian, removes or interferes with an aircraft or wreckage, or disturbs or removes corpses until authorized by the Coroner and the SMC unless this action is required to make the area safe for the extraction of survivors. Where practical, pictures will be taken to preserve evidence with all copies returned to the SMC for distribution to the appropriate authorities.

1.01.16 Identification of deceased personnel is usually made from wallets, identification tags, watches, etc. When possible, two persons should be present when these are being gathered. Valuables and money shall be inventoried and turned over to the SMC or the police, and a receipt obtained.

1.01.17 Rescue Operations – When stretcher cases are to be transported any distance overland, a minimum of six persons shall be provided for each stretcher case. When available, an additional six persons shall be provided to spell off the original group and assist in clearing a trail.

Cooperation between Aircraft and Ground Search Parties

1.01.18 In many instances, aircraft can be of great assistance to ground search parties in locating the scene of a crash. Leaders of search parties and aircraft crews shall be briefed on the method of communication and the operation plan to be used. This briefing shall include a planned communication schedule and an alternative schedule in the event of poor weather or aircraft unserviceability.

1.01.19 Ground parties shall ensure that the following information is communicated to the supporting aircraft:

- .1 the number of days' food supplies on hand;
- .2 the progress made;
- .3 the estimated time of reaching the next objective; and
- .4 the requirement for food or other equipment.

Reports

1.01.20 A narrative report covering all aspects and phases of the ground SAR operation, including comments on equipment and recommendations for the approval of techniques, shall be submitted by the ground search party leader to the SMC for inclusion in the search operation final report.

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Chapter 2 RENDERING ASSISTANCE

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- 2.02 Sighting and Subsequent Procedures**
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Chapter 2 RENDERING ASSISTANCE

2.01 Proceeding to the Area of Distress

Due Vigilance

2.01.1 Search and rescue units (SRUs) proceeding to and from the area of distress should observe due vigilance on their way to and back from the scene, as the search object(s) or clues as to their whereabouts may be encountered outside the SRU's designated search location.

SAR Vessels in VTS Zones

2.01.2 When a Canadian Coast Guard (CCG) or other government vessel has been tasked to a search and rescue (SAR) incident, its commanding officer shall so advise the Marine Traffic and Communications Services (MCTS) centre as soon as practicable, if not already advised.

2.01.3 The MCTS Centre shall make any special provisions necessary to facilitate the arrival, departure or transit of a government vessel engaged on SAR operations.

2.01.4 When CCG or other government vessels are proceeding to the scene of a SAR incident, participating in a SAR mission within a vessel traffic system (VTS) zone or when transporting sick or injured persons the standard reporting and routing procedures may be waived by the MCTS Officer.

2.01.5 Commanding officers shall ensure that, to the greatest extent possible, all reporting procedures to MCTS are maintained during any SAR operations.

2.01.6 CCG vessels, when not tasked to a SAR incident, must comply with the procedures prescribed for other vessels.

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2.01 Proceeding to the Area of Distress

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Chapter 2 RENDERING ASSISTANCE

2.02 Sighting and Subsequent Procedures

Sighting the Search Object

2.02.1 When a search object is located, it shall be inspected carefully to verify that it is indeed the object sought, its position carefully plotted, and a *notice of crash/casualty location (NOCL)* message shall be dispatched to the search and rescue (SAR) mission coordinator (SMC) without delay. If positive identification cannot be made, a statement to this effect is to be included in the report.

NOTE: Refer to *Appendix C – Notice of Crash/Casualty Location*.

Staying Within Sight

2.02.2 When a SAR facility has located the search object, it should attempt, by any means, to indicate to the search object that it has been sighted. If possible, the SAR facility should remain visible to the search object in order to contribute to the survivors' mental well-being.

2.02.3 Crews locating survivors in a life raft shall be particularly careful not to lose sight of the raft. In normal circumstances, search aircraft should remain in the vicinity of the raft until relieved, or until prudent limit of fuel endurance. If possible, the location shall be marked by smoke floats, sea markers, or datum marker buoys.

Photography of the Search Object and Surroundings

2.02.4 If unable to do the rescue, the search crew shall scrutinize the area carefully with a view to assisting those who will be required to effect rescue or conduct investigations. If possible, several photographs of the scene and surrounding area shall be taken. Any open stretches of land on which aircraft could conceivably be landed or SAR Technicians dropped, or any lakes or rivers on which an aircraft could land, should be examined, and any information that may assist in rescue operations shall be reported.

2.02.5 The search object should be photographed from the height and distance at which it was first spotted and at the various heights and distances normally used in search. The SMC shall be notified immediately that photographs have been taken. The photographs shall then be forwarded to the SMC by the most expeditious means.

2.02.6 When possible, visual imaging techniques shall be used at incident sites showing the crash/wreckage location, equipment in use, and any other pertinent details that would assist authorities in conducting an investigation of the incident. These images will normally be taken by SAR personnel. Every piece of wreckage, which would appear worthwhile to the investigators, should be visually reproduced.

NOTE: Under normal circumstances, visual imaging techniques should not be used when casualties are involved, unless the casualty is covered.

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2.02 Sighting and Subsequent Procedures

2.02.7 The location and position at which visual imaging techniques were used should be marked on a grid or chart, record the Lat/Long in degrees, minutes, decimal minutes noting the datum and this information retained.

NOTE: Also refer to *CAMSAR I, section 6.01 – Photographic Libraries.*

Survivors and Supplies

2.02.8 Search crews finding survivors in obvious need of food, water, or first aid equipment, shall, at the captain's discretion, drop or supply the necessary supplies and equipment carried on board for that purpose. If the SAR facility locating the object of the search is not carrying special supply equipment designed for to survivors of a distress incident, then the captain shall immediately notify the SMC of his position and request that a unit carrying the necessary equipment be dispatched or diverted to the scene.

2.02.9 Narcotics shall not be provided to survivors of a distress incident unless accompanied by personnel trained in their administration.

2.02.10 Search crews shall watch for signal messages from survivors. Any such signal noted shall be relayed immediately to the SMC.

Hazardous Material

2.02.11 Many newer generation aircraft include components, which when damaged in an accident may release hazardous material into the environment (carbon fibres, hydrazine, etc.). It is imperative that responding facilities and personnel are adequately protected in these circumstances and that the SMC contact the 1 Canadian Air Division, Director General Health Services, for directions in handling dangerous materials at a crash site.

2.02.12 When dealing with hazardous materials in the maritime environment, the Canadian Transport Emergency Center (CANUTEC) shall be consulted. Part of Transport Canada, CANUTEC provides information and communications assistance in case of transportation emergencies involving dangerous goods. It is accessible 24/7 at the following coordinates:

Telephone: 613-996-6666 (call collect)
Cellular: *666 (Canada only)

Chapter 2 RENDERING ASSISTANCE

2.03 Assisting Disabled Vessels

NOTE: For guidelines on assisting disabled vessels, refer to *Annex 1 – Excerpts from the CCG Operational Procedures on Assistance to Disabled Vessels*.

Also of interest:

- *CAMSAR I, Annex 4 – Excerpts from the CCG Policy on Assistance to Disabled Vessels*; and
- *CAMSAR II:*
 - ↳ *Section 6.02 – Assistance to Vessels*;
 - ↳ *Section 7.04 – Protection of Property*; and
 - ↳ *Annex 4 – Excerpts from the CCG Operational Procedures on Assistance to Disabled Vessels*.

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2.03 Assisting Disabled Vessels

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2.04 Communicating with the Media/Public

2.04.1 -During search and rescue (SAR) operations, occasions arise when Canadian Armed Forces and Canadian Coast Guard personnel, as well as other participating parties, are subjected to requests for information from the media/public. This is especially true when a SAR facility or other headquarters is geographically distant from the SAR Mission Coordinator (SMC). It is prudent to respond to these requests rather than give the impression of being unaware or unresponsive.

2.04.2 Where circumstances allow, clearance shall be obtained from the SMC or designated Public Affairs Officer prior to conducting such interviews or making public releases.

2.04.3 The facts given in an interview should be limited to the following:

- .1 number of facilities engaged in the search;
- .2 number of crew aboard the search facility;
- .3 number of hours the facility has been engaged in the search;
- .4 the area searched, and search results of the individual search facility;
- .5 weather conditions;
- .6 search facility's capabilities; and
- .7 items of general interest, readiness to carry on with the search, etc.

2.04.4 Personal opinions on the conduct of a particular SAR operation or on departmental policy should not be offered. Questions regarding topics other than those stated in the previous paragraph shall be referred to the SMC or designated Public Affairs Officer.

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| NOTE: Also refer to the <i>IAMSAR Manual, Volume III, section 2 – Rendering Assistance – Contact with the Media</i> . |
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2.04.5 The prerogative to decline an interview that would interfere with the conduct of a SAR operation rests with the SAR facility commander.

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Chapter 3 ON-SCENE COORDINATION

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Chapter 3 ON-SCENE COORDINATION

3.01 On-scene Coordinator

3.01.1 The resolution of a search and rescue (SAR) case (aeronautical or maritime) depends on the effective coordination of SAR unit (SRU) activity. The SAR mission coordinator (SMC) may designate an on-scene coordinator (OSC) to enhance coordination.

3.01.2 It will be the responsibility of the OSC to:

- .1 carry out the plan for the conduct of the operation as directed by SMC;
- .2 recommend modifications to the search plan to the SMC as facilities and on-scene conditions dictate; and, if unable to communicate with the SMC, carry out those modifications, notifying the SMC as soon as practical;
- .3 monitor weather and sea conditions and report on these at regular intervals to the SMC;
- .4 maintain communication/liaison as the primary liaison point of contact between the SMC and the SRUs on scene;
- .5 maintain a detailed record of the operation, including on-scene arrival and departure times of SRUs, areas searched, track spacing used, sightings and leads reported, actions taken and results obtained;
- .6 issue to the SMC regular situation reports which should include, but not be limited to, weather and sea conditions, the results of search to date, any actions taken, and any future plans or recommendations; and
- .7 advise the SMC to release units when their assistance is no longer required.

3.01.3 Aircraft Coordinator – When the situation dictates, the SMC may also designate an aircraft coordinator (ACO). The role of the ACO is to coordinate the aeronautical portion of the search as directed by the SMC and maintain communication/liaison as the primary point of contact between the OSC, the SMC and the aircraft on scene. When the OSC is an air resource he/she will normally be tasked as the ACO as well. When this occurs, only the term OSC will be used.

3.01.4 The designated ACO should:

- .1 coordinate aircraft hourly check-ins;
- .2 give updated search information as it is relayed from the SMC or OSC;
- .3 update the SMC on changing weather or search information; and
- .4 provide updated navigational data to other aircraft as required.

3.01.5 The ACO will also be responsible for coordinating SMC requests for aircraft support within the search area.

Chapter 3 ON-SCENE COORDINATION

3.01 On-scene Coordinator

NOTE: Refer to *CAMSAR II, section 1.01 – Search and Rescue Units*.

Chapter 3 ON-SCENE COORDINATION

3.02 On-scene Communications

Radiocommunications

3.02.1 The search and rescue (SAR) mission coordinator (SMC), on-scene coordinator (OSC) or aircraft coordinator (ACO) shall designate on-scene aeronautical and maritime frequencies as required. SAR facilities shall maintain a continuous watch on the frequencies allotted by the controlling authority during a SAR mission. Subject to the approval of the SMC, a scheduled watch may be adopted.

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| NOTE: For frequencies, refer to <i>CAMSAR II, Section 2.02 – SAR Radio Frequencies and Channels</i> . |
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3.02.2 Plain language and non-secure communications shall be used whenever practicable to avoid confusion.

SITREPs

3.02.3 All SAR units (SRUs) engaged on SAR missions shall pass situation reports (SITREPs) through the OSC or ACO is assigned to the SMC, or to the nearest Marine Traffic and Communications Services centre, for onward transmission to the SMC. This will normally consist of an "OPERATIONS NORMAL" for SAR aircraft and an operational SITREP for SAR vessels.

3.02.4 SRUs will report to the OSC, ACO or SMC as per SMC instructions. These reports should be made at least once per hour for aircraft and once every four hours or less for vessels. SRUs should also contact the OSC, ACO or SMC

- .1 before departure;
- .2 when arriving on-scene;
- .3 any time there is a change in the situation;
- .4 prior to departing the scene; and
- .5 upon return.

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3.02 On-scene Communications

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Chapter 3 ON-SCENE COORDINATION

3.03 Fatigue

General

3.03.1 Fatigue has been recognized around the world as a major contributor to many transportation incidents and accidents. Previous misconceptions concerning fatigue have falsely limited the perceived importance of the fatigue factor.

3.03.2 Fatigue is commonly caused by circadian (daily) rhythms, lack of adequate sleep, and intense work activity. Fatigue affects motivation as much as individual and team task performance. There is no physical or chemical test which can tell us that a person is impaired with fatigue.

3.03.3 Although fatigue can be both physical and mental, mental fatigue is most critical in SAR operations.

3.03.4 Search and rescue (SAR) units (SRU's) are governed by their parent organizational orders for crew days and rest periods. SRU's must ensure that the SAR mission coordinator (SMC) is made aware of any limitations to the crew day that may affect the tasking.

Symptoms

3.03.5 Mental fatigue exhibits the following symptoms:

- .1 increased drowsiness – difficulty staying awake;
- .2 reduced alertness – less capable of responding to the demands of the job;
- .3 reduced ability to concentrate – more difficulty with decision-making and reasoning; shorter attention span;
- .4 impaired memory – failure to remember recently completed tasks;
- .5 poorer task performance – reduced ability to complete a task as fast and accurately as usual; and
- .6 increased irritability.

Chapter 3 ON-SCENE COORDINATION

3.03 Fatigue

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Chapter 3 ON-SCENE COORDINATION

3.04 SAR Aircraft Debriefing

3.04.1 The debriefing portion of the *SAR Briefing/Debriefing Forms for Aircraft* shall be completed by the search and rescue (SAR) Squadron aircraft commander on the completion of each sortie. All information blanks should be completed and, where possible, a designated crew member should be made responsible for updating the form during the sortie to ensure accurate information is entered in a timely fashion.

3.04.2 On completion of the sortie, the SAR Squadron aircraft commander shall pass the information to the appropriate controlling agency. If under control of a joint rescue coordination centre (JRCC)/maritime rescue sub-centre (MRSC), pass the debriefing information to the JRCC/MRSC by the quickest available means. A hard copy of the form should be subsequently passed to the JRCC/MRSC for record purposes, either by the aircraft captain or the deployed SAR Mission Coordinator (SMC)/Searchmaster, as applicable.

3.04.3 In some cases it may be necessary to complete the debriefing by telephone or radio. In this case the format should be used as a guide, with the completed form to follow by message, if required.

3.04.4 For lengthy searches, the *Abbreviated SAR Briefing/Debriefing* form may be used at SMC's discretion.

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| NOTE: Refer to <i>Appendix A – SAR Briefing/Debriefing Forms for Aircraft</i> . |
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3.04 SAR Aircraft Debriefing

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3.05 SAR Mission Reports

Aeronautical SRUs

3.05.1 The aircraft commanders shall fill out a Search and Rescue (SAR) Mission Report on completion of each SAR mission, even if the mission was stood down or the aircraft did not otherwise get airborne. The SAR Technician (SAR Tech) team leader (TL) of the operation shall complete the report if SAR Tech equipment was used or to highlight any problems in procedures or equipment encountered during the mission. All SAR Mission Reports shall be reviewed by the SAR Squadron Commanding Officer and SAR Tech Leader.

3.05.2 This report should include a comprehensive narrative of the mission and describe the equipment or techniques used, including deficiencies encountered and corrective actions taken or proposed. Photographs or other available visual aids should be forwarded with the report.

3.05.3 Only one SAR Mission Report is required from each aircraft commander for a given SAR Rescue Squadron SAR case. Where there are multiple sorties associated with one SAR case, as during a prolonged search, several SAR Aircraft Debriefing forms may be required. Care must be taken that the total aircraft times associated with one SAR case reflect the cumulative times from all of the sorties flown by an aircraft commander on the same SRU.

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| <p>NOTE: Current criteria dictate that all aeronautical SAR units (SRUs) shall complete a <i>SAR Mission Report</i> following a tasking of a mission from the joint rescue coordination centre (JRCC) even if the mission is declined by the aircraft commander or did not otherwise get airborne. Copies of the report are to be sent to CJOC SAR, SSO SAR and the applicable JRCC. See also CAMSAR II-3.05.7.</p> |
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Maritime SRUs

3.05.4 Commanding officers and coxswains of vessels involved in SAR operations may provide *SAR mission reports* to the JRCC or maritime rescue sub-centre, as applicable. The use of this report by on-scene coordinators is encouraged for every case involving more than one SRU. The reports should detail any problems involved with the mission (communications, coordination, etc.) and/or any new or innovative practices that aided in the mission, plus any other comment that might aid the prosecution or prevention of similar incidents in the future.

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3.05 SAR Mission Reports

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| A.01 | AERONAUTICAL PRIMARY SRU FORM |
| BRIEFING | |
| SAR _____ Date _____ | |
| Tasked aircraft type and number _____ Squadron _____ | |
| Commanding Officer _____ | |
| Details as to nature of distress or emergency _____ | |
| Description of Search Object _____ | |
| Type of aircraft or vessel _____ | |
| Number or name of craft _____ | |
| Length _____ Width (Wing-span) _____ Number on board _____ | |
| Full description of craft, including colour and markings _____ | |
| _____ | |
| Radio frequencies of missing craft _____ | |
| _____ | |
| Assigned Search Area | |
| Area _____ | |
| Type of search _____ Altitude/Track spacing _____ | |
| Time on _____ task _____ | |
| _____ Commence _____ search | |
| at _____ (position) _____ | |
| _____ and track _____ (N-S) | |
| (E-W) _____ | |
| Frequencies | |
| Controlling agency _____ Aircraft _____ | |
| Surface vessels _____ Others _____ | |
| SITREPs | |
| To be passed to _____ every _____ hours with weather report included every _____ hours. | |
| Special Instructions (on-scene coordinator, aircraft coordinator, etc.) | |
| _____ | |
| _____ | |

Appendix A SAR Briefing/Debriefing Forms for Aircraft

AERONAUTICAL PRIMARY SRU FORM (continued from previous page)

DEBRIEFING

SAR _____ Aircraft no. _____

Date _____

Point of departure _____ Point of landing _____

Time airborne _____ On task _____ Off task _____

Landed _____

Area actually searched _____

Type of search _____ Altitude/Track spacing _____

Terrain or sea state _____ Number of observers _____

Weather conditions in search area (visibility, wind velocity, ceiling, etc.) _____

Object _____ of _____ search _____ (located)

at position _____

Number and condition of survivors _____

Sightings and/or other reports _____

Telecommunications (quality of communications and/or any changes other than briefed) _____

Remarks: (to include any action taken on search, any problems, criticism, suggestions) _____

Appendix A SAR Briefing/Debriefing Forms for Aircraft

| | |
|--|--|
| A.02 | AERONAUTICAL SECONDARY SRU FORM |
| BRIEFING | |
| Date/Time Group _____ Tasking authority _____ | |
| SAR (Case _____ no./name) _____ | |
| _____ Tasked _____ squadron/Aircraft | |
| type _____ | |
| Nature of distress or emergency (describe) _____ | |
| Search Object | |
| Type (aircraft/vessel/swimmer/hunter/other - specify) _____ | |
| Name/Registration no. _____ | |
| Number on board _____ Name of pilot/operator/owner _____ | |
| Description, including colours and marking (hi/low wing, single/multi engine, open boat, cabin cruiser, sailboard, skidoo, etc.) _____ | |
| _____ | |
| _____ | |
| Radios on board/Last known frequency _____ | |
| Emergency equipment _____ | |
| Assigned Tasking/Mission (Describe in plain language.) | |
| _____ | |
| _____ | |
| Assigned Search Area | |
| Area description (corner points, latitude and longitude, etc.) _____ | |
| _____ | |
| Commence Search Point _____ | |
| Direction to track (N-S) (E-W) _____ | |
| Track spacing _____ | |
| Search altitude (not below VFR limits) _____ | |
| Search pattern (ELT, track crawl, etc.) _____ | |
| Other Search and Rescue Facilities in Same or Adjacent Areas | |
| Aircraft/Altitude/Area _____ | |
| Vessels/Area _____ | |
| Ground search teams _____ | |

Appendix A SAR Briefing/Debriefing Forms for Aircraft

AERONAUTICAL SECONDARY SRU FORM (continued from previous page)

Frequencies and Callsigns for Communications

JRCC/MRSC/SMC/OSC _____

Other search _____ aircraft _____

Other search _____ vessels/Ground _____ teams _____

Search object/Survivors _____

SITREPs should be passed to _____
every _____ hour(s) (normally every 1 hour).

Advise controlling agency when and why, if SITREPs cannot be maintained.
IF CONSECUTIVE SITREPS ARE MISSED, SEARCH ACTION MAY BE INITIATED.

Action on Sighting Search Object _____

If unable to effect rescue, direct other aircraft and/or vessels to the scene.
Remain on scene until relieved, forced to return or until the rescue has been effected.

Unit Certification (The SMC will read these statements to the unit commander and certify his/her acceptance.)

IN THE OPINION OF THE UNIT COMMANDER, THE UNIT AND CREW CAPABILITIES ARE SUFFICIENT TO SAFELY COMPLETE THE MISSION AS BRIEFED.

Initials

THE UNIT COMMANDER UNDERSTANDS THAT AT ANY TIME A CONDITION OR SITUATION IS ENCOUNTERED THAT EXCEEDS THE UNIT OR CREW CAPABILITIES, THE MISSION SHALL BE ABORTED.

Initials

Special instructions (on-scene coordinator, aircraft coordinator, etc.) _____

Appendix A SAR Briefing/Debriefing Forms for Aircraft

AERONAUTICAL SECONDARY SRU FORM (continued from previous page)

DEBRIEFING

Immediately upon return to base, advise JRCC of the following details:

| | | | |
|---------------|--------|----------|-----|
| Time | | airborne | ___ |
| Time on | | task | ___ |
| Time search | object | sighted | ___ |
| Time off | | task | ___ |
| Time returned | to | base | ___ |

Area actually searched _____

Remarks/comments on this mission _____

NOTE: The SMC will transmit this form to the SRU commander (if airborne, to the parent unit) prior to the SRU departure.

Appendix A SAR Briefing/Debriefing Forms for Aircraft

| | |
|--|--|
| A.03 | AERONAUTICAL SRU ABBREVIATED FORM |
| BRIEFING | |
| SAR _____ | |
| Date _____ | |
| Tasked aircraft _____ type _____ and _____ number _____ | |
| Commanding Officer _____ | |
| Take off _____ time _____ | |
| Search area _____ | |
| _____ | |
| _____ | |
| Search altitude _____ Track spacing _____ | |
| Type of _____ search _____ | |
| Remarks (on-scene coordinator, aircraft coordinator, etc.) _____ | |
| _____ | |
| _____ | |
| _____ | |
| DEBRIEFING | |
| Area actually searched _____ | |
| _____ | |
| _____ | |
| _____ | |
| Search time _____ Transit time _____ | |
| Effectiveness of search _____ % Percentage of area covered _____ % | |
| Remarks _____ | |
| _____ | |
| _____ | |
| _____ | |
| _____ | |

Appendix B SAR Briefing Form for Vessels

| B.01 | MARITIME SRU FORM |
|---|--------------------------|
| 1. SRU tasked _____ AT (date – time group) _____ | |
| 2. SAR (case name) _____ (case number) _____ | |
| 3. SEARCH OBJECT | |
| A. TYPE (delete as necessary) AIRCRAFT/VESSEL/OTHER _____ | |
| B. NAME _____ | |
| C. REGISTRATION _____ | |
| D. TONNAGE _____ | |
| E. DESCRIPTION (colour, markings, superstructure, characteristics) _____ _____ _____ | |
| F. OWNER/OPERATOR/AGENT _____ | |
| G. PERSONS ON BOARD _____ | |
| H. EMERGENCY EQUIPMENT CARRIED _____ | |
| 4. NATURE OF DISTRESS OR EMERGENCY (brief description) _____ _____ | |
| 5. SEARCH AREA | |
| A. AREA DESCRIPTION (four corners, latitude and longitude, etc.) _____ _____ _____ _____ | |
| B. COMMENCE SEARCH POINT _____ | |
| C. DIRECTION OF CREEP _____ | |
| D. REQUESTED SEARCH PATTERN _____ | |
| E. REQUESTED TRACK SPACING _____ | |
| F. REQUESTED SEARCH SPEED _____ | |
| G. REQUESTED COVERAGE FACTOR _____ | |

(continued on next page)

Appendix B SAR Briefing Form for Vessels

MARITIME SRU FORM (continued from previous page)

6. OTHER SRUS TO BE ENGAGED IN ADJACENT AREAS

A. AIRCRAFT/ALTITUDE _____

B. VESSELS _____

C. GROUND PARTIES _____

7. FREQUENCIES AND CALLSIGNS TO BE USED FOR COMMUNICATION WITH

A. JRCC/MRSC/OSC/SM (delete as necessary) _____

B. SEARCH AIRCRAFT _____

C. OTHER SEARCH VESSELS _____

D. GROUND PARTIES _____

E. VESSEL IN DISTRESS/SURVIVORS _____

8. ACTION ON SIGHTING THE SEARCH OBJECT (delete as necessary)

- REPORT TO _____
- IF UNABLE TO EFFECT RESCUE, DIRECT OTHER VESSELS AND/OR AIRCRAFT TO THE SCENE.
- REMAIN ON SCENE UNTIL RELIEVED OR FORCED TO RETURN OR RESCUE HAS BEEN EFFECTED.

9. SITREPS TO BE PASSED TO _____

EVERY _____ HOUR(S) (normally every 4 hours).

10. SPECIAL INSTRUCTIONS (on-scene coordinator, etc.) _____

Appendix C Notice of Crash/Casualty Location

| C.01 | NOCL MESSAGE |
|--|---|
| <div style="border: 1px solid black; padding: 5px; margin: 0 auto; width: 80%;"> <p>The originator should transmit only the words on the left; the meaning is shown on the right.</p> </div> | |
| <p>SAR MISSION COORDINATOR THIS IS _____ (name of SAR facility)</p> | |
| <p>NOVEMBER OSCAR CHARLIE LIMA</p> | |
| <p>ALPHA</p> | |
| <ul style="list-style-type: none"> • <i>AFFIRMATIVE</i> | <p>Positive identification that the object sighted is the search object.</p> |
| <ul style="list-style-type: none"> • <i>NEGATIVE</i> | <p>Unable to positively determine that the object sighted is the search object.</p> |
| <p>BRAVO</p> | |
| <ul style="list-style-type: none"> • An eight or nine digit group denoting position without North or West being used | |
| <p>CHARLIE</p> | |
| <ul style="list-style-type: none"> • <i>NEGATIVE</i> | <p>No survivors or casualties can be seen.</p> |
| <ul style="list-style-type: none"> • Number, followed by: (and repeated as necessary) | <p>Indicates number of victims actually seen.</p> |
| <ul style="list-style-type: none"> ○ <i>UNDETERMINED</i> | <p>– The status of the survivors or casualties cannot be determined</p> |
| <ul style="list-style-type: none"> ○ <i>RED</i> | <p>– Immediate treatment and evacuation (Priority 1)</p> |
| <ul style="list-style-type: none"> ○ <i>YELLOW</i> | <p>– Early treatment and evacuation (Priority 2)</p> |
| <ul style="list-style-type: none"> ○ <i>GREEN</i> | <p>– Routine treatment and evacuation (Priority 3)</p> |
| <ul style="list-style-type: none"> ○ <i>BLUE</i> | <p>– Deferred treatment and evacuation (Priority 4)</p> |
| <ul style="list-style-type: none"> ○ <i>WHITE</i> | <p>– Uninjured</p> |
| <ul style="list-style-type: none"> ○ <i>GREY</i> | <p>– Missing</p> |
| <ul style="list-style-type: none"> ○ <i>BLACK</i> | <p>– Dead</p> |
| <p><i>(continued on next page)</i></p> | |

Annexes

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Annexes

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Annex 1 **Excerpts from the CCG *Operational Procedures on Assistance to Disabled Vessels***

- 1. Assistance to a Vessel in Distress or when Status in Doubt**
- 2. Assistance to a Disabled Vessel (i.e. not in Distress)**
 - 2.1 In Open Water
 - 2.2 When Ice Is Present
- 3. Towing instructions and conditions**

TOWING CONDITIONS AND UNDERSTANDING

Note to the Commanding Officer of the SAR Unit

Annexes

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**Annex 1 Excerpts from the CCG Operational Procedures
on Assistance to Disabled Vessels**

NOTE: Different excerpts from the Canadian Coast Guard (CCG) *Policy and Operational Procedures for Assistance to Disabled Vessels* are shown in *CAMSAR I, Annex 4*, and in *CAMSAR II, Annex 4*.

1. Assistance to a Vessel in Distress or when Status in Doubt

1.1 If time and the circumstances allow, the Commanding Officer should consider providing technical assistance before deciding to tow. From time-to-time, the CCG will have to tow vessels in distress. In the ordinary practice of seamanship, towing involves fewer risks to the towed vessel if the towing vessel is smaller or the same size as the towed vessel. Should towing be necessary, the Commanding Officer shall follow the detailed instructions provided in the Fleet Safety and Security Manual.

1.2 When the situation is stabilized, or if additional information is available to determine that the vessel is no longer in distress, any requirements for further assistance shall follow the directives in Section 2 as appropriate.

2. Assistance to a Disabled Vessel (i.e. not in Distress)**2.1 IN OPEN WATER**

2.1.6 In all other situations if time and the circumstances allow, the Commanding Officer should consider providing technical assistance before deciding to tow. Any technical assistance, such as fuel or provisions transferred to the disabled vessel, will be strictly on account of the owner/operator of that vessel. From time-to-time the CCG will have to tow disabled vessels. In the ordinary practice of seamen towing involves fewer risks to the towed vessel if the towing vessel is smaller or the same size as the towed vessel. Should towing be necessary, Commanding Officers shall follow detailed instructions in the Fleet Safety and Security Manual. In general, the Commanding Officer shall provide a copy and formally explain to the master or person in charge of the disabled vessel written towing conditions. The Commanding Officer shall also discuss the risks of towing and CCG expectations during the tow.

2.1.7 When any CCG resource has a disabled vessel under tow and commercial or private assistance arrives on-scene, the Commanding Officer shall hand over the tow to the commercial/private vessel provided it appears capable and the transfer can be conducted safely.

2.1.9 Should a disabled vessel be towed by a CCG resource the towing operation should always be to the nearest place of refuge or to a rendez-vous position where the tow can be safely transferred to commercial or private mobile facilities. In all cases, the Commanding Officer shall record the date and time when the SAR operation ended i.e., when the persons aboard the disabled vessel have been transferred to a safe place and the time when they started the disabled vessel operation under CCG Environmental Response mandate in the log book.

2.1.10 On arrival at the place of refuge, it is not the responsibility of the CCG resource to secure the disabled vessel. However, the Commanding Officer may take such action as is necessary, having due regard for the circumstances of the case, to ensure that the disabled vessel is safely secured or anchored.

**Annex 1 Excerpts from the CCG Operational Procedures
on Assistance to Disabled Vessels**

2.1.11 Commanding Officers may have to cast off the tow in order to respond to a distress situation or incident of a more serious nature. In instances when the persons onboard the disabled vessel consider themselves to be in potential danger and wish to abandon, the Commanding Officer of the CCG resource should consider the risks and if prudent to do so, evacuate these persons and continue on with the more serious incident an extended period. The Commanding Officer shall notify the JRCC/MRSC of the action taken.

2.2 WHEN ICE IS PRESENT

2.2.1 The provisions of this paragraph 2.2 apply in addition to the provisions of paragraph 2.1.

2.2.2 In the ordinary practice of seamanship, towing involves fewer risks to the towed vessel if the towing vessel is smaller or the same size as the towed vessel. When ice is present, CCG resources are generally much larger than the disabled vessel, thus due care and attention must be exercised. [...]

2.2.3 Therefore, given the considerations in paragraph 2.2.2 for disabled vessels when ice is present, the CCG will not tow small vessels of less than 33 metres in length with persons onboard. Instead, other options to be considered to render assistance include, but are not limited to the following:

1. provide assistance to find alternate towing arrangements and standby to provide icebreaker escort for the tow if required;
2. standby until ice conditions improve;
3. render onboard technical assistance;
4. assist crew to transfer to a safe place and tow with no persons onboard; or,
5. as a last resort, assist crew to abandon vessel, transfer them to a safe place, leave the unoccupied vessel and depart the area.

3. Towing Instructions and Conditions

In all situations where towing is appropriate, and as far as safely feasible in the circumstances, the Commanding Officer of the responding CCG unit shall instruct the master or person in charge of the assisted vessel on the towing operation that is contemplated, its risks and CCG expectations during the tow. The master or person in charge of the assisted vessel shall confirm his or her understanding of the instructions and risks, and agree to the conditions of the towing operation. If safely feasible, the Commanding Officer of the responding CCG unit shall obtain a signature of the *Towing Conditions and Understanding* shown next.

**Annex 1 Excerpts from the CCG Operational Procedures
on Assistance to Disabled Vessels**

TOWING CONDITIONS AND UNDERSTANDING

I, the undersigned _____ declare _____ being the owner/operator/master/person in charge of the _____, registered under the official number or registration or license number _____ do hereby request that the Canadian Coast Guard Ship _____ (hereinafter: the "Search and Rescue Unit or SAR Unit") provide my disabled vessel with towing assistance.

In doing so, I declare being of sound body and mind and perfectly aware of the dangers and risks of a towing operation, for myself, for all persons on board the vessel, and for the vessel and its equipment.

I confirm that the Search and Rescue Unit has informed me of the details of the intended towing operation and the SAR Unit expectations from my vessel during the operation, including the requirement not to undertake any manoeuvre or apply the engine or rudder unless it is ordered by the SAR Unit or the SAR Unit has been informed and agreed to the manoeuvre.

I confirm that I am responsible for the safety of the crew and passengers onboard my disabled vessel and that I will take all reasonable steps to ensure their safety during towing operation.

In addition, I have been informed of, and agree to the following:

- The towing operation will be to the nearest place of refuge, or to a rendez-vous position where the tow can be safely transferred;
- If there is a more serious situation elsewhere, the towline will be released or transferred and the towing operation will be ended immediately;
- The SAR Unit may release the towline and end the towing operation if such operation poses risks to its safety or the safety of its crew;

**Annex 1 Excerpts from the CCG Operational
Procedures on Assistance to Disabled Vessels**

- If adequate commercial assistance reaches the scene, the SAR Unit may hand over the tow. I will be liable to any charges from that commercial resource;
- Upon arrival at the nearest place of refuge, the SAR Unit will release the towline and depart and it will be my responsibility to secure my own vessel; and,
- the Canadian Coast Guard, the Department of Fisheries and Oceans Canada, the Government of Canada, Her Majesty the Queen in right of Canada and any of their employees or servants are not liable for damages suffered by my vessel, any of its equipment, its owner, master, operator, person in charge, crew or passengers, if the towing operation has to be abandoned, or if damages occurred despite the exercise of due diligence and good seamanship practices of the master and crew of the Search and Rescue Unit.

Print Name: _____

Signature: _____

Date: _____

Witness (if any): _____

Note to the Commanding Officer of the SAR Unit:

If the circumstances do not allow the signature of this document, it should be read to the master or person in charge of the disabled vessel by radio, and their verbal acceptance of this agreement and waiver should be noted in the SAR Unit's logbook. Any electronic recordings of the conversation and agreement shall be retained and safeguarded according to established policy and procedures. In some circumstances it may be preferable to have MCTS communicate with the disabled vessel. Commanding Officers should discuss the circumstances with the MCTS Officer as appropriate.

21 December 2010

NOTE: The complete text of this document is available on the CCG Intranet web site: <http://ccg-gcc.ncr.dfo-mpo.gc.ca/commissioner-commissaire/policies-eng.html>.