



Marine Disaster Management Overview



Canadian Coast Guard Western Region

Search and Rescue Programs

List of Abbreviations and Acronyms

CAF.....	Canadian Armed Forces
CasTrack.....	Canadian Coast Guard Casualty Tracking System
CCG.....	Canadian Coast Guard
DND.....	Department of National Defence
DSC.....	digital selective calling
EHS.....	Emergency Health Services
ELT.....	emergency locator transmitter
EPIRB.....	emergency position-indicating radio beacon
ESS.....	Emergency Social Services
ETA.....	estimated time of arrival
JRCC.....	Joint Rescue Coordination Centre
MCI.....	multi-casualty incident
MCTS.....	Marine Communications and Traffic Services
MRO.....	mass rescue operation
OSC.....	on-scene coordinator
PLB.....	personal locator beacon
RCMSAR.....	Royal Canadian Marine Search and Rescue
SAP.....	stop assess plan
SAR.....	search and rescue
SMC.....	search and rescue mission coordinator
SITREP.....	situation report
SRU.....	search and rescue unit
VHF.....	very high frequency

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1.0 Introduction

What is a **disaster**? An event, either natural or man-made, that causes great distress or destruction or that requires a response beyond the normal capacities of the agencies involved. In the marine context this will often be a **multi-casualty incident (MCI)** or **mass rescue operation (MRO)** that requires a multi-agency response.



Interagency response during a MRO – SAR Exercise Salish Sea 2017

Though relatively infrequent, these high impact and potentially high consequence events do take place. Incidents that have or may occur include, but are not limited to the following:

- Incidents involving large passenger vessels (e.g. groundings, collisions, sinking, fire)
- Aircraft emergency landing or crash at sea or in tidal area
- Land disaster requiring maritime evacuation

An important consideration is that marine disasters are relatively low probability but high consequence events. This speaks to the need for training and preparation in anticipation of such an event, as infrequent as it may be. Normal operational methods are less likely to be successful and the consequences of mistakes can be very significant. Furthermore, disasters at sea can be incredibly dynamic, challenging, and overwhelming for response agencies and therefore require a high level of interagency involvement and collaboration.

It is important to recognize that principles of marine disaster scene management can also be applied to incidents that may not fit most people’s definition of a disaster. It does not take a very large number of distressed or injured individuals to overwhelm a single resource.

In the context of marine disaster response, no plan can ever fully apply to all situations and therefore, no disaster plan should ever be cut in stone. One of the biggest challenges in dealing with such an incident is the need to be flexible and to adapt easily to an unfamiliar situation. Knowledge of the principles of marine disaster scene management along with common sense, communication skills and good seamanship will be very important if and when a search and rescue (SAR) crew encounters a multi-casualty situation.

2.0 Jurisdiction and Responsibilities

Jurisdiction and responsibility is dependent on the location and nature of the incident. With respect to marine disasters, SAR Authorities (Department of National Defence (DND) and CCG) are responsible for:

- Developing a SAR plan of action
- Accounting for all persons on board and searching for missing persons
- Rescuing, stabilizing and transporting casualties for treatment
- Rescuing and evacuating survivors
- Notifying collateral authorities
- Addressing all media enquiries regarding the SAR operation

In a marine disaster, after safety of responders, SAR of survivors is the first priority followed by environmental and investigative considerations. Furthermore, as the incident moves from the marine environment to shore, the responsibility will be handed from the **Joint Rescue Coordination Centre (JRCC)** to the civil authority.

The **master** of the distressed vessel is ultimately responsible for the welfare of his passengers and crew. This includes timely evacuation if required, developing an action plan in conjunction with SAR authorities, the owner/agent, and sharing information on all significant developments with SAR authorities. Therefore, the Canadian Coast Guard (CCG) is not in charge of evacuation but should assist the master as appropriate; while the master is not in charge of the SAR response but consults as appropriate.

2.1 Agencies Involved

As noted, responsibility for control of the incident will depend on location and jurisdiction. Effective incident management depends in part on having a clearly established command that is well communicated to all participating resources/agencies. Although involvement from one specific incident to another may vary, organizations potentially involved during a maritime disaster include but are not limited to the following:

Joint Rescue Coordination Centre

The JRCC is a DND operation staffed by Canadian Armed Forces (CAF) and CCG personnel. The JRCC receives reports of an emergency situation and tasks SAR resources as required. During a marine or air incident, JRCC is the responsible authority and provides executive control of the operation. Furthermore, JRCC may provide an interface or liaison function with the provincial emergency program, ambulance authorities, police, any non-aligned resource or service, and the involved owner/agent (e.g. cruise line).

Canadian Coast Guard

The role of the CCG in a multi-casualty situation will depend on where it occurs. If at sea, then triage, patient care, and evacuation with tracking are likely to be carried out by CCG personnel. If the disaster occurs on a shoreline with other responsible agencies responding, then CCG resources may be tasked as requested to assist those civil authorities.

Marine Communications and Traffic Services (MCTS), also known as Coast Guard Radio, provides communication services and connects the various SAR units with the JRCC as required.

Royal Canadian Marine Search and Rescue (RCMSAR)

RCMSAR is a key agency in supporting the CCG in the marine response component during maritime SAR incidents. The role of RCMSAR during a marine disaster will likely be to support the functions of the CCG previously mentioned and as directed by the JRCC or if designated, the **On-scene Coordinator** (OSC).

Canadian Armed Forces

In a disaster, the Canadian Forces response may include Transport and Rescue Squadrons. How these resources are deployed will depend on the JRCC, and based on the advice of the OSC. If SAR Technicians are deployed, they can provide rescue, triage or advanced care at the **casualty collection area**, and will accompany patients to the hospital when military aircraft are used for this purpose.

US Coast Guard

There is a history of cooperation between the United States and Canadian Coast Guard, both during exercises and on incidents. This includes the sharing of marine and air resources, as well as mutual support related to incident coordination and communications, particularly in border areas.

Police

According to jurisdiction, the RCMP, provincial, or municipal police will attend all multi-casualty situations. The role of the police in such cases is to secure the incident scene, provide control of vehicles and the movement of people, gather evidence, and conduct an investigation.

Provincial Emergency Program

Provincial emergency programs such as Emergency Management BC, are responsible for the coordination and management of emergency activities by utilizing a large network of organizations. In the context of a marine disaster, the provincial emergency program would be responsible for coordinating the on shore component of the response following the maritime SAR effort.

Fire Department

The local fire department's role in a disaster varies considerably from community to community. Apart from fire combat or precautionary actions where there is a risk of fire or explosion, firefighters would be able to carry out most technical rescues of persons who are trapped and would assist in patient care.

Ambulance Service

The fundamental role of the ambulance service is to remove the injured to hospital. In addition, ambulance services are integrated into community disaster plans and provided there are sufficient ambulance personnel at the scene, will conduct additional triage once casualties arrive ashore.

Hospitals

A hospital disaster plan is put into effect when major casualties exceed a predetermined number. Some hospital disaster plans include sending an emergency physician and medical package to the disaster scene. The role of hospitals in a disaster is to carry out triage at their admitting department and provide definitive care. In multi-casualty incidents it would be realistic to expect that patients needing hospital care may go to different hospitals to ensure no one hospital is overwhelmed. Hospitals selected will be affected by the incidents proximity to hospitals, the level of care they can provide, the type of care the patient requires and transport available. Multiple agencies will work together to determine this including the JRCC, BC Emergency Health Services (EHS) , and the regional health authorities.

Coroner

The role of the coroner is to take charge of the deceased, provide temporary morgue facilities, positively identify bodies, and carry out forensic pathology. The coroner is responsible for removal of the deceased from the field triage site.

2.2 Key Coast Guard Roles

As stated through the Oceans Act and Canada Shipping Act, the CCG mandate includes providing the marine component of the federal SAR program. As such, during a marine disaster, the CCG will fulfill several important roles relating to the coordination and provision of rescue.

SAR Mission Coordinator (SMC)

The JRCC SMC will be either a CCG officer during a maritime incident, or a Royal Canadian Air Force (RCAF) officer for an aeronautical incident. During a major disaster, both air and marine will support each other.



CCG and RCAF SAR mission coordinators at the JRCC

The SMC initially receives indication of a problem and will task the appropriate resources to respond. Depending on the scale of the incident, the coordinator might decide to designate and give direction to an On-scene Coordinator. Furthermore, the JRCC coordinator will work as a communications interface between agencies during an incident.

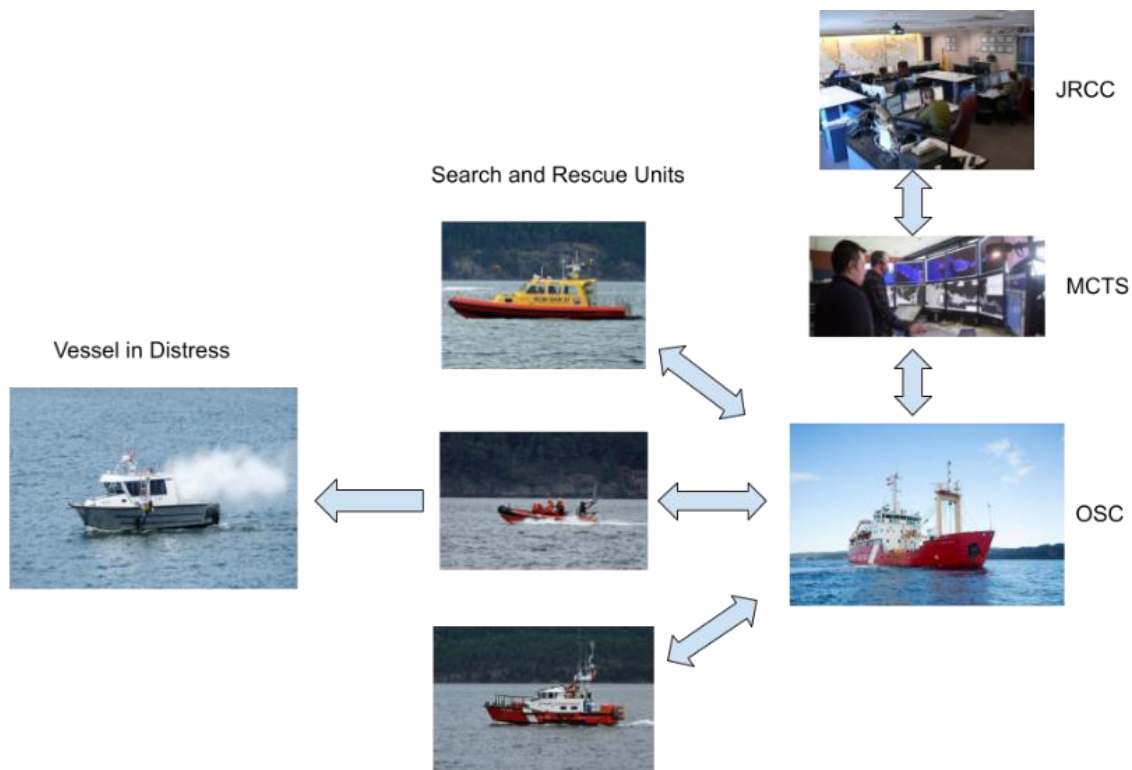
On-scene Coordinator

The OSC will be designated by and represents JRCC at the scene. JRCC will usually select the largest available SAR vessel with the biggest executive structure and superior communications capabilities.

Depending on circumstances, the commanding officer of the vessel designated as OSC may delegate the actual operation of the vessel to subordinates in order to be able to concentrate on managing the incident. The OSC in some cases might need to step back from active involvement to better focus on SAR coordination and not become overtaxed. When suitable, the role of OSC may periodically be reassigned to another vessel throughout the duration of the incident if in the best interests of managing and resolving the incident.

The OSC will appoint **Transport Officers** and **Triage Officers** in anticipation that these functions may be required. These roles may be combined, dependent on resources and situation. As soon as trained rescue personnel are on-scene, the OSC or Transport Officer will determine if the scene is stable or unstable. Once scene stability is determined, the triage officer and rescue personnel may approach, and given a stable scene, board the distressed vessel.

As the incident progresses, the OSC serves as the eyes and ears of the JRCC, provides on-scene decision making (including stability, coordination of resources, and rescue plan), requests additional resources as required, and serves as a vital communications link between the JRCC and resources on-scene.



The OSC serves as the communications link between SAR resources, MCTS, and the JRC

Transport Officer

If the OSC is the eyes and ears of the JRCC, then the Transport Officer may be thought of as the eyes and ears of the OSC. The Transport Officer role will typically be filled by a CCG ship's officer and is required in a major incident, mass rescue operation, or if the situation is such that a number of trips need to be made to accommodate all survivors. The Transport Officer carries out the following duties:

- As appropriate, serves as leader of the rescue party at the incident scene (e.g. on board the stricken vessel, on shore, etc.)
- On behalf of the OSC makes contact with the vessel master, provides an ongoing assessment of scene stability and numbers of POB
- Aids in selecting casualty collection areas and most suitable evacuation point(s)
- Assigns survivors to assets for transport in a logical sequence, as determined by triage and scene stability
- Coordinates marshalling of the transport units and requests additional resources if required
- Is responsible for casualty tracking - keeps accurate tally of evacuees, with as much detail as possible
- Periodically updates the OSC as to on-scene and transport status

Triage Officer

The Triage Officer will be appointed prior to reaching the disaster scene and will typically be a Rescue Specialist from a CCG vessel. Once on-scene, the Triage Officer carries out the following duties:

- Reports to the OSC via the Transport Officer (if assigned)
- Quickly estimates the number and severity of casualties and formulates a triage plan appropriate to the situation (recruits assistance as required)
- Conducts a rapid triage (as with **Simple Triage and Rapid Treatment (START)**) and tags each patient to indicate the priority for care or evacuation
- After initial triage, re-evaluates and conducts secondary triage as appropriate



Transport (left) and Triage Officer (right) tracking and triaging casualties during a SAR exercise

Rescue Specialist

Rescue Specialists are CCG personnel who are trained to provide advanced first aid and rescue techniques. Most CCG ships and stations will have one or more Rescue Specialists onboard, ready to respond during maritime SAR incidents. During a maritime disaster, Rescue Specialists will in concert with the Triage Officer, carry out the following duties:

- With regard to scene stability and priorities at scene, assist the Triage Officer
- Set up first aid equipment at the casualty collection area
- Provide emergency care to patients who are brought to the casualty collection area, in the order of priority
- Provide direction to other assisting first aiders on-scene
- Assist the Triage Officer by reassessing each patient as to evacuation priority and re-tag the patients as necessary
- As time permits, keeps a record of patient names and aids with casualty tracking

3.0 Incident Stages

3.1 Awareness and Initial Action

During a marine disaster, the actions that take place during the initial build up to the on-scene provision of rescue efforts are consistent with most SAR incidents. This involves the federal SAR system becoming notified of the distress and the actions taken by the JRCC to acquire, verify and evaluate information in conjunction with the alerting of **search and rescue units** (SRU). JRCC can become notified of a distress through a variety of means including:

- Notification from MCTS of a distress call or VHF-DSC distress alert
- Activation of 406 MHz distress beacons (e.g. ELT, EPIRB, PLB)
- Reports of an overdue or missing vessel and persons at sea
- Reports of visual or audible distress signals
- Request for assistance via mobile phone

After becoming aware of the distress, JRCC will often advise MCTS to issue an “all stations” broadcast to vessels in the area that are available to assist. Furthermore, preliminary action is taken to notify and task SRUs in a manner appropriate to the nature and degree of the incident.

3.2 Planning and Operations

3.2.1 Communications

Communications are consistently identified as a challenge during marine disaster exercises and incidents. This becomes even more apparent during large scale events which involve multiple responding resources and involvement from various agencies. However, it is important that crews carry out communications in an effective manner throughout all stages of the response. This involves requesting and providing information at the appropriate times as well as maintaining a high level of situational awareness to any updates on the status of the incident.

Communications - Getting the Call

When receiving a tasking, the JRCC will typically pass along information and dispatch the SRU by pager and telephone if the crew is alongside or at home base. However, if already at sea, it can be expected that the JRCC will do this by communicating with the vessel via MCTS.

When first becoming notified of an incident and tasking, personnel receiving this information should ensure that they have acquired as much detail as available at the time. Important information to obtain and brief the crew on prior to departure includes the following:

- Time, location, and nature of incident
- Description and call sign of the vessel
- Number of persons onboard
- Any injuries reported
- Other assets also being tasked to respond

Briefing all crew on this information prior to departure will result in a **shared mental model** and will help in establishing a preliminary action plan before arriving on-scene. Although initial information is important, SAR crews should keep in mind that details obtained during early stages of an incident are subject to change and must be validated once on-scene.

Communications - Departure

Before departing, communications amongst the crew should take place to establish the following:

- Crew should be briefed on all relevant information
- Roles and responsibilities for all crew have been assigned, reviewed, and understood
- That a pre-departure vessel inspection and risk assessment have been conducted

Once complete, the SRU will call away with MCTS on departure to advise the JRCC of the following:

- That the SRU is on route and the location of departure
- Number of persons onboard
- Specify the location the SRU is transiting to (geographic reference if available)
- The estimated time of arrival (ETA)

“Victoria Coast Guard Radio, this is Victoria 1, we are away from Victoria Harbour at this time with 3 persons onboard, en route for the whale watching vessel FLIPPER reported as taking on water 1 nautical mile West of Race Rocks. our ETA is 20 minutes”.



Example of communications to MCTS/JRCC upon departure

By communicating this information to MCTS, the SRU is not only notifying MCTS, JRCC, and other nearby vessels on their status, but also allowing MCTS and JRCC to error trap any details that might have changed or been miscommunicated during the initial tasking phase.

Communications - In Transit

While transiting, closed-loop communications amongst the crew should be ongoing to promote safe navigation, and hazard identification/avoidance. If at any point during transit, communications become unclear or a loss of **positive control** occurs, it is the collective responsibility of the entire crew to request clarification and stop the vessel as necessary.

The status on the distressed vessel as well as the involvement of other responding resources are subject to change as the incident unfolds, remaining vigilant to updates and new information throughout the entirety of the incident is key to remaining situationally aware.

It can often be during transit, especially during incidents where there is a strong sense of urgency, that tunnel vision can negatively impact communications and safe operations. Crews must always keep in mind that the priority of any SAR response is the safety of the crew and craft, regardless of the nature of the incident.

Communications - On-Scene

Once on-scene, further internal communications amongst the crew will take place in the form of a scene assessment. During CCG SAR operations, this is referred to as a **stop, assess, and plan** (SAP) and involves the SRU stopping outside of the event zone while all crew work to identify and communicate hazards. As part of this process, the crew will formulate a shared description of the incident scene and awareness for any immediate hazards to rescuers.

As previously mentioned, the SRU should work to validate information once on-scene both through visual assessment as well as making contact with the master of the vessel in distress when possible. Details can be lost or miscommunicated during the initial stages of an incident and it's the responsibility of the SAR asset to provide the JRCC with accurate on-scene information.

Once a scene assessment has been conducted, the SRU should provide the JRCC with an initial **Situation Report (SITREP)** via MCTS to communicate the following:

- That they are on-scene
- Brief description of the incident scene highlighting important details
- On-scene weather (if not already communicated by another resource)
- The SRUs intentions

Victoria Coast Guard Radio, this is Victoria 1, we are on-scene with the vessel FLIPPER, a 60 ft long whale watching vessel white and yellow in colour. The master of the vessel has confirmed that they had struck a rock and are taking on water, however their pumps are keeping up with the water ingress. There are 25 persons onboard, three of which with minor injury. The master has requested to begin evacuating passengers and are standing by for instruction. Weather on-scene, winds 10 knots South East, seas calm, visibility clear. We are preparing to begin evacuating and tracking passengers at this time.



Example of a SITREP to MCTS/JRCC once on-scene

This SITREP provides the JRCC with a clear and accurate picture as to what the on-scene situation is and will assist them in coordinating the most appropriate response. This information will not always be immediately provided and the initial SRU on-scene will need to investigate to obtain key details and assess rescue scene stability.

3.2.2 Rescue Scene Stability

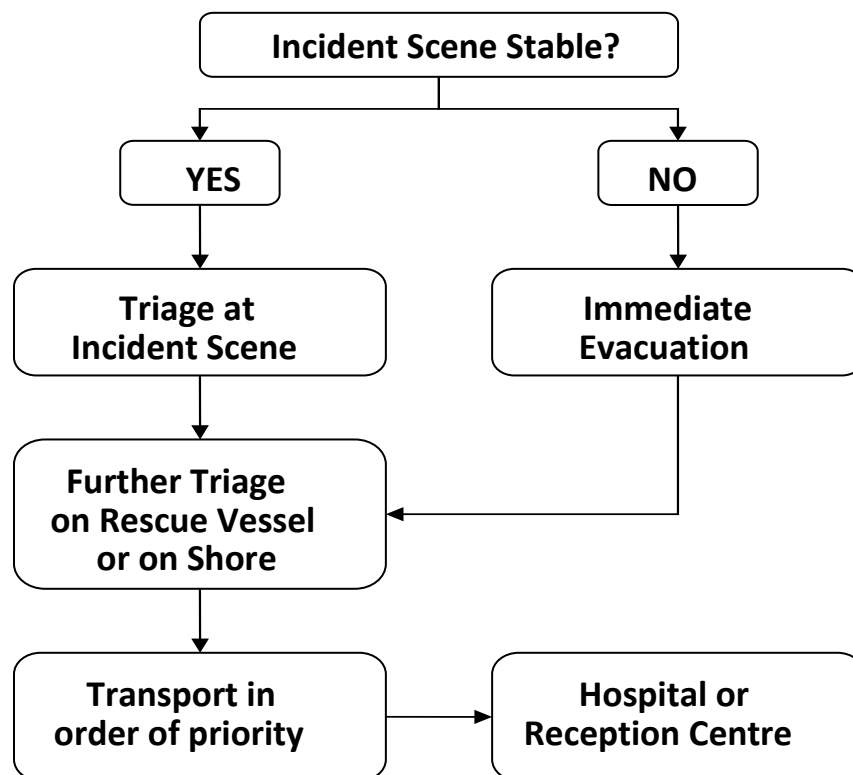
As noted earlier, no specific plan can apply to every event, especially in the marine environment. Many on-scene actions will depend on the rescue scene stability which directly relates to the safety of the disaster scene. Entering the scene without an assessment of, and due consideration for, the hazards and risks puts the success of the mission and the lives of rescuers at risk. Stability will need to be continually re-evaluated as conditions change.

Possible hazards or constraints of the marine disaster scene include the following:

- Often a remote location
- Difficult access to or egress from vessel
- Environmental factors - e.g. reduced visibility, cold, tides, currents and severe sea states
- Unstable scene – e.g. risk of fire or explosion, smoke or toxic gases, shifting cargo, risk of flooding, sinking or sudden capsizes, etc.
- Confined or cluttered work areas with risk of entrapment or entanglement
- Mass casualties – with risk of panic

The individual who undertakes the assessment of scene stability should be competent to judge all these factors. Not to be overlooked in assessing stability is the opinion or information regarding damage, stability and hazards that may be provided by responsible persons on the stricken vessel. Once the initial assessment of scene stability is made, JRCC or if designated, the OSC shall be advised and will direct the rescue effort accordingly.

If the scene is stable with hazards not imminent then triage, first aid and evacuation can take place in the traditional manner with urgent-category patients being evacuated first. However, an unstable scene may necessitate a reversal of the aforementioned procedure; that is, the uninjured and walking wounded may need to go before the injured, with the most severely injured or most difficult to move evacuated last. It must be noted that, particularly with a marine disaster, scene stability can change suddenly requiring a re-evaluation of evacuation priorities.



Influence of scene stability on rescue scene priorities

3.2.3 Logistics and Layout

The Disaster Scene

The disaster scene is the area or place where the incident and injuries have occurred. Patients found at the disaster scene should be assessed and triaged, tagged (as with coloured tape) and removed to the casualty collection area in the order established by the triage, (again considering stability).

Casualty Collection Area

The casualty collection area is a safe area that may be on the stricken vessel (if stable), on another vessel, or ashore. The casualty collection area should be located between the disaster scene and the evacuation point from which survivors can be transported to a medical **casualty collection point** or **reception centre**. Ideally, the collection area/treatment area will be private and:

- Free of hazards
- Close to the disaster area
- Allow for the gathering of survivors into triage categories (e.g. reds together for the provision of necessary emergency care)
- Quiet, dry and well illuminated

The Evacuation Point(s)

The evacuation point(s) will typically be selected by the master of the vessel, or in some cases the Transport Officer/OSC and ideally will be:

- Free of undue hazard and with the characteristics that allow safe transfer to transport vessels (e.g. suitable freeboard)
- Situated to afford one way (circuit) access by vessels/vehicles
- Easily identified by operators
- Close to the casualty collection area but not so close that patient care is disrupted by factors such as rotor wash or vessel/vehicle noise.



Evacuation Point from a BC Ferry during a SAR Exercise

The Casualty Collection Point

The casualty collection point is an EHS facility that can offer a higher level of medical care. The casualty collection point(s) will receive injured or ill casualties from the scene and may be set up adjacent to the casualty reception centre on shore, or at designated medical facilities.



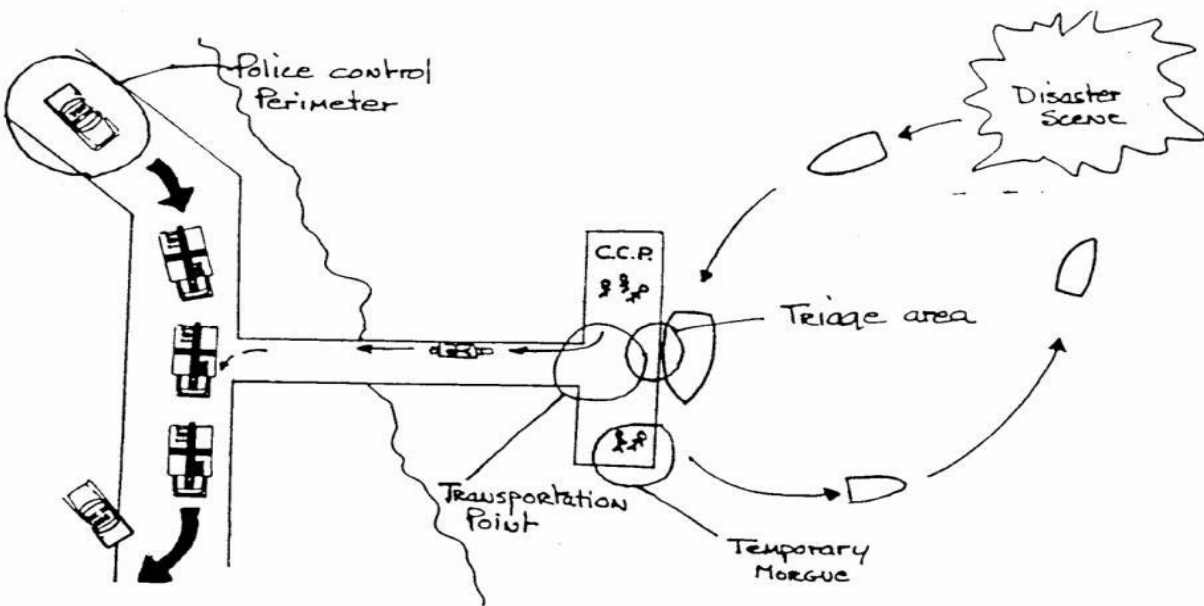
EHS casualty collection point during a SAR Exercise

Reception Centre

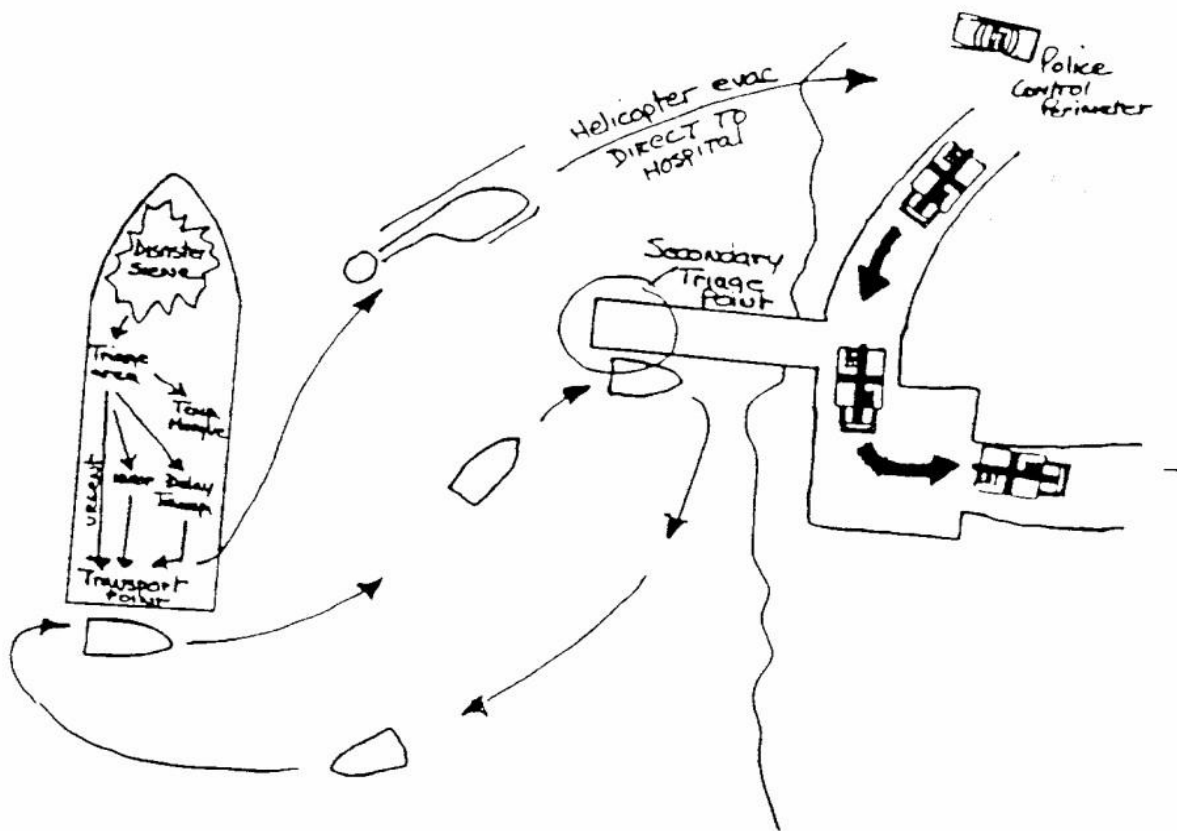
A designated facility staffed by Emergency Social Services (ESS) that will perform a registration and enquiry for survivors and may arrange for temporary housing and feeding of survivors until they are repatriated.

Rescue Scene Layout

The following illustrations show examples of different scene layouts that may be relevant to marine disaster scene management.



The illustration above depicts small vessels engaged in rescuing and transporting victims from the scene to a dock where they can be triaged and organized for transportation.



The illustration above depicts a large vessel on which an emergency has occurred and the scene is now stable. The casualty collection point and evacuation points are set up on the stricken vessel.

4.0 Multi Casualty Assessment – Triage

The first real effort at systematic handling of multi-casualty situations was made in the 1800s when improving surgical capability made it easier to deal with individuals wounded in combat. For the first time, battlefield commanders could rely on patient triage (from the French trier “to sort”), to ensure that the soldiers who stood the best chance of survival would get surgical attention first.

The definition of triage is: The sorting and allocation of treatment to patients, and especially battle and disaster victims, according to a system of priorities designed to maximize the number of survivors.

If there are abundant rescuers and resources on-scene, then every casualty will get the same effort as would be given in a single casualty incident, however, during an incident involving a large number of casualties this is unlikely to be the case. Responders must be able to quickly sort and allocate treatment of patients based on a system of priorities to ultimately maximize the number of survivors. The key goal of triage is to identify those whose survival depends on early intervention and treatment. If this can be done along with the provision of lifesaving interventions and transport, the number of survivors will be maximized.

4.1 Triage Approach and Plan

The time to start thinking about triage is when first notification of the incident is received. Even before arriving on-scene, SAR crews must develop an idea of the overall seriousness of the situation. This is best done by considering the history of the event (e.g., speed of impact, severity of the fire, etc.), as well as the probable number of casualties. Based on this pre-arrival information rescuers may start to formulate a triage plan, however they must take a few moments and adjust this plan as required by what they find on arrival.

After confirming scene stability, triage is the first task to be completed at the disaster scene. Because casualty condition can change, triage must be a continuous process, with casualties re-triaged throughout the course of the incident.

The size of the subject vessel or the number of probable casualties may affect how triage is conducted. For example, for a large number of passengers it will be most useful to separate by voice (e.g. as with the START Triage method “Everyone who can walk come over here”).

If the casualties are relatively close together, the personnel responsible for triage should rapidly move into the area and try to estimate the number of casualties. This preliminary assessment should be passed on to the JRCC, or if designated, the OSC as early as possible in case of need for additional resources.

4.2 General Rules of Triage

A multi-casualty event can be a very challenging incident. There are some basic rules of triage that will help to keep rescuers on track.

- Injuries threatening life take priority over injuries threatening limbs. Interventions are limited to immediate life-saving maneuvers.
- Airways in the unresponsive casualty may obstruct at any time. If the casualty is unresponsive and will be unattended, they must be repositioned for drainage.
- Patients in shock or with reduced blood volume tolerate transportation poorly: treat shock before and during transport.
- Resuscitation attempts with artificial respiration and cardiopulmonary resuscitation will consume limited rescuer resources, consider the cost of such attempts.
- Urgent treatment must never be delayed by documentation.
- Casualty condition may warrant change in category at any time. Reassess periodically and reassign category as required.

4.3 START

START stands for Simple Triage and Rapid Treatment and is designed for rapid assessment and categorization of multiple patients in minimal time.

START does not require diagnosis of specific injuries, but rather allows rescuers to find and triage the most urgent patients based on four primary observations:

- Whether they can walk
- The quality of respiration
- The presence of radial pulse
- Mental status of the patient

The five triage categories are as follows:

Red (Urgent) : Critically injured, requiring immediate intervention (obvious signs of shock, inadequate breathing, absent radial pulses, or inability to follow simple commands).

Yellow (Delayed) : Requires medical attention and stretcher transport but life is not at risk.

Green (Minor) : Injured but can walk and care for themselves.

White (Uninjured) : Involved in incident but not injured.

Black (Deceased) : Deceased or such catastrophic injuries they will not survive to transport.

As previously mentioned, triage category and scene stability are determining factors in establishing the order and priority of casualty transport.

Order if scene **stable**

1. **Urgent – Red**
2. **Delayed – Yellow**
3. **Minor – Green**
4. Uninjured – White
5. **Deceased – Black**

Order if scene is **unstable**

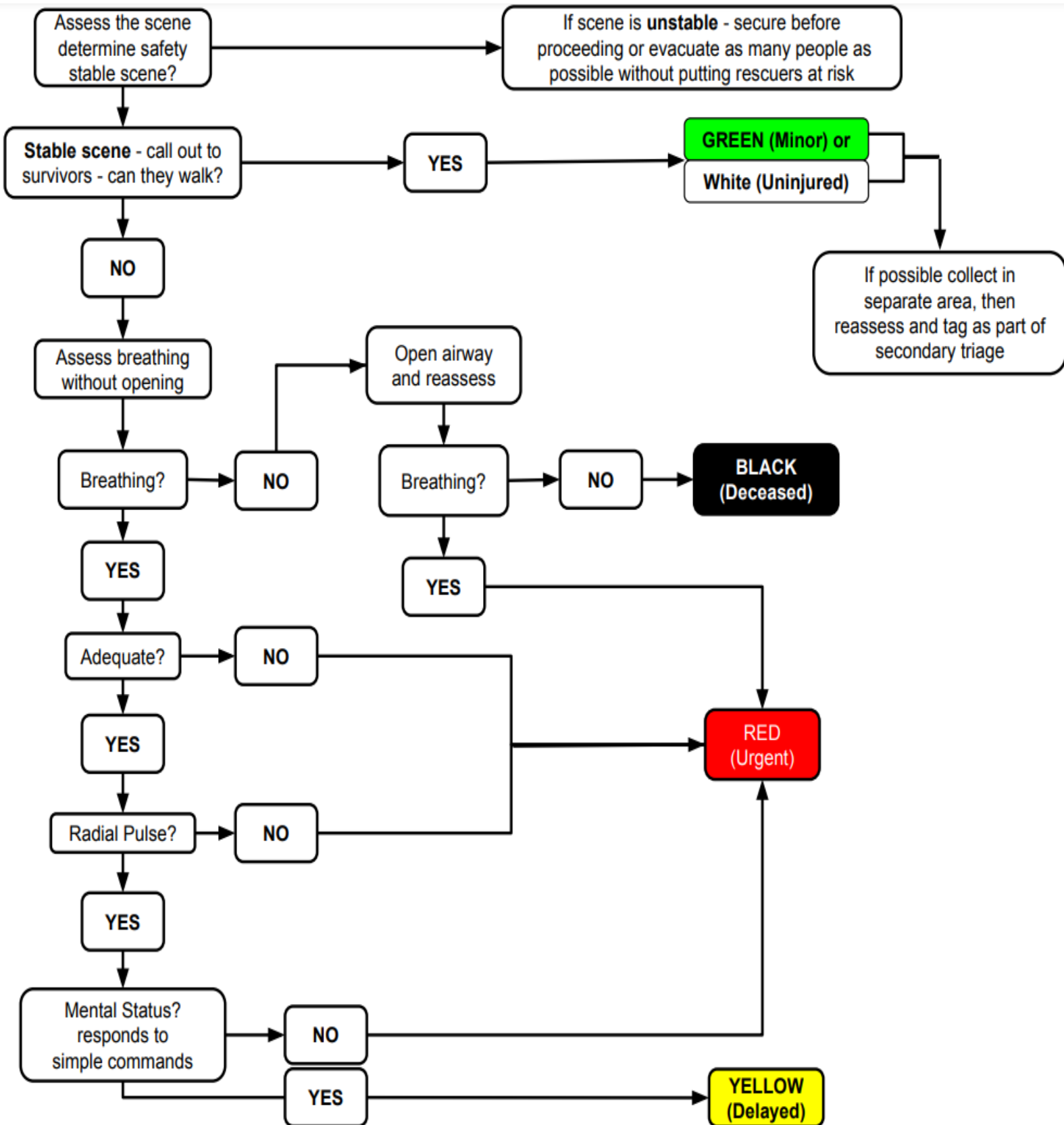
1. Uninjured – White
2. **Minor – Green**
3. **Delayed – Yellow**
4. **Urgent – Red**
5. **Deceased are not evacuated**

4.3.1 START - Casualty Evaluation

When using START, it's important to keep in mind the goal of maximizing survivors by quickly finding the casualties who will most benefit from early treatment and transport. Given a stable scene, the following triage actions in sequence will suit most circumstances:

- 1. Call out to survivors** - Instruct all who can walk to move to a specific area. These do not need immediate attention, and are considered Green or White but will be held for secondary triage.
- 2. Move in an orderly manner** - Move through remaining casualties, observing and assessing each in turn and assigning priorities. No more than 30 seconds should be spent per person and only immediate lifesaving interventions (e.g. position for drainage, stop deadly bleed) are performed.
- 3. Check Breathing** - If not breathing, open the airway. If the casualty does not begin breathing, tag them as Black. If the casualty begins breathing when their airway is opened, roll for drainage and tag as Red. If breathing spontaneously but respirations are inadequate (e.g. >30 respirations per minute) tag them as Red.
- 4. If not tagged as Black or Red, check the radial pulse** - If no radial pulse or if pulse is notably irregular, tag as Red. Keep in mind that a cold environment can make these pulses very hard to find.
- 5. If not tagged as Red check mental status** - If unresponsive or cannot follow simple commands, tag as Red. If responds appropriately to simple commands (e.g. squeeze my hand) tag them as Yellow.
- 6. Re-evaluate overall incident status** - Is incident scene still stable? Have all spaces been searched and are all casualties accounted for? Any specialized equipment or additional resources required? Provide a situation report to the JRCC, or the CCG Transport Officer and On-scene coordinator if designated.
- 7. Secondary Triage** - Begin moving casualties to a designated casualty collection area. Secondary triage (which can include a more detailed assessment as time allows) is performed as casualties arrive. Don't overlook those earlier tagged as Green or Black as casualty condition can change over time. Reassign priorities as indicated by findings.

Casualty Evaluation Flow Chart



4.3.2 START - Tagging System

Part of an effective interagency response to a disaster is a common tagging system. This is essential as patients will likely be handed from one agency to another during the evacuation phase, and each agency must be able to “read” the tagging system in use. The common language requirement is met by the colours Red (urgent), Yellow (delayed), Green (minor), White (uninjured) and Black (deceased). It is important to note that not all agencies use the white (involved but uninjured) category.

In many instances the initial triage may be best done using coloured survey tape (as included with CasTrack Kit). Tape is durable and allows the quick tagging of large numbers of people. When using tape, the personnel responsible for triage should tear off a length and tie it off firmly and visibly around the casualty’s right arm or leg (or other suitably visible spot). They should then tear off and retain a piece of the coloured tape to aid in casualty count at the end of triage. If the scene is complex or confusing, it will also be helpful during the initial triage to keep track of casualty location or special circumstances with use of notebook.

4.4 Multi-Casualty First Aid

The cardinal rules of first aid undergo some changes when many badly injured patients require triage and treatment. The ABCs of first aid still apply, however some variation may be necessary to accommodate the best interests of the majority of the patients:

Airway

As it will be necessary to leave patients unattended, unconscious patients should be placed in the recovery position to assist drainage and maintain an airway. Do this with consideration for potential cervical injury, however protection of the airway takes priority.

Breathing

In a multi-casualty situation where a number of patients are seriously injured and need immediate care, you must judge whether rescue breathing is appropriate. Remember that this requires the undivided attention of 1-2 trained person who depending on the circumstance, may be better utilized elsewhere.

Circulation

As with respiratory arrest, the absence of pulse in an unconscious non-breathing patient presents a need to decide if a resuscitation attempt is appropriate in the face of other patients urgently needing care. If the cardiac arrest is the result of trauma, successful resuscitation is unlikely. If the patient is breathing, there will also be a heartbeat and there is circulation even if pulses are not detectable. This could certainly be the case in severe hypothermia or in shock.

5.0 Casualty Tracking System – CasTrack

Multiple casualty incidents present a number of challenges to responders. One of the significant challenges encountered is in accurately tracking and accounting for casualties as they are moved from the rescue scene through to authorities on shore. Furthermore, reviews of major incidents and SAR exercises show that casualty tracking and accountability is consistently problematic for the following reasons:

- Lack of accurate passenger manifests, or no manifest at all
- Difficulty in counting large numbers of survivors in a chaotic scene
- Unreliable or inaccurate reports delivered from scene to coordinating agencies

The benefits of utilizing a passenger tracking and accountability system include:

- Reduced time wasted counting and recounting survivors during rescue and transport
- Avoid unnecessary or extended searches due to difficulties in confirming numbers
- Allows for more accurate reconciliation with the passenger manifest (if available)
- Increased accuracy and confidence as to the transport status of mass survivors

CasTrack was initially developed following debriefs into response to the sinking of the BC Ferry Queen of the North, that highlighted again the difficulties in counting and tracking large numbers of survivors.

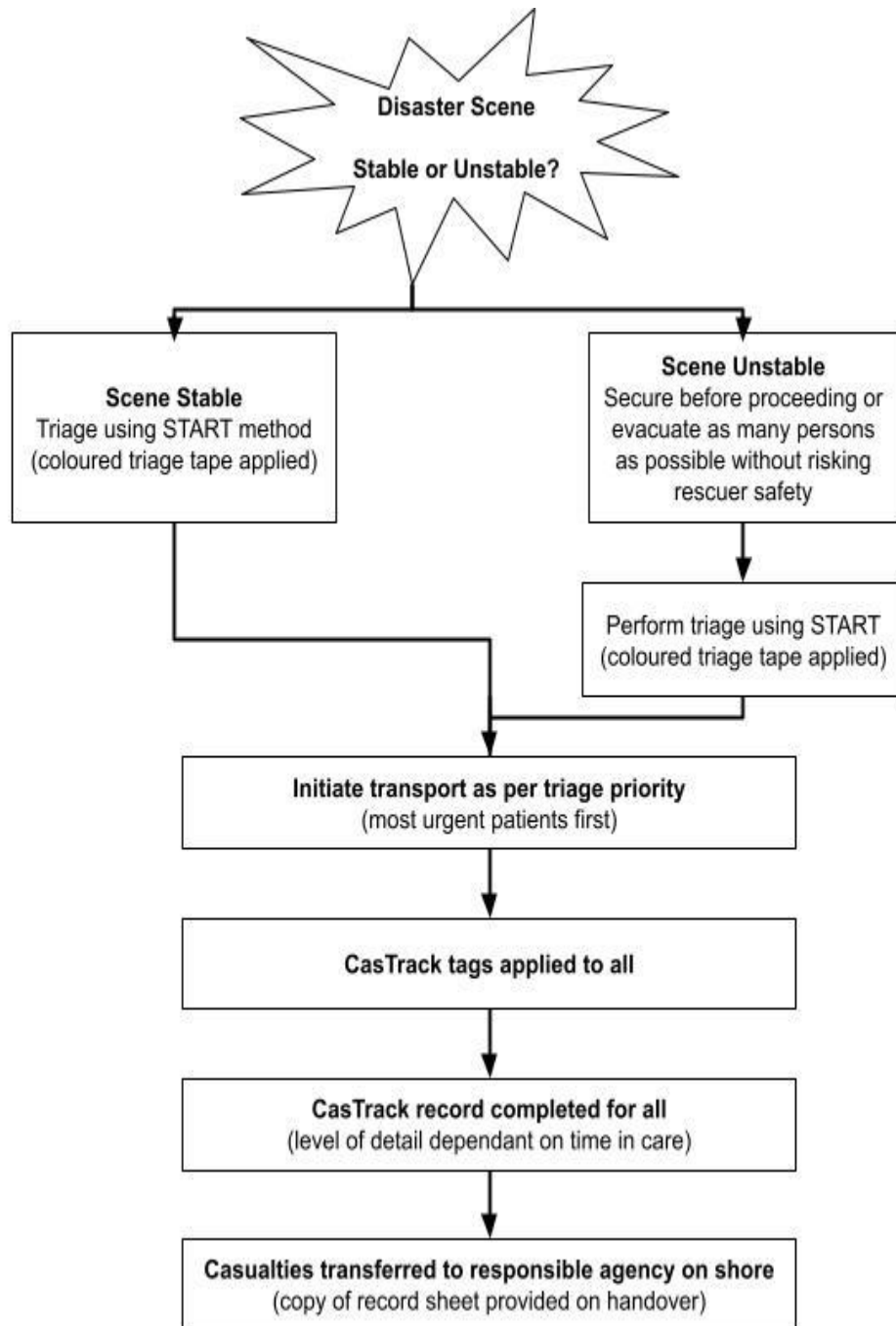
When using CasTrack during an incident involving a large number of survivors, sequentially numbered **CasTrack tags** are distributed, filled out, and attached by lanyard to all survivors (passengers and crew) early on. When distributing tags, it is important to ensure that all survivors have been provided tags and thus counted.

There are various ways to distribute tags such as:

- While survivors are onboard survival crafts (e.g. liferafts/lifeboats)
- As survivors pass one at a time through choke points (e.g. boarding rescue vessel)
- After survivors are on board the rescue vessel and are in a controlled environment

In addition to distributing and instructing survivors to record their information on the tags, a **CasTrack record sheet** is also completed and provided with the survivors upon handover to the responsible agency ashore. If appointed, the Transport Officer will also use additional tracking sheets to record survivor transport, triage categories, and allocation of tags.

CasTrack is a survivor accountability system intended to be complimentary to and is performed secondary to triage of injured persons. CasTrack should be seen and used as a bridge between triage performed at scene and the more detailed processing and reunification of casualties as they are received by shore side agencies.



5.1 CasTrack – Kit Components

CasTrack Tags (All Kits)


CasTrack tags are printed on tear resistant, waterproof paper and are contained within a plastic sleeve attached to a lanyard for easy application. CasTrack tags come in bundles of 20, each of which also includes the corresponding **CasTrack record sheet**. Each vessel or station will receive its own specific allotment of tag numbers to reduce risk of confusion.

In addition to allowing easy counting and numbering of survivors, the tags also capture basic but important information including name, date of birth, contact info, medical considerations, triage category, and others in family group or party. Basic instructions are included for self-completion and checking out of the system.

The tags are to be placed around the neck or otherwise attached to casualties after triage is complete either; as they are moved from the scene; as they board the transport vessel; or once in a casualty collection area. At any rate, each involved person is tagged just once.

		Canadian Coast Guard Garde côtière canadienne		CasTrack	
<h1>57941</h1>					
					
Name Nom					
Injury and/or Illness Blessure et/ou maladie					
Triage Category	Black Noir	Red Rouge	Yellow Jaune	Green Vert	White Blanc
DO NOT REMOVE TAG NE PAS ENLEVER CETTE ÉTIQUETTE					
JOINT RESCUE COORDINATION CENTRE CENTRE CONJOINT DE COORDINATION DE SAUVETAGE JRCC VICTORIA 1.800.567.5111					

Front of CasTrack tag


		Canadian Coast Guard Garde côtière canadienne		CasTrack	
FULL NAME NOM AU COMPLET					
DATE OF BIRTH DATE DE NAISSANCE		DAY JOUR	MONTH MOIS	YEAR ANNÉE	
HOME ADDRESS ADRESSE DU DOMICILE					
OTHERS IN YOUR PARTY OR FAMILY AUTRES MEMBRES DE MON GROUPE OU DE MA FAMILLE		PHONE NUMBER NUMÉRO DE TÉLÉPHONE	TAG NUMBER NUMÉRO D'étiquette		
EMERGENCY CONTACT ON SHORE CONTACT À TERRE EN CAS D'URGENCE					
DO NOT REMOVE TAG NE PAS ENLEVER CETTE ÉTIQUETTE					
You and your family are now part of the Canadian Coast Guard survivor tracking system.			Vous et les membres de votre famille êtes maintenant partie du système de suivi des survivants de la Garde côtière canadienne.		
How to Use this Tag			Comment utiliser cette étiquette		
1. Write your name on the front and fill in the sections on the back.			1. Écrivez votre nom sur le devant de l'étiquette et indiquez les renseignements demandés au verso.		
2. DO NOT REMOVE this tag until instructed to do so.			2. N'ENLEVEZ PAS CETTE ÉTIQUETTE tant qu'on ne vous a pas donné l'instruction de l'enlever.		
3. If you have left on your own, and are still wearing this tag, please call the JRCC number below.			3. Si vous êtes partis seul en conservant cette étiquette, appelez le JRCC au numéro indiqué.		
JOINT RESCUE COORDINATION CENTRE CENTRE CONJOINT DE COORDINATION DE SAUVETAGE JRCC VICTORIA 1.800.567.5111					

Back of CasTrack tag


CasTrack Record Sheet (All Kits)

CasTrack record sheets are included in and correspond with each bundle of 20 CasTrack tags. After tags have been attached to casualties, the Transport Officer (or persons assisting) will, as time allows, use these sheets to record important available information (name, DOB, and triage status). As the casualty is transported, it is noted on the record to which asset the casualty is transported by/or delivered to.





















As casualties are delivered to the next responsible authority, the CasTrack Record sheet is also handed over. The Transport Officer will make a copy or take a digital photo of each sheet as part of the record and in case of need to reconcile names and numbers. These records would also likely need to be forwarded (e.g. by fax or email) to JRCC.




Canadian Coast Guard
Garde côtière canadienne




CasTrack Record Sheet | Feuille de registre CasTrack

CCG Unit Unité de la GCC		Transport Officer Officier de transport		Date	
CasTrack No. N°		Survivor's name Nom du survivant / survivante	DOB Date de naissance	Transported by or delivered to Transporté par ou à	Triage
56941					
56942					
56943					
56944					
56945					
56946					
56947					
56948					
56949					
56950					
56951					
56952					
56953					
56954					
56955					
56956					
56957					
56958					
56959					
56960					

Front of CasTrack record Sheet



Canadian Coast Guard
Garde côtière canadienne



You have been asked to assist the Canadian Coast Guard with the counting and tracking of survivors. Please follow these instructions for issuing tracking tags and recording important information.

How to Issue CasTrack Tags

- Issue a tag to everyone who is not a rescuer, including yourself.
- Have survivors place the lanyard over their head or secure it to their body. Ensure the tag is visible.
- Have parents/guardians wear their child's tag and keep the children with them at all times.
- Collect all unused tags.
- Count the number of tags issued.
- Count the number of survivors and compare with the number of tags issued, it should be the same.
- Instruct survivors **NOT TO REMOVE THEIR TAGS**.

How to Record Information on CasTrack Tags

- Pass out black markers (keep one for yourself).
- Have survivors **PRINT** their name on the front and fill in the information on the back.
- Have parents/guardians fill in their child's tag.
- Have survivors traveling in a group record the tag numbers of others in their group on their tag.

How to use the CasTrack Record Sheet (reverse)

- Use a permanent black ink marker only.
- PRINT** your name and tag number in the "Transport Officer" box.
- Record each survivor's information next to their tag number.
- For a child, include the parent/guardian's tag number in the "Transported by" column.
- The Triage category is the colour of the piece of flagging tape attached to the survivor (leave blank if no tape attached).
- Ensure you have recorded information for every tag you issued and that you have retrieved all unused tags.
- Return all unused tags and the completed CasTrack Record Sheet to a Canadian Coast Guard representative.

Merci d'aider la Garde côtière canadienne à faire le compte et le suivi des survivants. Suivez les instructions ci-dessous pour bien distribuer les étiquettes de suivi et bien inscrire les renseignements importants.

Instructions pour la distribution des étiquettes CasTrack

- Remettez une étiquette à toutes les personnes qui ne sont pas des sauveteurs et conservez une étiquette distribuée pour vous-même.
- Donnez à chaque survivant l'instruction de passer le cordon autour du cou ou de l'attacher à un autre endroit de sa personne. Vérifiez si l'étiquette portée est visible.
- Dites aux parents et/ou gardiens de jeunes enfants de ne jamais s'en séparer et de porter eux-mêmes les étiquettes de leurs enfants.
- Récupérez toutes les étiquettes inutilisées.
- Comptez les étiquettes distribuées.
- Comptez les survivants porteurs d'une étiquette. Leur nombre et celui des étiquettes distribuées devraient être le même.
- Dites aux survivants qu'ils **NE DOIVENT PAS ENLEVER LEUR ÉTIQUETTE**.

Instructions pour inscrire les renseignements sur les étiquettes CasTrack

- Distribuez des marqueurs noirs (conservez un marqueur).
- Dites aux survivants d'inscrire leur nom en **LETTRES MAJUSCULES** sur leur étiquette et d'inscrire les renseignements demandés au verso.
- Demandez aux parents et/ou gardiens de jeunes enfants d'inscrire les renseignements demandés sur les étiquettes des jeunes enfants.
- Veillez à ce que les survivants membres d'un groupe inscrivent sur leur propre étiquette les numéros des étiquettes des autres membres de leur groupe.

Instructions pour inscrire les renseignements sur la feuille de registre CasTrack (verso)

- Utilisez uniquement un marqueur permanent à encre noire.
- Inscrivez votre nom et votre numéro d'étiquette en **LETTRES MAJUSCULES** dans la case « Officier de transport ».
- Inscrivez les renseignements relatifs à chaque survivant sur la ligne de son numéro d'étiquette.
- Si c'est un enfant, inscrivez le numéro d'étiquette de son parent/gardien dans la colonne « Transporté par ».
- La couleur de la bande d'étiquette attachée au survivant indique sa catégorie. (N'inscrivez rien s'il n'a pas une bande d'étiquette.)
- Vérifiez si vous avez inscrit les renseignements demandés sur la ligne de chaque étiquette distribuée et si vous avez bien récupéré toutes les étiquettes inutilisées.
- Retournez toutes les étiquettes inutilisées et la feuille de registre à un représentant de la Garde côtière canadienne.

Back of CasTrack record sheet

Tag Deployment Record Sheet (Transport Officer Kit)

The CasTrack Deployment sheet is utilized by the Transport Officer to assist in tracking the following information:

- Total number of persons onboard
- Triage category for each survivor (red, yellow, green, white)
- Whether survivor is crew or a passenger
- Survivor Transport
- That the survivor has arrived ashore

CCG Unit Unité de la GCC		Transport Officer Officier de transport					Date		
56001	56002	56003	56004	56005	56006	56007	56008	56009	56010
56011	56012	56013	56014	56015	56016	56017	56018	56019	56020
56021	56022	56023	56024	56025	56026	56027	56028	56029	56030
56031	56032	56033	56034	56035	56036	56037	56038	56039	56040
56041	56042	56043	56044	56045	56046	56047	56048	56049	56050
56051	56052	56053	56054	56055	56056	56057	56058	56059	56060
56061	56062	56063	56064	56065	56066	56067	56068	56069	56070
56071	56072	56073	56074	56075	56076	56077	56078	56079	56080
56081	56082	56083	56084	56085	56086	56087	56088	56089	56090
56091	56092	56093	56094	56095	56096	56097	56098	56099	56100
56101	56102	56103	56104	56105	56106	56107	56108	56109	56110
56111	56112	56113	56114	56115	56116	56117	56118	56119	56120
56121	56122	56123	56124	56125	56126	56127	56128	56129	56130
56131	56132	56133	56134	56135	56136	56137	56138	56139	56140
56141	56142	56143	56144	56145	56146	56147	56148	56149	56150
56151	56152	56153	56154	56155	56156	56157	56158	56159	56160
56161	56162	56163	56164	56165	56166	56167	56168	56169	56170
56171	56172	56173	56174	56175	56176	56177	56178	56179	56180
56181	56182	56183	56184	56185	56186	56187	56188	56189	56190
56191	56192	56193	56194	56195	56196	56197	56198	56199	56200
56201	56202	56203	56204	56205	56206	56207	56208	56209	56210
56211	56212	56213	56214	56215	56216	56217	56218	56219	56220
56221	56222	56223	56224	56225	56226	56227	56228	56229	56230
56231	56232	56233	56234	56235	56236	56237	56238	56239	56240
56241	56242	56243	56244	56245	56246	56247	56248	56249	56250

Tag deployment Record Sheet

Bundle Deployment Record Sheet (Transport Officer Kit)

Used by the Transport Officer to track who has received specific bundles of CasTrack tags. This would be applicable in cases where batches of the tags are issued to assistants to streamline the tagging process.

CCG Unit Unité de la GCC		Transport Officer Officier de transport		Date
Bundle Lot	Issued to Attribué à	Tag nos. distributed Numéros des étiquettes distribuées	Total tags issued Total des étiquettes distribuées	
56001 - 56020				
56021 - 56040				
56041 - 56060				
56061 - 56080				
56081 - 56100				
56101 - 56120				
56121 - 56140				
56141 - 56160				
56161 - 56180				
56181 - 56200				
56201 - 56220				
56221 - 56240				
56241 - 56260				
56261 - 56280				
56281 - 56300				
56301 - 56320				
56321 - 56340				
56341 - 56360				
56361 - 56380				
56381 - 56400				
56401 - 56420				
56421 - 56440				
56441 - 56460				
56461 - 56480				
56481 - 56500				
			Total tags issued Nombre total d'étiquettes distribuées	

Bundle deployment record sheet

5.2 CasTrack –Types of Kits

The type of CasTrack kit carried onboard a SAR vessel will vary depending on the size and function of the SRU during a multi-casualty incident. Although some kits will carry additional CasTrack tags and Transport Officer specific forms, the primary components and overall function remains consistent.

Mass Rescue Operations Kit

MRO Kits carry the largest amount of CasTrack tags of any kit and are intended to be located at CCG facilities on shore. These kits would be utilized during a mass rescue operation where a high volume of passengers coming ashore would need to be accounted for during an emergency evacuation.

MRO Kits include:

- 4680 CasTrack Tags (234 bundles of 20 tags)
- Transport Officer Kit (yellow identification vest, clipboard, deployment sheet, transport tracking sheet)
- Triage Officer Kit (white identification vest, coloured triage tape, glow sticks etc.)

Additional Supplies Kit

Additional Supplies Kits are carried onboard CCG ships in addition to an Initial Response Kit and are intended for circumstances where supplemental CasTrack tags are required.

Additional Supplies Kits include:

- 300 CasTrack tags (15 bundles of 20 tags)
- 15 CasTrack record sheets (1 in each corresponding tag bundle)



Additional Supplies Kits carried onboard CCG ships

Initial Response Kits

Initial Response Kits are carried onboard on both CCG ships and at SAR stations and include all of the components needed for CasTrack. Initial Response Kits include:

- 200 CasTrack tags (10 bundles of 20)
- 10 CasTrack record sheets (1 in each corresponding tag bundle)
- Transport Officer Kit (yellow identification vest, clipboard, deployment sheet, transport tracking sheet, markers)
- Triage Officer Kit (white identification vest, coloured triage tape, glow sticks etc.)



Initial Response Kits carried onboard CCG ships and lifeboats

Rapid Deployment Kit

Rapid Deployment Kits are the smallest of all the kits and are carried onboard smaller fast response vessels which have the potential of being the first to arrive on-scene during an incident. The intention of these kits are to provide smaller response SAR crews with the ability to initiate the initial triage and tracking of casualties before additional CCG assets are able to arrive on-scene. Rapid Deployment Kits are being distributed to and carried onboard CCG Inshore Rescue Boats (IRB), RCMSAR stations, and Coastal Nations Coast Guard Auxiliary (CNCGA) vessels. Rapid Deployment Kits include:

- 40 CasTrack tags (2 bundles of 20 tags)
- 2 CasTrack record sheets (1 in each corresponding tag bundle)
- Coloured flagging tape for triage (white, green, yellow, red, black)



Rapid Deployment Kit carried by small fast response vessels

6.0 Glossary of Terms

CasTrack - The Canadian Coast Guard Casualty Tracking System. The CasTrack system is a casualty accountability tool which utilizes tracking tags and forms for more simplified survivor tracking during multi-casualty incidents.

CasTrack Bundle Deployment Sheet - A CasTrack sheet which allows the Transport Officer to quickly record who tag bundles have been distributed to if assistants are used to distribute and streamline the tagging process.

CasTrack Deployment Sheet - A sheet utilized by the Transport Officer to allow quick and easy counting of tags as they are issued. The Transport Officer will also use this sheet to record survivor triage category, whether the survivor is a passenger or crewmember, and transport status for each tagged survivor.

CasTrack Record Sheet - A record sheet which is contained in each bundle of 20 CasTrack tags. The record sheet corresponds by number to each issued bundle of tags and allows the recording of important information including the casualties name, DOB, triage category, and asset they are being transported by. As survivors are transported to a receiving agency, the record sheet is also handed over.

CasTrack Tag - The sequentially numbered CCG casualty tracking tag. The tag is attached by lanyard to the survivor and captures important information including the name, date of birth, contact information, medical consideration, triage category, and others in family group or party.

CasTrack Transport Tracking Sheet - A sheet used by the Transport Officer or OSC to record all pertinent transport information as survivors are moved from the scene to the landing site or receiving agency. Information recorded includes vessel names, destination, number of survivors carried, time vessel departed the scene, and time it arrived at shore.

Casualty Collection Area (CCA) - Is a safe area that may be on the stricken vessel (if stable), on another vessel or ashore. The collection area should be located between the disaster area and the evacuation point from which survivors can be transported to a shore based medical casualty collection point or reception centre. Ideally, the collection area / treatment area will be private, free of hazard, close to the disaster area, quiet, dry and well illuminated.

Casualty Collection Point (CCP)- Is an emergency health services facility up that can offer a higher level of medical care than can be provided by Rescue Specialists or SAR Technicians. The casualty collection point will receive injured or ill casualties from the scene and may be set up adjacent to the casualty reception centre on shore, or at designated medical facilities.

Deceased Category (Black) - A Triage category assigned during a multi-casualty incident to those without vital signs or with such catastrophic injury that the casualty will not survive to transport.

Delayed Category (Yellow) - A triage category assigned during a multi-casualty incident to those with problems that require medical attention and stretcher transport but whose life is not at risk.

Disaster - An event, either natural or man-made, that causes great distress or destruction or that requires a response beyond the normal capacities of the agencies involved. Often a multi-casualty incident, or mass rescue operation that requires a multi-agency response. Incidents such as these are considered as low probability but high consequence event.

Joint Rescue Coordination Centre (JRCC) - A Department of National Defence facility established to coordinate response to both aeronautical and marine search and rescue incidents.

Mass Rescue Operation (MRO) - A search and rescue activity characterized by the need for immediate response to large numbers of persons in distress, such that the capabilities normally available to SAR authorities are inadequate.

Master - The Captain of a ship. During an incident, the master of the distressed vessel will not normally lead the SAR response but remains in command of his own ship. Cooperation with the SAR operation is assumed.

Minor Category (Green) - A triage category assigned during a multi-casualty incident to those who are injured but ambulatory (can walk) and care for themselves.

Multi-Casualty Incident (MCI) - An incident where the number of patients overwhelms the available resource.

On-Scene Coordinator (OSC) - The OSC is the person in command of the SAR unit designated by JRCC as OSC. The OSC provides on-scene decision making, including those related to scene stability, coordination of resources, communications, requests for additional resources, and rescue plan.

Positive Control – The active directing influence of a team, on a mission, by a leader, coupled with the team’s ability to carry out those directions successfully.

Reception Centre - A designated facility staffed by Emergency Social Services (ESS) that can temporarily house and feed survivors until they are repatriated.

Rescue Specialist - A Canadian Coast Guard crewmember with training in advanced first aid and rescue techniques.

Search and Rescue Mission Coordinator – The rescue coordinator assigned to coordinate response to an actual or apparent distress situation at a JRCC.

SAR Technician - A member of a Canadian Forces SAR Squadron with specialized training in accessing the rescue scene, providing medical treatment, sustaining and evacuating survivors.

Search and Rescue Unit (SRU) - A unit composed of trained personnel and provided with equipment suitable for the expeditious conduct of search and rescue operations. SRUs are further defined as belonging to one of the following categories:

Primary: Federal SAR aircraft or vessel with personnel trained and equipped for SAR

Secondary: All other Federal units that are not primary SAR but may be tasked to an incident

Other: Units other than primary or secondary which participate in SAR activities when required

Shared Mental Model - Knowledge held individually which helps team members function collaboratively in their environment.

Simple Triage and Rapid Treatment (START) - Triage method utilized by responders during a multi-casualty incident to quickly classify victims by their severity of injury.

Situation Report (SITREP) - Reports, typically from an on-scene resource or the OSC to the JRCC, to inform of on-scene conditions and mission progress.

Stop, Assess, Plan (SAP) – A scene assessment conducted before an operation which involves crewmembers stopping outside of the event zone, observing the scene and identifying hazards, and establishing a plan before entering the scene.

Transport Officer - The Transport Officer is appointed by the OSC and serves as the eyes and ears of the OSC at the rescue scene as well as aiding in decision making, including ongoing assessments of scene stability, marshalling of transport units and casualty tracking.

Triage - The sorting and allocation of treatments to patients, and especially battle and disaster victims, according to a system of priorities designed to maximize the number of survivors.

Triage Officer - The Triage Officer is appointed by the OSC, reports to the OSC via the Transport Officer and is responsible for conducting and/or coordinating triage.

Uninjured Category (White) - A triage category assigned to those who are involved in the incident but injured.

Urgent Category (Red) - A triage category assigned to those with problems that require immediate intervention, including obvious signs of shock such as breathing rate over 30, absent radial pulses or the inability to follow simple commands.