

Lesson 1

SAR SYSTEM AND ORGANIZATION

Overview

Introduction

Search and Rescue is the performance of distress monitoring, communication, coordination and search and rescue (SAR) functions. This includes the provision of medical advice, initial medical assistance, or medical evacuation, through the use of public and private resources, including cooperating aircraft, vessels and other craft and installations.

The National SAR Plan provides the foundation of the United States SAR System. The plan divides responsibility for coordinating SAR into geographic regions, each region with its own SAR Coordinator (SC). You will be responsible to understand the duties and responsibilities of the organization of the SAR system which will include the SAR Coordinator (SC), SAR Mission Coordinator, (SMC), On-Scene Coordinator (OSC), and SAR Units (SRU).

In order to successfully execute a SAR mission, you will need to have an understanding of the natural progression of a SAR incident known as the SAR operations stages.

Objectives

After completing this lesson, you should be able to:

DEFINE the term Search and Rescue.

STATE the source of the Coast Guard's authority to conduct search and rescue.

IDENTIFY the general duties of the SAR Coordinator (SC), SAR Mission Coordinator (SMC), On Scene Coordinator (OSC), and the Search and Rescue Unit (SRU).

DISCUSS negligence and liability.

STATE the legal authority and concerns when entering private property to conduct SAR.

IDENTIFY the five Stages of the SAR System.

RECOGNIZE the three emergency phases.

References

References

The information in this lesson can be found in the following references:

1. Coast Guard Addendum, PPO (Section I, III, VIa, VIe(1&2), VIf, VIII, IX), Sec 1.2 – 1.2.1, 3.8, and 4.1.2.2
2. National SAR Supplement, Chapter 1.6, and App A Chap 11 - 19 & 24 - 25
3. IAMSAR Manual, Vol. III, Chapter 1.2 and 1.6

SAR Definitions

Definitions

Search – An operation using available personnel and facilities to locate persons in distress.

Rescue – An operation to retrieve persons in distress, provide for their initial medical or other needs, and deliver them to a place of safety.

Search and Rescue – The use of available resources to assist persons and property in potential or actual distress.

Potential distress is subtle. Current Coast Guard policy directs units to treat potential distress cases as actual distress until proven otherwise. Some examples of potential distress are:

- A person who reports a flare.
- The wife of a fisherman reports her husband overdue from a fishing trip.
- A vessel drifting onto the beach or into a jetty.

Responding to potential distress reports will allow us to assist persons and property before the situation turns into an actual distress.

Actual distress is easily recognized. Distress exists when a person or craft is threatened by grave or imminent danger, and requires an immediate response (someone will die or become seriously injured if something isn't done now!).

Search and Rescue Case – Any potential or actual distress about which a facility opens a documentary file, whether or not SAR resources are dispatched.

Search and Rescue Incident – Any situation requiring notification and alerting of the SAR system and which may require SAR operations.

Search and Rescue Region (SRR) – An area of defined dimensions, recognized by ICAO, IMO or other cognizant international body, and associated with a rescue coordination center within which SAR services are provided.

SAR Authority

SAR Authority and Primary Activities

There are many laws that guide our search and rescue policies. A basic understanding of these laws is important to operators and their supervisors because they define the limits of our authority. More importantly, they define when the Coast Guard and her people can be held liable when things go wrong. SAR personnel should not be unduly concerned with legal issues, but rather act with care and according to their training. Knowledge of some legal basics will prove helpful in ensuring you've handled the case in the most responsible manner.

Our basic authority to conduct SAR comes from Federal Law, the United States Code. Title 14, Section 88 defines our authority to conduct search and rescue. The code says, in part:

(a) In order to render aid to distressed persons, vessels, and aircraft on and under the high seas and on and under the waters over which the United States has jurisdiction and in order to render aid to persons and property imperiled by flood, the Coast Guard may:

(1) perform any and all acts necessary to rescue and aid persons and protect and save property;

(2) take charge of and protect all property saved from marine or aircraft disasters, or floods, at which the Coast Guard is present, until such property is claimed by persons legally authorized to receive it or until otherwise disposed of in accordance with law or applicable regulations, and care for bodies of those who may have perished in such catastrophes;

(3) furnish clothing, food, lodging, medicines, and other necessary supplies and services to persons succored by the Coast Guard; and

(4) destroy or tow into port sunken or floating dangers to navigation.

These laws are general and give us very broad authority to conduct search and rescue operations. We must ensure that our decisions and actions are prudent and reasonable. When we exceed our authority, or if we act negligently, the courts have found that we can be held liable.

Good Samaritan Law

Good Samaritan Law

Voluntarily rendering aid to a vessel constitutes salvage service. Every salvor is bound to act in good faith and exercise ordinary skill or diligence. While common law imposes no duty to rescue, it does impose on the Good Samaritan the duty to act with due care once rescue operations are undertaken. The law imposes an obligation upon anyone attempting to assist another person, even gratuitously, not to injure the person being assisted by the negligent performance of that act. Volunteer salvors have always been favored by the courts in order to encourage the saving of life and property. Courts have held that the Coast Guard is a volunteer salvor and should not be held to a higher standard of care, either because of its traditional rescue role or because it is analogous to professional salvors.

Similarly, Coast Guard obligations rise no higher than those of a private salvor. The Coast Guard renders voluntary assistance where no duty to help is owed the person or vessel in distress. 14 USC 88 authorizes the Coast Guard to establish a rescue service and places on the Coast Guard the responsibility of attempting rescues at sea; it does not create a duty to the persons needing assistance or a right to be rescued, and does not impose a liability upon the Government for failure in effecting a rescue to the satisfaction of all concerned. If there is only property damage in rescue cases, the courts are likely to look for clear negligence causing an independent injury before holding the Coast Guard responsible.

Abandoned Property

Abandoned or Adrift / Derelict Vessel

Units receiving reports of derelict vessels shall prosecute this as a PIW or Capsized Vessel case until the vessel is classified derelict, by consideration of the following factors:

- Vessel is identified by numbers/name/owner - and confirmed a non-distress.
- Vessel clearly shows signs of being derelict, such as excessive marine growth, deterioration, or serious neglect. Whenever possible, a Coast Guard member shall confirm all sightings and make the determination as to the condition of the vessel.
- Vessel is not capsized, its engine is stowed, no gear on board, or displays other possible signs of drifting off the beach (e.g. a parted mooring or anchor line).
- Corresponding SAR or FLOTSAM/JETSAM file.

Some questions to help determine if a vessel was abandoned or a lead to a SAR incident are:

- Did anyone see the vessel operating in the area?
- Was it occupied?
- How much and what type marine growth is on the hull?
- Is there a motor or means of propulsion?
- Were the keys in the ignition?
- Is there fishing gear onboard which could have been carried or used on a recent trip?
- Is there emergency equipment (PFDs, flares, radio, EPIRB) on board?
- Does the vessel have parted or cut lines attached?
- Are fenders rigged?
- Is the anchor set or is there evidence that the anchor line was cut or parted?
- Is there debris in the area?
- How far offshore is the boat?
- Any damage?
- Reports of overdue or unreported vessels in the same area?

SAR Organization

U.S. SAR Regions

SRRs are established to ensure provision of adequate land-based communications infrastructure, efficient distress alert routing, and proper operational coordination to effectively support SAR services.

SRRs should be contiguous and, as far as practicable, not overlap.

This distribution accomplishes two things:

- Prevents duplication of effort by different agencies;
- Ensures timely and effective assistance is provided in all cases.

The SAR Coordinators, designated below, have overall responsibility for establishing Rescue Coordination Centers (RCC) as necessary, and for providing or arranging for SAR services within U.S. SRRs. Only RCCs properly established by these SAR Coordinators should carry out domestic and international coordination of civil SAR operations.

U.S. SAR Coordinators are as follows:

- The U.S. Air Force for the recognized U.S. aeronautical SRR corresponding to the continental U.S. other than Alaska;
- The U.S. Pacific Command for the recognized U.S. aeronautical SRR corresponding to Alaska;
- The U.S. Coast Guard for the recognized U.S. aeronautical and maritime SRRs which coincide with the ocean environments, and including Hawaii.

Support outside U.S. SAR regions

In accordance with international law, U.S. SAR facilities, in a position to render timely and effective assistance, may exercise the right to enter into or over the territorial seas or archipelagic waters of another state for the purposes of rendering assistance to a person, ship, or aircraft whose position is reasonably well known, is in danger or distress due to perils of the seas, and requires emergency assistance.

SAR Organization

SAR System Infrastructure

The SAR system has four basic levels of organization. SAR coordinators (SC), SAR mission coordinators (SMC), on-scene coordinators (OSC), and Search and Rescue Units (SRU)

<u>Position</u>	<u>Definition</u>
SC	Has overall responsibility for establishing, staffing, equipping, and managing the SAR System.
SMC	Designated to manage each SAR mission and coordinate resources.
OSC	Designated to coordinate SAR operations within a specified search area.
SRU	A unit composed of trained personnel and provided with equipment suitable for the conduct of SAR operations.

SAR Operations Stages

SAR System Activation

The SAR System is activated in the awareness stage, upon first notification of an actual or potential SAR incident. The report may come directly from the distressed party, a third party relay, or from an electronic signal, such as an Emergency Position Indicating Radio Beacon (EPIRB).

SAR Stages

The success of a SAR mission often depends on the speed with which the operation is planned and carried out. The prompt receipt of all available information is necessary for a thorough evaluation of the situation, immediate decision on the best course of action, and a timely activation of SAR facilities. While no two SAR operations follow exactly the same pattern, SAR incidents do generally pass through defined stages, which can be used to help organize response activities. These stages are discussed in general terms below and should be interpreted with flexibility, as many of the actions described may be performed simultaneously or in a different order to suit specific circumstances. The major stages are:

- **Awareness:** SAR system becomes aware of an actual or potential incident.
 - **Initial Action:** Preliminary action taken to alert SAR facilities and obtain amplifying information. This stage may include evaluation and classification of the information, alerting of SAR facilities, preliminary communication checks (PRECOM), extended communication checks (EXCOM), and in urgent cases, immediate action from other stages.
 - **Planning:** Effective plan of operation is developed, including plans for search, rescue, and final delivery.
 - **Operations:** SAR facilities proceed to the scene, conduct searches, rescue survivors, assist distressed craft, provide emergency care for survivors, and deliver survivors to a suitable facility.
 - **Conclusion:** SAR facilities return to their regular location, are debriefed, refueled, replenished, provided with a fresh crew, and prepared for another mission; documentation of the SAR case is completed.
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SAR Operations Stages

SAR System Deactivation

The SAR System is deactivated or shut down under one of the following situations:

- Case Closed – The distressed person or craft is located and necessary assistance is rendered.
- False Alarm – The person or craft reported to be in distress has been determined not to be in distress and does not need further assistance.
- Active Search Suspended Pending Further Developments (ACTSUS) – Suspending the search after exhausting all possible hope for locating survivors with the information known.

Emergency Phases

Emergency Phases

Emergency phases are based on the level of concern for the safety of persons or craft which may be in danger. Upon initial notification, a SAR incident is classified by the notified SMC unit as being in one of three emergency phases: Uncertainty, Alert, or Distress. The emergency phase may be reclassified by the SMC as the situation develops. The current emergency phase should be used in all communications about the SAR incident as a means of informing all interested parties of the current level of concern for the safety of persons or craft which may be in need of assistance.

Uncertainty Phase

An Uncertainty Phase is said to exist when there is knowledge of a situation that may need to be monitored, or to have more information gathered, but that does not require dispatching of resources. When there is doubt about the safety of an aircraft, ship, or other craft or persons on board, or it is overdue, the situation should be investigated and information gathered. A communications search may begin during this phase. An Uncertainty Phase is declared when there is doubt regarding the safety of an aircraft, ship, or other craft, or persons on board.

For aircraft, an Uncertainty Phase is declared when:

- no communication has been received from an aircraft within a period of thirty minutes after the time a communication should have been received, or from the time an unsuccessful attempt to establish communication with such aircraft was first made, whichever is the earlier; or,
- an aircraft fails to arrive within thirty minutes of the last estimated time of arrival (ETA) last notified to or estimated by air traffic services (ATS) units, whichever is the later, except when no doubt exists as to the safety of the aircraft and its occupants.

For ships or other craft, an Uncertainty Phase is declared when it has:

- been reported overdue at its intended destination; or
 - failed to make an expected position safety report.
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Alert Phase

An Alert Phase exists when an aircraft, ship, or other craft or persons on board are having some difficulty and may need assistance, but are not in immediate danger. Apprehension is usually associated with the Alert Phase, but there is no known threat requiring immediate action. SRUs may be dispatched or other SAR facilities diverted to provide assistance if it is believed that conditions might worsen or that SAR facilities might not be available or able to provide assistance if conditions did worsen at a later time. For overdue craft, the Alert Phase is considered when there is a continued lack of information concerning the progress or

Emergency Phases

position of a craft. SAR resources should begin or continue communications searches, and the dispatch of SRUs to investigate high-probability locations or over fly the craft's intended route should be considered. Vessels and aircraft passing through areas where the concerned craft might be located should be asked to maintain a sharp lookout, report all sightings and render assistance if needed.

An Alert Phase is declared when:

- following the Uncertainty Phase, subsequent attempts to establish communication with the aircraft, ship, or other craft have failed, or inquiries to other relevant sources have failed, to reveal any news of that craft;
- an aircraft has been cleared to land and fails to land within five minutes of the estimated time of landing and communication has not been re-established with the aircraft;
- information has been received which indicates that the operating efficiency of the aircraft, ship or other craft has been impaired, but not to the extent that a forced landing or distress situation is likely, except when evidence exists that would allay apprehension as to the safety of that craft and its occupants;
- an aircraft is known or believed to be the subject of unlawful interference; or,
- a ship is under attack or threat of attack from pirates or armed robbers.

Distress Phase

The Distress Phase exists when there is reasonable certainty that an aircraft, ship, or other craft or persons on board is in danger and requires immediate assistance. For overdue craft, a distress exists when communications searches and other forms of investigation have not succeeded in locating the craft or revising its ETA so that it is no longer considered overdue. If there is sufficient concern for the safety of a craft and the persons aboard to justify search operations, the incident should be classified as being in the Distress Phase.

For aircraft, a Distress Phase is declared when:

- following the Alert Phase, the further unsuccessful attempts to establish communication with the aircraft and more widespread unsuccessful inquiries point to the probability that the aircraft is in distress;
- the fuel on board is considered to be exhausted, or to be insufficient to enable the aircraft to reach safety;

Emergency Phases

- information is received which indicates that the operating efficiency of the aircraft has been impaired to the extent that a forced landing is likely;
- information is received or it is reasonably certain that the aircraft is about to make or has made a forced landing, except when there is reasonable certainty that the aircraft and its occupants do not require immediate assistance; or,
- a downed aircraft is inadvertently located as the result of a sighting or of homing on an ELT transmission.

For ships or other craft, a Distress Phase is declared when:

- positive information is received that a ship or other craft or a person on board is in danger and needs immediate assistance;
- following the Alert Phase, further unsuccessful attempts to establish contact with the ship or other craft and more widespread unsuccessful inquiries point to the probability that the ship or craft is in distress; or,
- information is received which indicates that the operating efficiency of the ship or other craft has been impaired to the extent that a distress situation is likely.

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