

Incident Command System Overview Search and Rescue Model

The Objective of any search and rescue response always has been to locate victims, reduce pain and suffering, and prevent recurrence to the extent possible. We must accomplish these efficiently, effectively, and economically. Efficiency is doing things right - using well trained resources. Effectiveness is doing the right things right - combining well trained resources with good strategy and tactics. But, what pulls all this together and makes it run smoothly, and therefore economically, is good management. Management through a well planned structure and organization.

It is important to understand that economy, as used here does not necessarily mean to omit something in order to save money. One thing nearly everybody will agree on is that when a human life is at stake, no amount of skimping is acceptable. Economy is something that will result naturally when a search and rescue incident is being managed well. Aside from the general high cost of everything these days, economy is tremendously important to consider because of the vast amounts of time (much of which is volunteered) expended during responses to search and rescue missions.

Economy is not the only reason for good management on a SAR incident. The chances of successfully responding to a major situation will also be improved because good management will create opportunities and cause things to happen.

The fact is that good management and structure is lacking on many search and rescue missions. There is ample effort, but problems exist and the tendency is to approach these problems unrealistically.

Good leadership in management means capable people knowing what to do at all levels, each with a clear picture of the organizational structure. This is why in a basic level text, management considerations such as "Organizational Structure" are included. Everyone must know his or her place within the overall structure, no matter which system is used. In addition, everyone must understand the terms and functional titles applied. What good does it do to call a person Incident Commander if no one really knows what that means. When someone mentions an operational period, a listener should interpret it the same way in which it was meant. These are but a few reasons why EVERYONE involved in a SAR incident should be thoroughly familiar with the specific management structure in use, and their place within that structure.

Incident Management: The Incident Command System (ICS)

Thousands of jurisdictions are using ICS successfully. Managers in the full spectrum of emergency response management need only apply the concepts to precipitate an effective organization. SAR workers need to understand the terminology as well as the overall system and where they fit in.

The following are basic characteristics that make the Incident Command System desirable:

1. The system provides for the following kinds of operation:
 - single jurisdiction\single agency
 - single jurisdiction with multi-agency involvement
 - multi-jurisdiction\multi-agency involvement.

2. The system's organizational structure is able to adapt to any emergency or incident to which emergency service personnel would be expected to respond.
3. The system is applicable and acceptable to users throughout the country.
4. The system is readily adaptable to new technology.
5. The system expands in a logical manner from an initial attack situation into a complex incident. *Because of this, the system can be utilized for any type or size of SAR event ranging from a minor accident with a few units to a major situation involving several agencies.*
6. As designed, the system has basic common elements in organization, terminology and procedures which allow for the maximum application and use of already developed qualifications.
7. The system is effective and cost efficient.

In short, no matter how small or how big a situation may be, the ICS model can be used effectively as a management tool.

Components of the ICS

The Incident Command System recommends eight crucial components. They work together interactively to provide direction and control over the incident response.

- Common Terminology
- Modular Organization
- Integrated Communications
- Unified Command Structure
- Consolidated Action Plans
- Manageable Span of Control
- Predesignated Incident Facilities
- Comprehensive Resource Mgmt

Common Terminology

(See end of this section for specific definitions)

In order to reduce confusion, it is essential for any management system, and especially one which will be used in joint operations by many diverse users, that common terminology be established for the following elements:

1. **Organizational Functions** - A standard set of major functions and functional units must be established and named. Terminology for the organizational elements should be standard and consistent.
2. **Resources** - Resources refer to the combination of personnel and equipment used in a total search and rescue effort. A key element in effective management of emergency resources is to establish common names for all primary and support personnel and equipment. Any resource which varies in capability is clearly typed as to capability (i.e. trackers and hasty teams are initial deployment resources).
3. **Facilities** - Common identifiers are used for those facilities in and around the incident area that will be used during the course of the situation (i.e. command post, heliport, staging area, etc.)

Modular Organization

1. The ICS organizational structure develops in a modular fashion based upon the kind and size of an incident. The organization's staff expands logically with responsibility and performance placed initially with the Incident Commander. As the need exists, four separate functional Sections can be added, each with several Units which may be established.
2. The specific organizational structure established for a search and rescue mission will be based upon the management needs of the incident. If one individual can simultaneously manage all major functional areas, no further organization is required. If one or more of the functions requires independent management, an individual is named to be responsible for that function.
3. For ease of reference and understanding, personnel assigned to manage at each level of the organization will carry a distinctive organizational title:
 - Section Chief
 - Branch Director
 - Division Supervisor
 - Unit Leader
4. In the ICS, the first management assignment by the initial deployment SAR Incident Commander will normally be one or more Section Chiefs to manage the major functions. Section Chiefs will further delegate management authority for their functions only as required. If the Section Chief sees the need, additional units may be established within the Section. Similarly, each Unit Leader will further assign individual tasks within the Unit only as needed.

Integrated Communications

1. Communications at the incident are managed through the use of a common communications plan and an incident-based communications center established solely for the use of tactical and support resources assigned to the incident.
2. All communications among organizational elements at an incident should be in plain English. No codes should be used, and all communications should be confined only to essential messages.
3. The Communications Unit is responsible for all communications planning at the incident. This will include mission specific radio networks, on-site telephone, public address, and off-incident telephone/microwave/radio systems.

Radio Networks

Radio networks for large search and rescue missions should normally be organized as follows:

1. Command and Control Net Frequency - This net should link together: The Incident Commander, Key staff members, Section Chiefs, Division and Group Supervisors.
2. Tactical Nets - There may be several tactical nets. They may be established around agencies, departments, geographical areas or even-specific functions. The determination of how nets are set-up should be a joint Planning and Operations responsibility. The Communications Unit Leader will develop the plan.
3. Support Net - A support net will be established, primarily to handle status changing for resources as well as for support requests and certain other non-tactical or command traffic.
4. Ground to Air Net - A ground to air tactical frequency may be designated, or regular tactical nets may be used to coordinate ground to air traffic.
5. Air to Air Nets - Air to air nets will normally be predesignated and assigned for aircraft in use at the incident site.

Unified Command Structure

1. Unified command in emergency response is essential for the following reasons:
 - Incidents have no regard for jurisdictional boundaries. Searches, wildland fires, floods, hurricanes, earthquakes usually require multi-jurisdictional response.
 - Because of legal constraints, individual agency responsibility and authority is normally confined to a single jurisdiction.
2. The concept of unified command simply means that all agencies that have a responsibility at a multiple agency response situation should contribute to the process of:
 - Determining overall incident objectives.
 - Selection of strategies.
 - Ensuring that joint planning for tactical activities will be accomplished.
 - Ensuring that everyone is integrated into the overall effort.
 - Making maximum use of all assigned resources.
3. The proper selection of participants to work within a unified command structure will depend on:
 - a. The location of the incident, i.e., which political jurisdictions are involved (e.g., the incident overlaps into two or more towns, districts).
 - b. The kind of incident, i.e., which functional groups of the involved jurisdiction(s) are required (e.g. an air crash requiring fire, medical and law enforcement response in which each chief has authority for his/her functional group).
4. A unified command structure could consist of a key responsible official from each jurisdiction in a multi-jurisdictional situation or it could consist of several functional groups within a single political jurisdiction. As an option, the organizational management structure could include landowners or their representatives. It could also invite the advice of individuals or agencies having functional expertise or capability.

Consolidated Action Plan

1. The Consolidated Action Plan is a plan for successfully resolving the emergency. Every incident needs some form of an action plan. For small incidents of short duration, the plan may not be written. The following are examples of when action plans should be written:
 - When resources from several agencies are being used.
 - When several jurisdictions are involved.
 - When the incident will require change in shifts of personnel and/or equipment.

Manageable Span of Control

Span of Control is the number of resources that can be adequately commanded (controlled) within an incident's organizational structure. For instance, if you are a unit leader in charge of 3 unit members, the span of control is 3 to 1.

1. Safety factors as well as sound management planning both influence and dictate span of control considerations. In general, within the ICS, the span of control of any individual with emergency management responsibility should range from three to seven - with five being established as the general optimum. Of course, there will be exceptions (e.g., an individual crew leader normally will have more than five personnel under supervision).
2. The kind of incident, the nature of the task, hazard and safety factors, and distances among elements will all influence span of control considerations.
3. An important consideration in span of control is to anticipate change and prepare for it. This is especially true during rapid build-up of the organization when good management is made difficult because of many reporting elements.

The span of control dictates the need for step-up or expansion of the organization.

Comprehensive Resource Management

1. Resources are managed in three different ways, depending upon the needs of the incident:
 - Single Resource - The smallest unit that can operate independently. It could be a helicopter, a search dog with handler, an ambulance, etc., each of which can be assigned as a primary tactical unit. A single resource is the equipment plus the required individuals to properly use it.
 - Task Forces - A Task Force is any combination of resources which can be temporarily assembled for a specific mission. All resource elements within a Task Force must have common communications and each Task Force must have a Leader. A Task Force is established to meet a specific tactical need and subsequently demobilized into single resources or reorganized into another Task Force configuration.
 - Strike Team - A Strike Team is a set number of resources of the same kind and type, which have an established minimum number of personnel. A Strike Team will always have a Leader and will have common communications. Strike Teams can be made up of 4 X 4s, search crews, search dogs and handlers, aid vehicles, or any other kind of resource where the combination of single resources of the same kind becomes a useful tactical unit.
2. The use of Strike Teams and Task Forces is encouraged, whenever possible, to maximize the use of resources, increase the management control of a large number of single resources, and reduce the communications load. In most incidents, the use of Task Forces will be more appropriate to resolving the emergency.
3. In order to maintain an up-to-date and accurate picture of resource use, it is necessary that:
 - a. All resources be assigned a current status condition.
 - b. All changes in resource locations and status conditions be made promptly to the appropriate functional unit.

Strike Team -

set number of resources of the same kind and type.

Task Force -

any combination of resources temporarily assembled for a mission.

Status Conditions -

Three status conditions are established for use with tactical resources at the incident:

- Assigned -

Performing an active assignment.

- Available -

Ready for assignment. All resources in Staging Areas should be available.

- Out-of-Service -

Not ready for available or assigned status.

Changes in Status -

Normally the individual who makes the change in a resource's status is responsible for providing that information to the central resource status-keeping function.

Organization and Operations

1. The ICS organization has five major functional components. These are:
 - Command/Management
 - Operations
 - Planning
 - Logistics

- Finance
- 2. Operational objectives and strategy form the foundation upon which subsequent action planning is based.
- 3. An overhead team includes certain staff positions (e.g., Public Information, Liaison, and Safety Officers) to support the management function. In a large operation it is not uncommon for an Incident Commander to have a Deputy. The Deputy must have the same qualifications as the Incident Commander, and may work directly with him, be a relief Manager, or perform other specifically assigned tasks.

Glossary of ICS Terms

ICS mandates that terminology be standardized. That is, a term such as "Incident Commander" should mean the same thing to everyone.

Allocated resources -

resources dispatched to an incident that have not yet checked in with the command post or base of operations.

Assigned resources -

resources checked in and assigned work tasks on a search or rescue incident.

Branch -

that organizational level under a major section that has responsibility for carrying out a specific functional task (i.e. air operations branch, ground operations branch or water operations branch). The Branch level is organizationally between section and division or group.

Camp -

A geographical site, within the general incident area, separate from the base, equipped and staffed to provide food, water, and sanitary services to incident personnel.

Command Staff -

the command staff consists of the information officer, safety officer, and liaison officer, who reports directly to the incident commander.

Division -

that organizational level having responsibility for operations within a defined geographical area or with functional responsibility. The division level is organizationally between the strike team and the branch.

General Staff -

the overhead team management personnel comprised of: the Incident Commander; and the operations, planning, logistics, and finance chiefs.

Group -

a functional division (e.g., air support, search group, rescue group, etc.)

Incident action plan -

the SAR action plan, which is initially prepared when the mission is confirmed, contains general control objectives that reflect overall strategy, and specific plans for the first operational period. When complete, the action plans could have a number of attachments.

Incident base (SAR Base) -

that location at which the primary logistical functions are coordinated and administered. (The Search name or other designator will be added to the "Base.") The Command post may be co-located with the base. There is usually only one base per incident.

Incident Commander (IC) -

the individual responsible for the management of the search and rescue operation.

Command Post (CP) -

that location at which the primary command and control functions are executed and usually co-located with the search base.

Operational Period -

the period of time scheduled to carry out a given set of operational actions or tactics as specified in the action plan.

Resources -

all personnel and major items of equipment available, or potentially available, for assignment to incident tasks on which status is maintained.

Section -

that organizational level having functional responsibility for primary segments of the search and rescue effort such as: command, operations, planning, logistics, and finance. The section level is organizationally between branch and the Incident Commander.

Span-of-control -

the supervisory ratio of from 3 to 7 individuals per individual with 5 being established as optimal.

Staging Area -

that location where personnel and equipment are assigned to an operational status and is usually in such a location that resources can be immediately committed to the field.

Status Condition -

3 status conditions are established for use with tactical resources at the search base:

1. ASSIGNED - performing an active assignment.
2. AVAILABLE - ready for assignment. All resources in staging areas should be available.
3. OUT OF SERVICE - not ready for "available" or "assigned" status.

Strike Team -

specified combinations of the same kind and type of resources, with common communication and a leader (i.e. hasty team, two trackers, or two dogs and their handlers etc.)

Task Force -

a group of resources with common communications and a leader temporarily assembled for a specific mission (i.e. two trackers with two sign cutters each, a tracking team and a dog and handler, or a tracker, dog and handler along with a 4 X 4).

Unified Command -

a method for all agencies or individuals who have jurisdictional responsibility, and in some cases those who have functional responsibility at the incident, to each supply a representative that, collectively with other agency representatives, forms one unified command which allows:

- Determining overall objectives for the incident.
- Selection of a strategy to achieve the objectives.

Unit -

that organizational element having functional responsibility for a specific SAR planning, logistics, or finance activity.