

SOG 7: Disaster Response Team – Incident Command System Overview

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The Incident Command System (ICS) is a management model used to help organize emergency response. It is an outgrowth of the management system originally created to help the US Forest Service manage large scale forest fire response activities. This tutorial will discuss the basics of the ICS system, covering the points which you need to know as a RACES member.

Background

Anytime a large group of people gather to perform some activity, an organizational structure is needed. Someone needs to be in charge, others need to follow. In most response activities, a group of volunteers is mixed together with other volunteer groups and employees from one or more County, State or Federal agencies. Out of this mix of individuals, an organizational structure capable of performing all of the necessary response activities needs to be quickly and efficiently formed. The ICS allows this to happen.

ICS helps organize an incident response by providing a management structure that:

- * Provides an organizational framework that defines all necessary management/work positions needed to conduct operations in single or multi-agency or jurisdictional settings.
- * Provides an associated set of forms to help individuals collect and disseminate the information needed in the operation.
- * Provides a time-table of activities that need to be completed on a recurring basis to keep the operation moving and information flowing.
- * Provides common terminology across the entire structure - ensuring that everyone is talking about the same things.

In order to function effectively in the ICS structure, everyone needs to know:

- * What are my duties?
- * How are they carried out?
- * To whom do I report?

In addition, RACES personnel need to know the system to tell where traffic is coming from and going to, as well as being able to route that traffic efficiently. Most responders can get away with knowing a piece of the pie; RACES communicators need to have a good feel for the whole thing!

The most important thing to remember is that ICS is designed to be flexible.

Many people, as they are learning the structure and how it works, get caught up in the “book” presentation of the system. The Incident Commander (IC) can structure the system any way he/she wants, as long as two (and only two) guidelines are followed:

- * The span of control is not allowed to grow beyond 1:7, and
- * That common terminology is maintained.

Beyond that, ICS is like a big tool box. You use only those tools you need for the job at hand! The structure is also scalable - it can be easily and quickly expanded to meet incident needs, and just as easily and quickly collapsed as those positions are no longer needed. You aren't required to staff every position or use every Section - you only activate and use what you need!

The next fundamental to remember:

ICS is designed to guide the objectives of the process, not dictate tactics.

For example, the Communication Unit Leader's objective is to provide all necessary mission communications. His tactics are determined by the nature of each mission, the resources on hand, and individual training (outside of the ICS) received by the individual filling this position.

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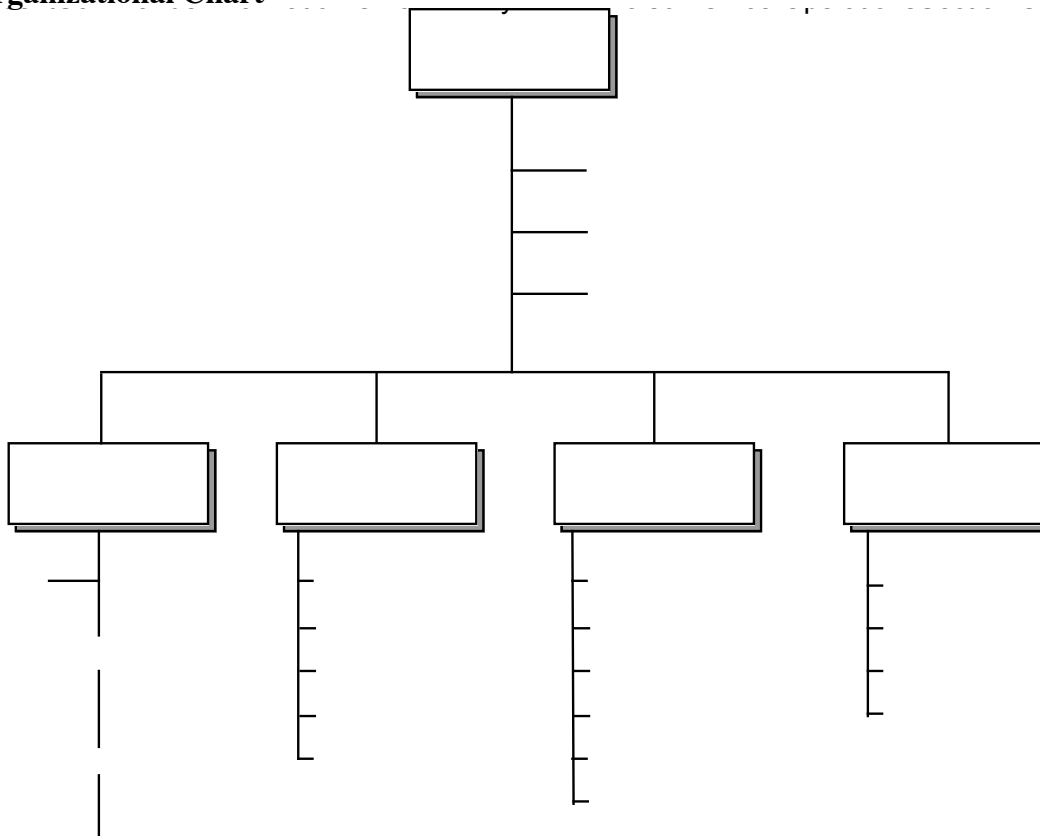
Disclaimer: This tutorial covers the introductory points of the ICS, likely to be encountered during RACES missions. ICS is adapted in many different ways by many different agencies.

If you have ICS training from other sources that does not agree with any minor points covered here, please understand that this tutorial is an attempt to give volunteers who have never worked with ICS a quick overview and basic introduction (without making their head swim) so they can be more effective on their next mission.

ICS Description - The Incident Command System is built on a few key principles:

- * Each person must know their duties, and whom they report to.
- * Each person can only manage a limited number of people or processes (usually given as "average of five", or a "range from three to seven").
- * An individual can fill more than one organizational box in the ICS structure, as long as the manageable span of control is not exceeded.
- * Mission activities are divided into operational periods of approximately 12 hours each. specific planning tasks must be completed during each operational period.
- * A common vocabulary is established, improving communications between participants.

ICS Organizational Chart



The Command Staff

ICS personnel are divided into two groups: Command staff and General staff.

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The “Command Staff” are the Incident Commander, the Liaison Officer, the Public Information Officer, and the Safety Officer.

The “General Staff” are the Operations Section, Planning Section, Logistics Section, and the Finance Section.

We’ll start by describing the Command Staff:

The Incident Commander (IC): The Incident Commander (IC) is generally the senior public safety official in charge of the entire mission, tactical call sign “Command.” The IC approves all decisions made by Section Chiefs (discussed below), and sets the overall tone and scope of the mission. The first responder arriving at the site of the mission by default becomes the IC, and simultaneously fills all necessary boxes in the organizational chart (see Example Mission discussion below). When the initiating agency is represented on a mission, it normally assumes the role of IC. As the size or complexity of a mission expands, it is common for Command to change to someone who has the required level of specialized expertise or experience needed.

Liaison Officer (LO): This position serves as a conduit between affected groups and agencies, giving them a source of both information and a conduit for input. Liaison is normally activated to provide this to groups, agencies and parties that are not a part of the response, but it is may also coordinate assignments with heads of response resources, such as VOAD groups or RACES.

Public Information Officer (PIO): This person is the spokesperson for the entire incident. He/she speaks for the Incident Commander, handles media relations, releases information, answers questions, and arranges for interviews of response personnel. This is the person to whom you should direct any and all requests for information, comments, or interviews. (RACES personnel are forbidden to give out any information about an incident except under the direct approval and supervision of the PIO.)

Safety Officer (SO): The Safety Officer is the only person other than the Incident Commander, who can immediately shut down the entire incident. The SO monitors the safety, mental and physical health of responders and other incident staff. He/she has the authority to monitor any operation for safety, and the orders given are to be followed immediately, without question.

The General Staff

The Planning Section (PS) has the following units and major responsibilities:

- * It generates objectives for each operational period (for example, "Search all areas within 0.5 miles of the point last seen with a probability of detection of 80 %").
- * The Situation Unit gathers information (weather forecasts, flood levels, damage assessment, utility hazard information, personnel availability, etc.).
- * The Resource Unit tracks the status of resources (who has checked in or out, who is available, how many 4-wheel drive vehicles and chainsaws are available, etc.).

The Planning Section also prepares a demobilization plan (Demobilization Unit), performs investigations (Investigation Unit), handles documentation (Documentation Unit) and manages technical specialists (engineers, hydrologists, foresters, meteorologists). The Planning section is usually working on the next operational period. It is headed by the Planning Section Chief (PSC.)

The Planning Section may not always be staffed; if not, the position is held by the Incident Commander until he appoints a Planning Section Chief. If the mission is small and of short

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duration, the IC may never fill this position.

As a mission escalates and more resources arrive, the Planning Section is often the first section to be separately staffed, as the job of gathering information and preparing objectives becomes more than one person can properly perform.

The Operations Section is responsible for:

- * Understanding the objectives generated by the Planning Section each operational period.
- * Preparing the necessary tactics to accomplish the objectives.
- * Implementing the tactics of the response.

The Operations Section prepares and implements tactics, the means by which the objectives are met; determining how many people are needed, what their search strategy will be how they will be moved into and out of the field, and how long they will search.)

The Operations Section Chief (OSC) supervises up to five Divisions, Groups and Branches:

- * Divisions are teams working in the field and segregated geographically (search teams divided on the basis of search location are Divisions for example).
- * Groups are teams working in the field and segregated functionally (dog search, damage assessment, debris clearance, medical examiner, etc.).
- * A Branch is an extra layer of management inserted between the Operations Section and either Divisions or Groups to keep the span of control under control (when the combined number of Divisions and Groups exceed five). Again - on short, small missions, one person frequently holds the position of IC, Planning Section Leader, and Operations Section Leader at the same time.

The Logistics Section: The Logistics Section handles all logistic support for the mission, including acquisition of personnel, equipment, supplies, food, fuel, vehicles, aircraft, etc. This is frequently considered the most difficult task in the ICS structure. The Section is headed by the Logistics Section Chief (LSC).

A number of other functional support units report to the head of the Logistics Section, including:

- * Mapping / Survey / GIS Unit
- * Communications Unit
- * Medical Unit
- * Shelter / Rehab Unit
- * Engineering / Damage Assessment Unit
- * Transportation Unit
- * Food Unit

RACES members could be assigned as part of the Communications Unit in the Logistics Section. Remember, though, what we said about “flexibility”? The IC can put Communications anywhere he/she wants to; such as Operations or Planning, if it works well for the IC that way.

The Finance Section is responsible for documenting all mission costs, disbursements of money for cash purchases, and contracts for materials and sub-contractors which may be reimbursed.

The Finance Section is staffed on large incidents, usually being triggered upon request for mutual aid resources, state or federal assistance. Should a large scale incident require a Finance Section, an agency (County, State or Federal) employee with access to and the authority to commit (County, State or Federal) funds is usually placed in charge of the Finance Section. It is headed by the Finance Section Chief (FSC).

The Incident Action Plan.

Every mission needs an action plan. Small missions expected to last less than one operational period do not necessarily require a written action plan, although having one is always helpful in organizing the response. Action plans are an absolute necessity when the length of the mission requires changes in shifts of personnel or equipment.

Action plans are created by filling out the appropriate ICS Forms, and include the following information:

- * List objectives.
- * Summarize resources available and deployed (personnel, vehicles, equipment, etc.).
- * Document investigations (victim profile, known clues, etc.).
- * Document research (weather forecast, etc.).
- * Document reports from the field (debriefings).
- * ICS staff members and their positions.

Operational Periods

A mission is divided into operational periods, normally 12 hours each. During the initial response to a mission, the first operational period may be shorter or longer than 12 hours, usually done to align the subsequent operational periods with day/night.

Several key things directly related to completing the mission happen during each operational period:

- * The IC staff is changed out at the end of each operational period.
- * The planning section prepares objectives for the next operational period before turning the section over to their replacements. The ICS staff prepares an action plan for the next operational period.
- * The planning section collects information from all sources for the current operational period and integrates it into the known facts (primarily by interviewing team leaders and/or team members returning from the field at the end of the operational period).
- * Field workers are either changed out at the end of each operational period (if field operations are going to be continued all night), or allowed to set up camp in the field and eat and rest for the night (if field operations are going to be suspended during the night).

The Staging Area

A staging area is exactly what it sounds like. It is a location where resources are staged and managed prior to being sent into the field. Separate staging areas might be needed for many reasons:

- * Lack of space at the base camp (because it is set up at the trail head parking lot, and is short on space for heliports, heavy equipment parking, etc.).
- * The mission might be geographically spread out over such a great distance that it makes more sense to marshal some searchers at a separate staging area.
- * The mission might use unique transportation systems that require their own specialized staging area (marine support from a dock or harbor, air support from a landing strip,

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equestrian support from an access trail not close to the base camp, etc.).
Characteristics of Staging Areas include:

- * Staging areas are managed by the Logistics Section.
- * Assets that are mobilized into the field from the Staging Area are controlled by the Operations Section.
- * The staging area can be co-located with the ICS staff at an Incident Command Post (and usually is).
- * If a staging area is not co-located with the ICS staff at the ICP, a separate communication system (cell phone, runner, two-way radio) must be set up between the ICS staff and the staging area.

The Staging Area is run by the Staging Area Manager (SAM); he is usually part of the Logistics Section, but can be part of Planning or Operations if desired. Remember - flexibility!

Unified Command does not mean Incident Command by Committee. It means that when a mission crosses jurisdictional boundaries or involve more than one response agency, all participants agree to the command of one IC. A hazardous material release at a railroad overpass on an Interstate highway would involve numerous entities (AMTRAK, Department of Environmental Quality, National Transportation Safety Board, Fire Department, Police Department and VDOT), each of which may reasonably assume that they should be in charge. However, there is only one IC with decision making authority, who uses the combined expertise and experience of all participants to plan and direct the incident. That's Unified Command.

Review: Key Points to Remember

- * **The Incident Commander** runs the mission
- * **The Planning Section** prepares objectives (which are goals) - they decide what to do
- * **The Operations Section** prepares tactics (to implement the objectives) - they do it
- * **The Logistics Section** supports the mission with transportation, food, supplies, and manpower - they supply it
- * **The Finance Section** tracks costs and pays for the mission - they pay for it
- * **Staging areas are set up by Logistics Section** to meet specific mission resource needs
- * **Keep your span of control manageable** – ideal 3-5, not more than 7 resources
- * **Mission is run using 12 hour operational periods;** staff changes for each operational period
- * **Focus on results.** Successful mission completion is the objective, not following ICS process!

ICS Advantages:

- * There are not any better formal systems to study or to use as a model for managing incidents
- *The system is very flexible and adaptable to many different types and sizes of mission
- *It is widely studied and practiced, maximizing efficiency when assembling groups of strangers on large missions
- *It provides resources (by way of forms, training materials, common vocabulary) that improve the efficiency of a mission

ICS “Potential” Disadvantages:

- * *If not managed properly, the system tends to become “top heavy.”* Remember that a small mission can still be run using the ICS system with only a few key people in the entire base camp (filling all of the necessary ICS positions).
- * *Minimally trained ICS staff may fixate on the ICS process, rather than mission completion.*

ICS in Practice: The AMRG Example

Here’s a narrative example ground search mission using ICS. It comes from the Alaska Mountain Rescue Group (AMRG) and is worth reading to get a “feel” for just what happens on a search-and-rescue mission using the ICS structure. It demonstrates:

- * How the ICS organizational chart is constantly adapting to the current conditions of the mission.
- * How multiple organizational boxes can be filled by one individual.
- * How span-of-control problems are handled as the mission scope increases.

Here’s the situation:

You are an experienced AMRG member. You are outbound on a hike in the Turnagain Arm area by yourself one late fall day when you are approached by a hysterical woman who has lost her four year old child on the trail, somewhere in your vicinity. You calm her down and start to plan what you are going to do. At this point, you are the entire ICS organization, the Incident Commander, the Operations Section Leader, the Logistics Section Leader, the Planning Section Leader, and all of the sub-positions under them.

The first thing you do is review the known facts, and prepare a plan. You decide a hasty search of all trails in the immediate area is called for, and that attracting signaling might bring the lost child back to the point-last-seen (PLS). You are filling the duties of the Planning Section (preparing search objectives).

The next thing you do is to perform a hasty search of the immediate area while the child's mother climbs a tree at the point last seen and calls out loud for her son. You are now filling the duties of the Operations Section (implementing tactics to meet the objectives).

Some other hikers come along, and you enlist their help, asking one of them to organize their group and extend the hasty search down a side trail to a small lake and back. You just delegated responsibilities for the first search team, expanding the size of the ICS organizational chart.

They rejoin you ten minutes later at a pre-determined meeting point with no new information on the missing child. One of them has a cell phone, so you call Alaska State Trooper (AST) Dispatch and explain the circumstances, requesting that a search mission be initiated. You are now performing the duties of the Communication Unit (under the Logistics Section).

You then ask the owner of the cell phone to stay near you in case there are any calls back from AMRG or AST. You have just delegated the responsibility for Communications Unit Leader to the owner of the cell phone.

You get a lengthy description of the missing child, the clothes she was wearing, her shoe size, and temperament. You locate some of the missing child's tracks up the trail. They were returning downhill, so you mark them with flagging to protect them. These investigation activities are part

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of the Planning Section's duties.

You give some flagging and a copy of your investigation notes to another hiker who passes by and ask him to flag each branch of the trail heading back to the trail head, to give the notes to the Alaska State Trooper when he shows up, and to then help lead the search teams that will soon be assembling back to the point-last-seen. You then continue your hasty trail search in the area with the civilian volunteers.

As more civilian volunteers pass by, you enlist their help and give them jobs to do, running the entire operation as IC at the PLS. When an AST trooper arrives at the trailhead, he calls you on the cell phone, and discusses the status of the missing child. You relinquish IC control to the Trooper, but still fill all of the other Section positions.

As AMRG and Nordic Ski Patrol members arrive at the trailhead, most section duties (Planning, Logistics, and Operations) are moved to individuals at the trail head, and you relinquish all responsibilities except those as a field team leader over a group of AMRG searchers.

Since the beginning of the mission, you have held numerous and often multiple ICS positions as circumstances require. The shifting of positions and the filling of multiple organizational boxes is a key factor in the ability of the ICS system to adapt to the immediate needs of any size or type of mission.

As the search really winds up now, additional positions in the ICS organization chart are filled. In base camp now, the Trooper IC asks AMRG members to assume leadership of all remaining sections in the ICS. AMRG assigns it's most experienced members to the following sections:

Planning Section: This section develops the following search objectives for the first operational period (Day 1, noon to midnight):

- * a) Identify the largest area the missing child could possibly be in given the hours she was missing and her maximum estimated speed of travel. This area becomes the primary search area.
- * b) Prevent the child from leaving the primary search area.
- * c) Determine if the child is on one of the many trails in the primary search area.
- * d) Perform a search beginning at the PLS (point last seen) that has a 50% POD (probability of detection) for an alert and conscious child traveling in a down hill direction. This search should cover as much territory as possible with the given resources on hand.
- * e) Identify specific hazard areas within .25 miles of the PLS (bodies of water, steep cliffs, etc.) and perform a search with 80% POD for an unconscious child in these areas.
- * f) Prepare a contingency plan for an expanded search effort tomorrow if the child is not found today.

Operations Section: This section attempts to meet the objectives of the planning section by developing and implementing tactics. The Operations Section reacts to each of the objectives by using the following tactics:

- * a) Uses information from the mother and topographic maps of the area to identify a primary search area.
- * b) Positions two man teams on each trail leaving the primary search area. Some of these teams are flown in, some hike in from other trail heads, and some are positioned by sending them in with hasty trail search teams. These teams are instructed to blow whistles, sing songs, and build fires in high, clear spots on the trail (attractive signaling), and be prepared to spend the night if necessary.
- * c) Twenty of the forty volunteer searchers that show up for the mission are divided into

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five four man teams and sent out to perform hasty searches of the trails, starting at the PLS. One team is sent uphill on the trail from the PLS.

- * d) The remaining 50% of the volunteer searchers are sent to the PLS to begin a more detailed search of the hazards in that area (bodies of water, cliffs).

Logistics Section: This section begins taking care of all of the logistic details involved in a large and growing search, including:

- * Checking in people to base camp as they arrive.
- * Setting up and managing radio communications for the search.
- * Ordering up the Red Cross food van to provide food and drink to search staff.
- * Calling up additional volunteers who were not available for today's operation to see if they can report tomorrow if they are still needed (for both IC staffing and field operations).
- * Checking to see that medical resources are on hand in case the child is found injured, or in case a searcher is accidentally injured.

As the search continues toward midnight (dark now for five hours) with no results, the following activities happen:

The Planning Section prepares objectives for the next operational period, the first night. These objectives include:

- * Prevent the subject from leaving the primary search area via trail.
- * Continue helicopter search efforts using the FLIR as weather and pilot duty hours permits.
- * Maintain attractive signaling fires on trails and high ground.
- * Return field searchers to base camp for feed and rest.
- * Mobilize a search force of at least 200 additional searchers for the following operational period.

The Operations Section implements tactics to meet the objectives:

- * Field searchers are brought into base camp to rest for the night.
- * The Logistics Section calls out the volunteers identified as being needed the following day.
- * The two man teams manning the trails leaving the primary search area are instructed to take turns sleeping, and manning the attractive signaling fire all night, and to turn off their radios, except for a short check in every two hours.
- * The AST helicopter is staffed with a fresh pilot and continues to search all night long.
- * The Planning section interviews each team leader returning from the field and logs the results of their efforts (clues found, area searched, estimated POD for each area, etc.).
- * A fresh IC is placed in charge for the remainder of the night, and he is supported by one fresh Planning Section chief. The two of them function during the remainder of the night as the entire IC staff, monitoring the radio, and jointly preparing objectives and tactics for the following morning when hundreds of additional searchers arrive.

The following morning, fresh volunteers arrive at the base camp. Some are added to the IC staff, others are sent into the field to implement the tactics of the day's search efforts. The cycle continues until the missing child is found.