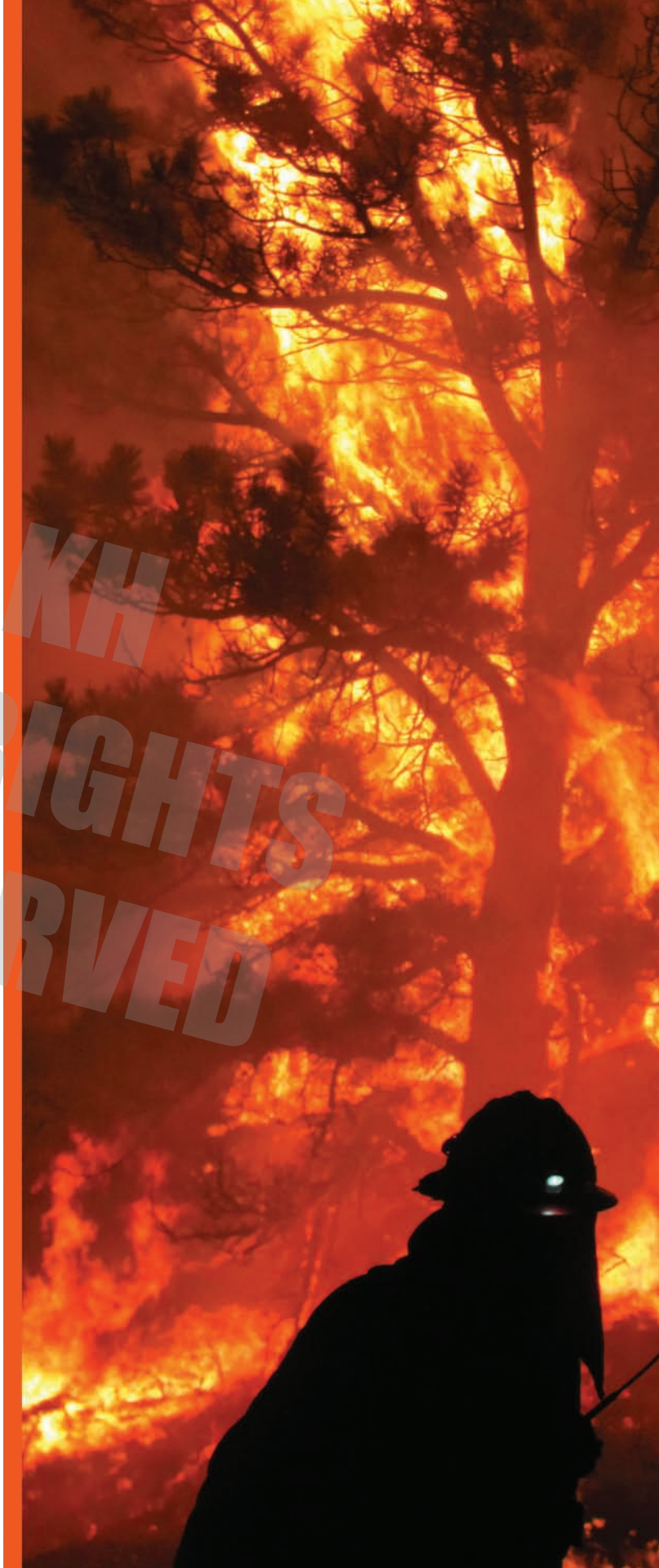
CHAPTER 2

THE MANAGEMENT OF WILDLAND FIRES



Learning Outcomes

- Define the management structure used on all emergency incidents throughout the United States and explain its use and significance.
- Describe the importance of the chain of command and how it is utilized on wild-land fires.
- List the five (5) incident types and identify when they would be best utilized.
- Explain the five (5) major management activities (positions) around which the ICS is organized.
- Identify the three (3) management positions in the command staff and explain their roles on an emergency.

Courtesy of Brian Henington

Key Terms

Camp
Chain Of Command
Deputy
Divisions
Group
Helibase
Helispot
Incident
Incident Action Plans
Incident Base
Incident Commander
Incident Command Post (ICP)
Incident Command System
Incident Complexity
Incident Types
Overhead
Shifts
Span Of Control
Single Resources
Spike Camp
Staging Areas

OVERVIEW

The management of emergencies has become more complicated and complex in the last couple of decades. The amount of emergency personnel and resources needed to deal with some catastrophes can be massive, requiring hundreds if not thousands of responders. Disasters like Hurricane Katrina and Superstorm Sandy demanded a massive amount of emergency responders and support personnel from all over the United States to assist with the recovery activities. All responders must have a standardized management system to help coordinate and direct resources in a consistent and efficient manner.

Wildland fire agencies have been effectively using a standardized management tool to mobilize and respond to these emergencies since the 1970s. Large wildfires present unique challenges. They burn across thousands of acres, threaten homes, and require a large force of firefighters to manage and suppress them. To complicate the matter, more people are building homes in wild areas, which results in increased chaos when a fire is introduced into the picture. Fire managers must also support the needs of the firefighters and emergency responders. They supply food, water, showers, communications, vehicle repairs, and other necessities. In order to accomplish all of these goals, fire managers have instituted the use and application of a on scene management system called the **Incident Command System** (ICS).

The terrorist attacks of September 11th proved that not all emergency response agencies were able to deal with large scale and/or long duration events. Agencies were managing emergencies under their own management standards. One agency would operate in a manner confusing or unfamiliar to responders from assisting agencies. Responders were not able to communicate and coordinate activities in the most efficient and safe manner. Furthermore, Hurricane Katrina illustrated the lack of coordination and cooperation between agencies. There have been numerous emergency events throughout history that have demanded the need for emergency agencies to communicate, coordinate, and manage incidents in a system that all understand. Today, all emergency response agencies across the United States must use a standardized management system called the National Incident Management System, with the Incident Command System being the on-scene (boots on the ground) management tool.

After September 11th, agencies were mandated by a presidential declaration (*HSPD-5*) to adopt and coordinate all incident activities under the National Incident Management System and the Incident Command System (ICS). To participate in wildland fires, all firefighters must complete an online training through the Federal Emergency Management Agency (*I-100.B. Introduction to Incident Command System, ICS-100*) In addition, firefighters must also complete a self-paced class on the *National Incident Management System, An Introduction: IS-700.A*. The purpose of this chapter is not to focus or rehash the concepts in these two classes. The intent is to provide an introduction and focus on wildland fire so you can understand how the system works and the role you play in this system.

PERSONAL PERSPECTIVE

I was tasked several years ago with presenting an overview of the functional use of ICS and how it is implemented on wildland fires. The presentation was to several fire chiefs and fire managers. After the presentation, a deputy fire chief from a large city fire department started to criticize ICS. He made accusations that the system was ineffective and there were better systems available to deal with emergencies. I asked what he based his declaration on. He claimed that the fires that struck California in 2003 illustrated that ICS was not effective because it did not provide adequate tactical solutions. I looked around the room in shock. I wondered if he had not heard the introduction to the presentation! ICS is a

management tool! It is not designed to teach the use of chainsaws or how to construct firelines. It is used to set objectives and we must use the appropriate tactics to meet the objectives. As wildland firefighters, we learn how to use tactics in suppression-related classes, not in incident-management classes. This example illustrated how many old school firefighters felt about the Incident Command System. In your career, you will be fortunate to witness ICS in its true form. You should not have people fighting the system because all responders must use it.

Another example of the inappropriate use of the ICS occurred on a large Bosque fire in central New Mexico. The fire started on the east side of the river and with high winds influencing activity, the fire jumped the river to the west side. There was active fire on both sides of the river. Many values were being threatened by the fire: homes, pipelines, transmission lines, etc. When our resources arrived, the scene was total chaos. The east side of the river was being managed by one incident commander. The west side of the river was being managed as a total different incident with a different incident commander. Resources were operating on different radio frequencies. They were not communicating effectively and most importantly, safety measures were not in place. We made the decision not to engage the fire until an adequate management structure was in place. This upset both incident commanders. We had 45 firefighters ready and willing to work, but we were not going to do so if we could not communicate to other resources or understand the intent of the commanders. Our responsibility as emergency responders is to bring order to the chaos. The illustration here is that we were not going to add to the chaos or confusion of this incident and jeopardize firefighter safety.

The issue above was finally rectified after several hours. We were tasked with taking the fire over and we immediately implemented ICS: one incident commander with established common frequencies and safety measures. Instead of separating the same incident into two different incidents, we used the ICS and its capability by establishing an operations section with two divisions—one for the east side of the river and one for the west side of the river.

THE SYSTEM

The Incident Command System (ICS) is an "all risk" on-scene management system. Not only is it used on wildland fires, it is used for other emergency incidents including pre-planned activities. The system does not provide tactical solutions to an incident. The system is a management tool. An incident is explained as "an occurrence either human-caused or natural phenomenon, that requires action or support by emergency service personnel to prevent or minimize loss of life or damage to property and/or natural resources."[1] Examples of emergencies that use ICS are identified below.

[1] National Wildfire Coordinating Group, *Glossary of Wildland Fire Terminology* (Boise: National Wildfire Coordinating Group, 2014), 104.

Courtesy of Brian Henington

Wildland Fires.

© Knumina Studios/Shutterstock.com

Structure Fires.

Courtesy of Brian Henington

Search and Rescue.

© Ben Carlson/Shutterstock.com

Hazardous Material Incidents.

© Martin Haas/Shutterstock.com

Tornado Recovery.

© Glynnis Jones/Shutterstock.com

Hurricane and Floods.

© Ken Tannenbaum/Shutterstock.com

Multi Casualty Events.

© Png Studio Photography/Shutterstock.com

Planned Events.

© Aspen Photo/Shutterstock.com

Parades/Concerts.

All emergencies present some type of confusion or chaos. The goal of the ICS and the person in charge is to bring control to a dangerous situation. The ICS was designed to help facilitate this concept by providing a clear, defined structure that allows us to understand what our role is, how we communicate and cooperate, and how we support the firefighters risking their lives battling these fires.

Below is a list of key components of the ICS:

1. ICS is a management tool.
2. ICS is flexible and adapts with the complexity of the incident. It grows as the incident elevates, and it shrinks and the incident decreases.
3. ICS utilizes and enforces the concept of chain of command and span of control.
4. Complexity is based on several factors, with the top priority being life safety.

5. ICS is an all-risk management system. It is used for all emergency activities; not just large or complex incidents. Responders will use the same system for a small, 1 acre wildland fire and as for the recovery efforts of a tornado. It is designed for all incidents.
6. The amount of personnel and resources needed is deemed by the complexity of the incident.

Incident Complexity

To understand incident type, we must first define what complexity is as it relates to emergency activities. **Incident complexity** defines the level of effort, coordination, cooperation, and management structure needed to effectively deal with a specific incident. Several factors many contribute to the complexity. On a wildland fire, complexity can increase or be elevated by several factors or considerations. They can involve some of the following (not all identified here and can be incident specific):

- Numerous air resources assigned to the same incident.
- Need to evacuate the public.
- Critical natural resource areas or concerns.
- Major infrastructure or facilities threatened.
- Difficult logistical needs.
- Extreme fire behavior.
- Size and location of the fire.

Five Core Activities of ICS

ICS is based on five core activities or responsibilities. The five core activities will be explained in detail further in the chapter. The five core activities include: (The quick definition is provided for you to remember in laymen's terms what each activity is responsible for.)

1. **Command:** responsible for the command and control of the incident.
2. **Operations:** "The Doers." Operations include the men and women who are responsible for the tactical activities on the emergency.
3. **Planning:** Evaluates and plans for incident needs. Plan for two hours from now, one day from now and/or two weeks from now.
4. **Logistics:** Supply you with what you need.
5. **Finance/Administration:** Those who pay you. Responsible for financial and administration requirements;

Organizational Terminology

The use of common terms in ICS is an important function of this system. We have to be consistent with the terms we use to ensure we facilitate any communication issues. ICS has a lot of terms that may be confusing to the entry-level firefighter. Over time, you will begin to understand and effectively use the appropriate term during the correct situation. An example of this: Most structure fire agencies use the word "tanker" to identify a piece of equipment that provides water to the incident. In wildland fire, the term "tanker" identifies aircraft (either an air tanker or helitanker) that delivers retardant or water to the fire through the air. If you want a water tender and order a tanker, you may receive an air tanker. You have to be clear and use the correct terminology to ensure your needs are effectively communicated.

Important Terms:

- **Deputy:** It's not uncommon for large fire organizations to have a Deputy Incident Commander. In order for this to occur, deputies must be as qualified as the person they work for. Other positions that may have deputies include Section Chiefs and or Branch Directors.
- **Shifts:** The amount of hours worked in a day; should adhere to the two hours worked to one hour of rest ratio. Shifts cannot exceed 24 hours, with the most common shifts being 12–16 hours an operational period.
- **Overhead:** Emergency responders in management positions. Reasonable for managing and directing certain activities. They can be considered mid-level management to top-level management.

Common Responsibilities

It is every firefighter or emergency responder's obligation to ensure the following common responsibilities occur prior to an assignment, once you arrive at the assignment, during the assignment, and when you leave. They include:

- Receive an assignment with the resource order number and directions to your incident.
- Ensure you bring specialized equipment. What job are you being dispatched to perform? For example, if you are dispatched as a chainsaw operator, then you need to bring your chainsaw (as long as you're not flying on a commercial jet) and the supporting chainsaw tools and equipment.
- Officially check in. Check-in is a formal process and should be done when you arrive at the incident. The process includes providing a manifest, resource number, and verification of your Incident Qualification Card (Red Card).

  You should check in at Incident Command Post or at any of these locations:
  - » Staging areas
  - » Base or camp
  - » Helibase
  - » Division or Group Supervisor for direct assignment.
- Use clear text on the radio. No 10 codes! 10–99 in the State of Wyoming refers to a Wanted or Stolen vehicle. 10–99 in the state of New Mexico means an officer is being held hostage. You can see how communication issues will occur if 10 codes are used. Talk on the radio as you would talk face-to-face.
- Ensure you obtain a briefing from your direct supervisor and if you are a supervisor, ensure you brief the people working for you.
- Ensure you are organized and have the appropriate tool(s) for the specific task.
- Work with the adjoining resources and brief your replacement at the end of your operational period.
- Complete all required forms and submit them on a regular basis.
- Demobilize according to the plan identified for you or your crew.

Chain of Command

The chain of command identifies the supervision structure and level of authority used in the ICS. The National Wildfire Coordinating Group identifies the chain of command as, "… the line of authority through which decisions are made, recommendations offered, and work assignments are given."[2] It is important for us to have one boss (this is called unity of command) to facilitate job assignments, safety considerations, and the appropriate communications. As an entry-level firefighter, you should clearly understand who your boss is and who his/her boss is. Run all decisions and concerns through your chain of command. (This may not always be an option, but is a good rule of thumb.)

Courtesy of Brian Henington

SPAN OF CONTROL

Three to seven resources with an ideal ratio of one supervisor managing five reporting elements.

Span of Control

The span of control is an essential element of the ICS. Fire managers have to ensure that each firefighter has adequate supervision. This allows for effective communication and direction. The ICS specifies span of control may vary from three to seven resources with an ideal ratio of one supervisor to five reporting elements. Some specialized and highly trained hand crews may have a larger span of control because of their capabilities and ability to effectively communicate. Figure 2-1 illustrates the span of control for a strike team of fire engines.

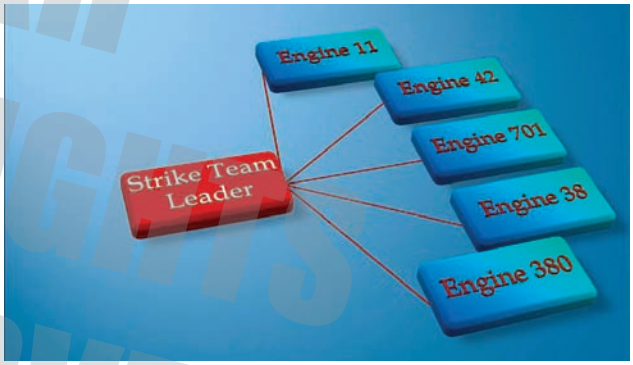


Figure 2-1 *Span of Control for a Strike Team of Engines.*

Incident Action Plans (IAP)

Every incident must have an Incident Action Plan (IAP). Small incidents may have a verbal action plan whereas a large incident will have a written IAP. The IAPs are often referred to as shift plans. **Incident Action Plans** must include a statement of objectives, organizational structure, tactical assignments to accomplish the objectives, weather report, fire behavior predictions, and any other supporting material. Two important concepts that are also included an incident action plans are a safety message prepared by the Safety Officer and a medical plan prepared by the Medical Unit Leader.

The IAP is critical to any incident. It is your responsibility as a firefighter to ensure you are familiar with the details of the plan and what your role is. Large fires may have 20 to 30 pages involved in their IAP. Whereas a small and short duration incident, like a small, one acre fire, does not require a 30 page IAP.

[2] National Wildfire Coordinating Group, *Firefighter Training S-130* (Boise: National Wildfire Coordination Group, 2003), 2.2.

INCIDENT ACTION PLAN

Every incident must have an Incident Action Plan. It can be either verbal or written.

When you are on a remote fire without the luxury of a copy machine, many incident commanders will prepare an incident action plan and deliver it to you verbally, but support it with visual references. The common technique is to draw the incident map with dry erase markers on a white or light colored vehicle. This provides the firefighters with a visual reference and allows them to ask questions and receive immediate feedback.

INCIDENT TYPES

Wildland fire incident types are categorized into five major categories. In relation to the incident types, a qualified Incident Commander will be appointed to manage the incident activities. Incident types are based on the complexity, duration, and/or size of the incident.

Incident Types

As mentioned above, there are five categories for incident management used in the ICS. Remember, the incident type is based on complexity, not size. The incident types are identified in the table below.

TABLE 2-1 *INCIDENT TYPES*

Incident Type	Certified Incident Commander	Complexity	Duration	Example	Example of Resources
Type 5	Type 5 IC	Minimal—lowest complexity level	Short—think 24 hours	• 1 acre fire • 2 car accident with no injuries	• 1 Fire Engine or • 1 police unit
Type 4	Type 4 IC	Increased from Type 5, but still low to moderate	Usually handled with 24–48 hours	• 10 acre grass fire with 2 days of suppression activity	• 2 Fire Engines • 1 Hand Crew
Type 3	Type 3 IC	• Extended attack • Logistical concerns are elevated • Numerous air resources • Values at risk	Over 24–48 hours	• 110 acre timber fire	• 6 Fire Engines • 3 Hand Crews • Air Coordinator • 5 Water tenders • Logistics is established • Operations Section is Established
Type 2	Type 2 IC	• Project fire • Evacuations • Structures threatened • Values at risk • Advanced air resources	Long duration event	2,400 acre timber fire threatening homes	• Full blown ICS structure
Type 1	Type 1 IC	• Project fire with the highest level of complexity or anticipated complexity • Major logistical considerations • Major air resources	Long duration event	16,000 acres for example, the Little Bear Fire	• Full blown ICS structure

Small Fire Organization
(Small scale, minimal complexity, short duration)

The National Wildfire Coordinating Group estimates that "90% of wildland fires are suppressed during the initial attack phase, with a small organization."[3] A majority of the fires you respond to will be small in nature. They will not require a large amount of resources to suppress them. In addition, logistical support will be minimal, with the fire resources on scene able to support themselves with food, water, and supplies that are on their assigned vehicle or equipment. Finally, most of these incidents will be finished in a short time period. It makes no sense to have a large management organization to deal with these small incidents. The beauty of the ICS is that it allows us flexibility to institute the appropriate management team or individuals to deal with a specific incident.

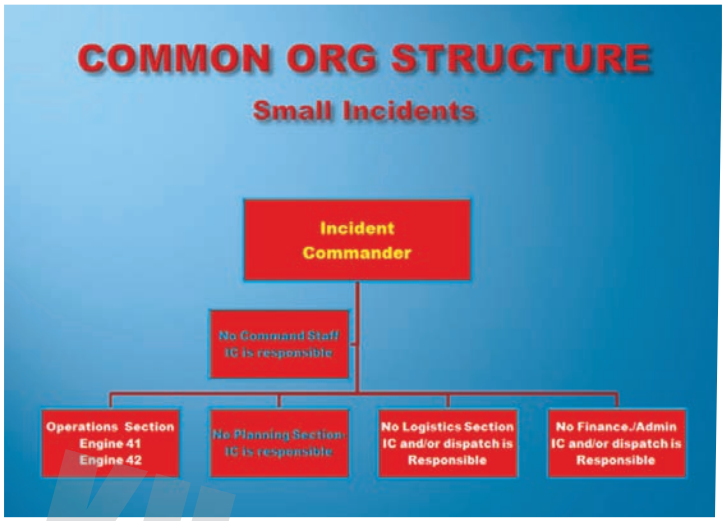


Figure 2-2 *Small Fire Organization.*

Large Fire Organization

As a fire increases in size and complexity, fire managers will utilize the ICS to ensure the needs of the incident are met. Twenty years ago, large fire organizations were determined based on the size of the fire. This is no longer the case. Larger fire organizations are now based on complexity, duration of the incident, and values at risk. The more complex an incident is, the bigger the management structure needed to successfully deal with it. Figure 2-3 illustrates a typical organizational structure for a large fire.

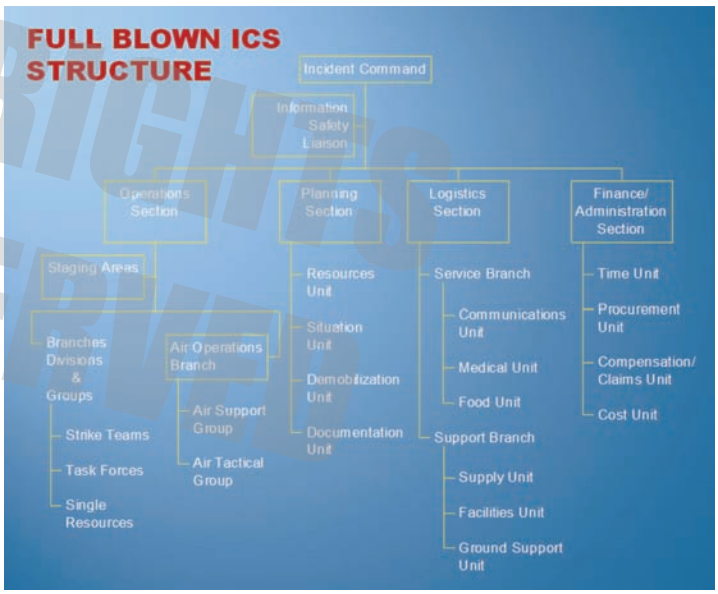


Figure 2-3 *Large Fire Organization. Courtesy of FEMA.*

[3] Ibid.

Interagency Management Teams

Courtesy of Brian Henington

Type 1 Team conducting a morning briefing in Washington, 2014.

Incident Interagency Management Teams are explained as "the incident commander and appropriate general and command staff personnel assigned to an incident."[4] These teams select members through an application process that is based on the individual's qualifications and experience. The team's members are from different agencies (thus interagency) and work together on a yearly basis. Because the teams are preassembled, the group can work effectively and efficiently together with each member aware of his or her specific roles and duties. These teams are highly essential to wildland fire suppression activities. In fact, even though these teams are considered experts in wildland fire management, they have been called on numerous times to handle other all-risk events, like the World Trade Center recovery efforts, Hurricane Katrina, etc. These teams are very successful in managing incidents because of their years of experience dealing with complex emergencies. No other organization, except the military, can develop a town in the middle of nowhere in a matter of days and coordinate massive amounts of resources in a safe manner.

There are sixteen (16) Type 1 Interagency Management Teams in the United States. In addition, there are thirty (37) Type 2 Interagency Management Teams. Type 3 Interagency Management Teams are also very common across certain parts on the nation and have demonstrated superior performance in dealing with extended attack fires. Although they have not been discussed in this chapter, there are two more management teams that are often used during wildland fire activities. They include Area Command Teams and National Incident Management Organizations. You will learn about these teams and their responsibilities in future ICS training. (We do not want to overwhelm you at this point of your training).

ICS JOB POSITONS

Incident Commander (IC)

The person in charge of an incident is called the Incident Commander (IC). He or she is responsible for all activities, personnel, and support functions of a particular incident. A successful incident commander is an effective leader who understands how to use the ICS in the best manner possible. He or she has to be able to implement command and control of the situation but not by micromanaging the activities of firefighters.

COMMAND AND CONTROL

The success of the ICS depends on the Incident Commander's ability to lead and implement the structure and command of the incident.

[4] Ibid., 105.

Job Duties

- All activities are the responsibility of the incident commander. He or she may have to perform several roles on a small incident if authority is not delegated to another qualified individual.
- Quality incident commanders have the ability to delegate and communicate.
- Unsuccessful incident commanders try to manage all activities themselves or are micromanagers. It may be common for a Type 5 IC to be involved in the suppression of a fire, but Type 4 ICs and above are managers, not hands-on firefighters.
- Overall, the IC will ensure that safety for firefighters is prioritized above all other objectives, followed by the safety and general welfare of the public.

Courtesy of Glen Sveum

Type 4 Incident Commander conducting operational briefing.

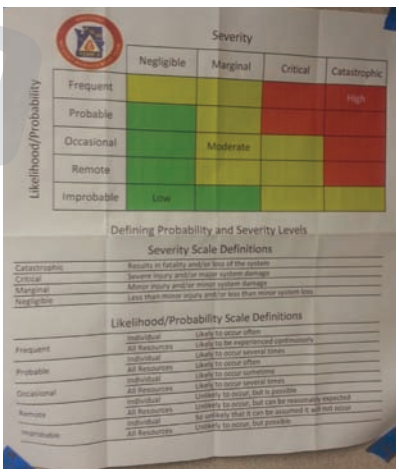
- The incident commader may not be the highest qualified individual on a wildland fire. A small fire does not require a qualified Type 1 Incident Commander to manage it. The incident would be managed by a Type 5 IC, who is lower qualified than the Type 1 IC.

© Karin Hildebrand Lau/Shutterstock.com

Information Officer talking to the media.

Command Staff

1. Deputy Incident Commander: If a deputy incident commander is required for an incident, then he or she must be as qualified as the person they work for. Deputy ICs are common in large fire organizations. Smaller incidents will require a deputy incident commander.
2. Information Officer: Information officers are responsible for interacting with the media, the incident commander, other fire personnel, and the public. Large incidents will require more than one information officer. On small incidents, the incident commander will function as the information officer.
3. Safety officer: The Federal Emergency Management Agency defines a safety officer as, "A member of the command staff responsible for monitoring and assessing safety hazards or unsafe situations, and for developing measures for ensuring personnel safety."[5] The safety officer is the only person who can override an incident commander's decision; this can only be done if it's based on safety concerns. Today, safety officers are more than people who check for earplugs or safety glasses. They strive to see the bigger picture and identify the hazards and risks



Courtesy of Brian Henington

Analysis of risk and hazard exposure completed by a safety officer.

[5] Federal Emergency Management Agency, *ICS Glossary* (Washington, D.C.: Department of Homeland Security. Federal Emergency Management Agency, 2008), 10.

firefighters are exposed to. They work hard to ensure that risk is reduced and firefighter safety considerations are prioritized at all times. Most safety officers have an extensive operations background that will help them determine if tactical decisions are correct. The safety officer is not involved in tactical decisions; he/she only provides insight as it relates to firefighter safety and risk management. There can be more than one safety officer on a fire.

4. Liaison Officer: A liaison officer is described as "A member of the Command Staff responsible for coordinating with representatives from cooperating and assisting agencies."[6] There can be more than one liaison officer on a fire.

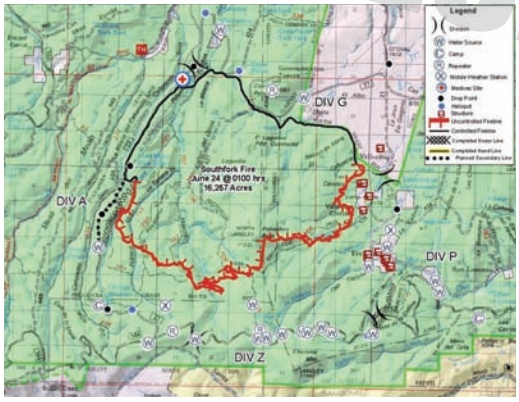
It is important to note that small incidents do not require an assigned a safety officer, information officer, or liaison officer. The incident commander can perform all the duties of those positions because of the limited complexity and duration of the incident. Large scale or complex incidents will require these positions to ensure successful management, communication, and coordination.

The General Staff

The general staff reports directly to the incident or deputy incident commander. They include an Operations Section Chief, Planning Section Chief, Logistics Section Chief, and a Finance/Administration Section Chief. Again they are not needed on a small incident. Each section chief manages his or her responsible section. On a large-scale event, the operations section chief may have 1,000 firefighters under his or her control. Section chiefs will also use delegation to ensure that the span of control is in place at all times. No operations section chief can successfully manage 1,000 firefighters. He or she has to rely on other qualified overhead to help facilitate the needs of the incident and ensure tactical objectives are met.

Operations Section

As mentioned before, the operations section is managed by an Operations Section Chief on a Type 1 or Type 2 incident. A Division Supervisor or Group Supervisor can manage the operations section on a Type 3 Incident. On Type 4 or 5 incidents, the incident commander would be responsible for operational decisions and implementation of tactical objectives.



Courtesy of Arizona Central West Zone Team

This map illustrates divisions used on a wildfire. They are identified by DIV A, DIV G, DIV P and DIV Z.

Most first responders will begin their career in the operations section. They are responsible for filling sandbags to stop floods, digging fireline to stop an advancing wildland fire, performing the physical duties of search and rescue missions, or providing the technician activities for hazardous materials event.

Branches: Although not used on all fires, the operations section chief can activate branches if they feel the incident complexity is increasing and span of control is not in place. The person responsible for a branch is a Branch Director. Large incidents may have multiple branches.

Divisions: Divisions are highly important to wildland fire suppression activities. Divisions are separated by geographical responsibility (or from point A to point B). Divisions are used to divide incidents into specific areas

[6] Ibid., 7.

of operation. Additional divisions are created based on the span of control and complexity. Divisions grow as the incident grows and they can decrease as the incident decreases. Divisions are identified by letters using the phonetic alphabet. For example, Division A would be called Division Alpha. Division Z would be called Division Zulu. The person responsible for a division is a Division Supervisor.

Group: A group is responsible for a function. It provides a specific function to the incident and can be used in one division or multiple divisions. The person responsible for a group is a Group Supervisor. An example of groups on wildland fires include structure protection group, initial attack group, or an evacuation group. Once it is done with its specific function, then the group will move to a new area of concern or could be dismantled based on the need of an incident.

> Division: Geographical Responsibility
>
> Group: Functional Responsibility

Groups and divisions are at the same organizational level and report directly to the Operations Section Chief or Branch Directors. The Division Supervisor does not supervise the Group Supervisor, nor does a Group Supervisor supervise the Division Supervisor.

The following is an example of a division and group working together. When I worked for the state land office, we had district resource managers who were responsible for specific counties in the state of New Mexico. They managed all activities and monitored industry activities within their district. At our headquarters, we had specialized individuals who provided a specific function. An example of one was an archaeologist who was responsible for cultural resources. Once the district resource manager identified an issue, he or she would then call a supervisor (Operations Section Chief) requesting the support of the archaeologist. The archaeologist would then travel to the specific district, perform the required duties, and then leave. The district resource manager would remain in his or her assigned area. The archaeologist would then return back to headquarters and be ready for the next assignment.

Task force: A task force consists of three to seven resources of different kind and type. There may be several task forces working within the group or a division. The task force is managed by a Task Force Leader. A task force leader will report to a division supervisor or group supervisor. An example of a task force would be two fire engines, one water tender, and three dozers. This concept will be explained in more detail in Chapter Seven.

© TFoxFoto/Shutterstock.com

A task force in Oregon preparing to bed down at the end of their shift.

Strike Team: A strike team is managed by a Strike Team Leader. On paper, a strike team leader is not as qualified as a task force leader. A strike team has to have similar types and kinds of resources. An example of a strike team would be five (5) type six fire engines. They do not have to be from the same agency but they have to have the same capabilities. A strike team leader will report to a division supervisor or group supervisor or task force leader. Again, this concept will be explained in more detail in Chapter Seven.

The operations section is made up of **single resources**. Single resources can be equipment, fire engines, aircraft, or individual firefighters. If the ICS System is used correctly, fire managers will ensure the span

Courtesy of Brian Henington

The members of Engine 41 and Engine Boss Jim O'Leary are considered a single resource.

Courtesy of Brian Henington

Helicopter supporting fire activities.

Courtesy of Brian Henington

Incident map produced by the Planning Section.

of control is in place and group single resources into strike teams or task forces. Everybody works together to perform a specific duty under the ICS System and all elements focus on safety, communication, and coordination.

Structure of the 20 Person Hand Crew: A hand crew will consist of 18 to 20 firefighters. The firefighters will be managed by a crew boss or crew superintendent. Most 20-person hand crews will have one squad boss or advanced firefighter supervising four to six members of a squad. That squad could consist of chainsaw operators or Type 2 firefighters who are responsible for completing the physical requirements of the job. Effective hand crews will utilize the span of control to ensure the most effective and safe operation of their hand crew.

Air Operations: This branch of operations is responsible for the coordination of aircraft used on the fire. The activities they manage can be tactical application of aircraft or logistical support. The two categories of aircraft used on a wildland fire are fixed wing (airplanes, airtankers) and rotary wing (helicopters). Air activities are very complex and dangerous. Managing these activities requires extensive and effective communication, coordination, and cooperation.

Planning Section (Plans)

The planning section is "Responsible for the collection, evaluation, and dissemination of information related to the incident, and for the preparation and documentation of Incident Action Plans."[7] The planning section works the closest with the operations section. Most planning section personnel have an operational background, which helps facilitate the needs of the operations section. The plans section is made up of several units; however they will only be established if the complexity of the incident requires it. A small-scale fire does not require a plans section. The person responsible for the planning section is the Planning Section Chief.

The Units below are associated with the Planning Section:

- **Resources Unit:** Responsible for tracking and recording all resources committed to an incident. It is also responsible for anticipating additional resources.

[7] Ibid., 9.

- **Situation Unit:** FEMA describes the Situation Unit as, "responsible for the collection, organization, and analysis of incident status information, and for analysis of the situation as it progresses"[8]
- **Documentation Unit:** Maintains all documents related to the incident activities.
- **Demobilization Unit:** Plans for the release of personnel and equipment based on the need of the incident and the amount of days worked by each resource. You cannot leave an incident when you're ready to leave. You have to go through a formal demobilization process.
- **Field Observer:** Collects information from personal observations and supplies it to requesting personnel.
- **Other Planning Personnel:** Based on the need of the incident, the following positions can be activated to support the activities of the planning section.
  - » Status/Check-in Recorder
  - » Fire Effects Monitor
  - » Infrared Interpreter
  - » Display Processor
  - » Fire Behavior Analyst
  - » Strategic Operational Planner
  - » Long-Term Fire Analyst
  - » Geographic Information System Specialist
  - » Interagency Resource Representative
  - » Human Resource Specialist
  - » Incident Training Specialist

Logistics Section

Entry-level firefighters should remember the function of logistics is to supply you with your needs. The logistics section is designed to facilitate the needs of the personnel supporting the emergency. They are essential and critical to effective management of the incident. The logistics section is managed by the Logistics Section Chief. On large fires, they can include two branches: Service Branch and the Support Branch. The service branch contains three units (if needed).

© bikeriderlondon/Shutterstock.com

© Lopolo/Shutterstock.com

Communications Unit: This unit establishes the frequencies used on the fire. The communications unit will also ensure that working communications are established. If there are issues with communications, this unit will help facilitate those concerns. It will also provide batteries for handheld radios and fix radios that have issues. The communications unit also functions as an incident dispatch, as they will relay messages to the fireline from the incident command post or base.

Medical Unit: Provides medical needs to fire or emergency personnel. They do not provide needs to civilians. Injuries are common to wildland firefighters. They may be minimal like a sunburn or blisters,

[8] Ibid., 11.

or they may be severe. If a vehicle accident occurs during an evacuation, the medical response would fall under operations and not under the logistics section or medical unit. The person responsible for the medical unit is the Medical Unit Leader and he or she may have several people working in the unit that are typically qualified medical personnel. The leader is also responsible for developing a medical plan to be used by all personnel on the emergency.

Food Unit: The Food Unit is responsible for feeding firefighters and providing water and drinks. They will also provide ice as needed. On large incidents, the food unit will cater food and may be responsible for feeding 1,200 or more firefighters. They will provide a breakfast, sack lunch and a hot dinner.

Fire hose can be checked out at the Supply Unit.

Standard facilities used at incidents.

The support branch of the logistics section involves the following:

Supply Unit: The Supply Unit is responsible for all equipment, tools, or fire clothing that has been damaged on the incident. They will also supply any other materials that are needed during the incident. All equipment is accountable; therefore, most materials require a formal checkout process. Some items must be returned before you leave the fire.

Facilities Unit: This unit is responsible for providing and managing fixed facilities at the incident. Examples include camp, base, and incident command post. They are also responsible for sleeping locations, showers, feeding areas, and sanitary facilities.

Ground Support Unit: This unit has several responsibilities but the most common are making repairs to vehicles, transporting firefighters to and from certain locations, or assigning rental vehicles. They will also provide fuel to fire equipment.

Finance/Administration

I always tell my young firefighters to keep the Finance/Administration Section happy and treat them fairly because they pay you! Of course, the Finance/Administration Section has far more responsibilities than paying us. This section can consist of the Time Unit, Procurement Unit, Compensation/Claims Unit and the Cost Unit.

Below is a brief summary of the responsibility of these units:

Time Unit is responsible for processing time of personnel assigned to the incident.

Procurement Unit is responsible for purchasing equipment and developing contracts for materials needed to support the incident.

Compensation/Claims Unit is responsible for documenting any accidents involving fire related vehicles, equipment, or firefighters. This unit is also responsible for ensuring the proper paperwork is completed for any such injury or accident.

Cost Unit will monitor costs on a daily basis and provide those costs to the Incident Commander and agency responsible for the fire. The resources and equipment needed to combat large wildfires are very expensive.

INCIDENT FACILITIES

Large incidents will require several facilities to support the emergency response activities. Smaller incidents will not necessarily require all of these facilities. The most common facilities used on wildland fires are briefly identified below:

- **Incident Command Post (ICP)**: FEMA describes the Incident Command Post (ICP) as "the field location at which the primary tactical-level, on-scene incident command functions are performed. The ICP may be collocated with the incident base or other incident facilities and is normally identified by a green rotating or flashing light."[9] The ICP on small fires will be located wherever the IC is located; it can be mobile. On a large fire, the ICP will be an established location, regardless of the Incident Commander's location.

Courtesy of Brian Henington

- **Staging Areas**: Staging areas are part of the operations section. Established for tactical considerations, they are designed to provide a location for resources to gather, organize, and be ready for tactical assignment. Staging areas require a three-minute response time if the forces are activated.
- **Base**: The **Incident Base** is described as, "The location at which primary Logistics functions for an incident are coordinated and administered. (Incident name or other designator will be added to the term Base.) The Incident Command Post may be collocated with the base."[10]

© Barry Blackburn/Shutterstock.com

Resources awaiting tactical assignment in a staging area. Three-minute dispatch required.

- **Camp**: A camp is where firefighters sleep, eat, and shower. The camp is usually located away from the base, but they can be close to each other (within walking distance).

Courtesy of Brian Henington

Courtesy of Brian Henington

[9] Ibid., 5.

[10] Ibid., 2.

- **Spike Camp:** A location separate from the camp that is established based on logistical concerns on the incident. Spike camps will normally not have as much support as a camp and often lack facilities.
- **Helibase:** The National Wildfire Coordinating Group identifies a helibase as "the main location within the general incident area for parking, fueling, maintenance, and loading of helicopters. It is usually located at or near the incident base."[11] Rural airports are often used as helibases.
- **Helispots:** A temporary landing or take off area for helicopter operations. They are also used to provide a geographical reference for firefighters. Helispots are identified as: H-1, H-2, H-48, etc.

Courtesy of Brian Henington

Spike Camps are established for logistical concerns. In the case of this spike camp, two crews were camped closer to the fire for quick access.

© Wollertz/Shutterstock.com

Refueling of helicopters occurs at a helibase.

© ChiccoDodiFC/Shutterstock.com

Helispots are temporary landing locations for helicopters.

SUMMARY

The Incident Command System can be confusing. It contains a lot of information and concepts that are introduced over a short time frame. As an entry-level firefighter, you do not have memorize and understand every concept. What you must understand is the concept of chain of command, span of control, and how your job fulfils the objectives of this management system. As you gain more experience and advance your training, the concepts in this chapter will become more familiar to you. Your first large fire assignment may be overwhelming. Count on your supervisor to assist you with the functions of ICS and how those functions will benefit you. You should further understand what sections or units of the ICS can support your medical needs, your supply needs, or vehicle needs such as refueling. This system is highly functional if it is used correctly. Once you understand the system, you will better understand the amount of effort, coordination, and cooperation needed to manage emergency and wildland fire incidents.

[11] National Wildfire Coordinating Group, *Glossary*, 101.

KNOWLEDGE ASSESSMENT

1. What section of the ICS conducts tactical operations to carry out the plan and directs all tactical resources?
2. True or False: The Incident Commander is always the most qualified individual on a wildland fire.
3. On a wildland fire, the Medical Unit is in what section?
4. True or False: Wildland firefighters, structural firefighters, and law enforcement officers can be organized under the same incident command system.
5. True or False: Divisions and Groups are at the same organizational level and can work together on an incident.
6. True or False: The Incident Command System is not designed for small incidents.
7. True or False: Deputies must always be as qualified as the person for whom they work.
8. In what section and unit can you locate hand tools, sleeping bags, safety gear, and 1 ½" hose?
9. In ICS, communication is in _____.
10. The five major management activities (positions) around which the ICS is organized are:
11. Span of control may vary from _____ to _____, with a reporting element of _____ subordinates to _____ supervisor.

EXERCISES

1. The General Staff consists of:
2. What are the three (3) major activities (positions) of the command staff?
3. Division Supervisors have _____ responsibility.
4. Group Supervisors have _____ responsibility.
5. Identify the common ICS responsibilities of all emergency responders.

BIBLIOGRAPHY

Federal Emergency Management Agency. *ICS Glossary*. Washington, D.C.: Department of Homeland Security, Federal Emergency Management Agency, 2008.

National Wildfire Coordinating Group. *Firefighter Training S-130*. Boise: National Wildfire Coordinating Group, 2003.

National Wildfire Coordinating Group. *Glossary of Wildland Fire Terminology*. Boise: National Wildfire Coordinating Group, 2014.