

THE INCIDENT COMMAND SYSTEM FOR PUBLIC HEALTH DISASTER  
RESPONDERS

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# **THE INCIDENT COMMAND SYSTEM FOR PUBLIC HEALTH DISASTER RESPONDERS**

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## **WHY DO YOU NEED TO KNOW ABOUT THIS**

Incident command systems and incident management systems are the general standard used by fire and rescue services for the management of major events. The original version, the National Interagency Incident Management System (NIIMS) is the federal government standard for federal participation in field events. And the National Wildfire Coordinating Group adaptation of NIIMS is the standard for any large wildland fire response. Incident command system use is mandated by the Occupational Safety and Health Administration for any event involving hazardous materials. In Virginia, incident command system use is mandated by the legislature for any highway incident, and we have a history of major natural disaster response being managed using the wildland fire model.

## **THE CONTEXT**

To understand the incident command system, it is important to understand the contexts in which it is used. This system may be used to manage routine events or to manage disasters, and for any type of event in between. All of these are events that require coordination and direction, generate large amounts of information, and pose significant hazards.

### Levels Of Response

Bad events happen all the time. Most of these incidents are what can be called routine emergencies, those that are handled by the resources of one or two public safety agencies as a normal part of the workday. Some progress to the status of major emergencies, requiring mobilization of all of a community's emergency services and the request of mutual aid, either from normal partners or through the statewide mutual aid system. And a few are disasters, events that threaten entire communities and require the legal invocation of unusual procedures to protect life and property. The vast majority of disaster declarations in Virginia are for natural disasters.

### Disaster Declarations

If a county or city needs special authority to deal with the impact of an event, it does so through a declaration of a local emergency by the chief elected official, in his or her capacity as Director of Emergency Services. Such declarations generally allow employees to be assigned jobs outside their normal responsibilities, authorize the

spending of money in ways not allocate in the budget, allow hiring without normal advertising of positions, allow purchasing outside the provisions of the purchasing regulations, and may provide authority to suspend certain regulations or ordinances. Operationally, the markers often seen in conjunction with a disaster declaration are the activation of the emergency operations center, the execution of the emergency operations plan, and the direction of population protection measures. Philosophically, a disaster declaration means that the highest priority of government is the resolution of the threat posed to the jurisdiction. In this context it is important to understand that response to disasters is first and foremost a local responsibility.

At the state level, the governor declares a state of emergency to achieve many of the same ends for the state, typically when the size of the event makes it obvious that a number of local governments will need state agency assistance to deal with its impacts. Similarly, the president will issue a Presidential Disaster Declaration when requested by a state and when state resources have been fully committed without being able to completely resolve the impacts.

### The Emergency Operations Center

When a jurisdiction is threatened by a disaster, the seat of emergency government becomes a little used and poorly understood facility, the emergency operations center (EOC). When properly employed, the EOC serves as the central point for coordinating response to multiple incidents or a single one, coordinating jurisdiction wide resource allocation, or providing support needed at one scene, and setting high level policy or carrying out mundane procedures. The EOC is the central point for execution of the jurisdiction's emergency operations plan.

EOCs are organized in a variety of ways. Some use the incident command system. Others use a traditional four group model, or organize using the emergency support functions. Probably most function by serving as a continuous jurisdiction staff meeting, with representatives from each government department coordinating activities of their departments with others.

### Policy, Strategy, and Tactics

Emergency response is a governmental function, and the key decisions in large events that threaten an entire jurisdiction are fundamental public policy decisions that the elected officials of the jurisdiction have the authority, responsibility, and obligation to make. Although in many jurisdictions this authority is effectively abandoned to local department heads, the responsibility for setting policy and making jurisdiction wide decisions belongs to elected officials, not appointed ones. How a jurisdiction will use its resources flows from policy and defines the jurisdiction's response strategy.

That strategy is translated into tactics, the assignment of resources to specific tasks to resolve an incident, at the appointed official level. The system typically used to manage tactical applications at specific incidents in Virginia is the incident command system.

## WHAT YOU REALLY NEED TO KNOW ABOUT INCIDENT COMMAND SYSTEMS

### First Unit In

The first response unit in assumes command of the incident until relieved by either (1) someone with a better skill set in incident management, (2) by any agency better suited to command the incident, or (3) by an agency that has a legal mandate to assume command. This means that you may be the first incident commander simply by virtue of being there first. This raises two important issues.

First, how can you handle incident command without making the situation worse? A simple protocol, the 5 S Protocol, applicable to any emergency service, may help (see Table 1).

Table 1. The 5S Protocol

<b>S:</b>	<b>Means:</b>	<b>Action:</b>
Safety	Is the scene safe for me to be here?	If it is, go to the next S. If it is not, either get out now or take the actions you need to take to make it safe.
Size-up	Conduct a size-up as you approach the incident.	How big is the incident in area, size of the threat, number of people, etc.?
Send	Send for help.	Contact dispatch, your agency, etc. as appropriate to report what you have found and request additional help.
Setup	Setup incident command.	Assume command and begin assigning jobs to the resources you have available for them to complete within their capabilities.
Start	Start emergency procedures.	Start taking emergency actions to control the incident.

The second issue is how to transfer incident command. You do not want to get tied down being incident commander unless this is clearly a public health incident; your time is much better spent doing what you do well as part of an overall response. Let someone else worry about being in charge of meals, port-a-potties, security, helicopter staging, etc. So keep track of what you have done, identify who should get the job, brief them on the status of the incident, your actions so far, and additional resources enroute, and hand incident command off.

### Organizational Model

Incident command and incident management systems in use in various organizations have a certain amount of variability in organization, titles, and functions. In this

discussion I am using the National Wildfire Coordinating Group model, as this is a real national standard.

### Incident Commander

Incidents, no matter their size, are commanded by a single individual, the Incident Commander. As noted above, incident commanders are provided by either the agency with the greatest interest in the event at this stage in its life (and yes, incidents in other states have transitioned from an emergency service to the Medical Examiner), or by the agency charged with legal responsibility. In Virginia, that is most often the jurisdiction's Fire Department under the provisions of the Code of Virginia. Incident commanders command the incident, are responsible for making the resource allocations and setting the tactics for a successful resolution, and for ensuring that all needed functions are performed.

### Command Staff

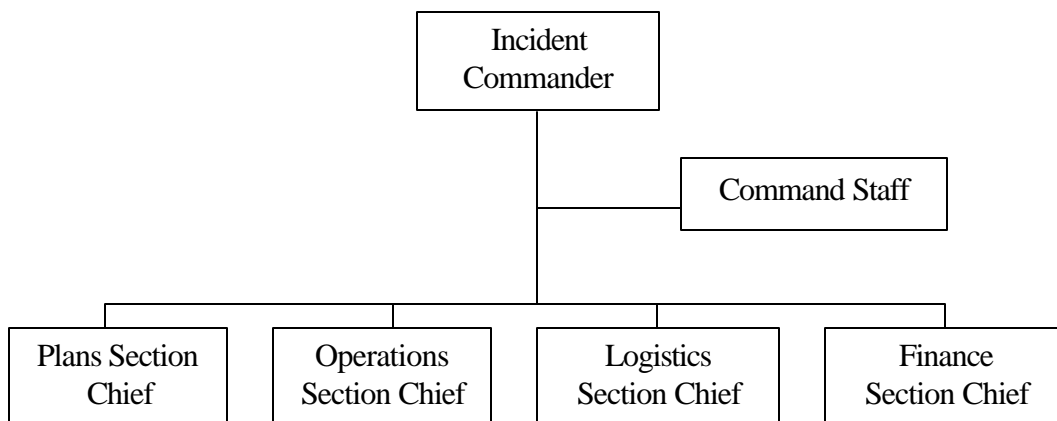
Incident Commanders are assisted by a three person Command Staff, comprised of:

- A Safety Officer, the staff safety expert, with authority to stop operations to correct any unsafe condition.
- A Public Information Officer, responsible for liaison with the news media and for coordinating all news media activity at the incident.
- A Liaison Officer, responsible for liaison with other organizations that do not become part of the Incident Command System structure.

### General Staff

The meat of the organizational structure is provided by four Sections, each headed by a Section Chief, as shown in Figure 1.

Figure 1. Incident Command System Section Organization



Almost any incident of any size will have an Operations Section, possibly subdivided into (1) Branches and (2) Divisions and Groups (both Divisions and Groups may also be called Sectors), to supervise Single Resources, Strike Teams, and Task Forces. The function of the Operations Section is to use its resources to control the incident and provide services to those who need them. Almost any type of resource can fit within the Operations Section and be used to perform incident work. The ways these resources are aggregated are:

(1) At the lowest level:

- Single Resources – one of anything that performs a function. One public health nurse performing door to door epidemiological interviews could be a single resource.
- Strike Teams – multiple single resources of the same type assigned to a Leader and operating as a unit.
- Task Force – resources of different types assigned to work as a unit under a Leader. A good example is our standard Virginia Emergency Medical Services Task Force – one quick response vehicle, one basic life support ambulance, one advanced life support ambulance, and a crash truck.

(2) At an intermediate level:

- Divisions – geographical combinations of varied resources under a Supervisor assigned to manage and perform operations in an area.
- Groups – functional combinations of the same type of resources under a Supervisor assigned to provide a specific type of service across the entire event.

(3) At a large incident:

- Branches – may be combinations of divisions or combinations to handle very large numbers of resources.

Probably the second most common Section activated is the Logistics Section, responsible for supporting operations by ordering equipment, supplies, and people needed, providing communications, messing and billeting the responders, and providing medical care for responders.

On events that will extend for some length of time, activation of the Plans Section is critical. The Plans Section track resource status, develops an accurate picture of how the incident is developing, documents the response, employs technical experts in various areas of the situation, and plans for demobilization. The major effort of the Plans Section is the preparation and publication of an Incident Action Plan for each operational period during the event – in large, extended events this is a large, complex document.

The Finance and Administration Section tracks the cost of the event. Cost documentation is critical to any attempt to receive federal reimbursement in a disaster, must start at the start, and must be complete in the smallest details. In most urban events the Finance and Administration Section works from its normal offices.

### Single Command Post

So where do you put this staff? The incident command system staff belongs in a single incident command post, located in a safe area, outside the immediate impact area of an ongoing event. With modern communications systems and remote sensing capabilities, the Incident Command Post should be able to develop an accurate situation picture of an ongoing incident from the reports of the Single Resources, Strike Teams, Task Forces, Divisions, and Groups, as applicable. All of the players need to be in the Incident Command Post so that they can perform as a team – individual agency separate command posts virtually guarantee an uncoordinated response.

Traditional fire doctrine has been to locate the command post where you have a good view of the incident. The problem is that such locations are often within the impact footprint – as long as the incident is shrinking you are in good shape, but when it expands you either move or die. Moving a command post in a significant event can cause a loss of control for an hour or more. Loss of a command post and its staff may result in multiple hours up to a day of loss of control.

### Unified Command

One of the lessons learned from the management of complicated incidents is that multiple agencies have legal authority over and real operational concerns about how an incident is commanded. The solution has been the development of Unified Command, which has been described in a wide variety of ways from command by committee to a broad sense that the single incident commander should take everyone's concerns into account. Unified command is probably a different thing every time it is exercised. However, acceptance that this is a good thing does obligate the lead agency with the most concern and resources, and clearest authority, to consider and try to accommodate the concerns of other agencies in developing a single incident action plan to which all can agree.

### Incident Action Plans

In extended events the Plans Section produces an Incident Action Plan for the next operational period in a 12 hour planning cycle. Such plans specify control objectives for the period in a methodical effort to successfully control the incident. In short duration incidents the plan is often in the Incident Commander's head, and under good conditions may be reflected on a tactical worksheet or command board. In any case, if Public Health has responsibilities and interests in the outcome, you need to know what the plan is and have input to its formation.

### Standardization

A major thrust of incident command and management systems is standardization. This means standardized terminology, standardized position titles, standardized radio procedures, etc. When multiple organizations respond, such standardization greatly simplifies operational interface and curtails the period required to learn each other's language. However, understand that such standardization is by no means standard even among incident command systems and that there is some degree of local variance. Having a basic understanding will at least get you into the same conversation.

### Span of Control

Incident Command System gurus routinely talk about span of control, the number of people you can effectively supervise, and rattle off a mantra "3-7 ideal is 5." In this view you can supervise 3 to 7 workers, less than 3 you have to combine with someone else, more than 7 you have to split into two units. Of course, the ideal number of people to supervise is 5. Like many public service mantras this one is bankrupt, in spite of its wide acceptance. We all know of people and situations that require 1 to 1 supervision; similarly, are we saying that you can't organize 20 people into a team to pick up trash after a public event? The real rule is that the span of control should be set at a number that allows a supervisor to effectively account for his or her people, ensure their safety, and manage effective work toward accomplishing the operational period objectives. This varies from period to period based on people, the situation, the supervisor, etc.

### Variations on the Theme

Incident command works well when you do it religiously – on the dumpster fire as well as for the huge bad event. However, there is a tendency to adopt variations: no command, when the incident is too small to announce "I am assuming Fred's Department Store Dumpster Fire Command;" passing command – the first in unit hands off command to a unit not yet on scene so they can take immediate actions; or informal command – in which the incident commander assumes command but remains mobile, never establishing a command post so that he or she can get a better idea of what is happening. The danger in all of these is that when the situation goes rapidly sour, resources will have already been committed, and no one will know where they are and what they are doing. The transition is liable to be very messy and very costly.

### **A PUBLIC HEALTH MODEL?**

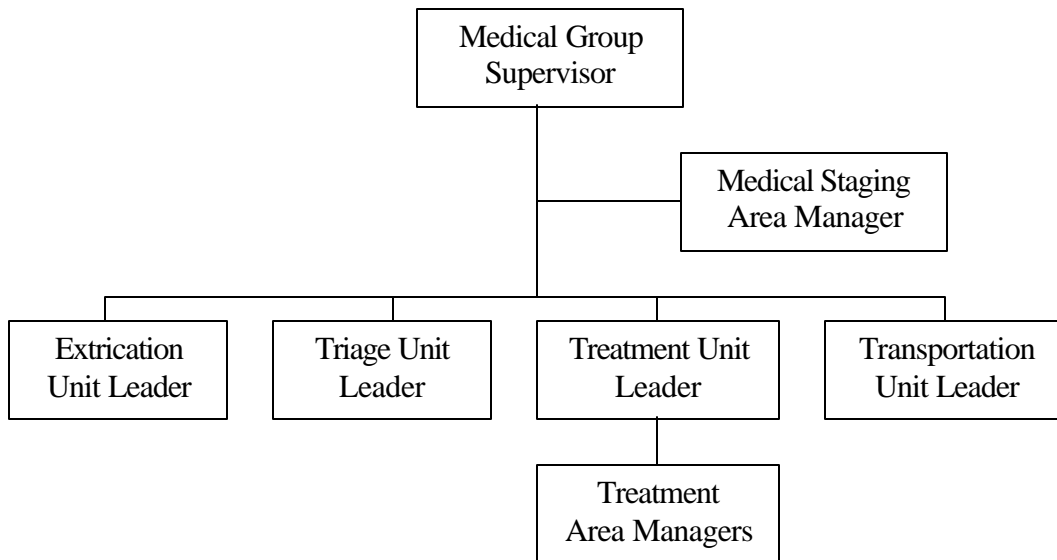
When we look at incident command and management systems' structure, there are some obvious factors that help shape where public health functions fit in the system. Some of that fit should be defined in advance in your jurisdiction's emergency operations plan (do understand, however, that the odds are good that no one who makes decisions in a field environment has read that document). To create the right model, the following logic table (Table 2) leads you through the decision process:

Table 2. A Logic Table for Where Public Health Fits

<b>Step:</b>	<b>If:</b>	<b>Then:</b>	<b>If Not:</b>
1	Public health functions will be policy and resource coordination, not field provision at a specific site	Staff the jurisdiction Emergency Operations Center.	go to step 2
2	Public health functions will be performed separately from the main incident response, or at a different site	Appoint a liaison officer to work with the ICS Liaison Officer on the Command Staff.	go to step 3
3	Public health functions will primarily support the actual response - for example, in protecting responders from environmental health threats	Help staff the Medical Unit in the Logistics Section of the ICS, and consider step 4	go to step 4
4	Public health functions will primarily be focused on delivery to threatened populations as part of response activities in various locations	Attach Public Health Staff to specific Divisions in the Operations Section, and consider step 5	go to step 5
5	Public health functions will be concentrated in one location providing services to the entire impact area	Form a Public Health Group under the Operations Section.	go to step 6
6	Public health advice may be needed, but not resources.	Serve as a technical specialist in the Plans Section.	go to step 7
7	The incident is primarily a public health incident, managed by either District or Central Office resources	Assume Incident Command	reevaluate steps 1 through 6 and find somewhere safe to watch the event unfold

The most logical model for managing public health resources appears to me to be the Public Health Group in the Operations Section model. A similar model is used by the emergency medical services as a statewide standard Medical Group under the Operations Section (remember that the Medical Unit in the Logistics Section is there just to support the response, not to provide services to the impact population). The Medical Group Model is shown in Figure 2 (note that this figure only shows the major positions within the Group) and is taught extensively to emergency medical services providers throughout Virginia as part of Mass Casualty Incident Management training.

Figure 2. The Mass Casualty Incident Management Medical Group



### **COMMAND AND CONTROL**

What you do as a Public Health official at the local level is not done in a vacuum. What you see, what actions you take, and what resources you need is information someone else needs to help you do your job. So one of the most important functions you have in a bad event is talking about it.

#### Local Reporting and Conduits For Talking To State Government

This situation is complicated by the fact that who you talk to depends upon where you are sitting at the moment. Incident command systems are very hierarchical. Theoretically, if you are working in a Public Health Group, your Group can only communicate with the Operations Section Chief, who decides whether your information is important enough to take to the Incident Commander. And the Incident Commander decides whether it is important enough to send to the local emergency operations center. Finally, the staff of the local emergency operations center determines whether it should go to the state emergency operations center in the daily situation report (where hopefully it is passed to the Health and Medical duty officer). Your report is filtered at least three or four times in this process; any of the filters can decide it is not important enough to pass on; and any of the filters can introduce error.

However, it is important to remember that you are also state employees with a responsibility to the general health of the Commonwealth. Obviously the Department of Health sets its own internal reporting procedures. If nothing else, a direct call to the Virginia Office of Emergency Medical Services Emergency Support Center will reach a duty officer who understands the importance of your information, usually from 0600 to

2300, seven days a week during the event. In addition, if emergency medical services task forces are deployed to an event, their Coordination Teams are specifically instructed to work with and support Health Districts and local Health Departments.

### Virtual Communications

The Office of Emergency Medical Services also uses The Virtual Emergency Operations Center, an Internet site staffed by volunteers with extensive emergency management backgrounds, to provide current disaster information and resource coordination. This site can be accessed at <http://www.virtualeoc.org> and will support any Health District on your request.

## **RESOURCES**

The Federal Emergency Management Agency's Internet site for the Emergency Management Institute's wide range of independent study courses available online and as paper products: <http://training.fema.gov/EMIWeb/ishome.htm>. Two specific courses of value are:

IS-195 Basic Incident Command System  
IS-275 The EOC's Role in Community Preparedness, Response and Recovery Activities

National Fire Protection Association standards set practice and are ordered from: [http://www.nfpa.org/Codes/NFPA\\_Codes\\_and\\_Standards/List\\_of\\_NFPA\\_documents/list\\_of\\_folders.asp#top](http://www.nfpa.org/Codes/NFPA_Codes_and_Standards/List_of_NFPA_documents/list_of_folders.asp#top). Two applicable standards are:

NFPA 1561 Standard on Emergency Services Incident Management System  
NFPA 1600 Standard for Disaster/Emergency Management and Business Continuity Programs

National Fire Service Incident Management Consortium documents describing incident management systems for specific events (structural fire, emergency medical, hazardous materials, wildland fire, etc.) are available from Fire Protection Publications at: <http://www.ifsta.org/store/default.asp?categoryid=14>.

Walter Green's book, Command and Control of Disaster Operations, is available at <http://www.upublish.com/books/green3.htm> either as a hard copy or as a .pdf file.

Linda Young Landesman's book, Public Health Management of Disasters, is available from the American Public Health Association at <http://www.apha.org/media/abc2.htm>.

Extensive information and training materials on incident command are available from the National Wildfire Coordinating Group at <http://www.nwcg.gov/pms/pms.htm>.

