TACTICAL

Topic Area: Planning (Command and Control Architecture)

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he command and control architecture is the framework that supports an entire organization. Without a sturdy, self-supporting infrastructure, the organizational system assigned to handle emergency situations will evolve along paths of least resistance. Chains of command and communication networks will be disorganized, confusing and inefficient. By planning this architecture in advance, the tactical organizations that are built upon it will be faster and easier to emplace, and will be able to quickly expand and contract as the situation demands. They will be amenable for large and small-scale operations and be able to effectively incorporate the resources from different agencies and disciplines. When designing this command and control architecture, there are eight issues that must be considered.

First, there must be common terminology and procedures. This may sound trivial, but it has acute significance when multiple agencies and disciplines are involved. Depending upon who you talk to, a "line" means different things. In law enforcement, it describes a tactical formation; in the fire services it describes a water hose, and search and rescue workers use it to describe a rope. This serves as a good example of the role terminology plays in increasing or reducing confusion. All police and fire agencies depend upon mutual aid for large-scale civil disorders and the like, and many smaller agencies depend on each other during complex tactical operations such as high risk warrant services or hostage incidents. It is essential that compatible, if not common, terminology and procedures be established to ensure a coordinated response.

Second, the organizational structure needs to develop in a modular fashion. In addition to the command and control function, there are at least three areas that must be developed and assigned in every tactical operation:

- The intelligence section is assigned the duty of providing accurate and timely intelligence to the commander. It is responsible for gathering, recording, evaluating and disseminating all pertinent information relating to the incident.
- The operations section provides the coordination and implementation of the tactical response, and is responsible for the planning, assignment, coordination, execution and evaluation of all tactical missions.
- The logistics section obtains and provides support,

including personnel, as the operation progresses. This component is responsible for the acquisition, identification, tracking, staging and recovery of all personnel and logistical assets used in the operation.

If the operation remains small, a single individual may handle all of these areas, but larger operations will require that at least one subordinate is assigned to each one. Every module must be capable of adding personnel and equipment as it becomes necessary. Extremely large, complex or prolonged operations may require an entire component wholly committed to a single function.

Third, and perhaps most important, the infrastructure must establish a unified command. Many incidents have no regard for jurisdictional boundaries and a number of disciplines may be required to handle large tactical operations. Fire, police, military, disaster and health service organizations are often called upon to work together. The unified command structure requires that the implementation of the plan be accomplished under the direction of a single individual who is designated the Incident Commander.

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Fourth, every incident needs a plan. Although smaller incidents do not require a written plan, some guidance is always necessary. Without a plan, the Incident Commander is unable to seize the initiative and the effort is doomed to one of reaction. Generally, a written plan should be considered essential whenever resources from more than one agency are used, or when the incident is prolonged and requires changes in shifts of personnel or equipment.

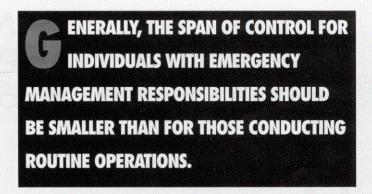
Fifth, the architecture must provide for a manageable span of control. This refers to the maximum number of personnel that can be effectively supervised by a single individual. It is particularly important, since operations often grow faster than a commander's ability to handle them. The commander soon becomes inundated with decisions that should be made by subordinates. This characteristic is often referred to by its acronym OBE, for Since a commander loses the Overcome By Events. ability to direct the efforts of the organization as a whole when he becomes overwhelmed with the details of one or two functions, OBE is a condition to be avoided at all costs.

One way to avoid OBE is by reducing the span of control. Generally, the span of control for individuals with emergency management responsibilities should be smaller than for those conducting routine operations. Factors such as the nature of the incident, proximity to each other, complexity of the tasks, hazards and safety factors all exert considerable influence on the number of subordinates an individual can effectively supervise. The early identification of a maximum span of control will aid in assigning subordinate commanders and avoid an OBE condition. Generally, this has been determined to be about five subordinates.

Sixth, predesignated incident facilities need to be established. Critical facilities such as evacuation shelters, command post locations, staging areas, helicopter landing zones and trauma centers need to be identified. Checklists for persons to be notified, as well as procedures for opening buildings, need to be developed. Simple things like "Who has the keys?" can be showstoppers without prior arrangements. By making these

preparations before they are needed, memorandums of understanding, leases, contracts and insurance matters can be completed without further burdening an Incident Commander.

Seventh is a need for comprehensive resource management. Besides identifying potential resources, a plan needs to be developed for efficient distribution and accountability of equipment and personnel. Some resources have a limited service time and replacements must be considered. For example, batteries may have to be recharged or replaced. Others consume fuel, coolant and lubricants, or perhaps toner, ribbons and paper. Maintenance may also be necessary. Still others require special operator skills. For instance, generators, heavy equipment and aircraft all require specially trained personnel. In addition to equipment, personnel must be fed and relieved. Sanitation facilities may be required or transportation arranged.



Keeping track of all these factors requires assigning a current status condition to every resource to allow for maximum efficiency. Some method of accountability must be in place to avoid losing the equipment or over-fatiguing personnel.

Eighth is a requirement for an integrated communications system. Communications systems need to provide reliability, speed and security. Although all three are critical, reliability is, by far, the most important. In the military environment, communications is called the "voice of command," for when a commander cannot communicate, he can neither command nor control. As a matter of fact, this concept is seen as so intrinsic and essential in the command and control function, it is often abbreviated as C3, for Command, Control and Communications. The infrastructure needs to identify the tactical channels necessary to function. This frequently includes a tactical channel, a command channel and a logistics channel. Like the modular organization it serves, each of these channels supports a function and needs to expand or contract to meet the needs of the organization as a whole.

