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Planning in the emergency operations center

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ABSTRACT

Planning is a deliberate process that often times calls for the integrated efforts of numerous individuals from a variety of disciplines. From my personal experience, nowhere is this more apparent or critical than with the Emergency Operations Center (EOC) during a disaster or catastrophe. During an EOC activation the planning function is critical to the success of field operations and overall situational awareness. The planning function is conducted within very stringent timeframes and often with limited information. While creating a plan on time is important, making sure the plan is as accurate as possible is essential.

One of the most difficult hurdles to overcome in EOC planning is getting the opportunity to actually perform to function. Many times EOCs do not activate for weeks or even months. This constrains those who are charged with actually participating in the planning process. There are avenues that can be taken to address this problem but it all comes down to getting into the environment and doing the work.

1. Introduction

A county-level EOC is made up of representatives from a range of organizations including local government, fire, police, hospital, utility, and volunteer organizations. These ad hoc teams are tasked with coming together during an emergency to obtain and deliver resources to first responders on the scene of the disaster, as well as coordinating the transportation of casualties, tracking of fatalities, and establishment of shelters [35]. Challenges associated with coordinating crisis response are well documented via lessons learned from real-world disasters [8,33,39]. When one witnesses the response activities associated with any large-scale disaster, they often observe large amounts of equipment strategically located geographically throughout the area. Scores of first responders perform differing tasks ranging from extinguishing fires to conducting dramatic aerial rescue operations. Additionally, a variety of public, private, non-profit and volunteer organizations come together to provide shelter, food, ice, and other essential needs within the communities affected.

These actions, for the most part are supported by those who are working behind the scenes to supply the resources required in order to be effective. They don't garner the headlines, conduct extensive in depth interviews, or even seek acknowledgment of their efforts. They simply come to one place so that they can bring all the pieces together to meet the needs of their friends, families, and neighbors. These individuals staff the central coordination point for any disaster, the Emergency Operations Center (EOC). This article briefly highlights one of the most important aspects to the success of any EOC, planning. While there are numerous types of EOCs around the world, this article will be focused on the role of the EOC at the local jurisdiction level in the United States. This article is based upon both the personal experiences of the author, as an emergency manager and responder over many years in the Commonwealth of Virginia and a review of the literature.

2. EOC management structure

Local EOCs in the United States today come in all shapes and sizes. Likewise, EOCs have various ways of conducting business during an activation. Unlike field operations that are

Abbreviations: EOC, Emergency Operations Center; VEOC, Virtual Emergency Operations Center.

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conducted in the United States, which may function within a standard Incident Command System format (mandated if the jurisdiction accepts any federal preparedness funding), EOCs have no established standardized structure to manage their operations. These temporary systems often consist of diversely skilled individuals working on complex tasks (frequently across functional, group, or organizational boundaries) to achieve specific objectives in a limited timeframe [20]. Crisis scenarios are, for any management structure, unique events that do not fit with an organization's history, policy, or procedure; if they did, they would not be a crisis [3].

To deal with these challenges, a variety of organizational structures may be implemented, which are generally customized to meet the needs of the jurisdiction. Research suggests that to the extent an organization has the capacity to implement preplanned organizational solutions rapidly enough to meet the more predictable aspects of an evolving incident, potential reaction speed is increased, depletion of cognitive and other resources is reduced, and the probability of organizational dysfunction is diminished [2]. Hence, the success of an EOC is accomplished through those activities that take place not only during but prior to an actual large-scale emergency or disaster occurring.

There are several EOC organizational management structures being utilized throughout the United States. Predominantly, these consist of the Multiagency Coordination Group (MAC), the Emergency Service (Support) Function (ESF) format, and the Incident Command System (ICS) [47]. A MAC group is made up of organizational, agency, or jurisdictional representatives who are authorized to commit resources and funds. Members may also come from organizations such as the local Chamber of Commerce, Salvation Army, American Red Cross, faith based charities, and other volunteer/non-governmental organizations. The MAC group works well when there are no other options or systems available to provide the necessary coordination and decision-making that is needed [47].

The ESF model is a favorite among many local jurisdictions and State EOCs because it is the same structure that the federal system is built upon. The ESFs were created to provide structure for coordinating interagency support for a federal response to an incident. As such, each ESF has both primary and supporting agencies. An ESF primary agency is a federal agency with significant authorities, roles, resources, or capabilities for a particular emergency function; ESFs may have multiple primary agencies. An ESF primary agency serves as a federal executive to accomplish the ESF mission. ESF support agencies are those entities with specific capabilities or resources that support the primary agency in executing the mission of the ESF (Federal [14]). ESFs help the federal government group functions most frequently used to provide federal support to States and federal-to-federal support, both for declared disasters and emergencies (Federal [14]).

The Incident Command System (ICS) is a standardized, all-hazards, incident management approach that allows for the integration of facilities, equipment, personnel, procedures, and communications operating within a common organizational structure. The structure enables a coordinated response among various jurisdictions and functional agencies (both public and private), and establishes common processes for planning and managing resources. It is an organization with a defined chain of command, and an established paradigm, in which multiple entities carrying out various responsibilities during the incident can contribute to the decision-making process. Within the structure, overarching objectives are established at or near the top of the hierarchy. These objectives are then used as a basis for further decision-making, and to provide direction for those activities that occur at the other levels of the organization. The Planning Section (which is part of the General Staff of the ICS organization) helps to develop the action plan to accomplish the organizational objectives for the specific incident being addressed. As one of the section's core responsibilities, it collects, evaluates, and disseminates information about the development of the incident, as well as the status of resources being utilized [2].

Regardless of the structure used in the EOC, the goal is to develop a high-fidelity and shared mental model to help personnel in the EOC coordinate their own behaviors and solve problems presented by complex and fluid task environments [44]. However, a number of factors tend to limit, fragment, and create discrepancies among operational representations. For instance, at the individual level, the cognitive limitations of human beings preclude the comprehensive representation of a complex activity system by any of its participants [1,48]. Moreover, individual differences in backgrounds and intellects can affect the content and quality of different people's interpretations of the same situation. For instance, new public safety responders can have extreme difficulty in comprehending emergency situations due to their lack of experience with them [2]. This creates a challenging environment in which individuals, from diverse and multidisciplinary backgrounds, come together during times of increased personal and organizational stress to accomplish the common goal of protecting and helping their community.

3. Planning in the EOC

Disaster response planning conjures up many images. Many businesses have adopted Business Continuity Plans in the anticipation that, should their enterprise be exposed to some natural or manmade catastrophe, they will be well positioned to meet their basic needs. Local governments develop Emergency Operations Plans to provide a foundation from which they will operate during a time of disaster; and households are encouraged to create family and individual plans to help guide their response to a catastrophic event. The most significant difference between these planning efforts and the planning that is conducted in the EOC, is time. Balancing the need for a priori schemes, roles, and intentions with the flexibility to respond to fluid conditions is at the heart of much of the difficulty that is found in immediate disaster planning and response [24]. This is not only true in relation to those who are in the field and dealing directly with the dynamics created by the disaster but by those whose charge it is to anticipate the needs of those responders in the field as well as the community as a whole.

Like many endeavors, the actual planning process and the documentation produced, are dependent upon who is engaged in the activity [40]. Disasters often dictate that functional groups be brought together because no one individual has all the skills and talents necessary to put a plan together on their own. Good operational planning draws upon the resources of individuals who can convert concepts into reality. Thus, organizations