Emergency Operations Centres in an Era of Terrorism: Policy and Management Functions

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Introduction

The jurisdictional Emergency Operations Center (EOC) is the centre of co-ordination, resource assembly and deployment, and management strategy in large-scale disasters (Perry, 1995). It is the place where technical emergency management directly interfaces with elected political authorities to form legitimate emergency authority and expertise. Importantly, the EOC co-ordinates the multi-agency, intergovernmental response to an incident into an effective and efficient effort. The EOC is also the focus of incident information and the node through which information passes to the mass media and the public. Yet the use of EOCs, particularly in smaller jurisdictions, remains sporadic, sometimes improvisational and poorly understood (Wenger et al., 1989). When the New York EOC was crushed under rubble on 9/11 2001, serious challenges arose in co-ordinating the resources for consequence management. U.S. Homeland Security Presidential Directive number 5, a direct response to multi-jurisdictional, multi-organisational challenges arising in New York, established a national protocol for incident management. While the efficacy of this directive is presently unknown, the problems with EOC establishment and use are long standing (McHugh, 1995). An audit of United States local and state jurisdictions in 2002 indicated that a variety of command and control difficulties persist in connection with EOC implementation (United States General Accounting Office, 2003). There is also some information that suggests that EOC standards and use are challenges in the United Kingdom (Alexander, 2003), Europe (Trigglia, 1996) and Australia (Emergency Management Australia, 1996).

Sporadic and improvisational use of EOCs may be traced to three factors. First, large incidents that absolutely require an EOC are infrequent and small incidents can be handled with minimal EOC functionality or with the EOC functions assumed by other organisations. Second, local emergency managers sometimes take a narrow view of the jurisdictional emergency management system, failing to include needs for political concurrence with the response and citizen needs for information normally met in an EOC. Finally, many emergency managers do not fully understand the functions and structure of the EOC.

As a management structure, the EOC becomes crucial when managing a disaster event requires the resources of many agencies that may be local or may come to the jurisdiction from elsewhere (Tierney, Lindell and Perry, 2001). Historically, these large-scale incidents are low probability events such as earthquakes, volcanic eruptions, wildfires, some floods, and some technological accidents (nuclear power plants). It is now necessary to add to this list terrorist incidents involving incendiary explosives, biological agents, chemicals or radiological threats (Perry and Lindell, 2003). Terrorist attacks require special planning and resources for consequence management that must include extra-community agencies with specialised missions and equipment (Alexander, 2002). Furthermore, terrorism response elevates the need for communication with the public and for obtaining concurrence of political leaders on management strategy (Fischer, 1999). Both of these circumstances create the situation where an effective EOC is absolutely needed for successful consequence management (Rudman, 2003). Coupled with the fundamental unpredictability of terrorist attacks (Pech, 2003), these factors emphasise the need for local emergency authorities to enhance their jurisdictional preparedness through the creation and regular, appropriate use of emergency operations centres. The purpose of this article is to review the jurisdictional policy context of the EOC, identify the functions performed and to describe the basic structure and operation of an EOC. Throughout the discussion, special attention is given to non-traditional functions that must be introduced into the EOC to cope with terrorism threats.

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Jurisdictional setting of the EOC

In any jurisdiction, an emergency operations centre is a unit with community-wide responsibility for co-ordinating disaster response (Perry, 1991). In an era of terrorism, this unit is particularly important because of its relationship to political authority, the incident management system, and the need for co-ordination across multiple jurisdictions (through their EOCs). Relative to the jurisdiction, the EOC serves a central management role, ideally ensuring that all jurisdictional resources that are needed to address a threat are available and used. In addition, the EOC is a policy centre where emergency managers have access to elected and senior administrative leaders for council regarding the emergency response and the implications of protective actions for the citizenry. This political connection is important in very large-scale natural and technical disasters, but critical in terrorist incidents that raise unique policy questions. For example, in a biological terrorism incident, public health and emergency authorities may need to implement large areas of quarantine and forced evacuation and enforced drug interventions to stem exposures and reduce disease spread (Fischer, 2000). Political and legal authority is required to implement such measures in most Western countries, and the notion of mandatory inoculation raises serious questions about citizen rights under Law. Thus, there is an intersection of disaster management with Law and public policy that requires rapid, close and constructive involvement of political authorities. This kind of involvement is best achieved at the level of the Emergency Operations Center.

The emergency operations centre is intimately related to the incident management system (IMS) employed by responder personnel (Perry, 2003). The IMS is the organisation used by field responders — fire-fighters, hazardous materials teams, emergency medical services personnel, police and others — who engage the agent-generated and response-generated disaster demands at a geographical scene. Agent-generated demands arise from the impact itself (for example, the need for rescue of victims trapped in building rubble following earthquakes or terrorist bombings). Response-generated demands are associated with mounting a response (the need to assemble food and medical care at victim sheltering locations or to move a technical rescue unit to a scene). Traditionally, the EOC is the jurisdictional umbrella organisation that takes threat information generated through the IMS and acquires and directs appropriate resources to the scene. Terrorism threats involving Weapons of Mass Destruction (WMD), or biological or radiological agents introduce the need for a new EOC role. That is, in those situations where there may be many scenes of impact operating simultaneously through the community, or in the case of the secret release of a biological agent where their may be no geographically defined scene, the EOC becomes the centre for command and response. Thus, the EOC assumes not just the traditional role of assembling resources for an incident scene, but also the command responsibilities associated with decisions regarding direct threat abatement and deploying agencies and personnel.

In any disaster of great magnitude, numerous units with the title EOC can exist. In large municipalities, fire and police departments often operate their own EOCs (more properly called command posts). It is also common for public works or transportation departments to maintain EOCs. The important distinction, however, is that these EOCs focus on the management of single organisations. The directives for response policy and operational assignments come from the jurisdictional EOC. The departmental EOCs accept such directives and call upon their own standard operating procedures (or devise ‘on-the-spot’ procedures), and then dispatch only their own personnel and resources. Such departmental EOCs have representatives at the municipal EOC who serve as a liaison function.

As one moves to disasters with regional scope of impact, there are layers of EOCs that represent the jurisdictional structure of the region. Multiple jurisdictional EOCs interact with the objective of regularising or making explicit communication and action links. Each EOC assembles, deploys and controls the resources within its jurisdiction. As the size of an impact area and the magnitude of consequences increase, it becomes necessary for multiple jurisdictional personnel and resources to operate in the same jurisdiction at the same time. This multi-jurisdictional command and control issue is virtually always present in terrorist incidents, particularly those not involving a geographically localised scene. In most cases, EOC activation is a signal that agent-generated and response-generated demands either have exceeded or will soon exceed jurisdictional capacity. While some extra-jurisdictional resources constitute supplies that are largely directed into local command and control, many others cannot be so simply absorbed. For example, extra-jurisdictional hazardous materials teams and special rescue teams typically come with their own command structure. Public health authorities come with both legal authority and special technical responsibility. National authorities also retain control over their own personnel (teams) deployed in a local jurisdiction. Thus, one can conceptualise the larger command and control issue as a collection of linked emergency operations centres. This preserves the principle of elected official control, because in state and local
governments the EOC decision-makers are ultimately responsible to the elected leaders of the jurisdiction.

Functions of the EOC

The preceding discussion addressed the shape of and demands placed upon an EOC in general fashion. The more specific nature of the demands can also be seen in terms of the functions that an EOC is expected to serve for emergency management, political management and citizens. Quarantelli (1979) elaborated six primary functions that an EOC should be able to accomplish. These are co-ordination, policy making, operations, information gathering, public information and visitor hosting. These functions are relevant whether the command function is located at an incident site or centred in the EOC itself.

The first function, co-ordination, involves assessing the disaster threat in terms of both agent-generated and response-generated demands and marshalling the available resources to act in concert to counter the threat. Consequently, the EOC is responsible for ensuring that responder organisations are aware of one another’s missions, responsibilities and areas of operation (Sorenson, Mileti and Copenhagen, 1985). The EOC commander uses the municipality comprehensive emergency plan as a framework for accomplishing co-ordination. It is in this plan that one finds the specified mutual-aid agreements, task designations for responding organisations, chains of command and enumeration of available resources. Co-ordination is therefore facilitated and framed (pre-planned) before a disaster strikes and codified in the plan. Within this framework, the EOC commander must creatively and spontaneously address implementation and mobilisation problems of the moment, but the bases of co-ordination are established in the planning process and crystalised through experience with disaster exercises or drills (Ford and Schmidt, 2000).

The second function served by the EOC is policy-making. Policy concern operates at two levels: a disaster action plan that deals with technical emergency management issues and the integration of needed political and legal authorities. Together these levels of policy-making define the creation of strategy for the overall community response to a particular disaster event. Even in the case of biological terrorism, where command is vested in the EOC, these policies tend to be broad decisions that affect the nature of the response itself, rather than specific operational decisions. Once again, the comprehensive emergency plan should specify many such policies for responding to particular disaster events. Much of the policy, however, may be generated by situational demands (for example magnitude, timing, or specific impact area of the threat) and consequently not be covered in existing plans. The second component of policy-making – the political and legal dimension – is accomplished through collaboration of emergency management authorities with elected and administrative leaders. The elected and administrative leaders hold the ultimate decision authority over many disaster measures that might be imposed upon victims in a given incident. These measures include such actions as evacuations, quarantines, certain medical treatments and so on. In this case, emergency managers present the option and the rationale and await concurrence by political authorities. Once approved emergency managers implement the measures, with little visible involvement of political leadership. In other cases, when disaster related measures affect direct victims and citizens who are not yet victims, the political consultation may take a different form. For example, in a terrorist incident involving the use of smallpox (or another contagious agent), it may be necessary to quarantine non-symptomatic citizens living in an area adjacent to an outbreak and subsequently evacuate them to another area. In the United States, the British Commonwealth or Europe, such actions may appear to be particularly invasive (even in an emergency). Thus, implementation would probably require emergency authorities for the confinement and evacuation, but also the visible approval and oversight of legitimate elected authorities.

The third function of the EOC is to oversee or support the conduct of disaster operations. Typically the constellation of disaster agent-generated demands changes as time passes from the time of impact; demands associated with initial impact may decline while new demands arise from secondary threats. Thus in large floods, the initial concern with rescue and evacuation give way to concerns with public health associated with potential overflow of sewer systems, undermining of structure foundations and contamination of drinking water systems. This environment means that response operations must adapt and consequently managerial needs also change. Hence, to properly execute the management function, the threat environment must be continually monitored and response resources (including personnel) continually reviewed and re-deployed to insure optimum community-wide management of the disaster impact.

The fourth function of an emergency operations centre deals with the gathering and interpretation of information. The focal information pertains both to the incident demands and activity and to available resources. The scope of information gathering by the EOC is necessarily
very broad. Damage assessment information is particularly critical and continues throughout the incident. The EOC also gathers information on the success of the execution of the overall disaster response. This includes information on the timing and effectiveness of operational decisions and deployments. These data are not only useful in the short run to adapt managerial strategy to event demands, but also in the long run (after-action assessments) to provide feedback to improve subsequent performance. The EOC is also a clearinghouse for information; it collects and collates information on the activity and success of different responder agencies and relays the information to other responder agencies with related tasks. Although related to the EOC co-ordination function, such information relay provides different responder organisations with a data base upon which to make specific deployment and strategy decisions. Finally, the EOC is often queried by elected officials and other jurisdictional EOCs regarding the nature and progress of disaster response. Thus, the jurisdictional EOC must collect and disseminate a variety of types of information as well as preserve it for future use. This does not, of course, mean that the EOC should become a sort of library; it simply emphasises that some form of record keeping should be devised and utilised during EOC activation.

Another important function of the EOC is to disperse public information. While the need for public information is usually obvious, it is sometimes separated from the EOC. Such arrangements invite difficulties associated with misinformation and ambiguity, to the extent that those who disseminate information are not directly connected to the principal source of accurate response data; the EOC. Incident managers in the field should not be burdened by this information need, and the EOC can be designed to effectively accomplish it. This does not mean that the mass media or public information officers have to be set up in the same room with the EOC commander and personnel. Usually the public information system is placed near EOC operations but not co-located. With regard to public information needs, two audiences are of principal concern: the general public and the public-at-risk. Another important audience that sometimes serves as a buffer between the EOC and other publics is the mass media. Indeed, the mass media form an important channel through which disaster managers can disseminate information. Historically, it is also known that the mass media will disseminate information on its own if disaster managers fail to co-operate and provide information (Lindell and Perry, 1992). Thus, effective disaster management virtually requires consideration of the mass media.

Forming an information dissemination function connected to the EOC can solve a variety of difficulties that commonly arise in disaster management (Dynes, 1994). One such difficulty stems from multiple and conflicting messages being disseminated regarding the threat and the progress of the response. When the EOC forms the principal point of contact with all media, the probability of this happening is much reduced. It is critical that responder organisations in the field do not become sources of independent contact with media. By centralising this function in the EOC, and placing it under the supervision of a public information officer (PIO), one insures that consistent and accurate messages are disseminated, and at the same time makes it easier for media to obtain authoritative information. The dissemination of accurate information to the public at large can also reduce demands on the emergency response system. Accurate and timely information dissemination insures that outsiders know where the impact area is located and how to avoid it, thus reducing problems associated with convergence (Wenger and James, 1994). Also, complete information dissemination insures that outsiders know where friends and relatives are located relative to impact, reducing the apparent need to telephone, visit or ‘rescue’ such people (which potentially interferes with operational missions).

With respect to information dissemination to the population-at-risk, the PIO shares responsibility with managers of organisations charged with such generic functions as warning, evacuation and sheltering. One key feature of such communication is that response authorities must develop a capacity to disseminate information that permits citizens to determine whether or not they are actually in danger. This procedure was not well handled, for example, during the 1979 reactor accident at Three Mile Island (Pennsylvania), and resulted in large numbers of citizens defining themselves to be in danger when, in technical terms, they probably were not (Perry, 1985). From the perspective of disaster operations, inappropriate definition of risk or danger creates substantial problems. For instance, when evacuations are involved, if too many people define themselves as in danger, important exit routes can be clogged (slowing the time needed to establish protection) and victim shelters can be overloaded (taxing the response system further by increasing response-generated demands). An appropriately co-ordinated information dissemination effort can substantially reduce such challenges to emergency managers.

Finally, the sixth function of the EOC is to develop a capacity for hosting visitors in a constructive fashion. EOC managers sometimes underestimate the number of visitors (usually government VIP’s and elected officials) that
EOC structure and operation

There are multiple models for structuring EOCs, many of them based on specific agency representation (Perry, 1995). The approach described here is for an EOC that is organised to follow, complement and support the Incident Management System (Brunacini, 2002). In this case, the EOC is a place that brings together communication capability, logistical and personnel support that represent all of the resources of the jurisdiction, including the authority to make decisions in crises. While it is assumed that the EOC is a permanent structure, in smaller jurisdictions it is possible to assemble the components on an expedient basis. As shown in Figure 1, the local government EOC is directly linked to the City or County (in the U.S.) Manager and elected officials who provide policy and advisory leadership. The EOC collects representatives of a variety of jurisdictional departments, outside agencies and private organisations who command resources relevant to crises. The emphasis, however, is not upon the agencies or individuals, but upon the functions served in the EOC. The precise personnel who are called to the EOC for any given incident depends upon the demands posed by the incident. Thus, the structure of the EOC resembles the structure of the IMS and has the same capability for matching incident needs. For example, in a terrorist incident that does not involve radioactivity there would be no need for expertise in this area (for example a representative from a Radiation Regulatory Agency). The description that follows reflects a filled out EOC organisation and consequently is generic; the composition of the EOC is event dependent.

There are two common patterns for command of a jurisdictional emergency operations centre (Michaels, 1996). In one pattern, the EOC commander is the municipal emergency services director or co-ordinator. This person is technically trained in hazard management and consults with EOC staff, devises policy for disaster response strategy, consults with municipal authorities for policy approval when appropriate, and implements policy. This approach involves direct contact between municipal authorities and the EOC commander. A second pattern of EOC management involves the use of a ‘disaster management committee’ or an advisory body in addition to the EOC commander. Often the advisory group is headed by a chief elected official or chief administrative official and includes the directors of key departments in the jurisdiction, for example police, fire, public health and public works. Disaster response policy may be devised by the EOC commander and reviewed by this group, or it may be created jointly by the EOC commander in consultation with this group.

In terrorist incidents, EOC Command normally includes a WMD specialist. This individual provides interpretation and specialised chemical, biological and radiological agent information to EOC Command, elected officials, administrative officials and the PIO regarding the incident response, needed resources, event consequences, and other issues. Through command and its connection to jurisdictional elected and administrative leaders, the EOC creates a central location of authority, expertise and information to address a major crisis and insures that response personnel have appropriate, timely resources to execute their functions. The EOC itself is organised in terms of the IMS to insure that all jurisdiction resources can be made available in a crisis, and that extra-community (particularly from other levels of government) resources are obtained when needed. Particularly for large-scale incidents, the EOC is the primary focus of policy-making and the hub through which information and resources flow. In geographic scene-based incidents, effective operation of the EOC insures that all resources needed to meet the demands of the incident move quickly to the Incident Commander. In incidents without a geographic scene, EOC Command performs functions identical to the IC in a scene-based incident.

The EOC structure is tailored to fit the nature and magnitude of the event being managed. The EOC is activated under a variety of special conditions, including those incidents where the impact area involves a significant portion of the jurisdiction or when many specialised resources will be needed in incident management. Typically, the EOC may be activated by any of several individuals or their authorised representatives:
the City or County Manager, Fire Chief, Police Chief, or Emergency Management Co-ordinator (Hoetmer, 2003). Activation may be full or partial. In most jurisdictions a fire or police department field Incident Commander can achieve activation through the department chief or by acting as the chief’s authorised representa- tive. When the EOC is activated, the jurisdiction emergency management co-ordinator (if this person did not initiate the activation) receives the first notification. The emergency management co-ordinator then decides (based upon consultation with appropriate officers) what services and functions are needed, thereby tailoring the EOC to the event. In most jurisdictions, a dispatch centre using digital paging systems makes notifications.

Continuing through the elements of Figure 1, below the level of EOC Command one finds the four standard sections of the IMS — Administration, Planning, Logistics, and Operations — plus a PIO Section. The Public Information Section is administered by the jurisdictional PIO who coordinates with all other agency PIOs to insure consistent, appropriate and timely public information. The placement of the EOC PIO section varies by jurisdiction. Usually it is near enough to the centre of operations to allow easy access by jurisdictional officials and EOC staff, but not so close that media representatives can directly observe command unsupervised. The PIO normally establishes a location near the EOC for media representatives and holds regular press briefings. Most jurisdictional EOCs include a citizen information hotline or communications centre designed to receive citizen calls and disseminate accurate crisis information. The placement of this function depends upon the availability of telephone and communications equipment.

Each of the EOC sections constitutes a grouping of functions and collects additional functions (assignments), depending upon the nature of the emergency or disaster. In general, the Administration Section focuses upon legal issues (with branches for claims and compensation and a legal advisor), shelter for victims (with the Red Cross, the Salvation Army and any other shelter organisation present) and liaison with agencies.
outside the immediate jurisdiction. Most jurisdictions maintain formal agreements with the Red Cross or Salvation Army to staff and operate mass shelters in a variety of disaster environments (natural, technological, and now terrorism-related threats). Mass shelters house and feed (1) victims (especially those in a WMD incident who are decontaminated and treated but cannot return to their homes; and (2) citizens who were displaced from their homes due to proximity to the scene of operations (or possible WMD or hazardous materials agent vulnerability). Under extremely special circumstances (e.g., an exceptionally large number of casualties, a volatile scene, presence of secondary devices at the scene) victim medical treatment and other functions may be located at shelters. In most cases, behavioural health personnel from a private organisation (e.g., Red Cross) or the jurisdiction will be present at shelters. The military liaison branch deals with the National Guard, National Disaster Medical System, and any other needed military contacts. The outside agency liaison branch representation varies depending upon the nature of the event and the size and duration of impact. In long duration events or in some WMD terrorist incidents, where specialised, frequent contacts may be required, this branch may include representatives from the emergency management agencies of higher level jurisdictions.

The Planning Section executes the planning function for the incident, managing risk assessment data, forecasting the likely agent demands and response demands, and managing the display of data and consequence analyses in the EOC itself (Frosdick, 1997). It is through the planning section that information for requests for emergency declarations is gathered. Most large EOCs use some form of incident management software, including GIS capabilities (Carter, 1991). The Planning Section normally manages this system, although it serves all participating Sections. Figure 1 shows three standard branches under the Planning Section: situation assessment, damage assessment and visual display. Depending upon the environmental threat, the Planning Section also includes public health resources and environmental surety (post-impact cleanup and restoration) resources. Each representative serves as the point of contact with home agency resources for the emergency response. In the U.S., State health departments usually have capabilities for laboratory analysis, epidemiological investigation, tracking, and medical treatment guidance. State health departments also serve as the direct contact with the U.S. Centres for Disease Control and Prevention. In WMD or disease epidemic incidents, it is important for local emergency authorities to understand the legal powers of health departments, which vary among jurisdictions. In most cases, health departments have the authority to legally make the determination to order mass prophylaxis or other treatment for the public. Finally, the Planning Section maintains a branch for environmental protection if it is expected that the disaster agent may affect and linger in the air, soil or water. This branch provides decision guidance regarding hazardous materials issues (potentially including deployment of state hazardous materials teams), agent identification, environmental consequences and cleanup.

The Operations Section provides principal liaison with the scene in geographically focused incidents and, in disasters without a scene (or with many small scenes), controls operations from the EOC. Fire departments in the U.S. may offer service in a variety of disciplines: fire suppression, hazardous materials, technical rescue, emergency medical services, and ambulance services. While all jurisdictions offer fire suppression, smaller jurisdictions may not offer all of the other services. If not offered through a jurisdictional fire department, the Operations Section would contain branches for ambulance transportation, hazardous materials, heavy rescue (collapsed structure) and ambulance transportation (Kramer and Bahme, 1992). Figure 1 assumes that the jurisdictional fire department is full service. The police and fire department representatives in the EOC constitute a direct connection to the IMS operated at the scene or manage police and fire resources if there is no scene. The public works representative arranges for barricading, special hazards and other related functions. All large EOCs have the capacity to directly dispatch agencies and personnel or have special links to a dispatch centre (Coleman and Granito, 1988).

For disaster impacts that potentially produce high death rates or involve toxicological threats or those with high probability of psychological consequences, the Operations Section adds special branches. A Medical Examiner’s Office representative co-ordinates the actions related to handling of deceased victims at the scene and at hospitals. The behavioural health representative in the EOC (who may be a jurisdiction employee or a Red Cross or other agency staff member) co-ordinates with appropriate on-scene officers to insure that behavioural health resources are available for deployment. The behavioural health representative in the EOC is usually charged with activating agreements to expand the mental health personnel complement. This person also co-ordinates with the poison/toxicology branch to insure that specialised information regarding behavioural health manifestations of an impact agent (WMD) or other special concerns are transmitted to behavioural health professionals in the field. Behavioural health needs at hospitals
and emergency shelters are also co-ordinated through this position. Finally, the poison/toxicology branch provides medical and toxicological research to support the agent identification process, advises about decontamination requirements, and guides the on-scene treatment regarding antidote administration and other patient treatment in the field. This branch also advises local hospitals regarding decontamination and treatment, particularly for WMD agents.

The Logistics Section is directed at supporting operations. This Section almost always presents four branches that serve routine and self-explanatory disaster functions for responders: food and supply; fuel and equipment; facilities and transport; and communications. In incidents that potentially involve large numbers of injuries or illness, a Hospital Branch is added. The hospital representative serves as a point of contact and information exchange with regional hospitals. This individual co-ordinates with hospitals regarding threat (chemical or biological agent) and treatment information available from the scene, hospital bed availability and capacity, and hospital needs for supplies and pharmaceuticals. In WMD incidents, most EOCs add a branch for pharmaceuticals and medical supplies. This representative handles the movement of pharmaceuticals and supplies within the local emergency medical system and arranges for resources from the National Pharmaceutical Stockpile. If the local jurisdiction maintains a cache of pharmaceuticals, this person co-ordinates movement of that cache to a scene, hospitals or other locations. The pharmaceuticals and medical supplies representative is also responsible for making available specialised, pre-arranged equipment, pharmaceuticals and medical supplies to hospitals.

Conclusions

In closing, it is critical to comprehend that the incident management system and the emergency operations centre are designed to work together. In routine emergencies, the IMS gathers and controls needed resources at a scene. This function is also realised for disaster events that are not community-wide. As emergency or disaster demands at a scene escalate, response generated demands become enormous and the EOC works to support the scene. Parenthetically, whether one or more scenes exist, scene operations are best commanded from the scene not from an EOC. The EOC performs a more direct command role in diffuse scope of impact disasters, especially biological agent based terrorist incidents or incidents that require operations at many scenes simultaneously. Even in these cases, however, EOC command does not run scene operations, instead assuming responsibility for overall incident strategy and tactics.

In an era of terrorism, the EOC becomes critically important because the demands posed by terrorist events require large numbers of highly specialised resources and personnel for effective response. The EOC insures that such diverse resources (often provided from outside the stricken jurisdiction) are assembled and deployed effectively. The EOC model described here can serve emergency managers in at least three principal ways. First, it provides a basis of comparison by offering a standard of both structure and function against which existing community emergency operations centres can be compared. Such comparisons are useful in that they encourage scrutiny of the community response system and its needs. Second, the model can serve as a guide for communities constructing a new EOC. It suggests structure and functions that are possible and might be desirable to include in the design of a new EOC. Finally, the model presented here can serve as the basis of discussion of how an EOC fits into the larger disaster planning and response system of the community. By addressing this issue, community planners and responders become more aware of the interdependence of planning and response in their own community, and more sensitive to needs that routinely arise during and after disaster events.

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