LESSONS LEARNED 2020

October 1, 2020

Virtual Emergency Operations Centers: Lessons Learned from Hurricane Isaias

Emergency operations centers (EOCs) are a critical component of incident response for planned (e.g., Presidential Inauguration, sporting events) or unplanned (e.g., hurricanes, wildfires, civil unrest) events. In today's environment, where social distancing requirements limit in-person interactions, the public safety community must consider options for remote coordination. Jurisdictions are now exploring the costs and benefits of augmenting traditional brick-and-mortar EOCs with a virtual environment. While most agree new digital or hybrid models will never replace face-to-face interaction during emergencies, the incorporation of a virtual EOC (vEOC) model should be considered as agencies attempt to navigate changes to the public safety communications ecosystem created by the Coronavirus pandemic.

On October 1, 2020, the Cybersecurity and Infrastructure Security Agency (CISA) hosted its fourth webinar session –part of a 2020 webinar series. Participants heard from National Council of Statewide Interoperability Coordinators (NCSWIC) members, and colleagues from North and South Carolina, who shared their experiences implementing a vEOC in response to Hurricane Isaias and subsequent planned events. Speakers also shared best practices, and highlighted digital platforms utilized in their virtually coordinated response activities:

Moderator

- Adrienne Roughgarden, *CISA*

Speakers

- Greg Hauser, *NC SWIC*
- Charles Laird, *NC Department of Information Technology*
- Bill Suthard, *Charlotte, NC Fire Communications*
- Amanda Winans, *Emergency Management*
- Chris White, *Burke County, NC 911 Communications*
- Dennison Coomer, *South Carolina Department of Administration*
- Pam Montanari, *CISA*

WebEx

- Real-time video interactions
- Whiteboarding

Adobe Connect

- Digital dashboard
- Information consolidations
- Note pads, chat window, and ability to include audio & web

Bridge 4 Public Safety

- Mobile friendly
- Facilitated information dissemination and cross posting
- Potential replacement for chats/emails

SharePoint

- File storage and sharing

During the presentation, a variety of benefits and drawbacks emerged as speakers noted similar policy, funding, logistical, and security constraints. Several of the most common considerations are included below.

Benefits of a vEOC

- ✓ Accommodation of social distancing and other health requirements
- ✓ Elimination of physical space limitations – members can participate from anywhere
- ✓ Ability to include more personnel from a variety of disciplines
- ✓ Immediate availability – no waiting for team to assemble at a physical location
- ✓ Damage to or inaccessibility of physical EOC no longer a concern
- ✓ Removal of costs associated with a physical location

Drawbacks of a vEOC

- ! Loss of in-person communication
- ! Reliance on technology and utilities which may be unavailable during a major disaster
- ! Need for additional or augmented standard operating procedures and training personnel
- ! Increase in potential cybersecurity vulnerabilities
- ! Loss of proximity to other groups/disciplines limits access to quick updates
- ! Additional expenses related to technology (e.g., hardware & software costs)

Implementing a Virtual Emergency Operations Center

The following checklist outlines unique considerations an agency should review when implementing a virtual emergency operations center (vEOC):

Planning for a vEOC

- Maintain functionality for all involved technologies and other key functional components related to the vEOC by ensuring redundancy (i.e., developing Primary, Alternate, Contingency, and Emergency (PACE) plans that address both complete and partial loss of functionality [e.g., loss of audio, but not video])
- Train personnel on specific procedures related to a vEOC prior to an event occurring
- Establish commander's intent which provides an overview of operational goals and presents guidelines
- Develop standard operating procedures for information dissemination in a virtual environment that outline how data is shared and with whom, to include considerations of speed of dissemination and security of the information on digital platforms
- Ensure easy digital access to necessary forms, plans, and other items needed for documentation (e.g., Incident Command System [ICS] Form 205) – consolidate these items, as well as other relevant information, in a single virtual location (e.g., file sharing platform)

Participants in a vEOC

- Include adequate personnel to perform essential functions
- Determine if additional personnel not normally included in a physical EOC due to space constraints should be included, but limit additional participants to those with a legitimate "need to know"
- Consider using trainees to fill key roles
- Involve core personnel, to include:
  - Communications Coordinators (COMC)
  - Communications Unit Leaders (COML)
  - Information Technology Service Leaders (ITSL)
  - Auxiliary Communications (AUXCOMM)
  - Incident Command Technical Dispatchers (INTD)
  - Non-Governmental Organizations (NGO)
  - Commercial Partners

Technology Platforms in a vEOC

- Identify technology platforms and define uses for each. Potential uses include:
  - File sharing
  - Information dissemination
  - Information consolidation
  - Note pads
  - Chat rooms
  - Digital dashboards
  - Web links portal
  - Live/in-person video feeds
- Consider functionality/availability may be limited by an agency's current information technology capabilities
- Select platforms that are flexible and solve multiple problems
- Keep information up to date
- Platform Selection Considerations:
  - Is it easy to use (e.g., navigation, on-boarding users)?
  - Is it mobile friendly?
  - Who will be using the platform (e.g., strategic planners, tactical personnel)?
  - How quickly is information released? Is it in a format that is easy to digest?

Best Practices for vEOC Deployment

- Capture after action report data and other key items as they occur – establishment of a form or other standardized means for capturing this data may facilitate the process
- Ensure a method for identification of personnel on virtual platforms for access management (i.e. some platforms show phone numbers, which makes it difficult to determine who is participating)
- Save copies of all digital communications (e.g., chats, emails), as they may be subject to Freedom of Information Act (FOIA) requests