Executing Complex EM Plans - Ted Halpin

Picture yourself in this situation. You have been hastily called to the Emergency Operations Center (EOC) as the lead of a Threat Working Group (TWG). This is in order to prepare for a severe weather outbreak. Your group receives a brief on the weather forecast from the National Weather Service. Next, the senior Government official in the room turns to you and asks, "What are we going to do, what's our plan for this?"

Instead of beginning with a blank whiteboard and brainstorming, instead of rifling through wordy and voluminous emergency management plans, instead of people forming small groups working within their silo and comfort area of expertise, instead of quoting Incident Command System (ICS) dogma - you deploy on a smart board a Line of Effort (LOE) model specific to severe storms.

The LOE model is an operational framework and organizational tool that allows key elements of complex plans to be visualized, aligned, and "operationalized" towards producing a successful unified action. Based on Department of Defense (DoD) doctrine, it has been used by military commanders to link multiple strategies and actions with the logic of purpose and effect. LOE is used to achieve unity of effort in operations involving multiple organizations where unity of command is elusive (DoD JP 5-0).

The challenge of creating, benchmarking, exercising, and revising Emergency Management (EM) plans is considerable. Being able to extract key elements of these plans by the appropriate EOC members at the right time is additionally challenging. This article's subject is the extraction, visualization, alignment, and organization of key elements of EM plans. The utilization of Line of Effort (LOE) models facilitates this process, which in turn leads to efficient execution.

Plan Development and Execution

There are millions of pages of EM plans across the USA. Some plans are current, some outdated. Others are too brief, some overly complex. Some are clones of other geographical areas with only minor changes. Others are written by consulting companies that utilize a redundant template. Others are written only to satisfy a requirement or written quickly in response to a recent incident. **All EM plan execution has one thing in common – the challenge of mining key elements of these valuable plans to the right people at the right time.**

Hazard-Specific Plan Organization

The Hazard-Specific plans themselves should be organized to facilitate their execution. The logical format for these Hazard-Specific plans is as follows:

> **First**, Hazard-Specific plans should begin with checklists for 911, Incident Commanders, IMTs, EOCs, OEMs, other key departments, and senior executives. This allows emergency agencies, i.e. 911 Centers, Watch Desks, OEM staffs, to begin to execute critical tasks before an IMT or EOC is even established.
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> **Second**, pre-scripted mass warning and media messages are utilized to deliver accurate mass warnings and public information. These messages would be modified for specific incidents. The messages would be used on press releases, webpages and social media.

Third, pre-scripted incident objectives that allow EOC team to work from a common framework that can be modified for the specific incident. Managing by objectives the EOC environment is recommended. The LOE can assist in the selection, prioritization, and execution of incident objectives.

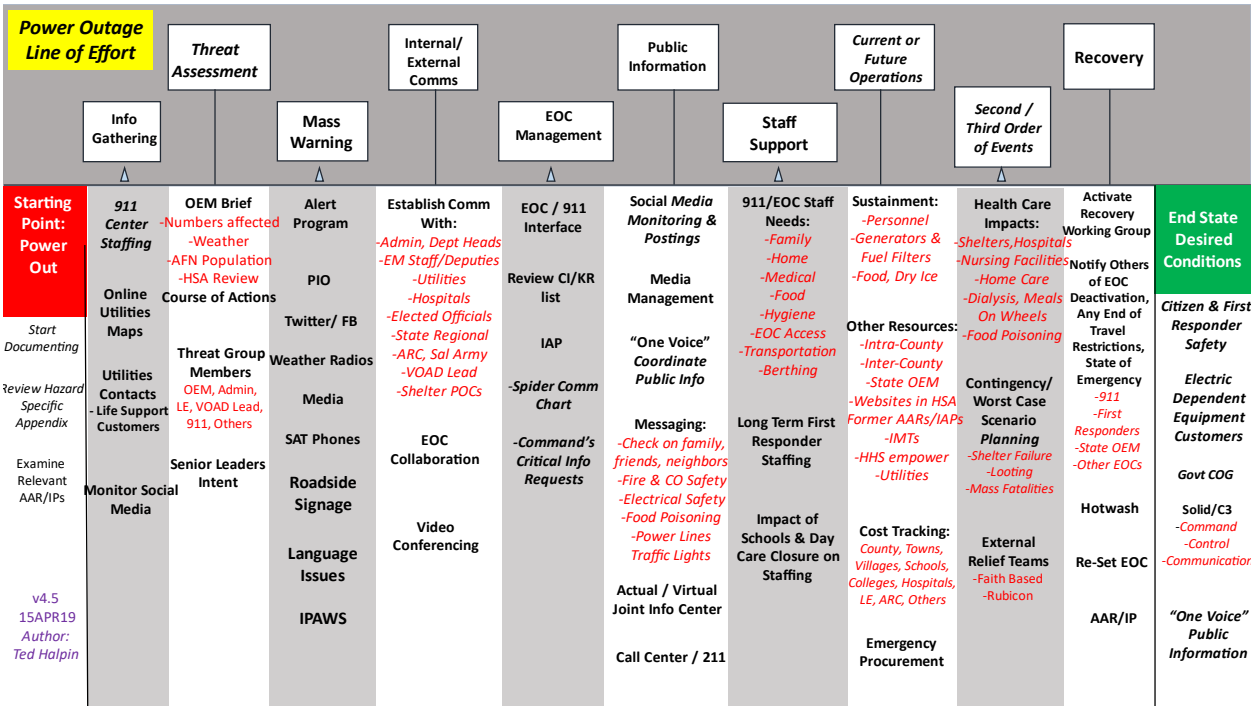
Fourth, the body of the plan describes the management aspects of the plan. This part of the plan tends to be wordy. The LOE extracts key elements here for immediate use.

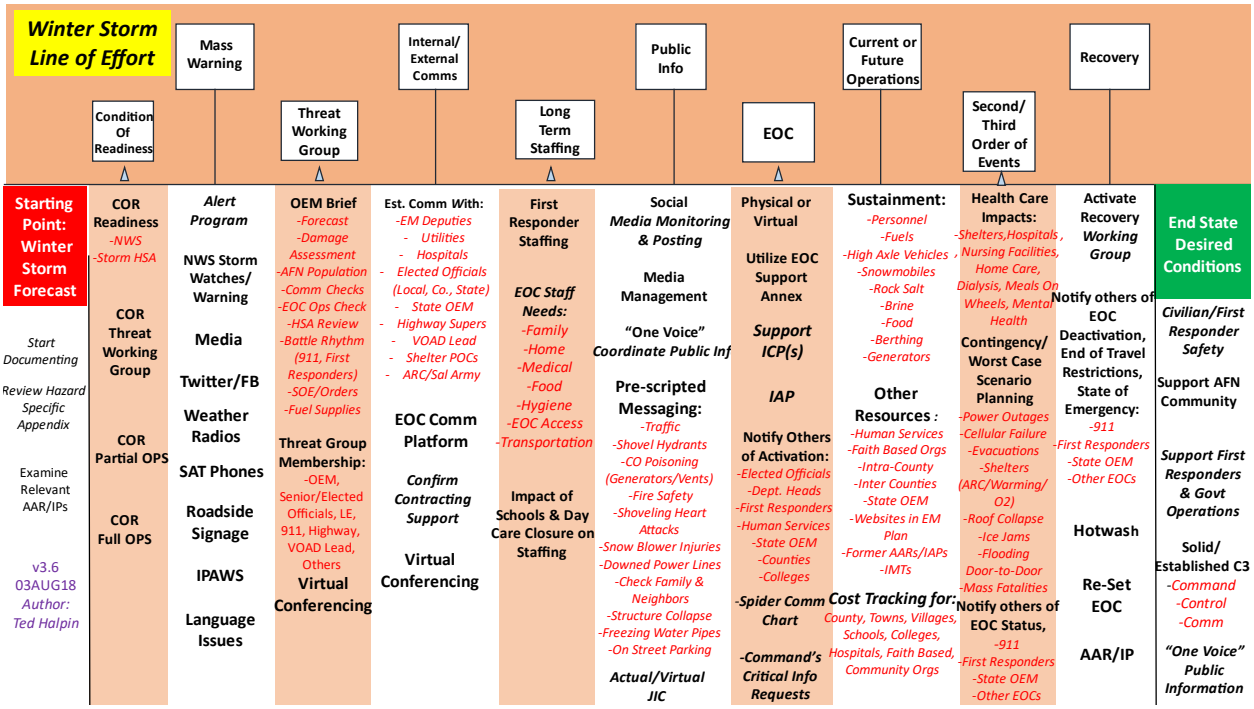
Lastly, pre-identified After-Action Reports/Improvement Plans and Incident Action Plans from previous similar incidents are used to help predict the future by documenting the past.

Basics of Line of Efforts

The following diagram depicts a typical EM LOE. Each LOE has a starting point (red box at left) and an end point (green box at right). The start point is the point when a threat working group and/or IMT/EOC is activated. The endpoint describes what the desired "end state" resembles. Below the green box are elements that comprise this end state. The boxes along the top of the diagram are the major tasks required to be addressed in order to reach the end state. The items below each task are the sub-tasks to be addressed to complete the task above.

A specific LOE is utilized for each of the most likely hazard-specific hazards. The one below addresses an extended power outage and winter storm. Other LOEs include active assailant, active assailant recovery, earthquake, flooding, dam failure, severe storm, and EM program management.





While not a strictly linear effort, LOEs do roughly follow a progression. This visual is displayed for IMT/EOC teams to begin developing situational awareness, a common operational picture, and a "game plan". This detailed, easily referenced framework is immensely preferable to starting with a blank white board at the back of an SUV at the scene or in the EOC. The LOE visual displayed is invaluable when selecting and building out the initial and ongoing incident objectives in each hazard-specific plan. The LOE also facilitates prioritization, task assignments, and briefings.

We know that EOC activations are infrequent. We realize that people working in the EOC positions may not be familiar with the EM or the OEM plans. For that reason, hotlinks are installed to certain sub-tasks that are linked to the body of that hazard-specific plan. These links provide a less-experienced IMT/EOC member to the details to completing that sub-task.

Like all EM plan elements, LOEs evolve over time. Presently, we utilize hazard-specific LOEs for power outages, active assailant response, active assailant recovery, winter storms, wind storms/tornadoes, flooding, and dam failures. We also utilize LOEs in our annual OEM planning.

The public, elected officials, government officials, media, and first responders are expecting increasingly higher performance from their respective Offices of Emergency Management (OEMs). In order to perform, OEMs rely on well-written and exercised plans. These plans include Hazard-Specific plans to prepare for, mitigate, respond to, and recover from incidents in an all-hazards environment. The LOE tool maximizes the value of good EM planning efforts by facilitating the proper execution of hazard-specific plans.

Taking these models to the next level is in development. Developing dynamic predictive models that guide, in real time, are being established. LOEs that are intuitive and can receive real-time data from

NWS, social media, critical infrastructure, GIS, traffic, AI, community lifelines, drones, NG911, flood gauges, shelter data, utility outages, cameras, sensors, generators, event timers, and other sources.

The following depicts what these dynamic and predictive models could include: