

PUT YOUR SOPs TO THE TEST

Thinking through standard operating procedures before disaster strikes can make the difference in an emergency.

By Donald Root

We've all seen the reports of critical incidents that stress the public safety emergency communications center (ECC) infrastructure — dam failures, earthquakes, flooding, hurricanes, large tornados and pipeline ruptures with resulting fires. We also encounter rail transportation accidents that require large area evacuations due to terrorism and hazardous cargo that can catch fire and burn for days. Other incidents include weather emergencies that cause critical utility lifelines to fail over wide areas and wildfires that decimate whole communities. While some of these incidents have a period (hours to days) of ramp-up time to prepare for the impacts, many of these critical incidents happen without warning.

From the smallest agency to a very large multi-agency operation, ECCs routinely handle calls for service from the public and units in the field. In today's world, policies and standard operating procedures (SOPs) are the ECC's foundation for maintaining best practices in operations, core competencies, training, quality assurance, technology and standards. Typically, these policies and SOPs serve the agency and its clients (the citizens and the responders) well. However, these SOPs are put to the test during a major incident that stresses the ECC's capabilities.





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Telecommunicators, supervisors and managers should review their agency's policies and SOPs regularly to familiarize themselves with the content, especially when a revision to a procedure is issued, and look at what may *not* be addressed in the documents.

A generic scenario can help to think about the conditions and hazards in your own area that SOPs should account for.

It is 8 p.m. on a calm, clear Sunday in a suburban town. A 12,000-foot freight train is passing through town carrying a mixed load of cargo including tank cars carrying liquid propane gas, anhydrous ammonia and

other dangerous products. The train derails alongside the main street, and numerous railcars overturn and catch fire. The incident commander arrives on the scene and calls for evacuation of a 3-mile radius of the accident site. There are approximately 9,000 residents in that 3-mile circle, including four convalescent homes.

An incident like this brings with it many contingencies and operational issues, reinforcing the importance of ensuring your SOPs are in order before it arrives.

Is your ECC an IPAWS alerting authority? The Integrated Public Alert & Warning

System (IPAWS)¹ is FEMA's national system for local alerting that provides authenticated emergency and lifesaving information to the public through mobile phones using wireless emergency alerts, radio and television via the emergency alert system, and on the National Oceanic and Atmospheric Administration's weather radio. An alerting authority is a jurisdiction with the designated authority to alert and warn the public when there is an impending natural or human-made disaster, threat, or dangerous or missing person.

Do your procedures cover how to originate a warning message? Is the authority to issue

warning messages delegated to on-duty personnel in the ECC or must someone higher in the chain of command (or another department or agency) be contacted for approval? What if that person is unavailable? Are a sufficient number of your staff members trained to enter a warning message into the IPAWS portal at any time of the day or night?

If your ECC is not an IPAWS alerting authority do your procedures identify who is, how to contact them and what information is required? In several areas of the country, the state or a regional center provides access to IPAWS.


A couple of hours after the train wreck, the wind picks up speed and shifts direction. The incident commander calls for expanding the evacuation area to include everything within a 5-mile wedge downwind of the accident site. Your ECC is within that expanded evacuation area, and the IC orders your center to evacuate.

Do you have a designated allied backup facility to which you can hand off your operations or a site where your ECC staff can relocate? SOPs should account for how long it takes to transition to the alternate facility and what capabilities would be lost by relocating. As a result of recent technological advancements and the COVID-19 pandemic, a number of agencies have decentralized call taker and dispatch functions to staff residences or remote sites/mobile emergency command centers. If your agency has implemented virtual dispatching, have all your procedures and SOPs been updated to reflect the revised circumstances and challenges?

You must also consider whether extra staffing is available. ECCs require daily operations to continue regardless of circumstances. If the incident is prolonged, your ECC may need assistance to provide staff augmentation and relief. Do your policies, SOPs and contingency plans cover emergency circumstances that adversely affect your ability to adequately staff your ECC?

Methods to ensure that qualified communications personnel are available include regional or state mutual aid consortiums and participation in the APCO/NENA Telecommunicator Emergency Response Taskforce (TERT) program.² The *APCO/NENA Standard for Telecommunicator Emergency Response Taskforce (TERT) Development* provides an excellent reference for the development or review of contingency plans.³

Consider the vulnerability of key radio network sites and other critical infrastructure. Whether your public safety radio system consists of one base station on the local firehouse/water tank or a multi-zone simulcast trunked radio network, there are key locations that the ECC should recognize as critical infrastructure so that these sites can be protected or accessed as needed during a major incident. In rural areas, remote radio sites are often located on ridgelines or mountain peaks, vulnerable to being burned over in wildfires or in open fields that could be impacted by widespread flooding. In either scenario, remote sites can attract vandals or thieves searching for copper and other material to sell for cash. Locations (including latitude and longitude) and access information for your radio sites should be identified in your CAD system. They should be identified as critical infrastructure and designated to be protected in the local fire agency's pre-fire planning database. And should one or more of these remote sites go down, your ECC should have a contingency plan for maintaining communications with field responders.

 **If your agency has implemented virtual dispatching, have all your procedures and SOPs been updated to reflect the revised circumstances and challenges?**

Backup/emergency power is a vital resource. SOPs should account for its potential interruption. While not usually a line telecommunicator function, supervisors and managers should review these critical facilities-related backup power system operating and testing procedures. It may be someone else's responsibility, but it is your ECC that these systems support, and you should be aware of how and when they are maintained.

How often are the battery backup systems, also known as uninterruptible power systems (UPS), covering dispatch server and console equipment tested to be sure the batteries are in good condition?

Similarly, standby/emergency generators (both at your ECC and at remote sites)

should be exercised weekly or bi-weekly long enough for the engine to come up to operating temperature. Some organizations perform only "start tests" to ensure the engine starts, runs for a few minutes and shuts down. This only demonstrates that the battery will start the engine.

Generators should be operated under load on a monthly or quarterly basis. After-action reports often note that electronic systems in the ECC and/or associated interconnecting facilities were too critical to risk failure during a generator full load test. So no load tests were carried out. But such caution before an emergency meant that, when needed, the generator failed to take the load or suffered mechanical failure within 10 to 30 minutes under load.

Regular preventative maintenance should also be performed on the generator. Just as routine checks on your automobile are necessary, generators need regular checks to ensure the battery is not leaking, hoses are in good shape, oil and coolant levels are to specification, and rodents or insects have not invaded the generator and related electrical components.

Generators that operate on diesel fuel are susceptible to algae growth in the fuel, which can cause damage to various fuel system components and adversely impact the overall performance of the diesel engine. Regular testing will detect the presence of contaminants.

Finally, the ECC should know who to contact to obtain diesel fuel or propane for these generators in the event of an extended period of operation. While it may be your facilities or radio shop's regular responsibility to "keep the lights on," in many situations that organization will be overwhelmed and may reach out to the ECC for assistance in contacting the fuel supplier and placing an order. There may also be a need to facilitate the supplier accessing the generator site to refuel the unit.

THINK OUTSIDE OF THE BOX

Who is involved in the development and review of your policies and SOPs? Do you have a "We've always done it that way" approach to your process and procedures?

APCO Project RETAINS (Responsive Efforts to Address Integral Needs in Staffing)^{4,5} provides managers and supervisors with strategies and tools to increase the effectiveness of their management practices,

thereby improving staffing, retention and employee satisfaction in emergency communication centers throughout the country.

Find out what motivates your staff. You may have staff members who are interested in providing input to the revision process. Solicit their viewpoints, and respect that they may have different approaches to a particular procedure. They may want to assist with rolling out a new procedure to your team.

And finally, after your organization has reviewed its policies and SOPs, test the new operational procedures and policies before implementing them. Publish your revised or

new policies or procedures in a manner that ensures all personnel are notified (and tracks the receipt). Then, conduct exercises if the policy/procedures warrant. This exercise can be as simple as covering a revision during a shift briefing or integrating new information and scenarios into your periodic emergency management exercises. ●

Donald Root is APCO's Project 25 Program Manager. He retired after more than 40 years in public safety and emergency management communications at the state and local level in California, including the management of a 50+ site trunked radio network.

REFERENCES

- 1 FEMA. Integrated Alert & Warning System. <https://www.fema.gov/emergency-managers/practitioners/integrated-public-alert-warning-system>.
- 2 NJTI-TERT. Telecommunicator Emergency Response Taskforce. <https://www.njti-tert.org/>
- 3 APCO/NENA ANS 1.105.2-2015 Standards for Telecommunicator Emergency Response Taskforce (TERT) Deployment. <https://www.apcointl.org/~documents/standard/11051-2015-tert/>.
- 4 APCO International. Project RETAINS. <https://www.apcointl.org/services/staffing-retention/project-retains/>.
- 5 Public Safety Communications. CDE 65178. "Feedback Loop: APCO Project RETAINS," By Cathy Wix. May/June 2023, Vol. 89, No. 3. <https://www.apcointl.org/~documents/article/cde-65178-feedback-loop>.

CDE EXAM #67605

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| <ol style="list-style-type: none"> 1. ECC policies, standard operating procedures and contingency plans should be regularly reviewed by: <ol style="list-style-type: none"> a. The Federal Communications Commission b. ECC management c. ECC supervisors d. ECC line telecommunicators e. B, C and D 2. Should ECC policies, SOPs and contingency plans be examined following a major event or technology failure? <ol style="list-style-type: none"> a. Yes b. No 3. The APCO/NENA TERT program provides reference materials for agencies to incorporate into their staffing augmentation plans and SOPs. <ol style="list-style-type: none"> a. True b. False | <ol style="list-style-type: none"> 4. From an ECC standpoint, critical infrastructure includes: <ol style="list-style-type: none"> a. The ECC b. Public safety radio sites used by the jurisdiction c. Other facilities key to the operation of the ECC and supporting systems d. All of the above e. None of the above 5. IPAWS is an Apple product used for tracking your pets. <ol style="list-style-type: none"> a. True b. False 6. Managers should engage all levels of personnel in the process of revising policies, procedures and contingency plans. <ol style="list-style-type: none"> a. True b. False 7. Managers and supervisors have no need to know about backup and emergency power systems. <ol style="list-style-type: none"> a. True b. False | <ol style="list-style-type: none"> 8. Contingency planning for the relocation of your ECC should include: <ol style="list-style-type: none"> a. Identified location(s) for backup facilities b. Procedures for the transition between primary and backup facilities c. Identification of ECC capabilities that are not supported at the backup site(s) d. A and B e. None of the above 9. ECC policies and SOPs should include how warning the public is accomplished, including all actions to be taken. <ol style="list-style-type: none"> a. True b. False 10. ECC and related backup power systems should be periodically tested under full load conditions. <ol style="list-style-type: none"> a. True b. False |
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