Imagine that the National Weather Service has reported a severe thunderstorm advisory with tornado watches covering the entire metropolitan area. As the torrential rains begin in county after county, reports of downed trees and power lines, trapped people, and damage to buildings start to pour into 911 centers. A tornado the size of a city block has touched down in four metro counties, and is still moving. Emergency managers are sending fire apparatus, ambulances, and police in every direction to assist trapped and injured people, but many responders cannot reach incident scenes because trees and debris have blocked roads. Counties invoke mutual aid from neighboring municipalities and open emergency operation centers (EOCs). The state activates its EOC and begins to receive calls for assistance.

The storm passes. Citizens continue to call for help. Responders are still having trouble traversing blocked roadways, and off-duty personnel cannot reach staging areas. By the time the storm ends, devastation extends across 12 counties. All these counties call up off-duty personnel for emergency shifts and cancel all scheduled days off.

However, an unanticipated problem surfaces. Many emergency workers, particularly fire and rescue employees, work at more than one public safety agency. When contacted, many of the off-duty employees are at work on their second jobs at these other agencies. Calling them in means they will have to abandon assigned duties at private ambulance services, local hospitals, and neighboring fire departments. Calling in these employees narrows the pool of personnel for nearby volunteer fire departments.

“Public safety agency” is an umbrella phrase for a vast group that includes police, fire, emergency medical services (EMS), 911 communications, public health, emergency management, and sheriff’s agencies. Public safety employers are likely to have developed call-up plans designed to increase the number of personnel available to perform the agency’s mission in time of disaster. Call-up plans assume that off-duty personnel will report to work when contacted to expand the agency’s capability.
An informal survey of public safety workers found that many have some type of secondary employment, often at another public safety agency. This dependence on one another may critically affect public safety agencies in time of disaster. Of particular concern is that extended breaks between long shifts allow firefighters and EMS personnel to make commitments to more than one agency. The “secondary” employer is likely to depend upon the employee as much as the “primary” employer. The survey, conducted in the Atlanta metropolitan area, found that among 16 fire departments, an average of 22.2 percent of employees hold two or more public safety positions. Moreover, a significant percentage of the public safety workforce has commitments to the military reserve or National Guard. If those agencies activate these employees, other agencies could lose up to 13 percent of their workforce.

Many firefighters have either emergency medical technician (EMT) or paramedic certification and often use those certifications to work for other public safety agencies, hospitals, or private ambulance companies. This raises questions about how many EMS workers are actually available in a given area should these employers need to expand service. Are two agencies counting on the same person to be available when planning for a disaster? Does a geographic area actually have the number of emergency medical responders necessary to handle a crisis? Every jurisdiction must develop a strategic disaster plan that includes the spectrum of service providers, or it may be left underserved in a disaster.

The Two-Hat Syndrome

The two-hat syndrome is the dynamic in which public safety workers hold at least two public safety positions. In an emergency, these workers might be called upon to perform both jobs, or to wear both hats. Because each employee would be able to fill only one position, public safety agencies should identify which employees wear more than one hat, and discuss how critical each of those hats is to each employer.

The two-hat syndrome prompts a series of initial questions: Where does an individual’s primary duty lie when personnel call-ups occur? What planning do agencies need to do to overcome their reliance on the same individuals? How does the two-hat syndrome affect a community’s actual response capability?

These questions lead to others, equally compelling and problematic:

- How many of an agency’s employees are military reservists and how would their activation affect staffing?
- Can communities rely on public safety agencies to increase their capability to remain effective in a disaster?
- If an employee works for two agencies, who decides where the employee will report if called up by both agencies?

All these questions must be asked and answered to formulate a successful personnel call-up strategy. Furthermore, until public safety officials share the information they learn when asking these questions, no agency can be certain it has a reliable call-up plan in place. In Cobb County, Georgia, the fire department has renewed the process of planning for major incidents. Among the questions that have arisen are: “How many firefighters are available within the jurisdiction at any given time?” and more importantly, “As Cobb County plans to include mutual aid support, is it taking the two-hat syndrome into account?”

The Two-Hat Project Survey

The Two-Hat Project survey, conducted in over 14 metropolitan Atlanta counties, showed that communities might not have a firm grasp of what personnel will be available in a disaster. None of the agencies was able to readily identify the number of employees who wear two or more hats, where these people worked, or how this might affect disaster response plans. When asked about the likelihood that this syndrome would have an impact in his agency, one respondent stated, “It is not an issue for us, because our agency is their primary employment.”
Other conflicts often arise when career fire and rescue personnel compose a considerable portion of volunteer agencies in other jurisdictions. If these personnel respond to their primary employers, fewer will be available to serve volunteer fire departments. Counties and municipalities also often hire private ambulance contractors to transport patients in their communities. The Two-Hat Project survey found that many of these private ambulance companies employ significant numbers of off-duty firefighters and EMS workers. In one case in Cobb County, 33 percent of an ambulance company’s workforce was off-duty firefighters.

Owing to a nationwide shortage of health care workers, a growing number of EMT’s and paramedics are also being recruited for part- and full-time employment in local hospitals. This adds to the quandary of whether enough EMTs and paramedics are available to respond in a major crisis.

The two-hat survey also found that some smaller police agencies in the Atlanta metropolitan area are having a difficult time attracting qualified personnel because the salaries they offer are typically lower than those in larger neighboring jurisdictions. Some of these smaller agencies are therefore hiring off-duty personnel from larger public safety departments to work on a part-time basis. For example, the Police Chief of Powder Springs, a small suburb within Cobb County, reported that 32 percent of his sworn personnel work part-time, and that over one-half of those are firefighters and paramedics from other public safety departments. Firefighters from other departments also comprise one-third of his SWAT team. A countywide disaster may thus have a serious impact on Powder Springs’ ability to field enough personnel. Despite its excellent mutual aid relationships with the Cobb County police and sheriff’s departments, Powder Springs should explore how it will address its needs in the event of a wider disaster.3

Another major consideration, particularly in more rural regions, is to plan who will wear which hat in a disaster. For example, in many rural areas the local sheriff may also be the director of the emergency management agency (EMA), police chief of a small city within the county, and head of security for the local hospital. Plans must be in place to determine who will fill these roles should it be necessary to staff more than one during a crisis. Interviews with chief officials of public safety agencies revealed that these officials often fit the two-hat profile, though they had not considered the problem or their own limitations when planning for disaster. Top public safety managers who are also assigned critical roles in their community EMAs often seemed to fit this description.

Events such as the terrorist attacks at the World Trade Center and the Pentagon, Hurricane Andrew’s landfall near Miami in 1992, and the floodwaters of 1994 in southwest Georgia required lengthy emergency and cleanup operations and unusually high availability of essential personnel. Any call-up plan must provide higher-than-normal levels of service over extended periods of time.

Further Survey Results

Overall, 47 law enforcement, fire, rescue, 911 centers, emergency management agencies, and private ambulance companies responded to a request to survey their employees. The survey indicated that the two-hat syndrome most affects fire and rescue, private ambulance, and emergency management agencies, as a significantly higher percentage of their personnel work in other public safety agencies than do employees of law enforcement agencies and 911 centers.

According to the survey results, police and sheriff’s department personnel were the least affected by the two-hat syndrome. Of the 20 law enforcement agencies responding, 15 reported that less than one percent of their employees had made commitments to another public safety agency. A small city in the Atlanta suburbs reported the highest percentage, 11.1 percent.4 However, police agencies would suffer if the number of fire and rescue responders is inadequate to cover call volume during and after a disaster. Simply stated, the less effective any part of the workforce required to manage a disaster, the longer it will take to complete a phase of disaster response.
The survey also indicated that a military call-up would affect police and sheriff agencies more than fire and rescue agencies. One law enforcement agency reported that 13 percent of its personnel have military obligations.\(^5\)

On average, fire and rescue departments indicated that 22.2 percent of their fire and rescue personnel work for at least one other public safety agency. A fire department where 56.2 percent of its personnel work at another public safety agency was the most dramatic example. In another agency, 38 percent fit the *two-hat syndrome* description, and of those individuals, 25 percent work full-time at another agency.\(^6\) This particular city is not surrounded by well-staffed fire departments from which it can immediately draw significant mutual aid. It is critical that this city’s disaster plan includes provisions to address this problem. The city must plan realistic call-up procedures, determine how long personnel might take before returning to its resource pool, and consider what effect a call-up might have on other local public safety agencies.

As in many jurisdictions, one of the largest counties in the Atlanta area maintains several private ambulance contracts. As a result of the study, the county discovered that 33 percent of one ambulance firm’s 42 employees also work full-time as firefighters in the same county.\(^7\) When the county fire department became aware of this conflict, it reexamined its strategic disaster response plan and will rework it to address the potential shortage of firefighters and ambulance personnel. In a disaster, ambulance company managers will work with officials in the county emergency operations center to staff and dispatch ambulances from fire stations until personnel issues stabilize.

A major finding from the survey is the high percentage of employees of emergency management agencies who fit the *two-hat syndrome* description. Few agencies have the financial resources to fund a fully staffed and separate EMA, and this is not unique to smaller agencies. Even in large municipalities, personnel find themselves wearing two hats in a disaster and even during routine operations. For example, Atlanta’s Fulton County found that 25 percent of critical county emergency management agency personnel are also key officials in their fire or other public safety departments, while adjacent Cobb County found 50 percent of such personnel wear two hats.\(^8\) The smaller the agency, the greater the impact will be if those wearing two hats do not report for duty during a disaster. And in the case of large jurisdictions, a disastrous incident is likely to magnify the impact of absent or overworked personnel.

Few agencies indicated what would occur if the county’s emergency operations center were activated and the EMA director is also the fire chief, for instance. Have provisions been made to fill the chief’s role if he or she is lost to the emergency operations center? As a result of shift work, public safety organizations have built in redundancy at many levels and positions but in top command ranks, this is almost never the case. No second or third shift of chiefs and deputy chiefs remains at home while another is at work. When disaster strikes, chief officers must be prepared to immediately break into shifts, to maintain command capability.

Miami-Dade County Fire and Rescue found it necessary to change its disaster plan after Hurricane Andrew struck. U.S. Fire Administrator Dave Paulison, Miami-Dade Fire and Rescue chief at the time, reported that after the first week of disaster operations following Andrew’s landfall, his staff had burned out from managing a spike in emergency calls from the typical 400–500, to over 3,000 per day. Following this experience, Miami-Dade changed its hurricane plan to an all-hazards disaster plan. Among other adjustments, the plan now calls for command staff to immediately form two platoons that work in 12-hour shifts. Interestingly, Miami-Dade Fire and Rescue’s line personnel remain in standard three-platoon format even during disaster operations, working 24-hour shifts, an aspect of the plan that the Chief and his staff did not find it necessary to change after Hurricane Andrew.\(^9\)

Agencies such as 911 centers and state public safety agencies are not immune from the *two-hat syndrome*, although this survey did not
include adequate responses from these types of agencies to draw firm conclusions.

Overall, the survey reveals that the two-hat syndrome is a concern for most public safety agencies, directly or indirectly. Awareness of the problem is the first step in identifying and addressing any significant impact it may have.

The Planning and Preparation Process

As jurisdictions develop their strategic plans for responding to disasters, they should practice their departments’ call-up plans and reassess them based on the outcomes. Should agencies lose employees to military commitments, plans should address who will back up any critical positions left vacant. Local governments must also coordinate disaster plans with private ambulance companies, public health officials, and local hospitals. If a hospital’s employees work for other public safety agencies, it should compare call-up plans with those agencies.

Jurisdictions must also determine whether each plan is practical. On September 11, 2001, New York City firefighters and police faced multiple high-rise building fires, two plane crashes, structural collapses on a scale never before experienced, a monumental rescue problem, and major uncertainty about what was going to happen next. Emergency managers decided to call-up all off-duty fire and rescue personnel in the first recall of the entire fire department in more than 50 years. This created a tremendous management problem concerning how to deploy and feed all of the personnel who reported, and how to ensure that they remained rested. A transition plan to move to a split work force had to be executed as the fire department changed its shifts to 24 hours on and 24 hours off to sustain operations over the ensuing days and weeks. Owing to the number of firefighters missing in the destruction, many surviving firefighters refused to go home for days at a time, further challenging the department to ensure that these members could perform their duties safely.

Disasters With and Without Notice

Interviews with chief administrators from several public safety agencies who have been involved in major incidents explored how disaster plans worked during a crisis, and how the administrators changed their plans in light of these experiences. These administrators emphasized the need to prepare before an incident and review and revise plans after every major incident. Following are two accounts of disaster responses that highlight how managers have changed their disaster preparedness plans since the events transpired.

Disaster with Notice

In 1994, Crisp County was one of several counties in southwest Georgia devastated by massive flooding of the Flint River. Community leaders had as many as three days to prepare for this disaster. Crisp County, one of nine counties hit hardest by the flooding, was able to evacuate thousands of people from their homes in advance, request that state agencies prepare to implement disaster plans, and organize emergency command centers. Authorities also inventoried their resources, located and reinforced weaknesses in their response plans, and activated evacuation plans for hospitals, jails, schools, and other facilities.

When the flooding occurred, authorities in various counties implemented their disaster plans. Crisp County authorities had already asked the National Guard to supplement the county’s police presence. After the floodwaters receded about ten days later, the county requested additional support for cleanup operations. In a major cooperative effort, agencies from as far as 200 miles away made mutual aid to flood-damaged areas available for weeks.

Crisp County Sheriff Donnie Haralson reported that by identifying available personnel resources and calling for mutual aid and state assistance, the county maximized its ability to mitigate the flood’s dangers and its aftereffects. The county has further developed its policies and procedures for managing a disaster. For example, the county’s disaster plan now details the locations of emergency operations centers,
alternate locations for those centers, the number, type, and sources of vehicles needed, and what resources other communities may make available. Crisp County has also identified its personnel resources and knows how long it will take to activate them, as well as how long it can provide in-house personnel before requesting mutual aid. Sheriff Haralson further noted that a thorough plan should include the ability to change gears if necessary during a crisis. The 1994 flooding has helped the county develop procedures and chronologies for various scenarios. Sheriff Haralson reports that today the community is comfortable with its disaster plan and confident in its personnel call-up strategy.

Disaster without Notice

By 9 a.m. EST on September 11, 2001, much of the world was watching a series of horrifying events unfold in New York City. Then, at 9:43 a.m., a jetliner hit the Pentagon. Arlington County, Virginia, which provides fire protection for the Pentagon, promptly dispatched its fire department. Although the county typically responds to at least one call for service at the Pentagon daily, the department’s familiarity with the complex did not prepare responders for the scene they encountered that morning. The scale of devastation and injuries exceeded the capacity of the department’s resources.

The Washington-area news media were already poised to cover the disaster. Within minutes, every television network nationwide was reporting the Pentagon crash. As in New York, Arlington administrators made the decision to call-up all of their personnel. Because the county’s dispatch center was inundated with calls and unable to take the time to notify fire personnel, administrators enlisted the media’s help. Within one-half hour, television and radio stations across metropolitan Washington had broadcast the call-up to viewers and listeners. Over 95 percent of the county’s personnel received these messages and reported to stations and staging areas within two hours. The Arlington Fire Department realized almost immediately that it would have to transition to a platoon schedule to sustain lengthy round-the-clock operations. The department assigned personnel to three platoons, working 12-hour shifts, with 24 hours rest between shifts.

In this case, Chief Plaugher was also the county disaster coordinator for the Arlington emergency management agency. He stated that in many situations filling both roles can work well. In the attack on the Pentagon, however, each role became a full-time job. Because staffing strategic centers with officials from assisting agencies took nearly 21 hours, Chief Plaugher admitted that after ten or twelve hours it was difficult to manage both roles well. In a true disaster, additional trained personnel should be available to take over key roles assigned to individuals wearing more than one critical hat, and planning should account for this type of long-term incident management.

Arlington County is unique in that it maintains a full-time emergency management agency (EMA) staff, which reduced some of the demands on Chief Plaugher. However, most agencies cannot afford to fund a dedicated EMA staff. This is one reason why so many key officials take on multiple disaster roles, and then must deal with all of the associated responsibilities during a major incident.

Chief Plaugher believes that secondary employment commitments were not an issue for Arlington County during this crisis, and was unaware if Arlington County Fire’s total personnel call-up had a negative impact on any other agency. He says that Arlington County Fire employees must consider the agency their primary employer. He added that this incident was the call of a career for most firefighters, and that “they weren’t going to miss it for anything.” This insight reinforces the concern that firefighters on duty at one employer may be likely to leave those assignments to report to a second employer during a major incident. While the jurisdiction suffering the disaster would enjoy its full complement of employees, the other employer may no longer be prepared to respond to a secondary strike, to maintain normal service levels, or to provide mutual aid to a stricken jurisdiction. Identifying the number of employees holding more than one public safety position and exploring how that situation may affect both agencies is critical.
Plaugher advised that most fire and rescue agencies surrounding Arlington County are career departments, which may minimize the likelihood that many of his employees hold another position of firefighter in a nearby department. He did indicate, however, that volunteer agencies are prevalent across the state, and that he might have to look further into this question. Also, in the past year, the International Association of Fire Fighters passed a rule prohibiting its members from serving as volunteer firefighters. In a region with a unionized workforce, this rule might reduce the likelihood that firefighters would hold more than one firefighting position. However, the rule will not limit, and may indeed increase, the possibility that firefighters will hold other types of secondary employment.

The Arlington County Fire Department has also made a number of policy and procedural changes in its disaster plan since the Pentagon incident. It has changed its call-up strategy to add the ability to build up its force gradually rather than calling in all off-duty personnel at once. The department has also begun utilizing an automated telephone system for notifying personnel, thereby removing this critical and staff-intensive assignment from its dispatch center—a sort of second hat. Chief Plaugher and his staff also do not want to rely again on the media to notify personnel, as in the Pentagon incident. The department is also developing a different approach for deploying technical teams for lengthy operations, as the numbers of these trained personnel are limited and they must be fed and sheltered on site or nearby. The department is amending its plan to address those needs.

When asked about the impact of the Pentagon incident on the Arlington County budget, Chief Plaugher pointed out that county administrators knew about the call-up plan, and that they viewed the extra cost as a necessary expense. Plaugher said that he had exercised authorized discretion, and he is confident of the parameters set for department managers in his jurisdiction. Clearly, developing and discussing disaster plans are keys to successfully managing such a major incident.

What Other Disasters Can Teach Us

Agencies can learn about the two-hat syndrome from the problems encountered in managing these recent disasters. First, agencies must plan to rotate personnel on and off shift to maintain a strong and alert work force, and take into account employees who have off-duty obligations of any type. Second, a thorough and well-communicated personnel call-up plan will manage employee expectations and preparation before a disaster occurs. Third, practicing these call-up plans will help reveal any problems, including those that result from the two-hat syndrome, and will allow agencies to develop solutions for those problems.

Cobb County Fire and Emergency Services is developing a call-up plan capable of providing half its total staff for immediate duty while making the other half of the work force available in 12 to 24 hours. All personnel will then work 12 hours on and 12 hours off, or 24 hours on and 24 hours off, with leave canceled until normal operations resume.

Although a major emergency might tempt Cobb Fire’s administration to execute a total personnel call-up, the department has opted to develop the ability to hold half its force in reserve to provide a sustained response. Supporting elements include mutual aid from Cobb County’s immediate neighbors, and the Georgia Mutual Aid Group, a seasoned organization that can draw on the resources of over 50 fire and EMS departments from around the state. A region-wide survey is being conducted to identify and address problems the two-hat syndrome may cause in Cobb County’s or others’ call-up plans.

Part of Cobb’s call-up plan takes into account reasonable travel time. If off duty, many of the county’s firefighting personnel must travel an extended distance to reach their Cobb assignments. The plan also recognizes that a number of the department’s employees may be called up for military service. A practice run-through of this call-up plan will reveal how quickly half the total staff actually become available, and administrators can modify the plan accordingly. Activation plans should be
practiced to determine their true feasibility and allow for necessary adjustments.

**Planning Is Key**

Communities depend on public safety agencies to respond effectively to any disaster, and most have developed some type of strategic disaster response plan. The Federal Emergency Management Agency has recently tied federal disaster funding to the development of a detailed strategic plan that identifies risks in a community, details how to protect important assets, and develops plans for handling an emergency response. Public safety officials should look within their organizations to determine whether the two-hat syndrome is a problem. Officials must also share this information with agencies that provide mutual aid.

Agencies must practice any activation plan to test its effectiveness. Every official contacted during the research stated that she or he had made changes to call-up plans after using them in a disaster. As a result of the policy and procedural changes Miami-Dade County fire officials made after Hurricane Andrew, when a ValuJet airliner crashed nearby four years later emergency personnel managed a much more effective response.22

If a community discovers that the two-hat syndrome would significantly affect disaster mitigation, informed planning and preparation are the keys to overcoming its effects. The biggest obstacle for any agency is the unverified belief that it operates in isolation. Because virtually every public safety agency depends on other agencies for support during a crisis, the chance that the two-hat syndrome will directly affect every agency increases significantly. Agencies should be aware of their mutual aid capabilities and limitations, and prepare for how those may dictate changes in their strategy. Public safety administrators who fail to gain insight into the two-hat syndrome, and consider, consult, and cooperate accordingly, may fail their communities in the face of disaster.
“THE TWO-HAT SYNDROME”: DETERMINING RESPONSE CAPABILITIES AND MUTUAL AID LIMITATIONS

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