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Revisions of the Communications Plan for the City of Manassas Park

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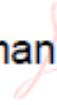
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REVISIONS OF THE COMMUNICATIONS PLAN
FOR THE CITY OF MANASSAS PARK

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REVISIONS OF THE COMMUNICATIONS PLAN

FOR THE CITY OF MANASSAS PARK

A Capstone Project

Submitted to the Faculty

of

American Public University

by

Joseph M. Neiberger

In Partial Fulfillment of the

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of

Master of Public Administration

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Charles Town, WV

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DEDICATION

I dedicate this work to my parents and my wife. My parents fostered a belief in me, at a young age, that has kept me motivated and driven for personal growth throughout my life. My wife provided me the support a student needs to be focused and dedicated to my studies, and a confidence in my ability to accomplish my goals. The confluence of both belief sets allowed me to accomplish this work.

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Abstract of Thesis

REVISIONS OF THE COMMUNICATIONS PLAN
FOR THE CITY OF MANASSAS PARK

by

Joseph M. Neiberger

American Public University System, April 24, 2016

Charles Town, West Virginia

Dr. Christi Bartman, Capstone Professor

Emergency management agencies have not, historically, adopted bi-directional communication models to support how information is shared with the citizens. The goal of this project is to develop a recommended communication plan, for the City of Manassas Park, which includes the use of social media platforms to support the emergency management principles. Action based research is being used to develop the recommended communication policy. Four research questions have been identified to structure the research around: 1) What are the communication priorities of the *National Incident Management System (NIMS)* and the *Incident Command Structure (ICS)*? 2) What are the social media trends in emergency communications? 3) What communication needs should be addressed with the revised communication plan? And 4) What social media platforms can be used to support those identified communication needs? The adoption of bi-directional communication tools is essential to modern emergency management practices. The structure of the traditional NIMS system does allow for the adoption of such tools, however, the development of a dynamic team able to manage bi-directional information must be addressed if the employing of such resources is to be successful.

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Introduction

The early days of *Civil Defense* utilized human spotters to identify possible threats and mechanical devices, such as air-sirens, to raise the alarm amongst the local citizens (FEMA, 2006). FEMA also noted that the field of emergency management has “evolved over time to encompass coordinated, professional efforts, involving all levels of government, the private sector, and citizens, to address a wide range of disaster and attack scenarios” (p. 29). The modern era of connectivity allows for the identification of those potential hazards, and the associated notification to all, across a faster and more dynamic infrastructure. The founding principle that began with the civil defense is still in place: Resiliency. A principle that supports “the desire to involve Americans in the protection of their fellow citizens and critical infrastructure from destruction at the hands of our enemies” (p. 29). Emergency management has expanded to address all aspects of emergency planning, from the identification of possible risks before they happen, then across the event spectrum to the final stages of recovery. An essential element of this broad umbrella is the sharing of information with, and gathering of information from, the citizens.

As noted, throughout time, emergency managers (civil defense personnel) have striven to provide important information to the citizens within their communities. The evolution of the field has been growing and expanding in proportion to those same technological advancements that affect how the world communicates. The important focus for modern emergency managers is the identification of how best to reach the citizens. If the citizens are reading non-traditional news sources and listening to non-traditional radio broadcasts, then the municipalities and public safety professionals need to be using those same media in order to reach their citizens (Haddow, Bullock, & Coppola, 2014). In meeting the needs and expectations of the public, agencies must

also assure the communication tools being used can support the priorities of the Incident Action Plan¹ (Crowe, 2010a; Hughes & Palen, 2012). An Emergency Operations Plan (EOP) is an outline of how a municipality plans to address the needs of the citizens, and the how information and warnings will be communicated. Within the EOP policies and plans can be found the recommended infrastructure, personnel assignments, and communications plan for emergency operations.

The focus of this research is the development of a revised communications plan for the City of Manassas Park's EOP. Like any municipality, provision of public safety to the citizens, businesses, and employees within the City of Manassas Park is a primary tenet. As such, the city has adopted state and federal guidelines that dictate minimum standards that must be met for the provision of emergency actions during major events, planned or unplanned, that effect life within its limits. Additionally, The City of Manassas Park is nestled within the suburban communities of Prince William County, and just north of the City of Manassas. All three jurisdictions work cohesively to share resources in support of public safety goals (EOP, 2012). The expectations of how best to serve the City, and the need to share resources with the regional partners, create priorities that must be considered during this policy development process.

Through action based research, the deliverable resulting from this process will be a recommended communication Standard Operation Procedure (SOP). Four research questions have been identified to structure the research around: 1) What are the communication priorities of the *National Incident Management System* (NIMS) and the *Incident Command Structure* (ICS)? 2) What are the social media trends in emergency communications? 3) What communication needs should be addressed with the revised communication plan? And 4) What

¹ "An Incident Action Plan (IAP) provides a concise, coherent means of capturing and communicating the overall incident priorities, objectives, strategies, and tactics in the context of both operational and support activities" (FEMA, 2008, p. 47).

social media platforms can be used to support those identified communication needs? Two processes will support this goal. First, to support the inclusion of the use of the social media platform, literature associated with the best practices for the use of social media, during non-emergency and emergency times, will be reviewed to identify structural elements associated with successful communication plans. Secondly, the interviews of key City of Manassas Park emergency management staff members will support the identification of elements that can best serve emergency communications in the City.

Communications between the governing body, emergency responders, and the citizen during an emergency event are a critical tool for all involved (Crowe, 2012). For the governing body, statements and information that can reassure their constituency that the situation is being handled is an absolute necessity (Hughes A. L., 2014). The emergency responders, who have the same priority as the governing body, may need to communicate where citizens can and cannot go to assure they are protected from the events occurring. They may, alternatively, need to provide guidance that suggest the taking of precautions that will protect their home. The citizens may require information on procedural considerations and directions for how to get the help they need following a significant event. Modern technology has created conduits of information exchange that can occur electronically and instantaneously (White, 2012). Pushing information out faster, and the ability to reach more people, should be considered as an opportunity to accomplish the goals of the governing body and emergency responders.

Categorized as Web 2.0, this technology is most familiar to the general public as social media (Crowe, 2012; White, 2012). The element most desired in the technology is the ability for rapid, bi-directional exchanges of information (Crowe, 2012; Hughes & Palen, 2012; White, 2012). Research has shown that social media platforms are establishing themselves as make-

shift communication conduits for persons affected by a significant event, and those wishing to help and support the relief efforts associated with such events (Hughes & Palen, 2012; Li & Sakamoto, 2015). The tight and well defined communication model of first responders, as delineated by the *National Incident Management System* (NIMS) is not, currently, flexible enough to allow for such a dynamic and interactive communication model (White, 2012). The establishment of a communications plan, that includes the use of social media, can allow the priorities of the City's emergency management team a platform to achieve these goals. It is the purpose of this project to develop such a plan.

Literature Review

Emergency managers have long striven to get important information to the citizens within their communities. The field of emergency management has always considered preparedness as a key focus of the information distributed (Haddow, Bullock, & Coppola, 2014). Early forms of emergency communication were found in cave drawings indicating that early man attempted to address disaster potential, and communicate amongst themselves (Haddow, Bullock, & Coppola, 2014). Today, the field of emergency management has evolved to include prevention and mitigation as key focus points for community preparedness (Haddow, Bullock, & Coppola, 2014). As the focus of the field has changed, so too have the mediums through which information is disseminated. "Long gone are days when a siren blasting a loud horn near and far was sufficient to spur people into action. Now, people want information that is precise, pertains specifically to them, and is available to them wherever they are" (Wimberly, 2016, p. 32). All aspects of emergency management communications must consider these changes in the citizen's expectations; but most importantly, the changes in communicative tools must also be recognized in order to meet those expectations (Crowe, 2012a). However, it is not just the expectations of

the citizens that must be met. The needs of the public safety personnel are affected too (Crowe, 2012a; Hughes & Palen, 2012; Hughes A. L., 2014; White, 2012). In meeting the needs and expectations of the public, agencies must also assure the communication tools being used can support the priorities of the Incident Action Plan (Crowe, 2010a; Hughes & Palen, 2012).

Therefore, this paper also addresses the communication needs of the personnel on the front lines. Not the method in which those personnel communicate amongst themselves, but rather how they disseminate pertinent information for the safety of the citizens. Information such as staying inside their homes or the need to get to designated shelters.

Anderson & Caumont (2014) note that “roughly two-thirds (64%) of U.S. adults use [Facebook], and half of those users get news there – amounting to 30% of the general population” (2nd para.). Additionally, the authors note that “YouTube is the next biggest social news pathway” (3rd para.). White (2012) also notes this transition from traditional social networks toward the modern platforms of web-based social interactions as “a reflection of society” (2012, p. 1). If the citizens are reading non-traditional news sources and listening to non-traditional radio broadcasts, then the municipalities and public safety professionals need to be using those same media in order to reach their citizens (Haddow, Bullock, & Coppola, 2014).

The focus of this research is the development of a revised communications plan for the City of Manassas Park’s Emergency Operation Plan (EOP). It is important to consider the current communications plan to help identify the current focus and purpose. Many of the existing goals and the methodologies in the City’s current communication plan are established through required compliance with the federal government. The Federal Emergency Management Administration (FEMA) has established the National Incident Management System (NIMS) as a guideline for jurisdictions to adopt (EOP, 2012; FEMA, 2008; FEMA, 2014). The City of

Manassas Park adopted NIMS “as the standard for incident management” (EOP, 2012). NIMS establishes the need for clear and accurate communiques from the governing body and associated public safety representatives with the citizens and business people in an affected area (FEMA, 2008). It is important that the recommended communication plan maintain the priorities established by FEMA, while integrating modern communication tools into the plan.

Those modern tools are shown to help support public safety agencies integrate with how the general public is already communicating (Li & Sakamoto, 2015; White, 2012; Wimberly, 2016). The general public, traditional news organizations, and many non-governmental organizations (NGO) are already utilizing tools found in modern internet technology to share information, and direct support to those who need it (Crowe, 2012a; White, 2012). Crowe (2010a; 2010b; 2012a; 2012b), Hughes (2012; 2014), and White (2012) support how, in accordance with NIMS, social media can help the processes of information gathering and sharing identified as necessary for serving the public during significant events. Social media can support the NIMS specified need for “flexible communications and information systems that provide a common operating picture to emergency management/response personnel” (FEMA, p. 23) through dynamic media platforms allowing for the flexibility to adapt accordingly to varying types of emergency management driven events (Haddow, Bullock, & Coppola, 2014).

Haddow, Bullock, & Coppola (2014) note that a critical aspect of emergency management communications is the identification of who the audience is; who will be communicated with? They note audiences such as the general public, victims, businesses, the media, government officials, public safety personnel, and volunteers requiring considerations within a communication plan (2014). We have identified two audience groups for the purposes of the discussion here; internal and external. The internal customer is an inclusive group of

public safety personnel, government officials, city employees, and NGOs or local volunteer groups who have been identified during the planning process. The external customers are broken into two sub-groups; citizens and businesses. The citizen group considers the resident, guests, customers, and those who are passing through during the timeline of an event. The business community looks at all licensed businesses as both an audience in need of emergency communications, and as possible resource groups during events. Not only will the business community require the notification that there is a threat or major event planned, but additionally they may serve to support a mission plan with food supplies, power generation, heavy equipment, or countless other means to serve the community in a time of need.

Internally, specific to the emergency management team, we need to consider who will do the communicating. Who is going to gather the information together, and who will be distributing that information through the established infrastructure. The existing EOP has certain considerations established. It is prudent to consider where and how communications are currently managed before identifying new recommendations.

The Emergency Operations Plan's (EOP) Purpose

The first purpose of the EOP (2012) is the reduction “of loss of life and property of City of Manassas Park residents...” (p. 15), an essential public safety principle. Specific to communications, there are two tiers of emergency communication addressed by the EOP; *Internal City Notifications* and *Public Notifications and Warnings* (EOP, 2012). Both internal and external communications will address the planning, response, and recovery priorities in the support of the reduction of life and property. Assuring that those communications are easily disseminated and reliably received is essential to the success of emergency planning by the City (EOP, 2012). As noted in the *Planning Assumptions* of the EOP (2012), “widespread power and

communication outages may require the use of alternate methods of providing public information and delivering essential services. Normal communication may be difficult or even unavailable due to demand exceeding capacity (i.e., no cell phone service” (pp. 20-21). Empirical evidence shows that social media is providing alternative means of information sharing during such crises (Hiltz & Gonzalez, 2012)

Communications, from the City Government initially, will be distributed through the Emergency Communications Center (ECC), which is located in the police headquarters (EOP, 2012). As the magnitude of the event expands, the potential for establishing an Emergency Operations Center (EOC) exists. Communications between the City and its mutual aid partners, pre-designated resource contractors, and citizens will flow through the ECC accordingly until an EOC is open (EOP, 2012). Fundamentally there will be a Public Information Officer in charge of assuring that information is channeled accordingly (EOP, 2012). The current EOP (2012) establishes seven methods of communicating with the public:

- 1) The Emergency Alert System (EAS)
- 2) The emergency override on the cable system
- 3) Government access bulletin boards
- 4) Reverse 9-1-1
- 5) The City website
- 6) Regional Incident Communications and Coordination System (RICCS)
- 7) The CMP Citizen’s Warning System (text messaging)

The continued utilization of these tools allows the CMP to reach those citizens and community members that are still utilizing cable television, land lines, and static webpage interactions for news updates and emergency planning. There are attributes to each of these communication

methods, however, research indicates that not all citizens are staying ‘tuned-in’ to some of the more traditional media formats (Anderson & Caumont, 2014; Crowe, 2012a). The EOP goes on to note that “it is essential that the public be provided with timely, accurate, and easily understood information on any protective measures that need to be taken to save lives and protect property” (2012, p. 38).

It is the timely, effective, and accurate dispersal of information that makes for “an effective crisis communication strategy” (Haddow, Bullock, & Coppola, 2014, p. 140). White (2012) underscores this principle noting that “social media should be used for a comprehensive emergency management approach” (p. 46). Currently the City of Manassas Park’s EOP does not account for the utilization of social media specific to emergency management (Fire Marshal, 2016).

The Current EOP Communication Plan

The current version of the EOP establishes sixteen *Emergency Support Functions* (ESF) through which the anticipated needs and responsibilities for managing the City during an emergency have been assigned (EOP, 2012). The current EOP addresses communication in both ESF 2 and ESF 15. The primary focus of ESF 2 is maintaining the infrastructure of internal connectivity between city buildings, and the coordination of work and contractors necessary to sustain such services (EOP, 2012). The second, ESF 15, addresses the distribution of the message “to the public, the media, the private sector, and the City of Manassas Park elected officials and employees during emergencies” (EOP, 2012, p. 114). Collectively the two ESFs create the conduit for communications that are being addressed in this research.

The ESF 2 mission statement is to: “Provide emergency communications resources and capabilities for the response to, and recovery from, a significant event within the City of

Manassas Park, and provide technical assistance in the assessment and restoration of the City's telecommunications infrastructure" (EOP, 2012, p. 56). Lead responsibilities for ESF 2 are assigned to the Department of Information Technology (DIT); the Fire Department and Police Department are both assigned support responsibilities, and a local citizen group of amateur radio operators has been identified as an additional support group for maintaining communications should there be a systematic failure of the current radio network (EOP, 2012). The Lead department and each of the support departments have roles and responsibilities broken down into four phases of an event; Preparedness, Response, Recovery, and Mitigation (EOP, 2012). There are intentional redundancies between the roles and responsibilities of the lead agency and those responsibilities of the support agencies. However, the provision of communication methodologies, throughout the four phases spelled out in the ESF, is the main purview of the lead agency (EOP, 2012). Within the *preparedness phase*, back-up systems and contingency systems are addressed, specifically, the need to "develop and maintain emergency alert and notification equipment, systems and interoperability" (EOP, 2012, p. 58). Currently those methods of communication, and the channels through which it flows, are established in the EOP (2012) where NIMS is formally adopted as mandated by the federal government (p. 28).

Whereas ESF 2 is written to assure the infrastructure across which the message will travel, ESF 15 (entitled *External Affairs*) addresses the message itself (EOP, 2012). The lead agency associated with ESF 15 is the City Manager or the designated Public Information Officer (PIO). The support agencies are the Fire Department and Police Department; additionally, the regional health department is included to assure clear communications associated with any regionally developing public health issue, noting that clear communications are essential to the provision of "protective action guidance as appropriate in order to save lives and protect

property” (EOP, 2012, p. 114). The principal goal of communication supports the overarching purpose of the EOP. The latitude within ESF 15 is how the message can be managed proportionately to the incident itself. For example section III, *Concept of Operations*, notes that public information can be distributed by the responding agency when those events are small and specific to the services delivered by the associated agency; i.e. Public Works can communicate about water main breaks or the Fire Department can communicate about structure fires (EOP, 2012). The EOP also considers that when an incident grows in its impact, the coordination necessary to assure the appropriate communication conduits will need to shift to assure all impacted citizens and affected groups are kept informed (EOP, 2012). These larger scale events, planned or unplanned, will utilize an Emergency Operations Center (EOC), to house representatives of all agencies involved, thus assuring the ability to share information quickly and accurately amongst themselves (EOP, 2012; FEMA, 2014). Additionally, the PIO will either be in the EOC or have a team member there to help assure information is collected and vetted in order to shape outgoing messages to the general public (FEMA, 2014). Such a team is built upon the structural elements and methods suggested by the federal incident management system, NIMS.

National Incident Management System (NIMS)

FEMA established NIMS to provide a structural system allowing for common terminology between agencies and jurisdictions across the United States (FEMA, 2008). The focus of NIMS, in regards to public communications, is in “the processes, procedures, and systems to communicate timely, accurate, and accessible information on incident’s cause, size, and current situation to the public, responders, and additional stakeholders both directly affected and indirectly affected” (FEMA, 2008, p. 70). FEMA’s NIMS document goes on to note how

the Incident Command System (ICS) and Multiagency Coordination Systems (MACS) provide substantive information to be distributed through the Public Information Officer to the public (2008).

Crowe (2010a) notes that “NIMS and social media (networking) are quickly becoming two conflicting beasts in the realm of emergency public information” (p. 1). However, many of the authors whose work was reviewed in this research provide recommendations for how that same conflicting medium can be used to support the original principles, in an equally reliable manner. As noted by Hughes (2014), social media provide an alternative way to distribute the information generated on the scene and in the EOC to the public. The beneficial aspect of social media is not simply the ability to distribute information to the public, but the reality that those same distribution methods can gather information (Hughes A. L., 2014). The information being gathered is that which is being generated by the public that is also currently being affected by the events the responsible municipality is managing (2014).

The public safety and emergency management fields of public service have been slow to integrate this bi-directional communication medium into their communications plan, as noted by Crowe (2010b); “the biggest challenge for emergency managers is the need to modify long-standing philosophies on how to communicate with citizens regarding emergency preparedness and management issues that might affect them” (p. 409). Those traditional methods of communication, listed in the EOP, can provide important information to the citizens in a timely manner. However, the data indicates that more and more people are moving away from the traditional formats of news and communications, and therefore, additional methods need to be included (Crowe, 2012a; Haddow, Bullock, & Coppola, 2014). This research is not an exercise to indicate that NIMS and ICS are flawed systems of command and control, rather, an exercise to

highlight the need for change and evolution of those policies and procedures to incorporate modern technology and trends in support of better service to the public.

Social Media Impact

Examples of how disaster response was aided by the discussions found on social media date back to the London bombing in 2005 (Crowe, 2012b). Ludwig, Reuter, & Pipek (2015) reference typhoon Haiyan in 2013, hurricane Sandy in 2012, the 2011 tsunami in Japan, and the 2010 Haitian earthquake as recent incidents that have been studied regarding the impact of social media during the response and recovery. It is also noted that for the purposes of command and control of a disaster response, “information is the most valuable resource” (Ludwig, Reuter, & Pipek, 2015, p. 17:2). However, the importance of gathering information fast must be balanced with the importance of gathering accurate information (Ludwig, Reuter, & Pipek, 2015).

Motorola, in their *2014 Public Safety Industry Study*, note that “agencies around the country are depending more on high-speed communications and collective intelligence to improve safety and outcomes for both field officers and the communities they serve” (2nd para.). Hiltz & Gonzales (2012) suggest three uses of social media affecting its importance to emergency management; first is social media’s ability to assist the organization with information, categorically (Hiltz & Gonzalez, 2012). Whether for preparedness, response, or recovery, social media offers the ability to link together and categorize information specific to an upcoming event, a looming storm, or directing the citizens to specific types of help in the aftermath of a disaster (Hiltz & Gonzalez, 2012). Secondly, the structure established through the first use supports how and what information emergency managers distribute (Hiltz & Gonzalez, 2012). Third, the public will also have the opportunity to upload information as well. That information can go directly into the established group, assuring that it can support the IAP.

Increasingly, citizen's participation in emergency management is being sought. This can be seen in FEMA's (2011) *The Whole Community Approach* document, where it is presented as "a foundation for increasing individual preparedness and engaging with members of the community as vital partners in enhancing resiliency and security of our Nation through a Whole Community approach" (p. 2), a state of preparedness referred to as resiliency.

Resilience

The National Academies (2012) define resiliency as "the ability to prepare and plan for, absorb, recover from, or more successfully adapt to actual or potential adverse events" (p. 16), and as such, requires communication and education. Additionally the National Academies noted that "no person or place is immune from disasters or disaster-related losses" (p. 11).

Accordingly, *The Whole Community Approach* recommends a cooperative approach to community based emergency management between the local government, the federal government, the business community, and the citizens (FEMA, 2011). The goal of the plan is to capitalize on the involvement and efforts of the entire community to plan for, respond to, and recover from disasters (2011). This interactive and *all hands* concept of preparing for the event, and the handling of the initial hours of the event, are in support of the broader, umbrella concept of community resilience (Haddow, Bullock, & Coppola, 2014; The National Academies, 2012). The sharing of information is critical to the concept of resilience (The National Academies, 2012).

This paradigm of community empowerment requires the sharing of information, both between agencies and with the public (Haddow, Bullock, & Coppola, 2014). The momentum of this movement weakens the traditional one-directional communication model of pushing information out in a "top-down, command-and-control approach" (The National Academies,

2012, p. 137). The National Academies (2012) are not implying that the role of government is being removed from the emergency management processes, rather a transfer of ownership back to the community who are best positioned to identify risk and, additionally, be the first on the scene after an event. The development of policies, procedures, and strategies that include the citizens, businesses, community leaders, and the government ensure the needs of stakeholders are considered (The National Academies, 2012). “Strong governance at all levels is a key element of resilience and includes the making of consistent and complementary local, state, and federal policies” (The National Academies, 2012, p. 6).

As the community becomes involved in these processes, they become “the primary problem solvers” (The National Academies, 2012, p. 137), be it for mitigation, response, or recovery. As such, an integrated information sharing model can allow the necessary control and delivery of information (The National Academies, 2012). The dynamics of this information, going out from the municipality, and coming in, create a modern and adaptive communication plan (Hughes & Palen, 2012). Key elements of such a model address planning and preparedness purposes. A benefit of such a plan is the instantaneousness provided by social media during response and recovery operations (Crowe, 2012a). “The mission of an effective disaster communications strategy is to provide timely and accurate information to the public” (Haddow, Bullock, & Coppola, 2014, p. 140). An important consideration of emphasis for such sharing of information is that traditional news agencies are sharing information from social media postings as much as citizens are posting stories they find on those same news agency sites (Haddow, Bullock, & Coppola, 2014, p. 156). The opportunity for a community to develop a similar synergy can support effective and reliable community resilience (2014).

How to Communicate: Best Practices

As noted, regarding emergency management communications, information exchange has transformed in the era of social media, now “news is gathered, shared, and used” (Haddow, Bullock, & Coppola, 2014, p. 139) by anyone with a social media account (Crowe, 2012a). Increasingly, “the public expects to find answers on social media networks first” (Sheil, Violanti, & Slusarski, 2011), and as such, an agency must adapt to good use of notable social media platforms (Haddow, Bullock, & Coppola, 2014). The notable increase in social media use by the general public, of all ages (Anderson & Caumont, 2014), is reflected in how agencies are using social media platforms (Haddow, Bullock, & Coppola, 2014). This realization of medium changes should not be interpreted as coincidental changes in the mission. It is imperative to underscore that the mission of emergency management communications remains the provisions of “timely and accurate information to the public” (Haddow, Bullock, & Coppola, 2014, p. 140). Where the information is coming from and how it is being distributed is changing. The dilemma associated with adopting these trends into the communication model are associated with the structural aspect of NIMS and ICS whereas the Public Information Officer has traditionally been the “gatekeeper” for information coming in, and information going out (Hughes & Palen, 2012).

Public Information Officer (PIO)

Hughes & Palen (2012) outline the integration of data and information collection, from the very audience to whom a PIO is distributing information, for the purposes of complete and accurate situational awareness. The issue at hand ties back into the restrictive processes spelled out by NIMS (Hughes & Palen, 2012). Stemming from an entrenched belief “emergency officials are the only legitimate source of information” (Hughes & Palen, 2012, p. 1), modern communication exchange is challenging who and how incident specific information is being

handled (White, 2012). The expanding role of being an active listener to the public through social media postings, with that of the being the public voice for an Incident Commander, creates the need for discussions between the Incident Commander and the PIO (Hughes & Palen, 2012).

Painting the picture of what else is going on within the incident arena for the Incident Commander involves combing through an abundant amount of information generated by the general public, a process that can be overwhelming and distracting for a PIO (Hughes A. L., 2014). Hughes (2014) invited PIOs to participate in a process that identified how, if at all, information intake could best be managed. Those PIOs noted they would initially look to organize incoming data according to whom that information should be distributed (Hughes A. L., 2014). This process begins to define the hierarchy of information a PIO will need to manage. The categorization of information can help to establish a level of importance and to whom it must be initially sent to, noting that “as PIOs monitor social media, they often need to report what they find to other members of the emergency response team” (Hughes A. L., 2014, p. 733).

Hughes & Palen (2012) note that the management of all the information available shifts the responsibility of the PIO from the early noted *gatekeeper*, to that of *translator*. These expanding capabilities will require identification of personnel who can focus on specific platforms through which information may be expected, in or out (Hughes & Palen, 2012). One movement, especially for resource limited agencies, is the collaboration with other agencies to share those responsibilities (Steen, 2015). A team, not working within the same geographically affected area, can monitor the narrative throughout the event, highlighting trends (Steen, 2015). The information gathered can be prioritized, highlighted and then shared with the PIO at the EOC for the benefit of the IC and effected stakeholders. Sheil, Violanti & Slusarski (2011)

define this process as *curation*; “the maintenance and appraisal of digital information over its entire life cycle” (p. 54).

Curating Information

As the sources for information management expand, supporting the public interaction with an agency’s social media pages, the demands on an agency grow exponentially. “One way of overcoming the potential resource barriers to implementing a social media plan and keeping people up to the minute is to develop a trusted volunteer network outside of the affected area who curate data through the social media” (Sheil, Violanti, & Slusarski, 2011, p. 55). Hughes & Tapia (2015) also recommend the building of a volunteer contingency to support social media management, and both groups of researchers recommend caution against the randomized assignment of such responsibilities. Rather, this is a preparative, planned, action that can capitalize on unique resources options, and therefore needs to be a definitively assigned task to personnel who are integrated into the communication team (Sheil, Violanti, & Slusarski, 2011; Hughes & Tapia, 2015).

What is equally important in the curation process is the management of information across the social media platforms during non-emergency periods of time, billed as *brand recognition* (Haddow, Bullock, & Coppola, 2014; Sheil, Violanti, & Slusarski, 2011). Sih, Han, & Carroll (2015) suggest the development of a *Community Incident Report* (CIR) as a tool to help build public confidence in the agencies gathering, processing and sharing of social media information. The CIR is a recurring platform of information to “foster citizens’ awareness of local emergency information and to assist emergency planners in planning for recurring and cyclical events” (p. 627). A key consideration is that social media can serve as a conduit of information when traditional systems are crippled. The impact of managing such information

infrastructure is important for the communication plan. As resources become overwhelmed, the opportunity to engage volunteer citizens in the generation of damage assessments (Shih, Han, & Carroll, 2015), and the interpersonal networking for the purpose of welfare checks (White, 2012) calls for the established presence on social media platforms in such *uneventful* periods. The development of the community's familiarity and reliance on such platforms will not occur during an emergency event, rather this relationship for reliable information needs to be cultivated during non-emergency periods (Hughes & Tapia, 2015).

Staff Considerations

Curation, as noted, requires personnel capable of viewing, categorizing, and responding to information gathered—regardless of the conduit through which the information came. The establishment of a communications staff is an essential element for emergency management programs. However, it is also recognized that not all agencies can accomplish this goal within the limitations of their local structure (Haddow, Bullock, & Coppola, 2014). Sheil, Violanti, & Slusarski (2011) studied the impact of remote virtual support. Specifically this is the cooperative use of resources in another jurisdiction by an agency that is experiencing a significant event (Sheil, Violanti, & Slusarski, 2011). For example, the City of Manassas Park may partner with a city in Michigan and another in Arizona, whereas when the City of Manassas Park is impacted by an event, the predesignated teams in either (or both—depending on the magnitude of the event) of those remote locations would log in and monitor the City of Manassas Park's social media pages for trends and important posts. Subsequently, the City of Manassas Park would also have a predesignated team that would serve either of those other agencies in their time of need. These teams have been labeled Virtual Operational Support Teams (VOST) (Sheil, Violanti, & Slusarski, 2011).

The benefits of those unaffected personnel remotely monitoring social media networks is the creation of an active processing of information (Sheil, Violanti, & Slusarski, 2011). This can help shorten the processing of information gathered through social media and allow those involved personnel within the affected jurisdiction to focus on the already assigned tasks (Sheil, Violanti, & Slusarski, 2011). The utilization of VOST or local volunteer support can alleviate some of the demands associated with the establishment of a communications staff, as noted earlier.

The predefining of these teams, supported with training, can assure a quick set-up and activation when needed. Defined as “a group of people that come together acting as a trusted agent for local jurisdictions that either have a pre-planned event or incident” (Steen, 2015, p. 36), VOSTs are located in unaffected regions, and relatively unencumbered with emergency operation activity themselves. The VOST are in a position to support those actively responding to effected regions by monitoring social media of those effected internal and external customers (Steen, 2015). The compilation of information, without so many other things to do allows the regional PIO or communication officer to get the occasional update on what is trending while also providing an updated message for the VOST to distribute (Steen, 2015).

The presence of emergency management, along with the represented municipality itself, within the social network of the citizens it serves, is becoming the expected norm by those very citizens (Hughes & Tapia, 2015; Shih, Han, & Carroll, 2015). The options for resource management to assure message management is a critical element for any municipality’s communication plan (Haddow, Bullock, & Coppola, 2014). Looking at and defining who the customers are, how they communicate, and how they expect being communicated with is essential. Though waning in popularity, many traditional methods of media are still reliable and

viable modes of message sending. Seeking a balance of message medium, proportionate with event severity and importance, will support the dynamics of sender and receiver relationships and support active communications needed for the modern setting.

Interview Overview

Procedure

To support the development of “an effective disaster communications strategy” (Haddow, Bullock, & Coppola, 2014, p. 140) within the revised communication model for the City of Manassas Park, six of the main emergency management personnel were interviewed. The interview candidates were selected on the merit of their positions within the rank structure of the EOP. Those selected were the Mayor, City Manager, Fire Chief, Police Chief, Fire Marshal, and the Virginia Department of Emergency Management (VDEM) regional representative to the City of Manassas Park. The Mayor, as defined by the current EOP, is a critical liaison with fellow governmental leaders, regional and state government representatives, and “serves as (or appoints) a chief spokesperson for the City during emergency events” (p. 23). The City Manager is the Director of Emergency Management and, as such, oversees the appointments of staff and direction of actions for emergency management issues (EOP, 2012). As appointed by the City Manager, the Fire Chief serves as the Coordinator of Emergency Management, and the Police Chief serves as the Deputy Coordinator of Emergency Management. The Fire Marshal serves on the emergency management team and supports emergency management training, EOC operations, and communications. The state liaison from VDEM offers regional considerations as well as a focus on upward communication needs in the support of a bigger picture communications model. The scope of responsibility and influence on policy and procedure

allow for these personnel to be identified as contributors of critical opinions regarding the development of a revised communications plan.

A critical consideration of any communication plan is the recipient with whom it is intended to communicate. In general, there are two categories of audience; internal and external. An internal customer is defined as someone who works for the City of Manassas Park, or a mutually responding agency with which the City of Manassas Park personnel would collaborate; i.e. FEMA. The external customer was broken into two groups; the citizens and the business community. Uniquely different, the citizen group can encompass a visitor, traveler passing through, a local business customer, or resident of the City of Manassas Park. The business group offers potential resources during a significant disaster (Fire Marshal, 2016). Additionally, as noted by the Fire Marshal (2016), some businesses will need specific communication conduits to support the monitoring inventories during an event. Inventories such as those being sustained on temporary power or infringed upon by environmental conditions such as rising flood waters.

The current EOP (2012) accounts for information sharing through text message based platforms, reverse 911, static web-based information sharing, and traditional sources such as radio and television. In 2016 a proposed revision of the EOP will take place with the goal of enacting a new EOP in January, 2017 (VDEM-Divison VII Representative, 2016). A series of questions (Appendix B) were developed to explore the potential transition from the current, traditional, communication model to a more modern, bi-directional model. The six interviewees were asked to provide their opinions on the strengths and weaknesses associated with the current communication model in consideration of the changing social environment the citizens being served are living in. The noted strengths and weaknesses of the existing plan were then applied to considerations for how best to redefine, if at all, the communication model for the future. The

qualitative data collected through the six interviews was limited to the opinion of the interviewee and had no quantitative aspect for measurement. As such, the results of the interviews can only be indicative of trends in the opinions given or, in contrast, highlight variances between those points of view.

Results

The first question asked was: What is the goal of the City of Manassas Park's Emergency Operation Plan's *communication model*? Of significant importance, the consensus consideration about the communication model was circulating a meaningful and accurate message, in a timely manner, and providing beneficial information to the public. The general focus on circulating a reliable and accurate message out, fast, allowed for the tangential discussion of how best to communicate with the public. Importantly, that discussion led into the second question which asked if the current communication model supports those [noted] goals. In summation, the interviewees noted that the City of Manassas Park is pushing a message out, however, there is no current means of measuring two important aspects of the process; 1) how successfully is that being done, and 2) are we reaching the many facets of the diverse community served? This allowed the conversations with the interviewees to define three issues; who is the target audience, what subject matters required City statements, and how best to relay the proper sense of importance associated with a given message. Those tangents will be addressed in the plan recommendations section of the paper, however, the overall opinion is the existing plan utilized the prescribed tools as best as the given limitations of the staff currently allow.

The third question addressed social media specifically. The interviewees were asked about the current use of social media in support of the emergency management communications model. As noted in the EOP (2012) communications overview earlier, there are no specific

policies, procedures, or guidelines associated with the use of social media for emergency management purposes. However, social media are being used by many City agencies, independently from one another (City Manager, 2016). As such, several emergency management messages have been broadcast across those pages associated with City agencies (Fire Chief, 2016; Fire Marshal, 2016). Noting that those platforms are not in support of emergency management specifically, the idea that there is, currently, some form of social media delivery available is considered a positive foundation from which to grow (Mayor, 2016). This ties into the fourth question posed; what role, if any, do you see social media playing in the revised communications model of the EOP? All interviewees agreed that social media needs to be harnessed better to support communications for emergency management purposes. The concern is not with the idea against social media use, but who, within the limitations of the City structure, will be responsible for the monitoring of the platforms.

As noted, DIT is currently the lead agency associated with the infrastructure management (ESF 2), and the City Manager/PIO is designated as the lead on message management (ESF 15). The fifth question asked how [the interviewee] envisioned the communications model being managed in the revised plan? The general agreement was that DIT should continue to be responsible for the items addressed in ESF 2, infrastructure, and that the City's PIO would be responsible for the management of the message itself; those aspects would not change. How and where these responsibilities fall within the EOC structure within the upcoming revisions to the EOP are not clear. This discussion created a concern for the researcher. Without a clear vision of how the EOP was going to be revised regarding what format those changes will take, there are limitations associated for that initial goal of creating a recommended policy or procedure for the communications plan. As such, the deliverable will be in the format of a Departmental Standard

Operating Procedure noting plan elements that can be incorporated into the revised EOP when the opportunity comes.

The final section of the interview considered four types of events that fall under the umbrella of emergency management for the City of Manassas Park: Planned events, unplanned events, preparedness and planning information, and recovery actions. Additionally this section targeted the three audiences for communications: The internal customer, the general public, and the business community. With these events and audiences defined, the question was whether a unique communication plan was needed for each? The impact of this latter portion of the discussion will be seen in the recommendations section. To summarize the discussions, the general desire is the development of a single, adaptable communications model that can serve the operational activities, and provide the ability to manage information, in and out.

The EOP is scheduled for a review and “update every four years in accordance with the Commonwealth of Virginia’s requirements” (EOP, 2012, p. 13). A critical goal of this revision process will be to address the needs of an emergency operations plan that better utilizes existing personnel, equipment, and procedures within the structure of the City, thereby increasing the accuracy of messages delivered, and actions taken for emergency management purposes (Fire Marshal, 2016; VDEM-Division VII Representative, 2016). As noted by the Mayor (2016), this revision is an opportunity to develop a plan that will allow the City of Manassas Park to be prepared to communicate with multiple generations, in multiple languages, and across jurisdictional boundaries better. These communiques can be delivered via a hierarchical system that allows us to determine when and how to best communicate with the public on matters of their personal safety. Assuring that an accurate message is delivered is essential.

Communication Platforms

The EOP has established several means of traditional mass communication methods: The Emergency Alert System (EAS), emergency override on the cable system, radio and television, Government access bulletin boards, reverse 9-1-1, City website, Regional Incident Communications and Coordination System (RICCS), and Citizen's Warning System (a text message based system) (EOP, 2012). Predominantly one direction communication methods are reliable forms of getting necessary preparedness and planning information out. However, except for the reverse 9-1-1 system, none of the currently employed methods being used can account for who is receiving the message. The next iteration of communications for the City of Manassas Park should expand upon these tools to include social media platforms that allow the tailoring of a message and feedback from the recipient (VDEM-Divison VII Representative, 2016).

One noted concern is with the current text-message based alerting system, Everbridge. Several interviewees noted concern about the dilution of Everbridge's reliability through the saturated use of the platform (Fire Chief, 2016; Mayor, 2016; Police Chief, 2016). An essential consideration in message management is the importance associated with the message needs to be reflected in how the message is distributed. One current problem faced with the Everbridge system is the frequent circulation of generalized, regional warnings or watches during the early morning hours (VDEM-Divison VII Representative, 2016). Although the information may be pertinent for the day, it is frequently determined not to be essential for safety at that moment. Therefore the receivers have begun requesting to be removed from the alerting roster (VDEM-Divison VII Representative, 2016). This needs to be resolved with a tiered system of communication methods that can provide necessary information in accordance with the severity

associated with the circumstances, thus protecting the impact-potential of those methods of communications.

Several of the existing tools allow for the general sharing of information to broad groups of users. When considering new, internet based platforms, White (2012) writes of how many of the platforms can be adapted to any user group. However, identifying those groups before you need to communicate with them is critical to being successful in communicating with them over those chosen media. As noted earlier, there are three target audiences within the City of Manassas Park; internal, citizen (external), and business (external). The dynamic aspects of the different media options need to be considered when choosing which ones to employ for specific target audiences. For example, White (2012) highlights the capability of Facebook to serve both the public and private customer through independent pages. Additionally, both Twitter and Facebook offer the ability to have multiple, different language platforms through which information can be shared; assuring greater reach with the same message, though in a manner consumable by the different target sub-audiences. Within the scope of these two, very common social media platforms, the identified target groups can be involved in discussions and receive important planning and preparedness information, with no software costs to the agency.

Similar approaches can be applied to internal customer groups, having a designated page or Twitter feed for different agencies within the municipality. Alternately, platforms such as SharePoint can allow the controlled sharing of information in designated internal user groups, predefined and assigned to specific projects (Mayor, 2016). It is important to identify that Everbridge, the text based alerting system, allows for similar uses (Fire Marshal, 2016; Police Chief, 2016). However, concerns noted earlier about platform dilution through message

saturation have already been shown to reduce the reliability of the platform to consistently reach the necessary audiences.

There are many positive attributes associated with the current pool of communication platforms being utilized. One of the main considerations is the current presence and familiarity of those methods to both the communicating agency and the recipients. The development of a plan that can maximize the impact potential of the appropriate platform for the appropriate message can support the continued use of such methods. However, it is essential to consider expanding technology opportunities to fill in the message gaps and infrastructural limitations in order to maximize the communications plan. Information technology based communication infrastructure across the internet allows for the sharing of information in a targeted manner with the appropriate priority considerations.

Recommended Communication Plan Elements

The following overview of the key elements of the recommended communications plan (staff, methodology, and information prioritization) will support the recommended Emergency Management Communications Plan SOP found in Appendix D. We will explore the recommended elements of a modern, adaptive, and bi-directional communications plan. As discussed throughout this paper, there are two facets of communication; 1) the infrastructure, and 2) the message. The current ESF format addresses the communication plan across two different task groups; ESF 2 and ESF 15. It is the recommendation that the revised plan considers a single task group for the management of the communications plan. This team should be established under PIO's ICS position, as found in the command staff within the traditional ICS structure (Appendix C). The first element reviewed is the recommended staffing hierarchy, followed by

the communication methodology, and closing with a recommended information prioritization matrix.

Staff

The information exchange between a citizen and the City can occur at any level of interaction throughout the many agencies serving the citizens. For example, a suspicious package may be identified at school, or the recreation center, or near a ball field, and not all citizens will automatically contact 9-1-1, rather they may pass that information along to any City employee on duty in that area. Therefore, all employees should be expected to become familiar with the *Threat Based Communication Matrix* found in Table 1. All employees are an integral part of this communication chain and must, therefore, be trained to understand their role. During the training sessions, emphasis on good communication can reduce the negative impacts associated with disaster, crisis, or any identified hazard.

The EOP establishes that the City Manager is the Emergency Manager (EOP, 2012). As the City's PIO falls within the command staff of the City Manager, then they too are the senior supervisor of the communication staff. The ICS system allows for the delegation of responsibilities to a subordinate better positioned to directly handle them (FEMA, 2008). Within this recommended information team structure, the PIO could delegate communication responsibilities to subordinates better positioned to assure communications are handled accordingly. The designee would be the associated agency PIO (Table 2). Therefore, should Public Works have a significant event, such as a major infrastructure issue, the Emergency Manager may choose to designate the Public Works director as the incident commander. The Public Works PIO would also assume the primary responsibility for information management.

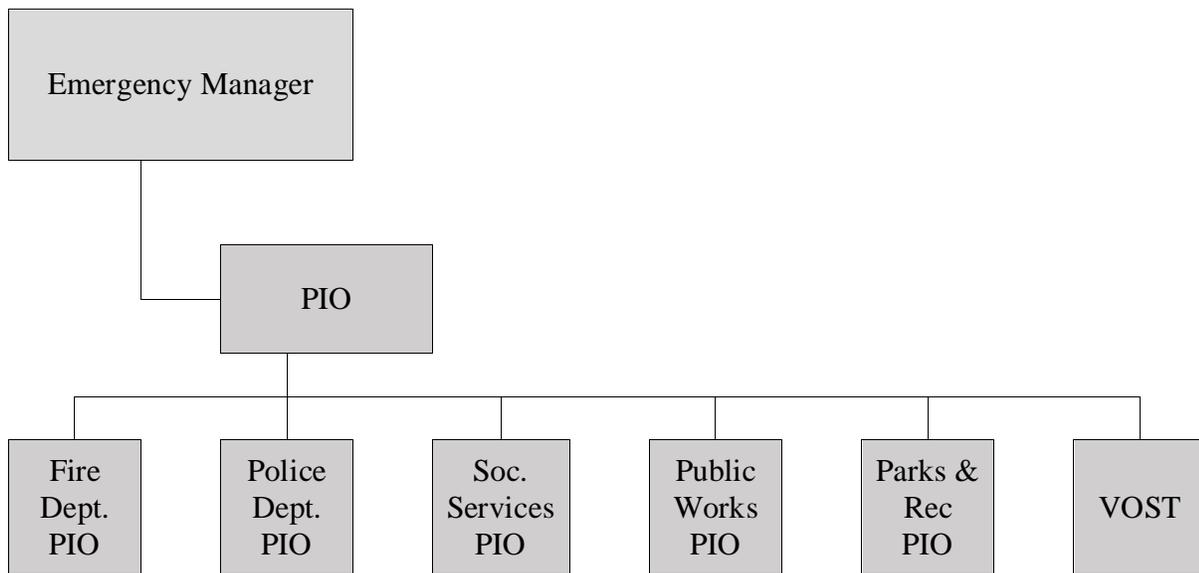
Table 1: Threat based communication matrix

Threat Level	Alert Circulation Matrix	Required Response						
Emergency								Event that threatens life or health and requires active response from recipient
Watch							Impending event, true threat to life or health in the area that requires focused attention to surroundings	
Warning						Potential threats to life and health, developing events that require awareness level focus		
Advisory					General Knowledge, Preplanned events, non-life threatening developments			
	Web based	Social Media	Local Channel Posting	Radio & TV	Cable Break-In	EAS	Everbridge	Reverse 911

This is not a caveat that circumvents accountability. Rather, it is an attribute of the ICS system that allows the command infrastructure to be proportionately built with that of the incident being managed. For example, a swim meet being held at the recreation center requires a

smaller staff than the Fourth of July celebration. Additionally, within that same comparison, the magnitude of the event may also call for variations in who is ultimately responsible for overall management of the event. With the City of Manassas Park’s structure, a Parks and Recreation supervisor will be responsible for overseeing the responsibilities associated with the hosting of a swim meet, while the Manassas Park Police Department will be assuming the overall incident management responsibilities of the Fourth of July celebration.

Table 2



The communication responsibilities will need to be assigned within each City agency to assure that accountability within each service center exists. This requires assignment of a PIO for the Fire Department, Police Department, Social Services, Public Works, Parks & Recreation, Schools, and City Hall. Each agency identified is responsible for either serving the public or hosting them within their infrastructure of offices and buildings. The City Hall PIO will be the PIO for City Hall and serve in the staff position of PIO, reporting to the City Manager who

serves the City as the Emergency Manager (henceforth referred to as PIO, with any reference to a subordinate PIO to include the agency with which they are associated), as represented in Table 2. As noted earlier, the EOP allows for the responsibilities of Emergency Manager to be delegated to a director when the City Manager sees it as justified, and the scope of the incident falls under the umbrella of that agency's service model.

The management of information during non-emergencies, and leading up to predictable and preplanned events, allows for the cultivation of culture of information management. It is critical that the utilization of a dynamic team, such as the one represented in Table 2, be practiced with, prior to an unanticipated event. Failure to train appropriately with the designated personnel and the associated procedures can reduce the efficacy of information management during real-time operations. Therefore, it is strongly recommended that the City of Manassas Park build social media monitoring resource sharing relationships with other agencies around the nation. The utilization of staff in other geographic areas allows for the development and maintenance of Virtual Operational Support Teams (VOST). This relationship is a shared responsibility of providing to and benefiting from personnel within those paired agencies, to monitor social media during the operational period of significant events in order to harvest trends of information and identify critical developments. The benefit of a VOST is the expansion of the information management team during high stress periods with personnel that will not be burdened with the distractions and angst associated with being in the City during trying times.

A proper vetting process to build associated teams with several other agencies can allow for shared responsibility over the course of extended operational periods without having to additionally tax the resources within a single agency, or multitude of agencies. These teams should be included in the periodic training sessions in order to strengthen the teams'

understanding of one another and assure that the necessary key information items are being looked for. The dynamics associated with such a broad based team allow for proportionate response that can grow accordingly, if necessary. For example, should a train derail within the City limits, several of the other agency PIOs can assist the Fire Department PIO until the EOC is opened and the VOST activated. However, this is not a process that simply will be successful when needed. Training is critical to help ensure the focus points are understood, and the exchange of information is fluid. Currently there are monthly web based EOC drills that can easily incorporate both escalating events and the use of VOST.

The benefits associated with VOST based relationships can expand beyond simple message management. As technology advances, different platforms and tools are developed. As teams experience new successes or failures associated with processes, programs, or hardware, they can share information in the fashion of a consortium, thus advancing all partner agencies emergency management programs.

As noted, the roles and responsibilities of ESF 2 are recommended for inclusion within the scope of management for the PIO. As such, each agency will be responsible for the oversight and assurance that their associated communication tools are functional and connected to the City's infrastructure. Should a localized issue arise, the agency immediately affected will work with the Department of Information Technology (DIT) to correct the problem. It is the responsibility of DIT to identify when multiple agencies are reporting similar problems, thus indicating the possibility of a more systemic issue. Any issue that expands beyond a single agency, and therefore could be categorized as systemic, must be reported to the PIO.

Methodology

The opportunity to have interactions with the public or business owners can create an opportunity for the need to distribute information or take-in information. Each of the City agencies may experience such interaction. Although the PIO is ultimately responsible for all communiques generated, authority can be delegated to an associated agency PIO for communiques associated with agency specific programs or events. There is an overarching responsibility for the PIO to assure that there is consistency with the message tone, format, and method of distribution throughout the City. This communication model will involve the curation of information gathered from social media sites as much as that generated by city processes. The potential impact on any one agency PIO requires the diligence of shared resources to assure information is being gathered, processed, and (if necessary) responded to, in a timely manner. Labeling outgoing messages according to the alert circulation matrix will support the proper dispersal of generated information. Diligence and accountability will assure no major communication method is saturated; thus reducing the inspiration for citizens to unsubscribe or avoid using it.

All personnel should be familiar with the referenced alert matrix (Table 1) in order to help them identify the associated level of importance of the information. Additionally, not all employees will be well versed in the communication infrastructure and may not know how to get the associated information circulated. However, through the proper training, all employees can be prepared to identify information and categorize it accordingly, and then contact the associated informational officer. Therefore it is recommended that a two-sided document be developed as a reference document. This form will have the communication matrix on one side, and the current contact information on the other and be located near all City phones. Those communication

officers associated with the different departments will be identified along with their contact information; text, call, or email. Additionally, some personnel and associated information levels may require contacting the ECC in order to initiate Everbridge or Reverse 9-1-1. The priority of the City is to assure access to the best information as quickly as possible. This fundamental practice of training all personnel accordingly to the basic task of information prioritization and associated notifications, can help to ensure a timely message is circulated.

The importance level has been simplified to assure ease of understanding, yet built upon an existing system of watches and warnings to reinforce systems already in place. The four levels of importance established by the National Weather Service (NWS) in this proposed hierarchy are, from low importance to high: Advisory, Warning, Watch, and Emergency (NOAA, 2009). The pre-existing tiered hierarchy of alerts can support the consistency in messages across the many different agencies that circulate public information. Though associated with weather events, when the NWS issues an alert, watch, warning, or emergency, it will fit right into the informational matrix within the City. The consistency of this information can reinforce the associated perceptions that the recipients have with these alerts. Therefore, should the city need to circulate an alert that is not weather related, the associated level of priority will be reinforced by the earlier issuances of NWS alerts, and vice versa. Table 1 establishes a four tier hierarchy against which to judge information's importance (Y axis) and directly correlate that to methods of communication (X axis) through which the information is to be circulated, from a static web-based page up to a reverse 9-1-1 or Everbridge declaration.

Information Prioritization

Information may come into any one of the City's agencies or personnel, at any time, and in many different forms. The base tier is *Advisory* in context. These are designated as

informational and intended to provide relevant early considerations from preparedness checklists to agency directories, pre-planned large events, water system impacts, or many other informational communiques. This level of information is expected to be displayed across static web-pages or across social media platform home pages; i.e. Facebook main group page. The importance of such informational pages is the cataloguing of them for repetitive usage. For example, the clocks are changed twice a year, once in the spring and again in the fall. Federal home safety training has tied these events into the changing of batteries in smoke alarms. The presence of these information sites can be recirculated, as needed, without significant need to recreate documents.

The second *Watch*, is intended to capture the attention of the recipient and notify them that developing circumstances can result in an environment that can cause loss of life or property. The importance of this information is not to be diminished, however, the timeline with the development of the threat is not imminent. The potential development of such circumstances does require the notification, though the latitude in the timeline allows for a broad based circulation through more sedentary methods of communication that allow for the information to be present when the recipient has the time or circumstances to monitor. An example of this would be the development of thunderstorms for the late afternoon. The timing of this issue does not require the audience to be awakened by alerts, nevertheless it is important that the recipient have the information when planning out the day. Likewise the potential impact of an event such as, for instance, the annual Christmas Light Parade, which can result in significant traffic issues during its performance, can allow for adequate planning as well as timely notifications during. The timing of the event may not require immediate notification; however,

the recipients should be aware that should they intend to be traveling during the designated timeframe, traffic may be heavier than normal.

The third tier, *Warning*, begins to crest the importance threshold and notifications require more immediate attention. This level of alert begins to see the utilization of the traditional Emergency Alert System (EAS) and the Everbridge platform. Identified hazards such as significant weather, terror alerts, infrastructure failures, or public safety situations may require the immediate awareness and proactive response on the part of the citizens and businesses. It is relevant to clarify that along the steps of these tiers, the media tools utilized for those lower threat alert levels will also be utilized with the subsequent, higher urgency level threats. Therefore, with a *Warning*, all communication modes utilized in the *Advisory* and *Watch* levels are also being utilized in the *Warning* information. The concept being, events with greater risk require greater efforts to assure all intended audience members are reached. There may be redundancies in the number and frequency of alerts received by an end-user, however, the relevant importance of the threat supports such an impact.

The fourth, and highest level alert, is the *Emergency*. Currently only a single mode of communication has been noted for additional usage at this level, Reverse 911. The intent is the assurance that all members of a family, who may not be tied into the internet, watching TV, or listening to the radio, have the opportunity to receive the information if they are in the City where a landline is in place. This methodology may fail due to the increased reliance on cellphones as primary phone devices, though, with proper advertisement of the alerting system, many more homes and businesses may be inspired to carry a landline. For impending events, the Reverse 911 has the opportunity to break through any distraction to alert the recipient. This includes sleeping or entertaining, both offer an environment where the audience is not tied into

traditional communication modes. The alert mechanisms may expand within this category as technology advances. However, at the time of this research and writing, no additional method or platform was identified.

The goal of creating a commonality of terminology and relevance is in line with the fundamental principles of NIMS. Creating, or adopting, the similar alert level categorization can support the importance of priority and attention different information is transmitted across and how it is received. The simplicity associated with this matrix serves the agency in allowing ease of identifying how a piece of information should be categorized and then transmitted. On the receiver's end, a similar ease of interpretation is provided. The consistency in messages being sent across the appropriate platform will reinforce the viability of the city's infrastructure as an information channel. With many aspects of social media, this familiarity and reliability turns into the sharing of information across social networks, and expanding the reach of the City's communication enterprise.

Summary

The progression of society and technology require the adaptation of our infrastructure, policies, and procedures to be reflective of these advancements. The development of redundancies within a communication model are equally essential to assure that the information demands of a diverse and evolving society are met. The sharing of critical information, either from the front lines of operation or from the isolated citizens affected by an event, helps to shape the operational priorities and prescribe the needed resources. In order to optimize these communications, the infrastructure must be varied, redundant, and capable of reaching the citizens where they are communicating.

The City of Manassas Park, small geographically, and limited in resources is in an excellent position to maximize the potential of available communication resources to assure thorough and accurate information is both being obtained and being distributed. This does not require abandoning traditional forms of information distribution, instead the focus needs to be on the complete collaboration of all communication tools and an associated prioritization of the message being delivered. Not all information being sent out requires immediate action to be impactful. Therefore the mode through which it is sent should be reflective as such in order to avoid the saturation of necessary and prioritized communication modes for when their attention grabbing capabilities are needed.

The recommended communication policy pays homage to the current policy while adapting it to allow for the proper accountability chain and information prioritization. Simplifying the prioritization process and clarifying the accountability chain can support the fast and efficient processing of information as it comes in, to any City employee, assuring the potential positive impact toward reducing the loss of life or property.

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Appendix A: IRB Approval Letter

American Public University System
American Military University
American Public University



Institutional Review Board (IRB)

Application Number: 1-2016-4

Application Title: Integrating Social Media into the Communication Plan

February 5, 2016

Dear Joseph Neiberger,

The APUS IRB has reviewed and approved the above application.

Date of IRB approval: 2/5/2016

Date of IRB approval expiration: 2/4/2017

The approval is valid for one calendar year from the date of approval. Should your research using human subjects extend beyond the time covered by this approval, you will need to submit an *extension request form* to the IRB.

Changes in the research (e.g., recruitment process, advertisements) or informed consent process must be approved by the IRB before they are implemented. Please submit a *protocol amendment form* to do so.

It is the responsibility of the investigators to report to the IRB any serious, unexpected, and related adverse events and potential unanticipated problems related to risks to subjects and others using the *unanticipated problems notification*.

Please direct any question to apus-irb@apus.edu. The forms mentioned above are available at <http://www.apus.edu/community-scholars/institutional-review-board/apply.htm>.

Sincerely,

Jennifer Douglas, PhD
IRB Chair

Appendix B: Interview Questions

A. *Communication Model*

- 1) What is the goal of the City of Manassas Park's Emergency Operation Plan's *communication model*?
- 2) Is the current communication model supporting those goals?
 - a. If not, what suggested changes should be considered?
 - b. If so, what are some of the strongest aspects of the model?
 - c. If so, what are some of the weakest aspects of the model?
- 3) Currently, are social media utilized in the emergency management communications model?
 - a. If not, should it be?
 - b. If so, has it been helpful in accomplishing the emergency management program goals?
- 4) What role, if any, do you see social media playing in the revised communications model of the EOP?
- 5) Currently the Information Technology department is designated as the Lead for the Communications function of the EOP. How do you envision the communications model being managed in the revised plan?

B. *Anticipated Emergency Operations Communications*

With consideration for the future Emergency Operation Plan's *communication model* support of emergency management, how do you envision communications during an anticipated emergency will occur with:

- a. the general public?

- b. the business community?
- c. internally?

C. *Unanticipated Emergency Operations Communications*

With consideration for the future Emergency Operation Plan's *communication model* support of emergency management, how do you envision communications during an unexpected emergency will occur with:

- a. the general public?
- b. the business community?
- c. internally?

D. *General Information Sharing*

With consideration for the future Emergency Operation Plan's *communication model* support of emergency management, how do you envision general information sharing occurring in the future with:

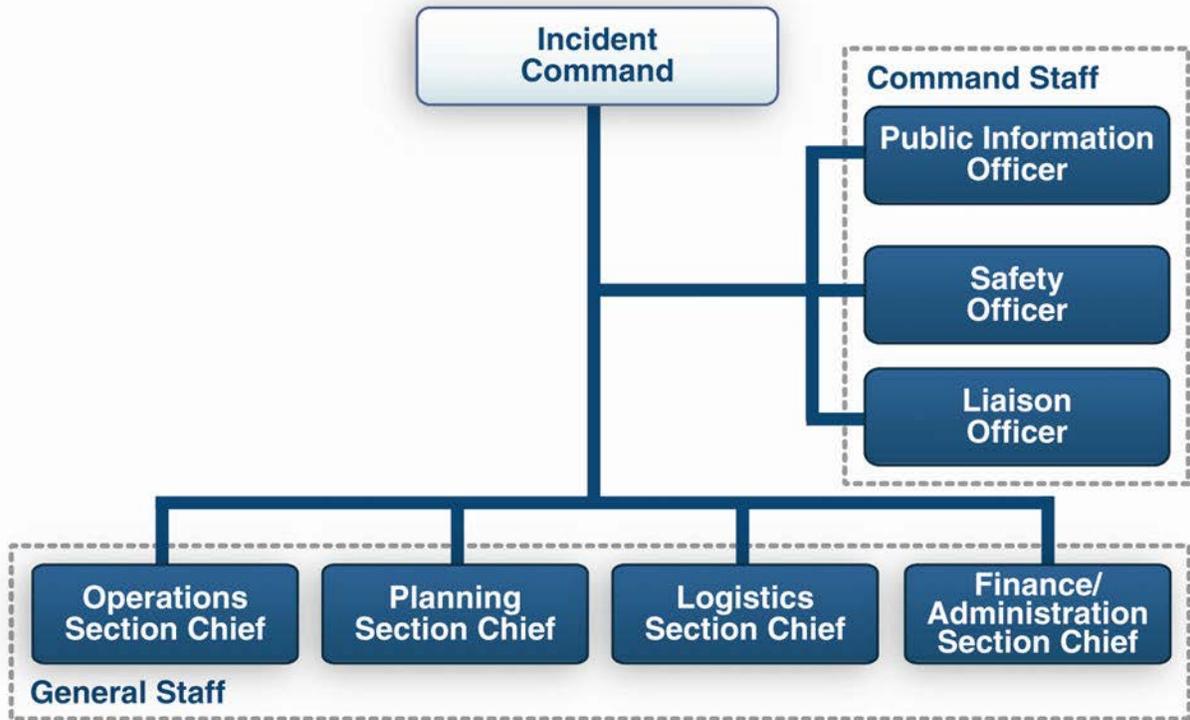
- a. the general public?
- b. the business community?
- c. internally?

E. *Recovery Operations Communications*

With consideration for the future Emergency Operation Plan's *communication model* support of emergency management, how do you envision communications during an recovery operations will occur with:

- a. the general public?
- b. the business community?
- c. internally?

Appendix C: ICS Structure



(FEMA, 2008, p. 53)

Appendix D: Communication Plan

EOP EM Communication	Manassas Park SOP Emergency Management		Version: 1
Effective Date: Not Approved yet	By Authority of: Emergency Manager	By Authority of: Mayor	Page 55 of 61

Purpose

To provide timely and accurate information to the public, the media, the private sector, and City of Manassas Park elected officials and employees during emergencies or threatened emergencies and to provide the protective action guidance as appropriate in order to save lives and protect property.

Progressive Methodology

- It is critical that all points of information release are coordinated under the direction of the City PIO (or designee) to ensure that the public receives accurate, current, and consistent information.
- All emergency response and recovery operations will be in accordance with the National Incident Management Systems (NIMS).
- For “small-scale” emergency response operations, normally involving only one agency, the on-scene Incident Commander determines the need for notifications and all public information is coordinated through the lead department’s public information officer.
- Prior to (or in the absence of) an activation of the Emergency Operations Center (EOC) coordination of public information will be through the Office of the City Manager.

- Prior to (or in the absence of) an activation of the Emergency Operations Center (EOC) coordination of public information will be through the Office of the City Manager.
- As an incident or threat escalates to involve multiple City departments and organizations or a local emergency is declared, the City Manager may choose to open the EOC, through which all emergency operations will be monitored.
- In the event that an incident commander/on-scene PIO releases time sensitive or safety related information at the scene, he or she will ensure that the same information is conveyed to the PIO at the EOC.
- Community relations activities include identifying and communicating with community leaders (e.g., grassroots, political, religious, business, labor, and ethnic) and neighborhood advocacy groups to ensure a rapid dissemination of information, identify unmet needs, and establish an ongoing dialogue and information exchange.
- The PIO will utilize all available communication tools during an emergency, including public information releases, the cable television emergency message system, the City of Manassas Park Web site, designated social media sites, news conferences, local radio and television, media releases, highway advisory radio, community meetings, and if necessary, door-to door contacts.
- During significant events, the City of Manassas Park may choose to activate the Virtual Operational Support Team (VOST) for monitoring social media. The PIO (or designee) will be responsible for coordination of team initiation and interaction.
- The PIO will facilitate the process of developing a “common message” and communications strategy to ensure the consistency of information provided to the public, communities, and the private sector.

- The PIO is authorized to activate a Joint Information Center (JIC) as necessary. Other departments will provide representatives to the JIC as requested. The JIC will operate as the coordination center for all public information activities related to the incident.
- Once opened and established, the JIC will continue operations until the EOC is deactivated or as otherwise directed.

Communication Infrastructure

- The Department of Information Technology (DIT) will assure that all emergency communications resources and capabilities for the response to and recovery from a disaster or emergency within The City of Manassas Park are functional and in place.
- Additionally, DIT will provide technical assistance in the assessment and restoration of the City's telecommunications infrastructure during any interruption of service. To include, but not limited to:
 - Radio, telephone, computing resources, and network communications capability essential to emergency operations.
 - Emergency backup and contingency communications capability in the event normal communications are disrupted.
 - Support for systems including 9-1-1 Telecommunications System, telephones, pagers, mobile telephones and associated devices.
- During the activation of the EOC, DIT will collect, analyze, and distribute information on the impact and status of the telecommunications services through coordination with service providers.
- DIT will engage with support organizations in planning, training, and exercises to ensure an effective operation upon activation.

- All agencies will work with DIT to ensure that radios, telephones, related computing resources, network capability, and communications capability essential to emergency services are maintained and operational. Any identified failure of a system will be communicated to DIT immediately, during non-emergency or emergency operations.
- DIT will facilitate the provision of available enterprise staff and/or contract resources, technical assets, and IT capabilities needed to support emergency operation.
- DIT will support the Emergency Operations Center/Alternate Emergency Operations Center as required to activate and maintain communications capability for emergency management operations.
- DIT will maintain documentation for reimbursement in accordance with the City's financial management policies and procedures.

Information Management

- All incoming information will be prioritized as *Alert*, *Watch*, *Warning*, or *Emergency* in accordance with the levels and priorities established in the Threat Based Communication Matrix (Appendix 1).
- A list of all primary communication contact personnel (Appendix 2) will be printed on the back of the Treat Based Communication Matrix and posted in all City personnel offices.
- The Emergency Communications Center (ECC), managed by the Police Department, monitors incidents and threats to the City. Affected department directors will be notified by ECC personnel of incidents impacting or potentially impacting the City.

- All requests for information or communication support will be submitted to PIO for coordination, validation, and/or action in accordance with.
- The PIO is responsible for the assemblage and training of the VOST or social media monitoring teams.

Appendix 1

Threat Level	Alert Circulation Matrix	Required Response
Emergency		Event that threatens life or health and requires active response from recipient
Watch		Impending event, true threat to life or health in the area that requires focused attention to surroundings
Warning		Potential threats to life and health, developing events that require awareness level focus
Alert		General Knowledge, Preplanned events, non-life threatening developments

Information Recipient should contact:	Web based	Agency
	Social Media	Agency
	Local Channel Posting	Agency
	Radio & TV	City PIO
	Cable Break-In	9-1-1
	EAS	9-1-1
	Everbridge	9-1-1
	Reverse 911	9-1-1

Appendix 2

Communication Contact List

[Printed on the back of the Threat Based Communication Matrix]

City PIO.....	123-456-7890
	agencyPIO@manassasparkva.gov
City Emergency Communications Center (ECC).....	123-456-7890
Police Station:	123-456-7890
Police Department PIO:.....	123-456-7890
	agencyPIO@manassasparkva.gov
Police Department <i>on-call</i> personnel	123-456-7890
Fire Department PIO:	123-456-7890
	agencyPIO@manassasparkva.gov
Fire Department <i>on-call</i> personnel	123-456-7890
Social Services director	123-456-7890
	agencyPIO@manassasparkva.gov
Emergency Operations Center (EOC).....	123-456-7890
Public Works director:.....	123-456-7890
	agencyPIO@manassasparkva.gov
Public Works <i>on-call</i> personnel:.....	123-456-7890
Parks and Recreation Director:	123-456-7890
	agencyPIO@manassasparkva.gov
Parks and Recreation <i>on-call</i> personnel:.....	123-456-7890