

MR. ALBERT ASHWOOD

**Chairman, NEMA Legislative Committee
Director, Oklahoma Department of Emergency Management**

STATEMENT FOR THE RECORD

**On behalf of the
National Emergency Management Association**

**Submitted to the House Committee on Homeland Security
Subcommittee on Emergency Preparedness, Response, and Communications
United States House of Representatives**

***Emergency MGMT 2.0: How #SocialMedia & New Tech are Transforming Preparedness,
Response, & Recovery #Disasters #Part2 #Govt/NGOs***

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Introduction

Thank you Chairman Brooks, Ranking Member Payne, and members of the Subcommittee for holding this hearing today. I am the Director of the Oklahoma Department of Emergency Management (OEM), and today I am pleased to represent the National Emergency Management Association (NEMA) as we discuss the recent tornados in my state, how social media was utilized in this disaster, and trends of social media in the emergency management community. NEMA represents the state emergency management directors of the 50 states, territories, and District of Columbia. I am also Chairman of the Legislative Committee for the association.

In order to effectively understand the role of social media in a disaster, I will first outline a recent disaster in Oklahoma, describe how social media was utilized, and then examine the larger context of this new medium in an age-old profession.

Responding to Recent Events

In May of this year, a series of severe weather events impacted numerous communities in Oklahoma, including two EF5 tornadoes developing in the Oklahoma City metropolitan area within eleven days of each other. The EF5 is the most damaging tornado with wind speeds in excess of 200 miles per hour. Since 1950, the EF5 and its predecessor the F5 tornado have been documented only sixty times in the United States. Therefore, the May events in Oklahoma should be categorized as extremely rare in our nation's severe weather history.

We in the emergency management profession are about people and their capability to prepare for, respond to, recover from, and mitigate the damages these types of events produce. Our job, like all in a public service capacity, is one of customer service with our customers at the local level of government. In recovery, our duty is to administer the appropriate laws and regulations as they were intended to help "victims" of disaster become "survivors" of disaster. I am proud to say this is currently happening in Oklahoma.

As the live video showed the first EF5 tornado cut a path across the community of Moore, we remained in contact with our partners with the Federal Emergency Management Agency (FEMA). Response was the primary subject as Incident Management Teams and Urban Search and Rescue Teams quickly dispatched to support our local first responders. Even during this difficult time we simultaneously initiated recovery actions.

Governor Fallin made a verbal Major Disaster Declaration request, initiated through FEMA headquarters to the President. This was a procedure new to me and my twenty-five years in this profession. In a short period of time, the President approved the request and by sunrise the next morning federal equipment and personnel began pouring into Oklahoma to assist. Within the first twenty-four hours, the State of Oklahoma established Disaster Recovery Centers, dispatched Disaster Survivor Assistance Teams dispatched, and produced recovery messaging. Recovery was in full gear even as firefighters were still digging through piles of debris.

To date, we have over 13,000 families registered for assistance, with all inspections completed, and roughly \$28 million disbursed for rental assistance, repairs, low-interest loans, and grants. Of the estimated 1.1 million cubic yards of debris, we believe sixty percent has been removed, and we plan on completing this rest by early August. On behalf of the State of Oklahoma, I offer a sincere "thank you" to Administrator Fugate, our FEMA partners, and you who continually support this agency and our mission in Congress.

Utilizing Social Media in Disasters

Social media once again played an integral role in disaster communications following the tornadoes, flooding, and severe weather that occurred between May 18 and June 2 in Oklahoma.

Due to limited staffing in the OEM, the use of social media was not active during the initial twenty days after the first tornado. Rotating shifts were constructed by public information officers (PIO) to assist along with other agencies in answering media calls during call-heavy time periods. An inadequate number of personnel made it difficult to consistently provide Twitter or Facebook updates. Concurrently, OEM received more than forty Twitter mentions and twenty Facebook wall posts which we considered positive. In numerous cases, other agencies shared the OEM's situation updates and other information through social media. Due to the influx in information, the OEM began actively using social media to share recovery information for the state on June 10. Between June 10 and June 23, OEM received 105 re-Tweets and 247,578 impressions on Twitter as well as 103 "likes," 67 "shares," and 16,359 people reached on Facebook.

During the disaster, the Department leveraged social media to check damage reports and examine photos on social media sites. This was especially useful during and after the May 31 storms when an EF5 tornado impacted El Reno and continued southeast through the Oklahoma City metro area. Damage reports were limited even as local news was broadcasting uninterrupted coverage, so OEM used social media to gain situational awareness about the level of damage in those early hours following the storms.

As the storms continued, the amount of information on social media sites gained momentum. The "likes" on the OEM Facebook page increased by more than 200 and total reach increased from around 200 prior to the disaster to nearly 8,000 by mid-June. To assist the public with information, Oklahoma Management and Enterprise Services (OMES) and Oklahoma Interactive developed a disaster specific website which became a centralized location for disaster information from OEM, other state agencies, voluntary organizations, and others. The website received 118,000 visits in eighteen days.

Determining the right language to use, in this case the correct "hashtag," helped separate the weather related tweets from others during the disaster. The hashtag used during and after the disaster had been used for the last few years during all types of severe weather events and is well known by most Twitter-savvy Oklahomans. Along with aligning the hashtags, more than twenty-five disaster-related Facebook pages were created by users to share information about the storms, including where to volunteer, how to donate, and other information. On Facebook, rumors and misinformation were more widely reported, but in anecdotal form. The OEM did not find any direct evidence of false information on Facebook, but on several occasions people with false information said they found the information on Facebook. In the same occurrence, Twitter had propagation of rumors and false reports that was in direct correlation with misinformation reported through traditional media. For example, reports of high fatality numbers quoted on local news reports spread quickly on Twitter. As in other events, the public took to social media to express negative opinions of local storm reports and other coverage from local media during the many hours of continuous coverage.

The National Weather Service (NWS) reported an increase in use of social media for these severe weather events. They also posted custom graphics, including tornado track maps, at the same time they were provided to local emergency managers. NWS saw their Twitter follower count nearly double and their Facebook likes increased by more than 15,000. They also used custom timestamps on each of their tweets in order to minimize confusion often caused by re-Tweeting. Along with the OEM, Oklahoma Department of Agriculture, Food and Forestry, local shelters, and local rescue groups used Facebook and also Pinterest to share photos and information about hundreds of pets displaced by the storms. Facebook especially became an invaluable tool in reuniting survivors with lost pets.

Social Media Trends in the Emergency Management Community

Social Media incorporates various activities such as adapting technology and social interface. This has proven vital to the world of emergency management. Social networking can improve interaction between state agencies and the public. As real-time information is communicated to the public, the need to maintain accurate facts increases in urgency. The concept of using social media to communicate with the public remains a new phenomenon for many in the emergency management community. The idea of using social media to aid in preparing for, responding to, and recovering from disasters, has caught the attention of many in this field. Despite the benefits and shortfalls, social media continues to develop into an accepted form of communication. It has changed the way information is communicated and examined with citizens and the public. Two major trends seem to be forming as social media takes hold in the emergency management community:

1. **Disseminating Information.** The first trend seen by emergency managers is the use of social media to convey information in or around an affected disaster area. The versatility of this method is recognized, yet it often lacks any guidelines to make an organized effort to reduce the amount of chaos after a disaster. With volumes of information potentially pouring into the EOC, important data can be overlooked. Reliability, coordination, and integration are three critical factors needed to determine how social media will be used from both a public-safety aspect and as an information sharing tool. As far as information sharing is concerned, social media is in its maturity. From a public-safety standpoint, social media is in its infancy.
2. **Volunteer Mobilization.** Often after a disaster, volunteer work groups come in quickly to assist communities. Without a robust volunteer management system in place, the influx of personnel could become a management concern. Social media has been able to bridge the gap between the need for volunteers and the chaos which could occur in the absence of coordination. Although social media has reduced the amount of confusion that accompanies a disaster there are still many avenues to be explored. The emergency management community is still in the trial phase of using social media to assist in volunteer management.

To help assess the value and use of social media in the emergency management community, NEMA joined with the Center for Naval Analysis (CNA) last year to conduct a survey. To date, much of the data on social media and emergency management has been limited to anecdotal accounts or studies, so the CNA-NEMA study provided valuable information into the use of social media in emergency management. State emergency management directors and their Public Information Officers (PIO) were closely engaged in the development, distribution, and completion of the survey. Key findings of the survey included:

- **Familiarity with Social Media.** On average, respondents from state, county, and local levels of government all considered themselves at least “moderately familiar” with social media. Facebook, Twitter, and YouTube have become commonly associated with social media.
- **Use of Social Media.** Of those surveyed, all state emergency management agencies use social media in some capacity, as do sixty-eight percent of county emergency management agencies and eighty-five percent of local response agencies. Of those surveyed, nearly all of the state emergency management agencies, half of the county emergency management agencies, and three-fifths of the local response agencies have used social media in response to a real-world event, primarily to push information out to the community. Over ninety percent of the events cited were from 2011 or 2012, underscoring the recent adoption of social media.

- **Determining Capabilities.** Respondents were asked to characterize their agency's social media capability along four dimensions:
 1. Governance: Commitment and buy-in from senior leadership and political officials at the state level is more than double that at the county and local levels.
 2. Technology: Technology used for other purposes in an agency is often used in an ad hoc fashion to support basic social media operations, such as posting status updates.
 3. Data/Analytics: Data-extraction efforts at all levels are still reliant upon manual review, making monitoring efforts difficult to scale-up during large disasters.
 4. Processes: Formally defined and tested processes and procedures lag behind social media use.

- **Trust but Verify.** Of those surveyed fifty-nine percent of state emergency management agencies, fifty-five percent of county emergency management agencies, and forty-one percent of local response agencies trust social media less than traditional media sources. Nearly all respondents agree that, on receiving information from social media sources, their agency would attempt to verify this information.

- **Barriers to Implementation.** Survey results indicate that the primary barrier to emergency management agencies' use of social media is a lack of dedicated personnel. While most respondents indicated that they would not necessarily look to the Federal Government to play a large role in supporting the development of their agency's social media capabilities, they identified prime areas for potential support, including grant funding, training on how social media could be used, and the provision of guidance and standards.

As a result of this effort, the state PIOs developed work groups to examine the above findings. The work groups will:

1. Develop best practices and goals for use of social media by state emergency managers to better target resources and funding towards implementation of social media;
2. Develop and distribute a social media governing model that specifically addresses the public-safety responsibilities and the implications for emergency management and response entities;
3. Create a template of standard operating procedures to manage social media information to more effectively integrate social media and public-sourced intelligence into emergency management information processes;
4. Develop concepts for Virtual Operations Support Teams (VOST) that allows for rapid expansion of capabilities by leveraging trained and trusted personnel to respond both virtually via external monitoring and response and as teams with crucial skills for deployment to emergency operations center, and;
5. The range of non-categorical issues raised in the report.

Conclusion

Social media has begun to play an integral role in emergency preparedness, response, and recovery. By understanding the way social media complements emergency management services, the future use of it can greatly enhance emergency management capabilities. Social media and its role in emergency management will continue to evolve. As the emergency management community shifts to accept this new form of communication, many aspects will need to be considered. A familiarity with social media will need to be established, the capabilities that pertain to emergency management will need to be identified and explored, verification of information will be a requirement and it will be critical to break down any

barriers to implementation. Although the emergency management community is still in the experimental stages of using social media to convey important messages as well as receive information from the public, it represents the wave of the future.

Again, I thank you for the opportunity to testify today and I welcome any questions you may have for me.