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The Uncertain Trumpet: Disaster Communications and the Law

*Russell V. Randle & Jeffrey Reinhardt**

For if the trumpet give an uncertain sound, who shall prepare himself to the battle?

– I Cor. 14:8 (KJV)

INTRODUCTION

In this Article, Jeff Reinhardt presents practical insights on disaster communications and public information from the perspective of an elected official, an FCC licensed Amateur Radio (ham) operator, and a public affairs leader at a public utility that helps respond to wildfires and earthquakes.

Working from Reinhardt's insights, Russ Randle, an attorney who has advised on many environmental cleanups and oil spill response planning, outlines key legal issues with such communications, information, and learning, all three of which are essential to effective disaster response and public safety. Put simply, the most important legal issue facing disaster response and civil defense may be the need to assure by law that necessary steps are taken to ensure the survival and function of key communications systems during disasters.

Clifford Villa's article, *Law and Lawyers in the Incident Command System*, opened an important discussion about disaster responses and the roles lawyers can and do play in such efforts.¹ Villa focused insightfully

* Russ Randle is a partner in the Washington, D.C. office of Patton Boggs LLP, where he has practiced environmental law since 1981. He is author of the Environmental Law Institute's *Oil Pollution Deskbook* (2012). Jeff Reinhardt is a public information and communications professional for a public utility. He has also served in a number of emergency response volunteer roles as a founding member of the Agoura Hills Disaster Response Team (now a Community Emergency Response Team, or "CERT"), the L.A. County Sheriff's Disaster Communications Service, and as a ham radio communications volunteer. He served two terms on the Agoura Hills City Council, including a term as mayor of Agoura Hills. He has emergency response experience that includes wildfires in the Malibu area and several earthquakes, including Northridge. Earlier in his career, he was a TV news reporter during a historic blizzard in Buffalo, N.Y. in 1977.

1. Clifford Villa, *Law and Lawyers in the Incident Command System*, 36 SEATTLE U. L. REV. 1855 (2013).

on the role of lawyers in the Incident Command System (ICS). That system evolved, beginning from the late-1960s on, to help govern and rationalize disaster response work in the United States, addressing disasters ranging from California wildfires, to hurricanes, to terrorist attacks.²

By contrast, this Article focuses on disaster communications, preparedness, and response issues for attorneys representing parties—public and private—who face hard disaster response issues but who are not in overall command. These issues, while predictably arising in emergencies, also arise in unexpected sectors, such as the need for financial service companies to have working business continuity plans to address disruptions from a disaster like the September 11th terrorist attacks.

Attorneys play a vital but little recognized role in helping clients prepare for and cope with disasters, especially in assuring proper forethought and preparation as a routine, essential part of business planning and practice in virtually every sector of the economy. At issue is the coordination of response entities that infrequently work together and must do so on short notice under stress to provide immediate protection for life and property, and to manage recovery efforts extending beyond the initial event.

EMERGENCY COMMUNICATIONS: PRACTICAL LESSONS

As Villa outlined in his article, the ICS structure has evolved as a flexible mechanism to “right-size” the response to an emergency situation, which is best defined as an “Unusual Occurrence” (UO) that poses an imminent threat to life or property.³ However, too much ICS structural response adds complexity, increasing the danger of a failed communication or mission, while too little means that the response mechanisms can be quickly overwhelmed.

Providing adequate communication and timely, accurate information to responders and the public are essential elements in almost every effective disaster response, whether natural (e.g., hurricanes or earthquakes) or man-made (e.g., terrorist attacks or oil spills).

Perhaps the most critical element is establishing, maintaining, and re-establishing communications resources as needed. Without a solid communications base, the response mechanisms are extremely limited. Put another way, they can only be as effective as their communications

2. *Id.* at 1861–95

3. *Id.* at 1861–75. “UO” is a term used by first responders for larger emergencies. For example, a holdup at the local convenience mart is not a UO; a bank holdup with hostages might be. Certainly hurricanes, earthquakes, and wildfires are UOs.

allow. As communications systems have grown more complex, they appear to have become more vulnerable and compartmentalized.

Thirty years ago, emergency communications relied upon wire lines and analog radio systems. Today's systems include the internet; voice and data conveyed through wire, cable TV systems, fiber-optic cable, radio links, and cellular telephones; and a mixture of analog and digital radio systems—the latter of which are often incompatible with one another.

This compatibility issue manifested itself in New York during the September 11th attacks, and it is still not fully resolved.⁴ Both the proliferation of digital communications systems using proprietary formats and the easy ability of response agencies to encrypt their digital communications have created a patchwork of incompatible radio systems. Adjoining agencies may now be unable to communicate with one another, where in the past they could. In some regions work-arounds are being implemented, but at considerable costs.⁵ Moreover, there is now an additional link that can malfunction at a time when it is needed most.

The September 11th terrorist attacks destroyed broadcast towers for a number of television and radio outlets and greatly complicated the dissemination of information as a result. Following Hurricane Katrina, radio communications for New Orleans were decimated. After that debacle, the government stockpiled extra radios, but these were of little help because the radios were stored in a facility that flooded in a subsequent smaller storm.⁶

As discussed below, the cellular telephone system has also been repeatedly shown to be fragile, with inadequate “surge” capacity to accommodate the rapid increase in calls arising in an emergency.⁷ Such

4. See Edward Wyatt, *9 Years After 9/11, Public Safety Radios Not Ready*, N.Y. TIMES (Sept. 6, 2010), http://www.nytimes.com/2010/09/07/business/07rescue.html?pagewanted=all&_r=0.

5. See David Boyd, *Emergency Responders Need Equipment Comptaibility*, DHS Official Says, DIGITAL COMMUNITIES (Mar. 9, 2009), <http://www.digitalcommunities.com/articles/Emergency-Responders-Need-Equipment-Compatibility-DHS.html>.

6. JEFFREY A. SCHWARTZ & DAVID WEBB, HURRICANES KATRINA AND RITA AND THE LOUISIANA DEPT. OF PUBLIC SAFETY AND CORRECTIONS 14 (2006). “Without exception, every facility, division or key decision maker in the Department interviewed for this report identified communication as the biggest problem during and after the two hurricanes.” *Id.*

7. Michael B. Farrell, *Cellphone Networks Overwhelmed After Blasts in Boston*, BOS. GLOBE (Apr. 17, 2013), <http://www.bostonglobe.com/business/2013/04/16/cellphone-networks-overwhelme-d-blast-aftermath/wq7AX6AvnEemM35XTH152K/story.html>; Dugald McConnell & Brian Todd, *FCC to Investigate Cell Phone Logjam After Earthquake*, CNN (Aug. 25, 2011), <http://www.cnn.com/2011/US/08/25/earthquake.cell.phones/>; Aliya Sternstein, *Cellphone Emergency Call Service Failed Following East Coast Quake*, NEXTGOV (Nov. 28, 2011), <http://www.nextgov.com/health/2011/11/cellphone-emergency-call-service-failed-following-east-coast-quake/50190/>.

failures occurred after the 2013 Boston Marathon bombing and after the August 2011 East Coast earthquake.⁸

Widespread communications failures in fall 2012 during Superstorm Sandy further show how fragile the cellular system is.⁹ Many repeater sites have limited battery backup power systems,¹⁰ or none at all, and are hard to connect to portable generators.¹¹ Too much demand, which is predictable in an emergency, can overwhelm portions of the network.¹² Cellular utilities have reserve resources in the form of “COWs” (Cellular on Wheels trailers that can be deployed), but they are generally part of the recovery effort, not the initial response.¹³

During Superstorm Sandy, several Manhattan central telephone offices, critical to running both the wireline and wireless telephone systems, were knocked out by flooding because critical operational equipment was located in the basement or first floor, vulnerable to the storm surge.¹⁴ Moreover, many buildings in New York City were rendered uninhabitable for lack of electrical power because their transformers were located at ground level or below, and these were destroyed by the deluge, knocking out building electrical service for elevators, HVAC, and water pumps.¹⁵ The buildings were uninhabitable. If communications and emergency personnel cannot safely staff the key offices, these communi-

8. Brad Stone, *Why Cell Phone Networks Fail in Emergencies*, BLOOMBERG BUSINESSWEEK (Apr. 16, 2013), <http://www.businessweek.com/articles/2013-04-16/why-cell-phone-networks-fail-in-emergencies>; Judson Berger, *Quake Exposes Post-9/11 Cracks in Cell Phone Coverage, Emergency Response*, FOX NEWS (Aug. 24, 2011), <http://www.foxnews.com/politics/2011/08/24/quake-exposes-cracks-in-cell-phone-coverage-emergency-response/>.

9. Alexis Kwasinski, *Lessons from Field Damage Assessments About Communications Networks Power Supply and Infrastructure Performance During Natural Disasters with a Focus on Hurricane Sandy 2*, 8 (Feb. 3, 2013) (unpublished paper), available at <http://users.ece.utexas.edu/~kwasinski/1569715143%20Kwasinski%20paper%20FCC-NR2013%20submitted.pdf> (noting a 25% failure over ten states and almost non-existent coverage in the western Rockaway peninsula).

10. Repeater sites take the relatively weak signals of hand-held or mobile radios and rebroadcast them over a wide area. They tend to be located on tall buildings, water tanks, radio towers, or elevated terrain such as mountains. By their nature, these locations have limited access and may be difficult to service in a larger emergency. “The cause of loss of service from almost all of these affected base stations was lack of power.” *Id.* at 8.

11. “[A] majority of base stations in cities and towns in the affected area were placed on buildings roofs and had no permanent gensets. . . . [M]any sites did not have any way of connecting a generator at ground level.” *Id.*

12. Cell phone demand increased by 1300% at 11 a.m. on September 11, 2001. Jennifer Rexroad, *Lessons Learned from 9/11 Attacks*, FCC WORKSHOP ON NETWORK RESILIENCY 2013, 9 (Feb. 6, 2013), <http://edas.info/web/fcc-nr2013/program.html>.

13. See Kwasinski, *supra* note 9, at 19.

14. *Id.* at 2, 8 (emergency generators and fuel pumps flooded in first floor and basement locations).

15. *Id.*

cations systems and other services may remain offline or function at reduced capacity.

The emergency communications systems themselves are vulnerable as shown by the June 29, 2012 Derecho storm. That storm killed twenty-two people, knocked out power for millions of people from Indiana to Delaware, and disabled at least seventeen 911 call centers in three states, “affecting the ability of more than 2 million residents to reach 9-1-1.”¹⁶ The FCC reported that “9-1-1 communications were disrupted in large part because of avoidable planning and system failures, including inadequate physical diversity and lack of functional backup power in central offices.”¹⁷ Backup generators failed because of incorrect hookups, other uncorrected problems identified in prior drills, skipped generator testing, and because generators ran out of fuel.¹⁸ Backup batteries, while available, only lasted a few hours and proved to be insufficient.¹⁹ These failures affected both landline and wireless telephones.

Users are also vulnerable; a prolonged power outage leaves many cell phones with dead batteries unable to be recharged until commercial power is restored. One upshot of the cellular revolution is that many residences are now eliminating wire line telephone service—a service that tends to be more robust when power fails.²⁰ This ongoing change also complicates the use of “reverse 911” callouts (i.e., “robo calls”) or text messages that can distribute critical information on a mass scale.²¹

16. In the Matter of Improving 9-1-1 Reliability, PS Docket No. 13-75, Notice of Proposed Rulemaking, at 5 (Mar. 20, 2013).

17. *Id.* at 6–7.

18. *Impact of the June 2012 Derecho on Communications Networks and Services*, FED. COMM. COMMISSION BUREAU PUBLIC SAFETY, 15–20 (Jan. 10, 2013), http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-318331A1.pdf [hereinafter *FCC Derecho Report*].

19. *Id.* at 17–18.

20. Michelle V. Rafter, *Cutting the Cord on a Land Line Phone*, MSN MONEY (Jan. 30, 2013), <http://money.msn.com/saving-money-tips/post.aspx?post=5286b168-3a48-4b93-9793-315933feaafe>; David Wallis, *Why You Shouldn't Drop Your Landline Just Yet*, AARP (Nov. 4, 2013), <http://www.aarp.org/home-family/personal-technology/info-11-2013/dont-drop-your-landline.html>.

21. Virginia Tech had an emergency system that was theoretically capable of sending a text message to everyone on campus that there was an active shooter. However,

[t]he protocol for sending an emergency message in use on April 16 was cumbersome, untimely, and problematic when a decision was needed as soon as possible. The police did not have the capability to send an emergency alert message on their own. The police had to await the deliberations of the Policy Group, of which they are not a member, even when minutes count. The Policy Group had to be convened to decide whether to send a message to the university community and to structure its content.

Mass Shootings at Virginia Tech: Addendum to the Report of the Review Panel, VA. TECH, 17 (Nov. 2009), <http://scholar.lib.vt.edu/prevail/docs/April16ReportRev20100106.pdf>

In many recovery operations, the first communications often come from Amateur Radio (ham) operators. In instances such as the aftermath of Hurricane Iniki on the Hawaiian island of Kauai (1992), Hurricane Katrina, the 2010 earthquake in Haiti, and in many other emergencies, the ham operators got through even though more sophisticated and modern systems failed.²² This resiliency is due to several factors: (1) ham operators own and maintain their own equipment; (2) the operators are scattered over a wide region increasing the likelihood that enough equipment and enough operators will survive a disaster; (3) their equipment is simple to operate and most communications are conducted using analog voice transmissions; and (4) some regions plan ahead and make use of this ancillary asset, while others choose to rely solely on their commercial radio systems, sometimes to their detriment.²³

LAWYER'S ROLE IN ENSURING EMERGENCY COMMUNICATIONS CAN OCCUR

These incidents underline the legal importance of addressing communications vulnerabilities, redundancy, and compatibility in advance. The lawyer's role in ensuring adequate emergency communications arises not just at the time of crisis, but much more frequently in routine practice, often in industries and under laws not usually associated with disaster response.

In the financial sector, for example, because of the September 11th attacks and the chaotic aftermath, securities dealers and many others are now required to have business continuity plans (BCPs) in which emergency and replacement communications are key elements.²⁴ According to a joint study by the Securities and Exchange Commission (SEC) and other regulators,

Firms should consider the possibility of widespread lack of telecommunications, transportation, electricity, office space, fuel[,] and water in their BCPs. Consideration should be given to multiple, redundant services and the proximity of vendors to the potential disaster area.

22. Anne-Marie Corley, *Hams in Haiti: Low-Tech Often Wins in a Disaster—But It Still Needs Operators*, IEEE SPECTRUM (Jan. 27, 2010), <http://spectrum.ieee.org/telecom/wireless/hams-in-haiti>.

23. *Oregon Office of Emergency Management Seeking Amateur Radio Operators*, OR. PUB. BROADCASTING (Nov. 5, 2013), <http://www.opb.org/news/article/oregon-office-of-emergency-management-seeking-amateur-radio-operators/>.

24. See Press Release, U.S. Sec. & Exch. Comm'n, Regulators Issue Joint Staff Review of Firms' Business Continuity and Disaster Recovery Planning (Aug. 16, 2013), *available at* <http://www.sec.gov/News/PressRelease/Detail/PressRelease/1370539780742>.

Remote access is an important component of business continuity planning. . . . Since the use of remote access relies heavily on fully functional telephone and internet service, firms should consider alternatives to telework in their BCPs, particularly for key control functions such as compliance, risk management, back office operations[,] and financial and regulatory reporting.²⁵

Restoring communications with customers, broker dealers, and regulators is also critical. The SEC reports that “[f]irms should consider taking measure to ensure that their website is kept up-to-date with information about the firm’s operational status and general contact information during a disruption event.”²⁶ Also, these communications need to be kept secure because of the financial sensitivity of a data breach.

Even more important are the responsibilities assumed by a person who runs a school, hotel, or any business hosting large numbers of people to ensure the safety of students, guests, and invitees.²⁷ That responsibility often includes a duty to warn others about dangers in the most effective manner practical.²⁸ Any organization responsible for the safety of its patrons, whether they are students, guests, or visitors, must try to use current warning systems effectively or face serious tort claims by the victims’ families, such as those brought unsuccessfully after the 2011 Virginia Tech shootings.²⁹

The FCC’s rulemakings and reports on the Derecho Storm, Superstorm Sandy, and the associated failures of the 911 emergency communications systems provide a cautionary tale about the need for redundancy, preparedness, training, testing, and drills to prepare for emergencies, not only for telecommunications providers but also for first responders.³⁰ A large number of Public Safety Answering Points (PSAPs)—911 call

25. *Business Continuity Planning*, U.S. SEC. & EXCH. COMMISSION, 1, <http://www.sec.gov/about/offices/ocie/jointobservations-bcps08072013.pdf> (last visited Feb. 19, 2014).

26. *Id.* at 3.

27. RESTATEMENT (THIRD) OF TORTS: LIABILITY FOR PHYSICAL AND EMOTIONAL HARM § 40 (2011). These include common carriers, innkeepers, businesses open to the public, employers, schools, landlords, and those who have others in custody. *Id.*

28. *Id.* § 18. A warning that is not communicated or is unintelligible is ineffective.

29. *Commonwealth v. Peterson*, 749 S.E.2d 307 (Va. 2013). In *Peterson*, the Virginia Supreme Court held that there was no special relationship that imposed a duty upon the Commonwealth of Virginia to warn students of criminal conduct. *Id.* at 308. Yet in a case involving younger children, where timely warnings would have clearly made a difference, it is easy to see a judgment for the victims’ families, particularly if the equipment and software were in place, but the school’s administration was disorganized and could not use the system effectively in an emergency, as was the case at Virginia Tech. *See* source cited *supra* note 16.

30. *See FCC Derecho Report*, *supra* note 18, at 39–43.

centers—were disabled by these failures, some of which were compounded by failures of PSAPs to prepare adequately.³¹

Lawyers for first responder organizations and telecommunication companies are not the only ones who need pay attention. Land use and environmental lawyers will need to help clients address these emergency communications vulnerabilities in future zoning and building code approvals, such as operations in flood-prone areas of New York City and coastal New Jersey. Similarly, lawyers for cities and counties enforcing building codes need to ensure that critical electrical and communications infrastructure are placed above storm surge levels. Lawyers for internet and telecommunications companies need to do the same when they are drafting and negotiating equipment leases. Commercial real estate lawyers also need to consider who bears the loss if a negligent building design knocks out communications and power. Insurance lawyers will need to address whether business interruption insurance is triggered by loss of communications systems, both in the emergency and in the recovery, which can take a long time.

Lawyers advising public safety agencies need to help ensure that mobilization plans include steps to secure vulnerable communications links. While the choice among precautions is a practical one, the lawyer's role is to help her client consider and decide such issues, whether by sandbagging stationary equipment or by moving vulnerable but vital communications equipment to higher ground when flooding is an issue or out of likely fire-prone storage for wildfire response.

For example, experience with the March 2011 tsunami in Japan and Superstorm Sandy in New York in October 2012 suggests that water-tight doors work much better than sand bags.³² Water-tight doors, however, require changes in leases and building codes, among other issues for lawyers, and must be addressed long in advance of a problem.

Similarly, the lawyer's role is to make sure his client considers emerging problems in disaster planning, particularly communications problems. For example, given the proliferation of cyber-attacks,³³ it is only a matter of time before a cyber-attack on emergency communications is combined with a physical terrorist attack, as enemies seek to

31. *Id.* at 27–36.

32. Kwasinski, *supra* note 9, at 17, 21–22.

33. *Catastrophic Cyberattack Could Hit Utilities Like PGE*, SAN JOSE MERCURY (Mar. 15, 2013), http://www.mercurynews.com/ci_22801040/catastrophic-cyberattack-could-hit-utilities-like-pg-e.

blind and mute first responders. Lawyers need to help clients address cyber security requirements as they prepare for physical disasters.

Redundant communications systems are the flip side of the vulnerability issue. Lawyers will need to help clients determine how much back-up or alternative communications capacity is warranted; most disasters involve the loss of at least some communications systems, whether it be cellular phones, internet, or land lines. Back-ups of the same kind of system, as well as alternate systems, need to be part of business continuity and disaster planning. Public utilities and securities trading firms need to address such issues as a legal requirement, with potentially serious financial consequences, if these obligations are missed.

Ensuring that emergency communications systems are compatible is a critical element of reliable and effective emergency communications during a disaster.³⁴ The widespread failure to have compatible emergency communications systems is not only a failure of public officials, but also a failure of lawyers advising these public agencies about procurement matters.

INFORMING THE PUBLIC IN A DISASTER

A disaster of any magnitude is a media event. During and after a UO, the public wants to believe that their governance structure is intact and that emergency responders are en route with the needed resources. The public wants accurate reassurance that their lives and property will be protected, that vital services will be quickly restored (medical aid, food, and water), that temporary shelter will be provided if needed, and that they will be given a reasonable projection on how long it will take for meaningful recovery to occur.

Some of the effectiveness of public outreach is proportional to the size of the event. The September 11th attacks in New York took out the transmitters of several radio and television broadcast outlets, affecting a region far beyond the World Trade Center site. Cable, wireless, and satellite video distribution filled key roles.

Severe weather can impair the delivery of newspapers. More localized events such as tornadoes pose less of a risk of debilitating media outlets on a large scale. The traditional forms of disseminating information are giving way to social media, web-based outlets, and even person-to-person texting. This fragmentation adds to the outreach efforts the

34. *See supra* text accompanying note 2.

response mechanism must address, particularly in guiding victims to aid locations and in helping to derail misinformation and false rumors.

Regular news conferences during a response can help, but today's twenty-four-hour news cycle demands a near constant flow of information.³⁵ The immediacy of competitive news agencies often sacrifices verification of information before it is reported; the new model of "better to be first" has repeatedly resulted in misinformation being distributed. For example, in the aftermath of the Boston Marathon bombing, individuals were falsely implicated by several media outlets as possible suspects in the wild scramble for information afterwards.³⁶

Public Misinformation and Grand-Standing: Legal Issues

Because disaster situations are chaotic and make communications difficult, those reporting can observe little without undue risk, and even well-run disaster responses have trouble gathering and disseminating accurate information in a timely way. These problems are sometimes compounded by self-serving or false information put forward by parties concerned about their potential liability, reputation, and future business.

The classic example of such self-serving information came from BP's inaccurate "low ball" estimates of the oil discharge volume from the Deepwater Horizon Macondo wellhead into the Gulf of Mexico.³⁷ These misguided estimates meant that critical time was wasted on unworkable response efforts.³⁸ From a legal and political standpoint, these erroneous estimates and the failure to control the discharge shredded BP's credibility. It also left BP wide open to costly and unwise demands from regulators and political leaders (e.g., when the state of Louisiana demanded construction of barrier islands as an oil spill barrier).³⁹

In connection with the Michigan crude oil spill from the Enbridge pipeline, the local congressman, Mark Schauer, (D-Michigan, 7th District) toured the spill area by helicopter on August 2, 2010, a week after

35. Mayor Bloomberg's post-Sandy press conferences are a good example of a well-handled public information effort.

36. *Boston Marathon Bombing: Rush to Break News Burns CNN, Fox News*, HOLLYWOOD REPORTER (Apr. 17, 2013), <http://www.hollywoodreporter.com/news/cnn-boston-marathon-bombing-mistake-441551>. This source, the *Hollywood Reporter*, suggests that part of the problem is the operation of news as entertainment rather than a source of critical information to make hard decisions about people's safety.

37. Russell V. Randle, *Spills of National Significance and State Nullification*, 16 OCEAN & COASTAL L.J. 355, 368–70 (2011). BP at first estimated 1,000 barrels a day, then 5,000, when the actual figure was around 60,000. *Id.* at 368.

38. *Id.*

39. *Id.* at 367–68.

the spill.⁴⁰ The Governor of Michigan toured the area by helicopter twice in the four days after the spill, making statements to the press each time after she landed.⁴¹ Congressman Schauer used the Enbridge spill as a way to garner publicity for his re-election efforts.⁴² The Sierra Club used helicopter footage of the Enbridge cleanup in its campaign advertising against Schauer's opponent.⁴³ Energy policy and oil spills are hot political topics, but most On-Scene Coordinators are untrained in managing ambitious politicians trying to use the disaster and helicopter footage from it in their election campaigns. From a legal perspective, lawyers need to remind their clients that making materially false statements to a federal agency can be prosecuted as a felony under 18 U.S.C. § 1001.⁴⁴ And in a significant disaster, there is almost always enough federal involvement that critical information about the scope and magnitude of a problem will be submitted to a federal agency with some jurisdiction

40. "Congressman Mark Schauer viewed the response area with US EPA and Michigan State Police in a Michigan State Police helicopter. The Congressman will attend the Public Meeting at 1900 [hours]." *Kalamazoo River/Enbridge Spill – Removal POLREP-SITREP*, UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, 2.6, http://www.epa.gov/enbridgespill/pdfs/sitreps/20100802_sitrep8.pdf.

41. Governor Granholm tours area by helicopter and makes public statement afterwards that Enbridge was not doing enough. Two days later, she made another such helicopter tour, commenting on cleanup progress. *Michigan Grappling with Its Own Oil Spill*, CBS NEWS (July 28, 2010), <http://www.cbsnews.com/news/michigan-grappling-with-its-own-oil-spill/>; *Michigan oil spill contained: Enbridge*, CBC NEWS (July 30, 2010), <http://news.ca.msn.com/top-stories/cbc-article.aspx?cp-documentid=25044809>.

42. "News events give candidates chance to get publicity during campaign season," commented on Schauer's prominent use of the Enbridge spill in campaign. Nathan Hurst, *News events give candidates chance to get publicity during campaign season*, THE DETROIT NEWS (Sept. 9, 2010), <http://www.detroitnews.com/article/20100909/OPINION01/9090339>. A search of YouTube showed at least seven local television news stories prominently featuring Congressman Schauer's statements about the Enbridge spill, stories between July 28 and September 15, 2010. <http://www.bing.com/videos/search?q=enbridge+michigan+oil+spill+television&qsn&form=QBR&pq=enbridge+michigan+oil+spill+television&sc=0-0&sp=-1&sk=>

43. The Sierra Club ad on October 21, 2010 against Schauer's opponent begins with helicopter aerial footage of the Enbridge cleanup, expressly noting the 800,000 gallon spill. <http://www.bing.com/videos/search?q=Mark+Schauer+Ads&Form=VQFRVP#view=detail&mid=308F52A923B67838AA84308F52A923B67838AA84>

44. The making of materially false statements, even if unsworn, is sufficient for a person to be prosecuted under the statute. *See, e.g., United States v. King*, 660 F.3d 1071, 1081 (9th Cir. 2011), *cert. denied*, 2012 U.S. LEXIS 4482 (June 11, 2012) (upholding conviction of an individual who made oral unsworn statements to state inspector denying injection of polluted water into subsurface aquifer). Section 1001 is one of the most versatile weapons in a prosecutor's arsenal and allows a prosecutor to mount an easily understandable criminal case when the reprehensible conduct sought to be punished arises in a very complex regulatory or factual context.

over the problem.⁴⁵ Lawyers need to remind those responsible for public statements, particularly on critical factual information, that individuals can and have been prosecuted for making misleading or false statements.

False or self-serving information served up by a party generally does much more damage to a company's reputation and relationship with the community and regulators than truthful information about a bad situation. This applies even to a severe oil spill, like the failure of a four-million-gallon Ashland tank near Pittsburgh in January 1988 that caused a discharge to the Monongahela and Ohio Rivers, resulting in closed water supplies for tens of thousands of people downstream.⁴⁶ It is better to make embarrassing admissions or to say that a party does not yet know about the severity of a situation than to try to guess or minimize what is known. Ashland's public relations response was counterintuitive; it involved having key executives release accurate, unflattering information in the cities affected. However, it was effective, and it is reportedly now used as a case study in effective crisis communications at the Harvard Business School.⁴⁷

45. The false information does *not* need to be directly submitted by the defendant to the federal agency in order to sustain a felony conviction. *United States v. Yermian*, 468 U.S. 63, 65 (1984) (false security clearance information submitted to defense contractor).

46. "On January 2, 1988, a 4,000,000-gallon-capacity oil storage tank at the Ashland Petroleum Company Floreffe Terminal near West Elizabeth, Pennsylvania, collapsed as it was being filled to capacity for the first time since its reconstruction," a collapse resulting from a brittle fracture of the steel owing to a defect in the steel and extremely cold weather at the time of filing. John L. Gross, John H. Smith & Richard N. Wright, *Ashland Tank-Collapse Investigation*, 3 J. PERFORMANCE CONSTRUCTED FACILITIES 144, 144 (1989). Ashland was publicly praised by regulators for its quick and forthright admission of fault and aggressive cleanup. According to one report by Allegheny county officials, "The vast majority of businesses in the survey gave a positive assessment of both Ashland Oil Inc. and clean-up officials' performance in response to the spill." JEANETTE M. TRAUTH ET AL., ECONOMIC AND POLICY IMPLICATIONS OF THE JANUARY 1988 ASHLAND OIL TANK COLLAPSE IN ALLEGHENY COUNTY, PENNSYLVANIA 6, 57-58 (1989), available at http://www.briem.com/files/UCSUR_ASHLAND_economicpolicyreport1989.pdf. In one after-action paper, a Coast Guard officer stated Ashland Oil Corporation accepted full responsibility for cleanup operations and contracted for all phases of containment and cleanup. Its cooperative response to guidance by federal officials monitoring the response contributed to the response's overall effectiveness. Eugene A. Miklaucic & Jerry Saseen, *The Ashland Oil Spill, Floreffe, PA—Case History and Response Evaluation*, Oil Spill Conference, Feb. 1989, at 45, <http://ioscproceedings.org/doi/pdf/10.7901/2169-3358-1989-1-45>.

47. "Ashland Oil Co. Chairman John Hall's admission that his company made mistakes in assembling the diesel fuel tank that burst last Saturday may make company attorneys wince, but his frankness is playing well in the public arena." *Honesty About Fuel Spill Scores High with Public*, HERALD-LEADER, Jan. 8, 1988, at A1. "The Harvard Business School now uses Ashland's response as a case study in effective crisis communications." Cynthia Bent Findlay, *Savvy Crisis Communications Plans Can Save Companies Headaches*, COLUMBUS BUS. FIRST (Apr. 22, 2011), <http://www.bizjournals.com/columbus/print-edition/2011/04/22/savvy-crisis-communications-plans-can.html?page=all>.

PUBLIC ENGAGEMENT: VOLUNTEER MANAGEMENT

Some jurisdictions have looked at volunteer resources in advance and put forth programs to train non-professional responders.⁴⁸ Many communities are served by well trained volunteer fire agencies and police auxiliaries. Going further, trained volunteers such as the Red Cross, Skywarn storm spotters, ham radio operators, and Community Emergency Response Teams (CERTs)⁴⁹ found in California and elsewhere can be a ready resource of talent available for such tasks as damage assessment, communications, first aid, food preparation, child care, psychological support, and various administrative roles.

However, many communities lack a mechanism to direct the resources of “spontaneous volunteers”—those well-meaning individuals who show up and want to help.⁵⁰ Unknown to them at the moment they present themselves, they are a liability, rather than an asset. Their skills and training are unknown, they are not familiar with the response structure, and they have the ability to quickly become victims themselves. A telling case study of the aftermath of the 1985 Mexico City earthquake revealed that the number of persons rescued from the debris (approximately 800) came at a cost of the lives of 100 responders who were killed in the course of their well intended actions.⁵¹ Untrained responders are difficult to control and can easily expose themselves to structural collapses, hazardous materials, problems arising from utilities (power, gas, water, sewage), and they are seldom equipped with even the most basic protective gear.⁵² Still more problems can arise if their well intended efforts cause injury to others. In first responder training, as in most advanced first aid and rescue training, response trainees are repeatedly told, “Don’t make a second victim,” or “Never bring additional victims to the scene in the form of rescuers.”⁵³ Cleanups after hurricanes and

48. See *Community Emergency Response Team (CERT) Training*, COUNTY L.A. FIRE DEP’T, <http://www.fire.lacounty.gov/lacofd-cert-program/> (last visited Feb. 22, 2014).

49. *Id.*

50. See *Managing Spontaneous Volunteers in Times of Disaster: The Synergy of Structure and Good Intentions*, FED. EMERGENCY MANAGEMENT AGENCY, <http://www.fema.gov/pdf/donations/ManagingSpontaneousVolunteers.pdf> (last visited Feb. 22, 2014).

51. “This was the case following the Mexico City earthquake where untrained, spontaneous volunteers saved 800 people. However, 100 people lost their lives while attempting to save others. This is a high price to pay and is preventable through training.” *CERT*, SANTA BARBARA COUNTY FIRE DEP’T, <http://www.sbcfire.com/cert/> (last visited Feb. 22, 2014).

52. See Bryce Hall, *Don’t Be a Dead Hero*, SLATE (May 27, 2013), http://www.slate.com/articles/health_and_science/science/2013/05/rescuers_turning_into_victims_lessons_from_first_responders_on_saving_people.html.

53. Reinhardt’s experience at 1990’s First Responder training and Randle’s experience at April 2010 Wilderness First Aid training.

other storms are intrinsically very dangerous, involving unstable structures, broken electrical and gas lines, and serious water hazards, often occurring at the same time and location.⁵⁴

A robust community preparedness program such as CERT can help channel some of these volunteers into productive roles. Other tactics during an actual response may include a screening process to identify qualifications and ensure volunteers are working in tandem with already-trained persons or professional responders.

The lawyer's role in handling individual or corporate volunteers is to help public agencies prepare to receive such help or to turn it away. Acceptance of volunteer help implies that the agency accepting it will adequately supervise them, warn them of hazards, and avoid placing them in situations that they are untrained in or ill equipped to handle. Otherwise, the agency that accepts them and handles them poorly may face liability claims by injured volunteers as well as by those who are killed or injured by untrained volunteers. Those agencies may also face liability claims for property destroyed by such volunteers because of the volunteer's inexperience or lack of skill.

By the same token, effective integration of volunteer resources, as well as donated equipment and materiel, can greatly improve disaster response. Such assistance provides faster relief and frees the most highly trained professionals to address the most difficult and dangerous tasks, while leaving routine but important staff or support work to willing (and properly trained) volunteers.

INSTITUTIONAL MEMORY AND TRAINING: PASSING LESSONS ON

Lessons Learned

Each UO provides valuable lessons. Many of those hard-earned bits of knowledge are retained by professional response agencies. However, some "ground level" experiences sometimes fade from the institutional memory through disuse or perhaps through changes in personnel or political leadership.⁵⁵

54. *Fact Sheet, Clean up Safely After a Natural Disaster*, CENTERS DISEASE CONTROL & PREVENTION, <http://www.bt.cdc.gov/disasters/cleanup/facts.asp> (last updated Sept. 2, 2008).

55. See *L.A. Now Live: Santa Monica Offers L.A. a Cautionary Tale on Quakes*, L.A. TIMES (Nov. 15, 2013), <http://www.latimes.com/local/lanow/la-me-ln-la-now-live-santa-monica-qaues-20131115-dto,0,3568742.story#axzz2l40Z9dIK> (referencing faded resolve to retrofit buildings vulnerable to earthquake damage following the 1994 Northridge Quake).

A specific example rose from responses to hurricanes during the 1990s. In the aftermath of Hurricane Andrew, widespread power outages created a demand for ice. Considerable resources were expended to acquire ice and to ship it in trailer loads to a widespread set of locations where its distribution caused near-riots to those anxious to get it. This caused a further demand for law enforcement personnel to ensure the orderly distribution of a very perishable commodity.⁵⁶

The post-emergency analysis came to recognize the futility of this response. After the power fails, most home refrigerators and freezers can maintain stored food for a period of two to three days. In that window, the food must be consumed or discarded. The delivery of ice to the public after that period is good for nothing more than chilling beverages. FEMA training after that event warned against wasting valuable transportation and law enforcement resources on moving ice into the impacted area for residential use.⁵⁷ Consider the value of having loaded those trucks with non-perishable food (such as MREs), resulting in a far more meaningful response with a productive use of resources.⁵⁸

Fast-forward to a similar hurricane event following change in administrations. The lessons were too quickly forgotten and once again, considerable resources were squandered on providing ice to communities with prolonged power outages, with the same result as the earlier experience.

From a legal perspective, improving institutional memory is imperative both for public agencies and for private parties. Failure to learn lessons from past disasters (and near misses) lays a foundation to change due care to negligence, and if lessons remain unlearned after repeated disasters and near misses, to gross negligence or misconduct.

56. Co-author Reinhardt was present at a FEMA training session in the early 1990s, where this lesson was presented to trainees.

57. *Id.*

58. For illustrations of this repeated exercise, see Scott Shane & Eric Lipton, *Stumbling Storm-Aid Effort Put Tons of Ice on Trips to Nowhere*, N.Y. TIMES (Oct. 2, 2005), <http://www.nytimes.com/2005/10/02/national/nationalspecial/02ice.html?pagewanted=print>; *FEMA Says No to Ice for Hurricane Survivors* (ABC television broadcast Sept. 8, 2008), <http://abcnews.go.com/Blotter/story?id=5828158>; *Report: \$15 million in ice wasted by state after Hurricane Isaac* (WWL-TV New Orleans television broadcast Aug. 1, 2013), available at <http://www.wwltv.com/news/New-Report-15-Million-in-Ice-Wasted-By-State-After-Hurricane-Isaac-218034431.html>; and Robert Sargent & Ramsey Campbell, *Freebie Ice Goes Like Hotcakes*, ORLANDO SENTINEL (Jan. 30, 2007), http://articles.orlandosentinel.com/2007-01-30/news/LFREEIC_E30_1_ice-minneola-freeman (referencing ice distribution following Hurricane Andrew in 1992). The authors use the ice example as an illustration of lost institutional memories resulting in wasted valuable resources at a time when those assets are at a premium.

Lessons Implemented—Training, Testing, and Drills

While no emergency ever follows a script, there is no substitute for training, especially training updated as a result of weaknesses discovered in prior drills or recent disasters. Unfortunately, training is too often regarded as a diversion from mainstream duties instead of being described as one of the standard duties of responders who may find themselves in a supporting role.

Each UO presents new information that must be assimilated into the knowledge base (refer back to the lessons on ice distribution). Responders find themselves in ever-more specialized roles. The classic fire-fighting organization of the early twentieth century has evolved into an agency also capable of providing medical aid, hazardous material response, urban search and rescue, and more.

Training can also help prevent responders from becoming victims. In a larger event such as a hurricane or an earthquake, responders may begin the response as victims; their transition into responders can be accelerated through training such as home and family preparedness programs. In the aftermath of the 1994 Northridge Quake in California, a significant number of first responders could not report for duty as expected because they were dealing with domestic emergencies and frightened family members.⁵⁹ Planners need to account for this shrinkage in human resources and encourage practices and education to reduce that number.

Emergency training, testing, and periodic drills are not just for first responders; they are critical steps to avoid loss and liability. Many environmental laws include contingency planning and emergency response requirements. These may include requirements that are often written into discharge permits, hazardous waste handling requirements, spill prevention, countermeasure and control plans, and even pre-treatment permits for discharge to a municipal sewer.⁶⁰ The listing contained in section 311(j)(5) of the Clean Water Act is typical and includes “training, equipment testing, [and] periodic unannounced drills,” all keyed to addressing the worst case discharge at the facility, including fire and explosion, as well as adverse weather conditions.⁶¹

The lawyer’s role is not only to help ensure that clients comply with such requirements, but that clients learn from and correct the deficiencies

59. Reinhardt personal recollection from work on Northridge Quake.

60. *See, e.g.*, 33 U.S.C. § 1321 (2006) (SPCC requirements for oil and hazardous substances).

61. *Id.*; *See, e.g.*, 33 C.F.R. § 112.21 (2013) (facility response training and drills/exercises), Appendix D (worst case discharge planning).

identified in these rehearsals and incorporate the lessons into appropriate training and updated response plans. Particularly, because the lawyer's evaluation can be conducted with the shield of the attorney–client privilege, the attorney can play a trusted role in helping improve emergency response by helping the client distill the right lessons from practice so that in an actual emergency the losses are avoided or minimized.

Planning for potential natural and man-made disasters is unavoidably part of law practice in fields ranging from banking, to telecommunications, to education, to zoning. To serve their clients effectively in these fields, attorneys need to help their clients routinely plan and respond to such emergencies. The lawyer's failure to do so places clients at considerable risk when disasters strike.

Experience with disaster responses and recoveries in the last decade suggest very strongly that lawyers who are effective in such work focus on ensuring that emergency communications work, and work well, so that their clients can protect their customers, employees, and their communities, as well as their ongoing businesses.