REWORKING THE EMERGENCY ALERT SYSTEM TO MEET THE NEEDS OF HOMELAND SECURITY: OVERCOMING OBSTACLES TO ESTABLISH AN EFFECTIVE PUBLIC WARNING SYSTEM

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I. INTRODUCTION: UNDERSTANDING THE PROBLEM AND DEVELOPING A SOLUTION

The deadliest terrorist attack in history[1] began at 8:46 a.m. on September 11, 2001 when American Airlines Flight 11 crashed into the World Trade Center's North Tower.[2] The force of the Boeing 767[3] caused severe damage to the North Tower and trapped civilians both above and below the impact zone.[4] First responders arrived at the scene within minutes[5] and by 8:57 a.m., the New

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1 *See generally* OFFICE OF THE COORDINATOR FOR COUNTERTERRORISM, U.S. DEP'T OF STATE, PUB. NO. 10,940, PATTERNS OF GLOBAL TERRORISM 2001, at 1-2 (2002), *at* http://www.state.gov/documents/organization/10319.pdf (providing an overview of terrorism throughout the world).

2 NAT'L COMM'N ON TERRORIST ATTACKS UPON THE UNITED STATES, THE 9/11 COMMISSION REPORT, FINAL REPORT OF THE NATIONAL COMMISSION ON TERRORIST ATTACKS UPON THE UNITED STATES 7 (W.W. Norton and Co. Authorized ed. 2004) [hereinafter THE 9/11 COMMISSION REPORT]. At the time, many first responders and even civilians located inside the North Tower did not realize a commercial airplane had crashed into the building. *Id.* at 285-86.

3 *Id.* at 4. The plane carried up to 11,400 gallons of jet fuel which caused a fireball upon impact with the North Tower. *Id.* at 4, 285.

4 *Id.* at 286. The plane impacted floors ninety-three to ninety-nine of the North Tower. *Id.* Exit routes were obstructed and those persons present above the ninety-second floor had no way to evacuate the building. *Id.* at 285-86.

5 Those responding to the scene included members of the Fire Department of New York, the Port Authority Police Department, the New York Police Department, and the Of-

York Fire Department ("FDNY") had determined that people in the North Tower should immediately evacuate the premises.[6] FDNY did not relay this message to 911 emergency call system operators or FDNY dispatchers.[7] Many civilians trapped in the North Tower dialed 911 seeking guidance on evacuation routes and plans.[8] Consequently, the 911 system buckled under the high call volume and an "all circuits busy" message greeted some of the callers.[9] Other civilians within the North Tower who successfully connected to emergency system operators were instructed to remain in place and await rescue personnel.[10] After the plane crashed into the North Tower on September 11, the building's public address system failed in multiple locations thereby limiting the ability to relay evacuation messages to individuals located within the World Trade Center.[11] Many people below the impact zone would eventually perish as they waited for the arrival of rescue teams as instructed by 911 operators.[12]

The system designed to alert Americans in the event of a national emergency, the Emergency Alert System ("EAS") [13], was not activated on September 11.[14] The system relies predominantly on radio and television transmis-

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fice of Emergency Management and Interagency Preparedness. *Id.* at 281-85.

[6] *Id.* at 287.

[7] THE 9/11 COMMISSION REPORT, *supra* note 2, at 287.

[8] *Id.* at 286.

[9] *Id.*

[10] *Id.* at 286-87. Some civilians awaited rescue assistance while others continued to work or gather personal belongings. *Id.* FDNY, the New York Police Department, and the Port Authority Police Department improvised a rescue strategy and demonstrated tremendous heroism in the process. *See id.* at 305-9.

[11] *Id.* at 286. Judge Richard Posner cites educating building occupants of evacuation plans as a needed reform. He opines that this simplest of recommendations has lagged in the aftermath of September 11. *See* Richard A. Posner, *The 9/11 Report: A Dissent*, N.Y. TIMES, Aug. 29, 2004, §7 (Book Review), at 1.

[12] THE 9/11 COMMISSION REPORT, *supra* note 2, at 296.

[13] In addition to the EAS, the United States government maintains other public warning mechanisms. For a list of these systems, see SUBCOMM. ON NATURAL DISASTER REDUCTION, NAT'L SCI. & TECH. COUNCIL, EFFECTIVE DISASTER WARNINGS app. 3, *at* http://www.fema.gov/pdf/rr/ndis_rev_oct27.pdf (Nov. 2000) [hereinafter EFFECTIVE DISASTER WARNINGS]. The newest federal public advisory system is the Homeland Security Advisory System maintained by the U.S. Department of Homeland Security. *See* Directive on the Homeland Security Advisory System, 38 WEEKLY COMP. PRES. DOC. 394 (Mar. 11, 2002) (establishing the Homeland Security Advisory System). States and localities also maintain their own systems designed to warn the public. For example, Arlington County, Virginia has implemented a system that delivers text alerts to citizens' cell phones and e-mail accounts. *See* Annie Gowen, *AM Station Developed For a Crisis*, WASH. POST, Aug. 1, 2004, at C4. The county is also developing a dedicated AM radio station to deliver emergency information. *See id.*; *see also* Dist. of Columbia Emergency Mgmt. Agency, *at* http://alert.dc.gov (last visited Feb. 16, 2005) (permitting residents to enroll in a program where citizens are contacted via cell phones or landline telephones in the event of an emergency).

[14] *See* Bill McConnell, *This Is Not a Test*, BROAD. & CABLE, Aug. 16, 2004, at 34. The

sions,[15] and was inadequately structured to effectively communicate an evacuation order to the building's occupants.[16] Lives would have been saved on September 11 if regulators had periodically updated the EAS by integrating technological advances, such as mobile text messaging capabilities, into the system.[17]

An effective public warning mechanism plays a vital role in preserving lives and property during all stages of a disaster by informing the public of precautionary measures that should be taken.[18] Some commentators have criticized

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World Trade Center hosted several television antennas atop the North Tower. *Id.* Ultimately, the placement of these towers would have affected the capabilities of the EAS on September 11 had the system been activated. *Id.* Shortly after September 11, the FCC, responding to a request by the Federal Emergency Management Agency, suspended all required EAS testing in order to "avoid potential public confusion or fear . . ." EAS Routine Testing, *Public Notice*, 16 FCC Rcd. 16,811 (2001). In the aftermath of September 11, President Bush signed legislation creating the National Commission on Terrorist Attacks Upon the United States ("9/11 Commission") to investigate the attacks and suggest future preventative measures. Intelligence Authorization Act for Fiscal Year 2003, Pub. L. No. 107-306, tit. VI, 116 Stat. 2383, 2408-14. The creation of the 9/11 Commission involved heated political debates and discussions. *See* David Firestone, *White House Gives Way On a Sept. 11 Commission; Congress Is Set to Create It*, N.Y. TIMES, Nov. 15, 2002, at A19. In July 2004, the 9/11 Commission released its final report listing recommendations from government restructuring to foreign policy approaches. *See* Linton Weeks, *9/11 Report Available Today Amid High Demand*, WASH. POST, July 22, 2004, at C7; *see also* THE 9/11 COMMISSION REPORT, *supra* note 2, at 361-428. While the 9/11 Commission devoted an entire chapter detailing emergency responses to September 11, the commission produced few recommendations regarding emergency communications systems. *See id.* at 278-323. The report altogether neglected to mention the nation's public warning system, the EAS. *See id.* at 396-97.

[15] P'SHIP FOR PUB. WARNING, PPW REPORT 2004-1, THE EMERGENCY ALERT SYSTEM (EAS): AN ASSESSMENT 7, *at* http://www.partnershipforpublicwarning.org/ppw/docs/e-assessment.pdf (Feb. 2004) [hereinafter PPW: EAS ASSESSMENT]. Entities may voluntarily participate in a national level EAS message upon receiving approval from the FCC. Emergency Alert System (EAS), 47 C.F.R. §11.43 (2004). Regulations require that all AM and FM radio broadcast and television broadcast stations as well as cable systems participate in the national EAS. *Id.* §11.41(a). These entities may opt-out of the system by submitting a written request to the FCC. *Id.* §11.41(b). Broadcasters and cable systems have the discretion to determine whether to carry a regional, statewide, or local message which utilizes EAS channels. *Id.* §11.41(b)(2).

[16] *See* PPW: EAS ASSESSMENT, *supra* note 15, at 7. In the event of a catastrophic event damaging electrical grids and other critical infrastructures, the EAS would benefit by having a broad range of technologies incorporated into the system. Rather than relying on a handful of methods to communicate with the public, this disbursement of methods to send messages would increase the possibility that endangered persons receive an emergency communication. *See id.* at 28-30.

[17] Technology currently exists to send messages to all cellular telephone users physically located within the range of a cell site. *See* Cellular Emergency Alert Sys. Ass'n, *at* http://www.ceasa.us (last visited Jan. 4, 2005).

[18] PUB. COMMUNICATIONS & SAFETY WORKING GROUP, MEDIA SEC. AND RELIABILITY COUNCIL, FINAL REPORT 27, *at* http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-244523A1.doc (Feb. 18, 2004) [hereinafter MSRC: FINAL REPORT]. Merely communicating

the EAS as a Cold War relic[19] and questioned whether the system should be maintained on a national level.[20] This Comment argues that the EAS should be upgraded.[21] The current system provides an existing architecture that can be modernized with minimal effort and utilized by emergency response personnel to communicate directly with an at-risk population.

In the aftermath of September 11, regulators must integrate current technologies into the EAS in order to efficiently disseminate emergency communications to the public.[22] The proliferation of communications technologies and media outlets over the past several decades has resulted in a fragmentation of audiences.[23] People no longer rely solely on broadcast television and radio, the primary sources for EAS messages, for news and information.[24] Instead, the Internet, cellular telephony, and satellite communications have captured a growing piece of the public's attention.[25] Responding to this evolving landscape, regulators must redesign the EAS to reach an at-risk populace. Specifically, the EAS must embrace new technologies and emerge as a system that could, for example, send text messages to cell phones and other wireless de-

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a relevant emergency message to the public is only part of the job. To achieve maximum effectiveness, the message should be, among other things, brief, accurate, and relevant. *See* EFFECTIVE DISASTER WARNINGS, *supra* note 13, at 9. For background information on the Effective Disaster Warnings report, see Jeffrey Silva, *Emergency Alert Report May Not Be Released Until After Election*, RADIO COMMUNICATIONS REPORT, Oct. 30, 2000, at 1.

[19] McConnell, *supra* note 14, at 1, 34. Michael Powell, Chairman of the FCC, has commented that the EAS is in "disarray and needs major reform." *Id.* at 1.

[20] *In re* Review of the Emergency Alert System, *Notice of Proposed Rulemaking*, 19 FCC Rcd. 15,775, 15,783-84, para. 24 (2004).

[21] The Partnership for Public Warning has undertaken an extensive study of the EAS and advocates further coordination and upgrading of the system rather than abandonment. *See* P'SHIP FOR PUB. WARNING, PPW REPORT 2002-02, DEVELOPING A UNIFIED ALL-HAZARD PUBLIC WARNING SYSTEM 30, *at* http://www.partnershipforpublicwarning.org/pw/docs/11_25_2002report.pdf (Nov. 25, 2002) [hereinafter PPW: DEVELOPING A UNIFIED ALL-HAZARD PUBLIC WARNING SYSTEM].

[22] Review of the Emergency Alert System, 69 Fed. Reg. 52,843, 52,844 (proposed Aug. 30, 2004) (to be codified at 47 C.F.R. pt. 11). Responding to the tragedy of September 11, the FCC has taken the lead in the effort to rework the EAS. *Id.*; *see also* Press Release, Federal Communications Commission, Commission Seeks Comment on Rule Changes for the Emergency Alert System, Statement of Chairman Michael K. Powell, *at* http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-250534A2.pdf (Aug. 4, 2004) [hereinafter FCC Seeks Comment on Rule Changes for the Emergency Alert System] (acknowledging the changing security threat to the homeland).

[23] *See* U.S. CENSUS BUREAU, ECON. & STATISTICS. ADMIN., U.S. DEP'T OF COMMERCE, STATISTICAL ABSTRACT OF THE UNITED STATES: 2003, at 720 tbl.1125 (123d ed. 2003) [hereinafter STATISTICAL ABSTRACT OF THE UNITED STATES: 2003].

[24] *See id.* The number of hours people dedicate to broadcast television has steadily declined over the years while the number of cable and satellite television subscribers have steadily increased. *See id.* The number of hours Americans spend listening to radio has undergone a steady increase. *See id.* Internet usage has increased dramatically. *See id.*

[25] *See id.*

vices within a targeted geographic area.[26] The manner in which such technological advances should be adopted presents only one piece of the puzzle facing the Federal Communications Commission ("FCC" or "Commission") and other federal regulators responsible for administering the EAS.[27] The EAS in its current state is uncoordinated and the proper level of interaction among federal, state, and local officials must improve in order to ensure that the public receives timely warning messages.[28] This Comment focuses on three primary obstacles the United States must overcome in order to increase the effectiveness of the EAS: (1) defining the roles and responsibilities among EAS participants;[29] (2) integrating and regulating technological advances into the existing infrastructure;[30] and (3) educating the public and system participants.[31] In addition, this Comment will analyze the work undertaken in both the United States and the United Kingdom to determine how to overcome the obstacles facing the EAS.

This Comment, in Part II, will relay a brief history of the EAS and provide an overview of the system's administration. Part III examines organizational obstacles currently facing the administration of the EAS. Part IV analyzes the FCC's regulatory power to implement technological changes and discusses potential methods that may be instituted to inform large numbers of people affected by an emergency situation. Part V discusses the role of educating the public and administrators of the EAS.

II. THE EVOLUTION OF THE EAS: A HISTORY OF THE NATIONAL PUBLIC WARNING SYSTEM

The EAS's predecessors were conceptualized as a mechanism for allowing the President to communicate directly with the American public in the event of an imminent nuclear attack.[32] The system has never been utilized for this purpose.[33] Despite the end of the Cold War over a decade ago and the nature of

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[26] *In re* Review of the Emergency Alert System, *Notice of Proposed Rulemaking*, 19 FCC Rcd. 15,775, 15,787-88, para. 32 (2004).

[27] *Id.* at 15,782-83, para. 22.

[28] MSRC: FINAL REPORT, *supra* note 18, at 16-17.

[29] *Id.*

[30] *Id.* at 18.

[31] *Id.* at 8.

[32] Exec. Order No. 10,312, 3 C.F.R. 841 (1949-1953); Exec. Order No. 11,092, 3 C.F.R. 733 (1959-1963).

[33] *In re* Review of the Emergency Alert System, *Notice of Proposed Rulemaking*, 19 FCC Rcd. 15,775, 15,783-84, para. 24 (2004). The EAS was not activated on September 11. While several broadcast antennas from New York television stations sat atop the World Trade Center, emergency personnel failed to trigger the system. McConnell, *supra* note 14, at 34. The White House also did not issue a national level alert on September 11. *Id.*; *see*

evolving threats currently facing America, the EAS has largely retained the same structure and mission to meet this original mandate.[34]

In 1951, President Truman delegated authority to the FCC [35] to establish a plan to prevent guided missiles or other threats from utilizing radio transmissions as navigational devices.[36] The FCC, working in conjunction with the Civil Aeronautics Administration,[37] developed a system known as Control of Electromagnetic Radiation ("CONELRAD") that would minimize electromagnetic transmissions from AM radio stations during an attack upon the United States.[38] Under CONELRAD, several designated radio stations would remain on-air during a national emergency[39] and switch their broadcast transmissions on and off to avoid detection by enemy tracking devices.[40] In addition, these stations would alert other stations to cease broadcasting.[41]

CONELRAD also served as the nation's first public warning system.[42] In addition to establishing a means for broadcasters to provide the public with crucial information during a national emergency, the system also established an infrastructure by which the President could directly address the American public during a crisis.[43] By the early 1960s, CONELRAD had become obsolete due to improved missile guidance and navigational technologies.[44]

Nevertheless, President Kennedy wanted the ability to communicate with

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also Kelly Patricia O'Meara, *Alert System's Deafening Silence*, INSIGHT ON THE NEWS, Dec. 8, 2003, at 24.

[34] *See* Emergency Alert System (EAS), 47 C.F.R. §11.1 (2004). EAS origination points, known as Primary Entry Points, are designated based on susceptibility to nuclear blasts. *See infra* text accompanying note 64.

[35] *See* Exec. Order No. 10,312, 3 C.F.R. at 841. The President derived this power from the Communications Act of 1934 which explicitly authorized the suspension of "electromagnetic radiations" during a national emergency or in the interest of national security. Communications Act of 1934, 47 U.S.C. §606(c) (2000).

[36] *See* Exec. Order No. 10,312, 3 C.F.R. at 841.

[37] Aviation Radio Services, 19 Fed. Reg. 1186, 1186-87 (Mar. 3, 1954) (codified at 47 C.F.R. pt. 9 (1955)).

[38] *In re* Review of the Emergency Alert System, 19 FCC Rcd. at 15,776-77, para. 6.

[39] *Id.*

[40] The stations would oscillate between 640 kHz or 1240 kHz in an effort to deceive tracking devices. *Id.* These stations monitored a dedicated circuit, known as the Emergency Action Notification Network. PPW: EAS ASSESSMENT, *supra* note 15, at 13. This circuit would inform the stations of an impending attack. The Emergency Action Notification Network ceased to exist in 1995. *Id.*

[41] *In re* Review of the Emergency Alert System, 19 FCC Rcd. at 15,776-77, para. 6; PPW: EAS ASSESSMENT, *supra* note 15, at 13.

[42] *In re* Review of the Emergency Alert System, 19 FCC Rcd. at 15,776-77, para. 6.; *see also* Aviation Radio Services, 19 Fed. Reg. at 1186-87 (documenting the FCC's effort to seek comments on regulations establishing CONELRAD).

[43] Aviation Radio Services, 19 Fed. Reg. at 1186-87.

[44] PPW: EAS ASSESSMENT, *supra* note 15, app. C, at 38.

the American public in the event of an emergency[45]. In 1963, he issued an Executive Order requiring the FCC to develop a nationwide telecommunications emergency preparedness plan.[46] The FCC developed the Emergency Broadcast System ("EBS") to replace CONELRAD.[47] The EBS retained CONELRAD's distribution network among radio and television stations but allowed all broadcasters to continue transmissions during a national emergency.[48] During implementation of the EBS, the FCC required broadcasters to purchase and install specialized equipment able to decode EBS messages.[49] The system also utilized the CONELRAD technique of turning broadcast transmissions on and off to activate the EBS equipment.[50] In the mid-1970's, the FCC replaced the CONELRAD signaling technique with the familiar two-tone alerting signal.[51] Not only did this tone serve to activate the EBS receivers, but it also alerted the public of a pending warning message.[52] In 1992, Congress expanded the reach

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[45] *Id.*

[46] Exec. Order No. 11,092, 3 C.F.R. 733 (1959-1963). Executive Order 11,092 also created the National Industry Advisory Committee to advise the FCC on duties related to emergency preparedness. *Id.* The National Industry Advisory Committee exists today as the Media Security and Reliability Council. *See* Press Release, Federal Communications Commission, FCC Announces Creation of Media Security & Reliability Council; Tribune Company President Dennis FitzSimons To Be Chairman, *at* http://www.fcc.gov/Bureaus/Miscellaneous/News_Releases/2002/nrmc0206.pdf (Mar. 28, 2002). On May 26, 2004, the Commission rechartered the group as the Media Security and Reliability Council II. *See* Press Release, Federal Communications Commission, Federal Communications Commission Announces Recharter of Media Security and Reliability Council; Initial Meeting Under New Charter to be Held June 2, *at* http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-247617A1.pdf (May 26, 2004). The Media Security and Reliability Council II has the same mandate as its predecessor but is composed of different members of the telecommunications industry. *See id.*; *see also* Media Security and Reliability Council, *at* http://www.mediasecurity.org/mem-ers/msrccharter.html (last visited Feb. 16, 2005) (detailing the group's mandate and responsibilities).

[47] PPW: EAS ASSESSMENT, *supra* note 15, app. C, at 38. A program known as the Broadcast Station Protection Program ("BSPP") was established at the same time to ensure broadcasters could remain on-air after a nuclear attack. *Id.* at 38-39. Through the BSPP, crucial broadcast facilities were supplied with power generators, fuel, and other emergency supplies. *Id.*

[48] *In re* Review of the Emergency Alert System, *Notice of Proposed Rulemaking*, 19 FCC Rcd. 15,775, 15,777, para. 7 (2004).

[49] *Id.*

[50] *Id.*

[51] *See In re* Amendment of Section 73.906 of the Commission's Rules to Substitute a Two-Tone Attention Signal for the Carrier-Break and 1,000 HZ Signal Presently in Use, *Order*, 49 F.C.C.2d 1160 (1974). These two audio signals were composed of 853 and 960 Hz frequencies that modulated for no longer than 25 seconds. *Id.* app. at 1161.

[52] *In re* Amendment of Parts 1, 2, 15, and 73 of the Commission's Rules to Provide Equipment Type Acceptance and Certification for Emergency Broadcast System (EBS) Attention Signal Equipment, and Exempting 10-Watt Noncommercial Educational FM Broadcast Licensees from the Attention Signal Transmission Requirement, *Report and Order*, 54 F.C.C.2d 868, 870, para. 7 (1975).

of the EBS by enacting the Cable Television Consumer Protection and Competition Act.[53] The Act required cable companies to transmit national level EBS messages for the first time.[54]

By 1994, the FCC instituted rules replacing the analog-based EBS with a digitally-structured EAS.[55] In addition to the adoption of a digital architecture for the EAS, the Commission also embraced a messaging protocol,[56] developed by the National Weather Service ("NWS"), as its signaling technique.[57] The NWS utilizes this protocol to disseminate weather related information to specialized radio units, known as National Oceanic and Atmospheric Administration ("NOAA") Weather Radios, which are available for purchase by the general public.[58] As a result, EAS receivers, which are typically owned by industry entities, such as radio and television broadcasters, and NOAA Weather Radios became interoperable, thus expanding the reach of the system.[59]

A. Delivering a Message via the EAS: How the System Functions

Despite the many technological advances and name changes, the United States' public warning mechanism has retained the same primary purpose since its inception: to communicate an emergency message on a nationwide scale.[60]

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[53] Cable Television Consumer Protection and Competition Act of 1992, 47 U.S.C. §§521-555 (2000).

[54] *Id.* §544(g). This legislation authorized the FCC to promulgate rules requiring cable systems' participation in EAS. *Id.* The FCC implemented this legislation in 1994. In the same Report and Order, the FCC mandated a switch from the analog EBS to a digital EAS. *See In re* Amendment of Part 73, Subpart G, of the Commission's Rules Regarding the Emergency Broadcast System, *Report and Order and Further Notice of Proposed Rulemaking*, 10 FCC Rcd. 1786, 1788, para. 1 (1994). The FCC initially determined that it did not have the power under the Communications Act of 1934 to regulate cable television services. *See In re* Inquiry into the Impact of Community Antenna Systems, *Report and Order*, 26 F.C.C. 403 (1959). Over time, the Commission gradually expanded its regulatory power over cable systems and the Supreme Court upheld that expansion. *See generally* United States v. S.W. Cable Co., 392 U.S. 157, 164-67 (1968) (providing a background of the FCC's gradual regulation of cable television systems).

[55] *See In re* Amendment of Part 73, Subpart G, of the Commission's Rules Regarding the Emergency Broadcast System, 10 FCC Rcd. at 1788, para. 1.

[56] The protocol is named Specific Area Message Encoding, or SAME. PPW: EAS ASSESSMENT, *supra* note 15, at 18.

[57] *Id.* at 18. NWS may activate all NOAA Weather Radios situated within a geographic area. Using the SAME protocol, NWS may send specialized information to NOAA Weather Radios relevant to a specific geographic area. *In re* Review of the Emergency Alert System, *Notice of Proposed Rulemaking*, 19 FCC Rcd. 15,775, 15,780 n.25 (2004).

[58] *In re* Review of the Emergency Alert System, 19 FCC Rcd. at 15,780 n.25.

[59] PPW: EAS ASSESSMENT, *supra* note 15, at 18.

[60] Emergency Alert System (EAS), 47 C.F.R. §11.1 (2004). All national-level warnings preempt state or local EAS alerts that may be in progress. *Id.* §11.44(a). The EAS was initially developed as a system to communicate in the event of a nuclear attack. *See infra* text

Notably, the EAS has never been activated for this purpose.[61] Nevertheless, the EAS has demonstrated great success in delivering localized weather warnings and missing child alerts through an initiative known as America's Missing: Broadcast Emergency Response ("AMBER Alerts").[62]

The EAS consists of a hierarchical network of message distribution.[63] For national messages, the system relies on thirty-four broadcast entities designated by the Federal Emergency Management Agency ("FEMA")[64] as Primary Entry Points.[65] In the event of a national emergency, the White House contacts FEMA which in turn delivers a message to each of the Primary Entry Points.[66] Other participants in the EAS constantly monitor these Primary Entry Points.[67] Once the Primary Entry Points receive a national EAS message, equipment within the hierarchal chain is automatically activated and the message is distributed to the American public through this interconnected network.[68]

State and local communities are also permitted to utilize the capabilities of the EAS for more targeted emergency alerts[69] once they have developed an FCC-approved EAS State or Local Area Plan.[70] This plan designates one station within the EAS Local Area[71] as a Local Primary One ("LP-1").[72] The LP-1

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accompanying note 64.

61 PPW: EAS ASSESSMENT, *supra* note 15, at 9.

62 *Id.* at 27.

63 *In re* Review of the Emergency Alert System, 19 FCC Rcd. at 15,780-81, para. 16.

64 FEMA designates Primary Entry Point stations in relation to "predicted nuclear blast overpressure zones." PPW: EAS ASSESSMENT, *supra* note 15, at 13.

65 "The [Primary Entry Point] system is a nationwide network of broadcast stations and other entities connected with government activation points." 47 C.F.R. §11.14. These stations serve as the government's first point of contact upon the issuance of an emergency alert. *Id.* The Primary Entry Point Advisory Committee ("PEPAC") manages the Primary Entry Point program, see Primary Entry Point Advisory Committee, *at* http://pepac.org (last visited Jan. 8, 2005). PEPAC has compiled a list of all thirty-four Primary Entry Point stations on their website, *see* Primary Entry Point Advisory Committee, *at* http://pepac.org/PEPStations.htm (last visited Jan. 8, 2005).

66 *See* 47 C.F.R. §11.53(a). A national EAS message contains a digital header known as an Emergency Action Notification to inform Primary Entry Point participants of the beginning of EAS activation. *See id.* Entities are informed that an emergency message is terminated through a notice known as the Emergency Action Termination. *See id.* §11.54(b)(3). FEMA informs Primary Entry Points of a national-level EAS message via landline telephone lines. *See* PPW: EAS ASSESSMENT, *supra* note 15, at 27.

67 *In re* Review of the Emergency Alert System, 19 FCC Rcd. at 15,781, para. 17.

68 PPW: EAS ASSESSMENT, *supra* note 15, at 9-10. Transmissions for the 34 Primary Entry Points cover approximately 90% of the continental United States. *Id.* at 7. Under FCC regulations, each broadcast station and cable system must monitor at least two EAS sources in the event one source fails to relay the message. 47 C.F.R. §11.52(d); *In re* Review of the Emergency Alert System, 19 FCC Rcd. at 15,781 n.32 (2004).

69 *See* 47 C.F.R. §11.1.

70 *Id.* §11.21.

71 "A Local Area is a geographical area of contiguous communities or counties that may include more than one state." *Id.* §11.21(b). There are approximately 550 EAS Local Areas

serves as a contact point for individuals wishing to activate a local EAS alert.[73] Other broadcasters and cable systems located near the LP-1 monitor this source and may or may not choose to interrupt their programming in order to air the message.[74]

B. Federal Responsibilities for the EAS

Various federal agencies, including the FCC, FEMA, and the NOAA, share responsibilities for administering the EAS on the federal level. The Communications Act of 1934[75] established the FCC and charged the agency with national defense and ensuring the protection of property and life through the country's communication systems.[76] The Commission has been at the forefront of issues surrounding the nation's public warning mechanism since its inception[77] and the agency's responsibilities regarding the EAS include: establishing technical standards for implementation, testing, and activating the EAS;[78] establishing procedures for testing the EAS; and developing protocols for cable systems and radio and television broadcasters to follow in the event of an EAS activation.[79]

FEMA, a component of the Department of Homeland Security's Emergency Preparedness and Response Directorate,[80] possesses the sole responsibility for activating a national EAS alert.[81] This duty is derived from the Robert T. Staf-

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within the United States. *In re* Review of the Emergency Alert System, 19 FCC Rcd. at 15,781, para. 17.

[72] *See* 47 C.F.R. §11.18(b).

[73] *In re* Review of the Emergency Alert System, 19 FCC Rcd. at 15,781, para. 17. For an example of how law enforcement officials may utilize Local Primary One stations when activating a local AMBER Alert, see TEXAS DEP'T OF PUB. SAFETY, TEXAS AMBER ALERT SYSTEM 7, *at* ftp://ftp.txdps.state.tx.us/dem/amber/amber_alert_training_guide.pdf (last visited Jan. 4, 2005).

[74] *See* 47 C.F.R. §11.55(a).

[75] Communications Act of 1934, 47 U.S.C. §§151-226 (2000).

[76] *Id.* §151. The Communications Act of 1934 established a broad authority for the FCC to develop and enforce rules in order to further the Commission's mandate. *Id.* §154(i). Other federal statutes reaffirm this mandate to utilize communication systems to promote the safety of life and property. *Id.* §154(o), §303(r), §154(i).

[77] *See generally* PPW: EAS ASSESSMENT, *supra* note 15, app. C (compiling a history of the EAS).

[78] *In re* Review of the Emergency Alert System, 19 FCC Rcd. at 15,779, para. 12; *see generally* 47 C.F.R. §§11.1-11.61 (listing technical standards for the EAS).

[79] *In re* Review of the Emergency Alert System, 19 FCC Rcd. at 15,779, para. 12. Many newer communications technologies, including satellite radio and television, are not required to participate in the EAS. *Id.*

[80] *See* Homeland Security Act of 2002, 6 U.S.C. §313(1) (2000 & Supp. II 2002). The Department of Homeland Security is composed of five Directorates, including the Emergency Preparedness and Response Directorate. *Id.* §§113(a), 311-19.

[81] *See* Exec. Order No. 12,472, 3 C.F.R. §193 (1984); *see also In re* Review of the

ford Disaster Relief and Emergency Assistance Act ("Stafford Act")[82], which empowers the agency to establish a protocol for the use of emergency communications systems in the event of an emergency.[83] The Homeland Security Act of 2002[84] delegated all of FEMA's statutory functions under the Stafford Act to the Under Secretary for Emergency Preparedness and Response.[85] The Under Secretary is authorized by statute[86] and previous interagency agreements to oversee the utilization of the EAS by state and local personnel, and to coordinate national, state, and local level EAS alerts.[87]

Most EAS alerts originate from NOAA's National Weather Service ("NWS").[88] NWS supplies broadcast and cable entities with localized weather alerts via NOAA Weather Radio.[89] These messages are distributed in a specialized protocol known as Specific Area Messaging Encoding,[90] which may be decoded by receiving units readily available to the general public.[91]

Current administration of the EAS on the federal level is based primarily on

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Emergency Alert System, 19 FCC Rcd. at 15,779, para. 13.

82 Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 U.S.C. §§5121-5300 (2000).

83 *Id.* §5196(d).

84 Homeland Security Act of 2002, 6 U.S.C. §§101-557 (2000 & Supp. II 2002).

85 *See id.* §312(5). "The Homeland Security Act of 2002 transferred all of the statutory functions under the Stafford Act from the Director of FEMA to the Secretary of DHS. However, these functions have been delegated to the Undersecretary for Emergency Preparedness and Response . . ." H.R. REP. NO. 108-340, at 2 (2003).

86 *See* 42 U.S.C. §5196(c). The statutory language used by Congress does not require FEMA to coordinate emergency communications among the federal, state, and local levels; it only permits such action. The Homeland Security Act of 2002 requires the Under Secretary of Emergency Preparedness and Response to develop a "national incident management system with Federal, State, and local government . . ." 6 U.S.C. §312(5). The same statute also requires the Under Secretary to help improve the effectiveness of emergency responders to man-made or natural disasters. *Id.* §312(1).

87 *See* State and Local Emergency Broadcasting System (EBS) Memorandum of Understanding Among the Federal Emergency Management Agency (FEMA), Federal Communications Commission (FCC), and the National Oceanic and Atmospheric Administration (NOAA) (1982) [hereinafter 1982 Memorandum of Understanding], *reprinted in* PPW: EAS ASSESSMENT, *supra* note 15, app. K.

88 *In re* Review of the Emergency Alert System, *Notice of Proposed Rulemaking*, 19 FCC Rcd. 15,775, 15,780, para. 14 (2004). Reports of EAS activations are currently voluntary. EFFECTIVE DISASTER WARNINGS, *supra* note 13, app. 2, at 46-47. Accordingly, publicly available statistics for EAS activations are difficult to find. *See* Press Release, Federal Communications Commission, Emergency Alert System (EAS) Activation Reports Voluntarily Submitted by Broadcasters to the FCC in 1998, *at* http://www.fcc.gov/Bureaus/Compliance/News_Releases/1998/nrci8023.txt (Oct. 22, 1998). However, it is estimated that nearly 80% of EAS messages are initiated by NWS. PPW: EAS ASSESSMENT, *supra* note 15, at 7.

89 PPW: EAS ASSESSMENT, *supra* note 15, at 7.

90 *See generally id.* at 18-19.

91 Some NOAA Weather Radio units are capable of automatically switching on upon receipt of an emergency message. EFFECTIVE DISASTER WARNINGS, *supra* note 13, at 32.

a 1981 Memorandum of Understanding, a 1984 Executive Order, and a 1995 Presidential Statement of Requirements.[92] In 1981, the FCC, FEMA, and NOAA all signed a Memorandum of Understanding detailing each agency's responsibilities and objectives for the EBS administration on the federal level.[93] President Reagan signed an Executive Order in 1984 that established the National Communications System to coordinate and advise the President on issues pertaining to emergency preparedness of telecommunications systems throughout the federal government.[94] The Order also gave FEMA managerial oversight of the EBS.[95] In 1995, President Clinton signed a Presidential Statement of Requirements addressing presidential communications with the public during a state of national emergency.[96]

C. State Participation in the EAS

To date, the EAS has only been used on the state or local level.[97] States and localities may utilize the EAS to disseminate emergency messages through media outlets within their borders; however, such participation is voluntary.[98] In order to activate the EAS, a state or locality must develop an EAS State or Local Area Plan.[99] States and localities typically organize a State Emergency Communications Committee ("SECC") or a Local Emergency Communications Committee ("LECC") to develop these EAS plans.[100] SECCs and LECCs are usually composed of emergency management personnel and industry volunteers.[101] Once the plan is developed, the SECC or LECC must submit the State or Local Area Plans to the FCC for approval.[102]

The EAS's true success has come from state and local activations. Localities, in conjunction with the NWS, utilize the EAS's capabilities primarily for

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[92] *In re* Review of the Emergency Alert System, 19 FCC Rcd. at 15,778, para. 9.

[93] *See* 1982 Memorandum of Understanding, *supra* note 87.

[94] Exec. Order No. 12,472, 3 C.F.R. 193 (1984).

[95] *Id.*

[96] *In re* Review of the Emergency Alert System, 19 FCC Rcd. at 15,778, para. 9.

[97] Statistics are difficult to find regarding EAS activation since reporting of EAS activations is purely voluntary. The National Science and Technology Council Committee's Working Group on Natural Disaster Information Systems Subcommittee on Natural Disaster Reduction has compiled the most comprehensive statistics available. *See* EFFECTIVE DISASTER WARNINGS, *supra* note 13, app. 2.; *see also* text and accompanying note 88.

[98] Emergency Alert System (EAS), 47 C.F.R. §11.1 (2004).

[99] *Id.* §11.21.

[100] *See In re* Amendment of Part 73, Subpart G, of the Commission's Rules Regarding the Emergency Broadcast System, *Report and Order and Further Notice of Proposed Rulemaking*, 10 FCC Rcd. 1786, 1834-35, paras. 131-35 (1994).

[101] *See In re* Review of the Emergency Alert System, 19 FCC Rcd. at 15,780, para. 15.

[102] 47 C.F.R. §11.21.

weather alerts.[103] In fact, roughly 80% of the EAS's activations originate from the NWS.[104] However, localities also issue AMBER Alerts via the EAS in an effort to find missing or kidnapped children.[105] While these applications demonstrate innovations occurring on the local and state level, they also demonstrate potential future uses of the EAS. For example, some states utilize electronic road signs to disseminate AMBER Alerts while others take advantage of cellular telephony to deliver relevant text messages to a user's handset.[106] Despite these advances, such inconsistencies may undermine the very purpose of a public warning system and threaten the overall effectiveness of the EAS.[107]

D. 9/11 Aftermath: Renewed Interest in the EAS

After the 9/11 Commission released its final report, a great deal of interest focused on the recommendations contained therein.[108] The report highlighted potential uses of the nation's communications infrastructure to save lives and exposed many weaknesses in the system at the same time.[109] Largely absent from the public debate was any reference to the EAS or any public warning mechanism.[110] Virtually no discussion centered on the EAS's primary weakness: the system's reliance on broadcast and cable to disseminate messages requires an individual to be tuned into a broadcast or cable station in order to receive a message via the EAS.[111]

Despite the EAS's ability to effectively reach only a limited portion of the population, technological advances present exciting possibilities for future im-

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[103] *See In re* Review of the Emergency Alert System, 19 FCC Rcd. at 15,780, para. 14.

[104] *Id.*

[105] *See* Jacqueline L. Salmon, *A System To Break Up Abductions*, WASH. POST, Sept. 10, 2001, at B1. In 2002, the FCC adopted an EAS event code for missing children alerts. *See In re* Amendment of Part 11 of the Commission's Rules Regarding the Emergency Alert System, *Report and Order*, 17 FCC Rcd. 4055, 4064-65, para. 19 (2002). To date, almost all states have adopted an AMBER Alert plan which utilizes EAS to disseminate messages in an attempt to recover lost children. PPW: EAS ASSESSMENT, *supra* note 15, at 9.

[106] Texas has integrated Internet, radio broadcasts, and electronic roadway signs all as part of the AMBER Alert system for that state. *See* TEXAS DEP'T OF PUB. SAFETY, TEXAS AMBER ALERT SYSTEM 7, *at* ftp://ftp.txdps.state.tx.us/dem/amber/amber_alert_training_guide.pdf (last visited Jan. 4, 2005). Louisiana incorporates text messages delivered to cell phones as part of its AMBER Alert program. *See* Editorial, *Virtual Dragnet*, TIMES-PICAYUNE (New Orleans), July 30, 2004, at 6.

[107] *See In re* Review of the Emergency Alert System, 19 FCC Rcd. at 15,776, para. 3.

[108] *See* Richard W. Stevenson and David D. Kirkpatrick, *Administration Moves To Regain Initiative on 9/11*, N.Y. TIMES, July 27, 2004, at A1; Maura Reynolds and Maria L. La Ganga, *9/11 Reforms May Come Soon*, L.A. TIMES, July 26, 2004, at A13.

[109] *See* THE 9/11 COMMISSION REPORT, *supra* note 2, at 396-97.

[110] *See* McConnell, *supra* note 14, at 1; *see generally* THE 9/11 COMMISSION REPORT, *supra* note 2, at 361-428.

[111] McConnell, *supra* note 14, at 34.

plementations.[112] In light of the shift from a Cold War era attack to the unpredictable tactics of terrorists, the FCC responded by seeking to update the EAS.[113] In August 2004, the FCC released a Notice of Proposed Rulemaking seeking comments on potential uses of the system to respond to future emergency situations.[114] The Commission views the system as a method to save lives and also provide useful, up-to-date information as an event unfolds.[115]

III. DEFINING THE EAS PARTICIPANTS' ROLES

Much of the discussion surrounding the revamping of the EAS has centered on the incorporation of technological advances.[116] However, the dilemma currently facing the EAS is more properly characterized as regulatory neglect rather than technical modernization.[117] The most significant obstacle hindering the effectiveness of the EAS is a lack of clearly defined roles among all entities responsible for the system's administration.[118] Without the proper amount of

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[112] *Id.* at 1, 34.

[113] *See* FCC Seeks Comment on Rule Changes for the Emergency Alert System, *supra* note 22, at 2-3. In the United States, two public/private partnerships, the Partnership for Public Warning and the Media Security and Reliability Council, have spearheaded the effort in examining the role the EAS may play during national emergencies. *See In re* Review of the Emergency Alert System, *Notice of Proposed Rulemaking*, 19 FCC Rcd. 15,775, 15,782, para. 21 (2004). In early 2002, leaders from the disaster warning community incorporated the Partnership for Public Warning to study and recommend improvements to the nation's public warning systems. *See* Partnership for Public Warning, *at* http://partnershipforpublicwarning.org/ppw/about.html (last modified Jan. 21, 2005). The Partnership for Public Warning was created in response to a report issued by the President's National Science and Technology Council which called for the development of a public/private partnership to study public warning issues. *See* EFFECTIVE DISASTER WARNINGS, *supra* note 13, at 39. Also, in 2002, the FCC chartered the second of these groups, a federal advisory group known as the Media Security and Reliability Council. *See supra* text accompanying note 46. The Media Security and Reliability Council's mandate covers a broad range of topics from physical security of the communications infrastructure to assessing communications between government and the public during a national disaster. *Id.*

[114] Review of the Emergency Alert System, 69 Fed. Reg. 52,843 (proposed Aug. 30, 2004) (to be codified at 47 C.F.R. pt. 11).

[115] *See Homeland Security Advisory System: Threat Codes and Public Responses: Hearing Before the Subcomm. on Nat'l Sec., Emerging Threats and Int'l Relations of the House Comm. on Govt Reform*, 108th Congress (statement of Kenneth B. Allen) 9, *at* http://reform.house.gov/UploadedFiles/Allen%20Testimony.pdf (Mar. 16, 2004).

[116] *See* McConnell, *supra* note 14, at 1, 34.

[117] *See* MSRC: FINAL REPORT, *supra* note 18, at 16-17; P'SHIP FOR PUB. WARNING, PPW REPORT 2003-01, A NATIONAL STRATEGY FOR INTEGRATED PUBLIC WARNING POLICY AND CAPABILITY 4, *at* http://www.partnershipforpublicwarning.org/ppw/docs/nationalstrategy-final.pdf (May 16, 2003).

[118] MSRC: FINAL REPORT, *supra* note 18, at 16. Both the Media Security and Reliability Council and Partnership for Public Warning have indicated that the lack of coordination and oversight among federal, state, and local entities significantly hinders the effectiveness of EAS. *Id.*; *see* PPW: EAS ASSESSMENT, *supra* note 15, at 28; *see also* Jube Shiver Jr., *Warn-*

coordination among federal, state, local, and private entities, the chances of communicating an effective warning message to the public is diminished.[119]

The EAS exists as a model of cooperative federalism among the various levels of government involved in administering the system.[120] Under a cooperative federalism structure, the federal government defines standards while each state implements the details of the program.[121] This model benefits both state and federal actors by giving states the flexibility to meet their individualized needs while ensuring a consistent nationwide implementation of a particular policy.[122] Despite this exemplary structure, the EAS remains threatened by weak federal oversight of the system.[123]

A. The Problem: Confusion Surrounding Federal Oversight

A cooperative federalism model is ideal for a national system such as EAS that requires federal and state coordination and collaboration.[124] This model provides a necessary degree of flexibility, allowing states and localities to implement the system to best suit their needs.[125] Local efforts, such as AMBER Alert Programs,[126] allow states to quickly communicate with the public by inte-

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ings Raised About 'This Is a Test' System, CHI. TRIBUNE, May 19, 2003, at CN9 (describing coordination problems surrounding the EAS). The FCC has commented that the structure of EAS is as much to blame as equipment issues. *See In re* Amendment of Part 73, Subpart G, of the Commission's Rules Regarding the Emergency Broadcast System, *Report and Order and Further Notice of Proposed Rulemaking*, 10 FCC Rcd. 1786, 1834, para. 131 (1994).

[119] *See* MSRC: FINAL REPORT, *supra* note 18, at 16.

[120] *See* Philip J. Weiser, *Federal Common Law, Cooperative Federalism, and the Enforcement of the Telecom Act*, 76 N.Y.U. L. REV. 1692, 1696 (2001).

[121] *Id.*

[122] *See* Raymond W. Lawton, *The State Role in Telecommunications Regulation: Models of Cooperative Federalism for Telecommunications*, 6 ALB. L.J. SCI. & TECH. 71, 86-89 (1996).

[123] *See supra* text and accompanying note 118.

[124] Lawton, *supra* note 122, at 73.

[125] FCC regulations permit states and localities to voluntarily link into the EAS and customize the system to meet their diverse needs. *See* Emergency Alert System (EAS), 47 C.F.R. §11.11 (2004); McConnell, *supra* note 14, at 34. While some localities are more prone to certain disasters, others may not be. Ultimately, each locality is susceptible to some form of threat, be it man-made, natural, or otherwise. For example, the Midwestern United States, also known as Tornado Alley, is prone to severe weather each year. Other more densely populated portions of the country are more probable targets for terrorist attacks. *See* PPW: EAS ASSESSMENT, *supra* note 15, at 26.

[126] For more information on AMBER Alert Programs, see generally Nat'l Ctr. for Missing and Exploited Children, *at* http://www.missingkids.com (last visited Feb. 18, 2005). The National Center for Missing and Exploited Children serves as a support organization for states and localities wishing to establish AMBER Alert plans. *See* Nat'l Ctr. for Missing and Exploited Children, *at* http://www.missingkids.com/missingkids/servlet/Pageservlet?LanguageCountry=en_US&PageId=477 (last visited Feb. 18, 2005). The organization compiles a list of AMBER Alert plans implemented throughout the country. *Id.*

grating outlets such as Internet portals and electronic roadway signs with EAS broadcasts.[127]

In addition, the cooperative federalism structure provides a framework by which the federal government may provide oversight and guidance concerning the consistent implementation of the EAS across the nation.[128] By clearly defining these roles and strengthening the federal government's supervisory duties, the system will be better situated to save lives and preserve property.[129]

The current federal administration of the EAS has failed to provide adequate standards for state participants thereby limiting the effectiveness of the system.[130] On the federal level, several executive agencies including the FCC and FEMA collectively contribute to the administration of the EAS.[131] Due to the varying roles among these agencies, no federal entity has taken the lead in coordinating the EAS or implementing improvements to the system, technological or otherwise.[132] These governmental tasks must be more clearly defined and delineated if the EAS is to meet its potential.[133]

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[127] Studies have stressed that the chances of finding a missing child alive are significantly increased if a message is quickly spread to the surrounding community. Statistics indicate that 74% of kidnapped children are killed within three hours of the abduction. Kenneth A. Hanfland et al., *Case Management for Missing Children Homicide Investigation: Executive Summary* 3, *at* http://www.findthekids.com/pdf/casemanag.pdf (May 1997). Texas has integrated Internet, radio broadcasts, and electronic roadway signs all as part of the AMBER Alert system for that state. *See* TEXAS DEP'T OF PUB. SAFETY, TEXAS AMBER ALERT SYSTEM 7, *at* ftp://ftp.txdps.state.tx.us/dem/amber/amber_alert_training_guide.pdf (last visited Jan. 4, 2005).

[128] The ability of the federal government to provide oversight and minimal standards for a system is one of the benefits of a cooperative federalism. *See* Lawton, *supra* note 122, at 86-89.

[129] A set of minimal EAS standards throughout the nation will increase the chances that transient members of the population receive an emergency alert, enable equipment manufacturers to produce EAS receivers at a lower cost, and cut down on the cost of educating personnel responsible for the technical aspects of operating the system. PPW: EAS ASSESSMENT, *supra* note 15, app. C, at 44.

[130] *See* MSRC: FINAL REPORT, *supra* note 18, at 16.

[131] *See* 1982 Memorandum of Understanding, *supra* note 87. Other federal agencies have roles regarding the EAS. For example, the National Oceanic and Atmospheric Administration participates in the EAS; however, the agency's role lies predominately in activating the system to disseminate severe weather warnings. PPW: EAS ASSESSMENT, *supra* note 15, at 7.

[132] *See* MSRC: FINAL REPORT, *supra* note 18, at 16. In the wake of the 9/11 Commission Report, the FCC issued a Notice of Proposed Rulemaking seeking to modernize the EAS; *In re* Review of the Emergency Alert System, *Notice of Proposed Rulemaking*, 19 FCC Rcd. 15,775 (2004).

[133] Several commentators have recommended that a single federal entity have oversight responsibility for EAS administration. The Partnership for Public Warning has suggested that the Department of Homeland Security assume primary responsibility for improving the EAS. PPW: EAS ASSESSMENT, *supra* note 15, at 30. The MSRC has suggested one federal entity be responsible for administering a national warning mechanism. MSRC: FINAL REPORT, *supra* note 18, at 7.

B. Strengthening the FCC's Roles and Responsibilities

The FCC currently implements technical standards for the EAS and should continue to do so.[134] Congress has delegated regulatory authority over many of the nation's communications systems to the FCC.[135] Further, the Commission is composed of individuals from diverse backgrounds who typically embrace technological advances – a key factor contributing to the effectiveness of the EAS.[136] Despite having the requisite regulatory authority and delegated responsibility to adopt technological standards advancing the public interest, the Commission has demonstrated a relaxed attitude toward modernizing the EAS.[137] The FCC may strengthen the effectiveness of the EAS by undertaking a two-prong strategy: integrating various technological advances into the system[138] and expanding mandatory participation for existing EAS participants.[139]

First, the Commission must embrace the incorporation of technological advances into EAS. The Commission currently encourages, but does not require, well-established technologies such as mobile communication systems and satellite television or radio services to carry EAS messages.[140] By requiring limited participation and only encouraging voluntary involvement in the system, the FCC has failed to ensure that EAS messages reach an increasingly frag-

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[134] *See* Emergency Alert System (EAS), 47 C.F.R. §§11.31-11.35 (2004). In October 2004, FEMA announced a pilot project, known as Digital EAS ("DEAS") that utilizes Digital Television and satellite systems to disseminate EAS messages. *See* Dinesh Kumar, *Comm Daily Notebook*, COMMUNICATIONS DAILY, Oct. 22 2004, at 5. FEMA neglected to include the FCC in the discussions of the system. In doing so, FEMA underscored the need for greater coordination between the two agencies since the FCC has sought comment on this very issue. *See In re* Review of the Emergency Alert System, 19 FCC Rcd. at 15,786-87, para. 30.

[135] The FCC's mandate allows the agency to regulate communication systems affecting interstate commerce in the public interest. *See* Communications Act of 1934, 47 U.S.C. §151 (2000). When dealing with new technologies, Congress tends to explicitly authorize the FCC to regulate those areas. *See infra* Part IV.A.

[136] The FCC has demonstrated its acceptance of emerging technologies and standards throughout the agency's existence. One notable example is the Commission's initiation of proceedings in 1987 regarding the adoption of a digital architecture for television. *In re* Advanced Television Systems and Their Impact on the Existing Television Broadcast Service; Review of Technical and Operational Requirements: Part 73-E, Television Broadcast Stations; Reevaluation of the UHF Television Channel and Distance Separation Requirements of Part 73 of the Commission's Rules, *Notice of Inquiry*, 2 FCC Rcd. 5125 (1987).

[137] The Commission has failed to mandate participation in EAS for satellite radio and television services even though it has regulatory authority over these services. *See* Nat'l Ass'n for Better Broad. v. FCC, 849 F.2d 665 (D.C. Cir. 1998) (upholding the FCC's authority to regulate direct satellite broadcasts as a point-to-multi-point service).

[138] *See* MSRC: FINAL REPORT, *supra* note 18, at 16-18.

[139] *See* PPW: EAS ASSESSMENT, *supra* note 15, at 11.

[140] *See* Emergency Alert System (EAS), 47 C.F.R. §11.1 (2004); *In re* Review of the Emergency Alert System, *Notice of Proposed Rulemaking*, 19 FCC Rcd. 15,775, 15,779, para. 12 (2004).

mented segment of the American population.[141] The FCC must mandate EAS requirements for newer, yet well-established, communications systems and technologies to ensure the system reaches a broader, dispersed audience.[142] In doing so, the Commission will ensure that first responders may select a technology to meet the needs of a particular emergency scenario.[143] For example, if first responders decide that a building should be evacuated, delivering text messages to cell phones and wireless devices within the vicinity of the building may be more appropriate than initiating a county-wide radio and television alert. Consequently, an increasing number of lives will be saved and the possibility of preserving property is increased.[144]

Second, the FCC must require existing EAS participants to carry messages initiated by state and local entities. The FCC currently provides the only mandatory federal oversight of state and local level EAS uses, requiring each government entity wishing to activate the EAS to submit a Local Area Plan to the agency before they may access the system.[145] Even if an FCC-approved plan is in place on the state or local level, regulations do not require media outlets to carry local or state initiated EAS messages.[146] Estimates suggest that broadcasters and cable systems carry only about 50% of EAS communications activated by local officials.[147]

The FCC must mandate participation for these entities to ensure the public

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[141] *See supra* text accompanying note 24. The FCC must strike a balance between EAS participation and local news provided by television and radio broadcasters. The Commission does not currently mandate broadcasters to carry local or state initiated alerts. 47 C.F.R. §11.55(a). Many broadcasters fulfill an important role in informing the public of local man-made and natural disasters. Such broadcasters are in a position to deliver specific localized information to the viewing public. Often times, the public has a significant amount of confidence in emergency warning broadcasts issued by local television and radio entities. *See* Kirstin Dow & Susan L. Cutter, *Crying Wolf: Repeat Responses to Hurricane Evacuation Orders*, 26 COASTAL MANAGEMENT 237 (1998). A small survey conducted in 1998 indicates that people respond to evacuation orders issued through the local media in the event of a hurricane. *Id.* at 247-48. Survey respondents listed media, including warnings from the National Weather Service, the Weather Channel, and other local media sources as the most convincing factor for choosing to evacuate an area. *Id.* This rationale scored higher than evacuation orders issued from state and local officials and emergency responders. *Id.* at 246 tbl.4.

[142] *See infra* text and accompanying note 217.

[143] *See* MSRC: FINAL REPORT, *supra* note 18, at 16-18.

[144] By increasing the methods by which people may receive EAS messages, the chances are increased that people may take preventative action to save lives and property. The proliferation of cell phones over the past decade presents a significant opportunity for regulators to disseminate emergency messages to a wider, increasingly mobile audience. For statistical data documenting the sources vying for the public's attention, see *infra* text and accompanying note 217.

[145] *See* 47 C.F.R. §11.21.

[146] *Id.* §11.41.

[147] *See* PPW: EAS ASSESSMENT, *supra* note 15, at 11.

receives a timely warning. By engaging in this two-prong strategy, the FCC will increase the chances that people receive relevant emergency messages. The Commission will also give first responders flexibility in choosing an appropriate communications medium to fit their needs while alleviating the burden of broadcasters and cable systems who shoulder much of the EAS weight.

C. Strengthening FEMA's Roles and Responsibilities

Regulators must also overcome the lack of organization present in state and local level EAS coordination caused largely by the absence of federal leadership.[148] The EAS was designed with the understanding that each state and major city would implement the system.[149] However, not every state has done so.[150] FEMA is well-positioned to undertake this responsibility and has the statutory authority to do so.[151] The Homeland Security Act of 2002 charged FEMA with coordinating emergency response on the federal, state and local level.[152] Currently, the agency does not actively oversee or encourage state implementation of the EAS.[153] While this absence of oversight by FEMA has granted states and localities a great deal of discretion in developing an EAS strategy to meet their needs,[154] it has resulted in the inconsistent implementa-

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[148] MSRC: FINAL REPORT, *supra* note 18, at 16-17. States and localities wishing to participate in EAS need only submit an EAS Local Area Plan to the FCC approval. *See* 47 C.F.R. §11.21. The FCC does not encourage a particular plan and has not established a set of model procedures for state or local EAS procedures. *Id.*

[149] MSRC: FINAL REPORT, *supra* note 18, at 17.

[150] PPW: EAS ASSESSMENT, *supra* note 15, at 26. Note that several states frequently affected by natural disasters have developed state EAS plans. For example, California, which is susceptible to earthquakes, and Florida, often the target of hurricanes, have dedicated resources to EAS implementation. *Id.*

[151] The Homeland Security Act of 2002 specifically gave FEMA's Under-Secretary for Emergency Preparedness and Response responsibility for "building a comprehensive national incident management system with Federal, State, and local government personnel, agencies, and authorities, to respond to such attacks and disasters . . ." *See* Homeland Security Act of 2002, 6 U.S.C. §312(5) (2000 & Supp. II 2002).

[152] *See infra* text accompanying note 153. Congress intended that the Under Secretary "oversee Federal, State and local emergency preparedness training and exercise programs and provide Federal assistance for any emergency, natural or man-made . . ." S. REP. NO. 107-175, at 25 (2002). An Executive Order signed by President Reagan in 1984 tasked FEMA with "[d]evelop[ing], upon request . . . plans and capabilities for, and provide policy and management oversight of, the Emergency Broadcast System, and advise and assist private radio licensees of the [Federal Communications] Commission in developing emergency communications plans, procedures and capabilities." Exec. Order No. 12,472, 3 C.F.R. 193 (1984).

[153] The FCC has the responsibility of overseeing that broadcasters and cable providers implement EAS; however, no federal entity oversees state implementation of the system. MSRC: FINAL REPORT, *supra* note 18, at 16.

[154] *See* McConnell, *supra* note 14, at 34.

tion of the system with no minimum consistent standards.[155]

Some states have adopted EAS plans, but others are inadequate and "makeshift at best."[156] In those districts with no EAS State or Local Area Plan, first responders must rely on the media, word of mouth, or door-to-door warnings to inform people of the appropriate action to take in the event of an emergency.[157] Neither FEMA, nor any other federal entity, actively encourages states, localities, and municipalities to develop EAS plans and participate in the system.[158] In order to increase the EAS' effectiveness, FEMA must implement procedures to better coordinate the system among all levels of government prior to a disaster.[159]

The United Kingdom's National Steering Committee on Warning and Informing the Public provides innovative insights into policies FEMA may undertake to increase the overall effectiveness of the EAS. While the United Kingdom covers an area roughly the size of Oregon,[160] the country faces similar problems as the United States with regard to coordinating the various governmental entities and private parties involved in warning the public during an emergency situation.[161] The United Kingdom's emerging public warning

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[155] *See Emergency Warning Systems: Hearing Before the Subcomm. on Emergency Preparedness and Response of the House Select Comm. on Homeland Sec.*, 108th Cong. (2004) (statement of James A. Dailey, Director, Office of Homeland Security Enforcement Bureau, Federal Communications Commission), *at* http://hsc.house.gov/files/Testmony%20Dailey.doc (Sept. 22, 2004).

[156] MSRC: FINAL REPORT, *supra* note 18, at 17.

[157] First responders in these districts must develop alternative methods to communicate emergency information to an at-risk population since they are prohibited by the FCC from utilizing EAS for message dissemination. *See* Emergency Alert System (EAS), 47 C.F.R. §11.21 (2004).

[158] MSRC: FINAL REPORT, *supra* note 18, at 16. Previously, the FCC's Emergency Alert System National Advisory Committee facilitated EAS coordination among federal, state and local entities. However, in 2002, the group's charter expired and failed to be renewed. *Id.*; *see generally* Press Release, Federal Communications Commission, FCC Restructures and Renews the Emergency Broadcast System Advisory Committee, and Renames It the National Advisory Committee, (June 24, 1996) (providing details of the National Advisory Committee's duties and responsibilities regarding EAS administration).

[159] *See* PPW: EAS ASSESSMENT, *supra* note 15, at 30.

[160] CENT. INTELLIGENCE AGENCY, THE WORLD FACTBOOK 565 (2004).

[161] *See* NAT'L STEERING COMM. ON WARNING AND INFORMING THE PUB., INTERIM REPORT 11, *at* http://www.nscwip.info/nscwip_full.pdf (Nov. 2001) [hereinafter NSCWIP: INTERIM REPORT]. Individuals discussing the public warning system in the United Kingdom recognize that clear definition of roles and responsibilities are crucial to assuring the effectiveness of the system. *Id.* at 4, 9. A public/private partnership known as the National Steering Committee on Warning and Informing the Public has spearheaded the effort to mold the country's emerging public warning system in an efficient and effective mechanism for saving lives and protecting property. *Id.* at iii. The group cites the success of the United Kingdom's Environmental Agency's flood warning system as demonstrating the importance of clearly defined roles in a public warning mechanism. *See id.* at 4, 9. Under the National Steering Committee on Warning and Informing the Public's plan, the United Kingdom's

model[162] provides useful insight into the potential structuring of the United States' public warning mechanism on the federal,[163] state, and local levels.[164]

Legislation known as the Civil Contingencies Act[165] will ultimately develop a structured protocol between national and local governments for disseminating emergency communications.[166] On the regional and local level, the Civil Contingencies Act mandates a framework to guide participants reacting to an emergency situation.[167] The bill seeks to establish relationships among first responders and other parties that play a role in responding to a disaster.[168] Additionally, the statute clearly defines the roles and responsibilities of those responding to an emergency situation.[169] Of particular interest is the method by which the Civil Contingencies Act structures local responses to emergency situations, distinguishing emergency planning and response duties among

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Cabinet Office would be responsible for developing policies among localities and other governmental agencies to maximize effectiveness of the mechanism. NAT'L STEERING COMM. ON WARNING AND INFORMING THE PUB., PROGRESS REPORT 6, *at* http://www.nscwip.info/nsc_prog_rpt.pdf (July 2002) [hereinafter NSCWIP: PROGRESS REPORT]. In the event of a national emergency, this Agency would serve as a contact point for emergency managers and first responders seeking to distribute messages before, during, and after the incident. *Id.* at 7.

[162] Since the mid-1990s, members of United Kingdom government, emergency services, media, and industry have sought to address the country's absence of a public warning mechanism. NSCWIP: INTERIM REPORT, *supra* note 161, at iii. The National Steering Committee on Warning and Informing the Public has produced three recommendation reports since the group's inception. *See* National Steering Committee on Warning and Informing the Public, *at* http://www.nscwip.info (last visited Jan. 4 2005).

[163] *See* NSCWIP: PROGRESS REPORT, *supra* note 161, at 6.

[164] *See* Civil Contingencies Act, 2004, pts. 1-3, scheds. 1-3 (Eng.).

[165] *Id.* The Civil Contingencies Bill received Royal Assent and became an Act of Parliament on November 18, 2004. News Release, U.K. Cabinet Office, Public Consultation on Civil Contingencies Act Regulations and Guidance Launched Today, *at* http://www.cabinetoffice.gov.uk/newsroom/news_releases/2004/041209_ccbill.asp?ID=51 (Dec. 9, 2004). The Civil Contingencies Act has been criticized by civil libertarians who argue that it gives the United Kingdom government too broad powers. Nigel Morris, *Government to Scale Back Emergency Laws Under Pressure From Civil Liberties Groups*, THE INDEPENDENT (London), Jan. 8, 2004, at 2. *Cf.* Editorial, *Extraordinary Powers Are Only Needed in the Most Dire of Emergencies*, THE INDEPENDENT (London), Jan. 8, 2004, at 16.

[166] *See* Civil Contingencies Act pt. 1 cl. 2. The National Steering Committee for Warning and Informing the Public advocates the clear definition of roles among all entities participating in the nation's public warning system. NSCWIP: INTERIM REPORT, *supra* note 161, at 4. The Civil Contingencies Act provides a structure whereby government officials interact with one another and private industry participants. Civil Contingencies Act pt. 1 cls. 2(3)-(4). Additionally, the statute places oversight responsibility with the Cabinet Office. *See id.*

[167] *See* Civil Contingencies Act sched. 1, pt. 1.

[168] *See* CABINET OFFICE, DRAFT CIVIL CONTINGENCIES BILL, CONSULTATION DOCUMENT 16, *at* http://www.cabinetoffice.gov.uk/publications/reports/ccbill/consultdoc.pdf (June 2003) [hereinafter DRAFT CIVIL CONTINGENCIES BILL].

[169] *Id.*

Category 1 and Category 2 responders.[170] Category 1 responders consist of city councils, emergency officials (law enforcement, fire departments), health services, environmental services, and the Secretary of State.[171] Category 2 responders are comprised of members of the business sector such as public utilities and transportation services.[172] The statute requires that a Category 1 entity must "maintain arrangements to warn the public, and to provide information and advice to the public . . ."[173] In effect, this imposes a statutory duty on Category 1 responders to continually assess risks to their communities.[174] Under this framework, local responders carry the responsibility of warning the public and are assured access to the message distribution system.[175]

Neither FEMA, nor Congress for that matter, has the power to mandate this type of framework on state or municipal executive entities.[176] However, FEMA may, and should, establish a set of model procedures based on the United Kingdom's structure to guide states and localities in the implementation of EAS Local Area Plans.[177] Such rules, if adopted by states and localities, would help resolve much of the existing confusion among emergency planners, other government officials, and the media.[178] The rules would also help answer questions prior to the occurrence of an emergency event thereby reducing improvised emergency strategies.[179]

The Civil Contingencies Act does not specify a strict protocol for coordination among national and local level entities in responding to an emergency situation.[180] However, the legislation does establish a Regional Nominated

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[170] *See* Civil Contingencies Act pt. 1 cls. 2(3)-(4), scheds. 1-4.

[171] *See id.* sched. 1, pt. 1.

[172] *See id.* sched. 1, pt. 3; *see also* Kim Thomas, *Enlisting the Private to Protect the Public*, FINANCIAL TIMES (London), July 14, 2004, at FT Report-Understanding Corporate Security, at 1.

[173] *See* Civil Contingencies Act pt. 1 cl. 2(1)(g).

[174] *See* DRAFT CIVIL CONTINGENCIES BILL, *supra* note 168, at 18.

[175] *Id.*

[176] The federal government may not direct the activities of local executive branches. Printz v. United States, 521 U.S. 898, 907-08 (1997).

[177] By dividing entities involved in disseminating warnings into appropriate categories, such as Category 1 and Category 2 responders, and establishing model guidelines for these EAS participants to follow, the federal government may help transition into a standardization of messages and alleviate potential confusion in a public warning. *See Emergency Warning Systems: Hearing Before the Subcomm. on Emergency Preparedness and Response of the House Select Comm. on Homeland Sec.*, 108th Cong. (2004) (statement of Kathleen Henning, President of K.G. Henning & Associates, a certified emergency manager, and retired Program Coordinator of Montgomery County, Maryland Office of Emergency Management), *at* http://hsc.house.gov/files/Testimony%20Henning.doc (Sept. 22, 2004)).

[178] *Id.*

[179] *Id.*

[180] *See* DRAFT CIVIL CONTINGENCIES BILL, *supra* note 168, at 22.

Coordinator who would facilitate communication between national and local emergency personnel.[181]

FEMA, the agency responsible for coordinating the EAS among federal, state, and local officials, should establish regional directors to serve as a conduit between the federal government and states and localities.[182] FEMA currently divides the United States into ten regions that provide an existing structure for this type of coordination.[183] By appointing a person within each of these already existing regional offices, FEMA can increase the flow of communication regarding EAS implementation among the national government and state and local governments.

FEMA must also encourage private industry participation in the EAS. By reducing the elapsed amount of time between an emergency situation and a public warning, the chances of saving lives and preserving property is increased.[184] If private industries that may pose a danger to the surrounding community, such as chemical manufacturers, are included in EAS planning, the chances of protecting people are increased.[185] Such integration would help ensure that timely warnings are disseminated, whether people are ordered to stay indoors with the windows shut during a chemical spill or whether the immediate area needs to be evacuated.[186] Certain industries involving hazardous materials, such as nuclear power plants,[187] are already required by law to develop warning plans for surrounding areas in the event a dangerous condition arises.[188] FEMA should coordinate the integration of the EAS into these emergency plans in order to increase the timeliness of a public warning.

To encourage certain industries to participate in EAS planning, legislation should be considered that limits the liability of private parties.[189] Often, these

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[181] *See* Civil Contingencies Act, 2004, pt. 2 cl. 24(1)(b), 24(3) (Eng.).

[182] *See* Homeland Security Act of 2002, 6 U.S.C. §312(5) (2000).

[183] FED. EMERGENCY MGMT. AGENCY, ANNUAL PERFORMANCE & ACCOUNTABILITY REPORT FISCAL YEAR 2002, *at* http://www.fema.gov/pdf/ofm/fema_all031103.pdf.

[184] The effectiveness of a warning is directly affected by the amount of time elapsed between the warning and the occurrence of an emergency event. *See* EFFECTIVE DISASTER WARNINGS, *supra* note 13, at 14.

[185] *See* PPW: DEVELOPING A UNIFIED ALL-HAZARD PUBLIC WARNING SYSTEM, *supra* note 21, at 18-19.

[186] *See* EFFECTIVE DISASTER WARNINGS, *supra* note 13, at 18-19.

[187] FEMA and the Nuclear Energy Regulatory Commission have approved plans to utilize the EAS to alert the public near nuclear power plants in the event of a disaster. *Id.* app. 2, at 46. The FCC adopted an event code for nuclear power plant warnings. *See In re* Amendment of Part 11 of the Commission's Rules Regarding the Emergency Alert System, *Report and Order*, 17 FCC Rcd. 4055, 4065-66, paras. 21-22 (2002).

[188] *See* Review and Approval of State and Local Radiological Emergency Plans and Preparedness, 44 C.F.R. §350.5(a)(6) (2004).

[189] *See* PPW: DEVELOPING A UNIFIED ALL-HAZARD PUBLIC WARNING SYSTEM, *supra* note 21, at 24.

industries are concerned with the potential liability arising from such warnings[190] and are reluctant to issue a warning themselves-instead relying on government agencies to do so.[191] With the incentive of limited liability, private industries may be less reluctant to initiate a timely warning that benefits public safety.[192]

D. Summation: Developing a Comprehensive Coordination Strategy

The proper structure for federal administration of the EAS is currently in place. The system's design allows federal regulators to mandate consistent standards to be utilized nationwide while giving states the necessary flexibility to improve emergency communications with their constituent populations. However, federal administration of the EAS needs to be strengthened. The FCC must undertake responsibility for the technical aspects of the system while FEMA spearheads the coordination of the system among federal, state, and local entities. Ultimately, these two agencies must work together to ensure the modernization and effectiveness of the EAS as a whole.[193]

IV. LEGAL ISSUES ARISING FROM TECHNOLOGICAL IMPLEMENTATIONS

The telecommunications industry has experienced significant technological advances during the past several decades.[194] From the mass conversion of analog to digital technology, to the proliferation of wireless communications, the industry has undergone considerable change since the inception of the EAS and its predecessors.[195] Since September 11, regulators realize the importance

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[190] *Id.* at 18-19.

[191] *Id.* Regulations do not require these industries to inform the public of an emergency directly. Instead, state and local governments are required to do so. *See* 44 C.F.R. §350.5(a)(6).

[192] *See* PPW: DEVELOPING A UNIFIED ALL-HAZARD PUBLIC WARNING SYSTEM, *supra* note 21, at 5, 19.

[193] The Partnership for Public Warning suggests that the agencies sign a Memorandum of Understanding detailing each party's responsibility for EAS. *See* PPW: EAS ASSESSMENT, *supra* note 15, at 31. However, such an understanding may not provide the level of accountability and initiative necessary to continually maintain a modern EAS. Instead, the agencies may seek to codify their roles in the Code of Federal Regulations or Congress may seek to enact legislation designed for this purpose.

[194] For example, broadcast television is currently in the process of undergoing a switch from analog signals to digital transmission. *See In re* Public Interest Obligations of TV Broadcast Licensees, *Notice of Inquiry*, 14 FCC Rcd. 21,633, 21,642, paras. 18, 20 (1999). *See infra* text accompanying note 217.

[195] The expansion of cellular telephony is perhaps one of the best examples of the evolution of the telecommunications industry over the past several years. *See infra* text accompa-

of utilizing mass communication devices in order to connect directly with a greater number of people affected by an emergency.[196] The FCC stands as the gatekeeper for regulating communications technologies and is well positioned to determine which advances to incorporate into an emergency warning system and how to do so.[197] In doing so, the agency must determine which technologies provide the greatest benefit to the public at large and how to analyze legal issues regarding mandatory technological changes imposed upon telecommunications providers.

A. The FCC's Power to Implement Technological Changes and Relevant Policies

Congress established the FCC as an independent agency[198] to regulate interstate commerce via communications.[199] While neither the legislative nor executive branch directly controls the activities of the FCC, each of the three branches of the federal government exercises certain checks over the Commission's actions.[200]

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[196] *See In re* Review of the Emergency Alert System, *Notice of Proposed Rulemaking*, 19 FCC Rcd. 15,775, 15,776, para. 2 (2004); *see* FCC Seeks Comment on Rule Changes for the Emergency Alert System, *supra* note 22, at 2-3.

[197] *In re* Review of the Emergency Alert System, 19 FCC Rcd. at 15,776, para 6, 15,786, para. 29. For background relating the Commission's initiative to automate EAS, see generally Inquiry into Possible Technical Improvements in the Emergency Broadcasting System, *Notice of Inquiry*, 6 FCC Rcd. 4264 (1991).

[198] An independent agency is "[a] federal agency, commission, or board that is not under the direction of the executive . . ." Black's Law Dictionary (8th ed. 2004). There appears to be no consistent definition of what constitutes an independent agency. *See* Angel Manuel Moreno, *Presidential Coordination of the Independent Regulatory Process*, 8 ADMIN. L.J. AM. U. 461, 469 (1994). However, several commentators have described the President's lack of removal power over agency's officers as key in determining whether an agency is independent or not. *See* Geoffrey P. Miller, *The Debate Over Independent Agencies in Light of Empirical Evidence*, 1988 DUKE L.J. 215, 216; Alan B. Morrison, *How Independent Are Independent Regulatory Agencies?*, 1988 DUKE L.J. 252; *see also* THOMAS G. KRATTENMAKER, TELECOMMUNICATIONS LAW AND POLICY 20, (2d ed. 1998) (describing the characteristics of the FCC as an independent agency). FCC Commissioners are appointed by the President to serve five-year terms. Communications Act of 1934, 47 U.S.C. §154(a) (2000).

[199] Communications Act of 1934, 47 U.S.C. §151 (2000). Congressional authority to regulate communications systems transcending state borders stems from the Commerce Power. *Id.*; *see also* U.S. CONST. art. I, §8, cl. 3.

[200] 2 HARVEY L. ZUCKMAN ET AL., MODERN COMMUNICATION LAW 369 (1999). Congress controls the FCC's budget, enacts legislation establishing and delegating power to the agency, and oversees the agency's operations. Communications Act of 1934, 47 U.S.C. §154(k) (2000). The President appoints a Chairman of the Commission and nominates individuals to serve as Commissioners with the Senate's advice and consent. *Id.* §154(a). The judiciary exercises review of the Commission's actions and ensures they do not violate the agency's mandate or the Constitution. *Id.* §402; *see generally* 2 ZUCKMAN ET AL., *supra*, at

The Communications Act of 1934 initially gave the FCC jurisdiction over the primary communications technologies existing at the time – common carrier services and broadcast transmissions.[201] Legislators could not possibly foresee future technological developments. When a new communications technology surfaces, the FCC must either determine some existing basis for regulating the technology or await congressional expansion of the agency's regulatory power.[202] In addition, the Supreme Court has recognized the Commission's right to police emerging communications technologies that directly affect the agency's regulatory jurisdiction.[203]

The Communications Act of 1934 authorizes the FCC to regulate through its administrative rulemaking power.[204] Under this authority, the FCC may establish guidelines for all parties over which it exercises jurisdiction.[205] One of the FCC's core statutory duties under the Communications Act of 1934 is to ensure that the nation's communications systems provide an effective means for protecting life and property.[206] Accordingly, the Commission may promulgate rules that require industry participants to meet minimal technical requirements to disseminate emergency messages.[207] Currently, the FCC requires broadcast-

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369-70 (1999) (explaining the FCC's powers).

[201] The Communications Act of 1934 mandated the FCC to regulate "interstate and foreign commerce in communication by wire and radio . . ." 47 U.S.C. §151. This included the regulation of telephone and telegraph services, so-called common carriers, and radio and television broadcasts. 2 ZUCKMAN ET AL., *supra* note 200, at 379.

[202] 2 ZUCKMAN ET AL., *supra* note 200, at 380.

[203] The FCC has authority under its ancillary jurisdiction to relate technologies related to the Commission's authority. United States v. S.W. Cable Co., 392 U.S. 157 (1968). While the Supreme Court has recognized the FCC's ability to regulate new technologies, the agency's jurisdiction is limited. Any regulatory regime the Commission enacts must fall within the agency's statutory authority and must rationally relate to another of services falling within the agency's jurisdiction. Nat'l Ass'n of Broad. v. FCC, 740 F.2d 1190 (D.C. Cir. 1984); 2 ZUCKMAN ET AL., *supra* note 200, at 381.

[204] The Commission may "perform any and all acts, make such rules and regulations, and issue such orders[] . . . as may be necessary in the execution of its functions." 47 U.S.C. §154(i). The Commission's rulemaking power is governed by the Administrative Procedure Act, 5 U.S.C. §§551-576 (2000). Mary C. Dollarhide, *Surrogate Rule Making: Problems and Possibilities Under the Administrative Procedure Act*, 61 S. CAL. L. REV. 1017, 1032 (1988); *see generally* 5 U.S.C. §553 (describing the administrative rule making procedure).

[205] Columbia Broad. Sys., Inc. v. United States, 316 U.S. 407, 418 (1942).

[206] 47 U.S.C. §151 (codifying the FCC's duties relating to broadcasting). Various other statutory provisions require the FCC to ensure the protection of life and property. *See infra* text and accompanying note 207. Congress amended the Communications Act of 1934 in 1936 to require the FCC to promote the safety of life and property through radio communications. This amendment was targeted toward sea vessels. *See* S. REP. NO. 74-2060, at 1 (1936).

[207] 47 U.S.C. §154(i) (delegating authority to the FCC to issue rules and regulations "as may be necessary in the execution of its functions."). The FCC is also mandated to study how broadcast communications may save lives and property and to examine "the best methods of obtaining the cooperation and coordination of these systems." *Id.* §154(o); *see also*

ers and cable companies to install specialized equipment that receives and decodes EAS messages.[208] Regulators have questioned whether the scope of the EAS may be expanded to cover additional communication services such as common carriers and satellite providers.[209] The answer to this question depends on a technology-specific analysis.[210] For example, the FCC's ability to regulate broadcast communications stems from a separate set of statutory authority and interpretation than the Commission's power to regulate satellite communication services.[211] However, the Commission's authority to study how communication systems may be used to save lives and property falls within the general statutory provisions of the Communications Act of 1934 and is applicable to all sectors that the FCC regulates.[212]

B. Short Term Implementations: Taking Advantage of the Existing Capabilities to Reaching a Broad Audience

A robust, diverse telecommunications infrastructure exists within the United States, and the FCC must utilize the existing architecture in order to increase the effectiveness of the EAS in the short term.[213] The EAS currently relies predominantly on over-the-air broadcasts and cable television transmissions to communicate localized emergency messages.[214] While a majority of the population has access to one or more of these media outlets, most Americans spend only a fraction of their daytime hours actually watching television or listening

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id. §303(r) (permitting the Commission to "[m]ake such rules and regulations and prescribe such restrictions and conditions, not inconsistent with law, as may be necessary to carry out the provisions [concerning radio transmissions]"). The President may take preference over any communication system during a time of war or if he finds it "necessary for the national defense and security . . ." *Id.* §606(a). Congress has delegated explicit authority to the FCC to establish EAS participation for cable systems. *See id.* §544(g).

[208] *See* Emergency Alert System (EAS), 47 C.F.R. §§11.31-11.35 (2004). Other entities such as direct broadcast satellite and satellite radio providers are not required to carry EAS messages. *See In re* Review of the Emergency Alert System, *Notice of Proposed Rulemaking*, 19 FCC Rcd. 15,775, 15,779, para. 12 (2004).

[209] *See In re* Review of the Emergency Alert System, 19 FCC Rcd. at 15,779, para. 12.

[210] *See generally* 2 ZUCKMAN ET AL., *supra* note 200, at 547-56 (providing historical background for common carrier regulation); *Id.* at 115-25 (providing historical background for the regulation of broadcasts).

[211] *See generally* 2 ZUCKMAN ET AL., *supra* note 200, at 547-56 (providing historical background for common carrier regulation); *Id.* at 436-54 (providing historical background for the regulation of international satellite transmissions).

[212] 47 U.S.C. §154(o).

[213] *See* PPW: EAS ASSESSMENT, *supra* note 15, at 28-29.

[214] The proliferation of new media technologies such as the Internet and the wireless communications industry has contributed to the erosion of television and radio audiences. *See* STATISTICAL ABSTRACT OF THE UNITED STATES: 2003, *supra* note 23, at 720 tbl.1125.

to the radio.[215] The FCC must ensure that telecommunications service providers facilitate timely emergency communications with the public while minimally burdening private industries that are required to participate in EAS.[216] By requiring communication services that have proliferated throughout a large portion of society, such as cellular telephone service providers, to install EAS equipment and mandating their participation in the system, the FCC will increase the impact of the EAS with minimal costs and intrusions to both consumers and industry.[217]

Mandatory EAS participation requirements for commercial cellular telephone providers present perhaps the best short-term option for regulators seeking to communicate emergency messages to a large number of citizens. The FCC has regulatory authority over the for-profit cellular telephone industry, or Commercial Mobile Radio Services.[218] In 1996, the FCC began utilizing this authority to require cellular providers to provide 911 support for their subscribers.[219] The Commission specifically cited its statutory authority to protect lives and property as permitting the promulgation of such requirements.[220] The Court of Appeals for the District of Columbia later supported the FCC's regulations, holding that the Commission may require entities under its regulatory umbrella to bear financial burdens in order to increase public safety.[221]

The mobile phone industry possesses characteristics ideal for utilization of

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[215] PPW: EAS ASSESSMENT, *supra* note 15, at 21-22. The Partnership for Public Warning has collected and compiled statistics regarding the number of hours Americans listen to radio and watch television. *See id.*

[216] *Id.* at 28-29.

[217] *Id.* In 2001, over one-half of American households had access to a cellular telephone. STATISTICAL ABSTRACT OF THE UNITED STATES: 2003, *supra* note 23, at 621 tbl.977. The Census Bureau estimates that the United States population will reach 292,801,000. *Id.* at 9 tbl.3. The Cellular Telecommunications and Internet Association estimates that by June 2004, there were 169,467,393 wireless subscribers within the United States–just under 58% of the national population. CELLULAR TELECOMM. AND INTERNET ASS'N, CTIA SEMI-ANNUAL WIRELESS SURVEY 3, *at* http://files.ctia.org/pdf/CTIAMid-year2004Survey.pdf (2004); STATISTICAL ABSTRACT OF THE UNITED STATES: 2003, *supra* note 23, at 732 tbl.1150.

[218] The FCC regulates such services as common carriers. *See* Commercial Mobile Radio Services, 47 C.F.R. §§20.1-20.20 (2004).

[219] This effort is known as Enhanced 911 or E911. *See In re* Revision of the Commission's Rules To Ensure Compatibility with Enhanced 911 Emergency Calling System, *Report and Order and Further Notice of Proposed Rulemaking*, 11 FCC Rcd. 18,676 (1996). The Court of Appeals for the District of Columbia upheld the Commission's authority to require cell phone service providers to implement E911 requirements. The court reasoned that the Federal Aviation Administration does not have to reimburse airlines for the cost of installing safety equipment. U.S. Cellular Corp. v. FCC, 254 F.3d 78, 85 (D.C. Cir. 2001).

[220] *See In re* Revision of the Commission's Rules To Ensure Compatibility with Enhanced 911 Emergency Calling System, *Report and Order and Further Notice of Proposed Rulemaking*, 11 FCC Rcd. 18,676, 18,682, para. 10 (1996).

[221] *U.S. Cellular Corp.*, 254 F.3d at 85.

the EAS. Estimates suggest that over one-half of Americans currently own a cellular telephone, many of which are equipped to receive text messages.[222] The capability currently exists where text messages may be delivered to all cellular telephones physically located within the range of a single cell site without bringing the system to a complete standstill.[223] Several localities have already implemented systems, capitalizing on the ability to place first responders in direct contact with the public through this technology.[224] The system also presents the option of contacting a mobile population that may not be watching television or listening to the radio as a disaster unfolds.[225]

Landline telephony presents another short-term option for communicating with a large portion of the population. Nearly every home in the United States has working telephone service and the medium presents an opportunity to quickly communicate with a significant number of people.[226] The United Kingdom has already implemented a system developed by British Telecommunications that utilizes databases to deliver recorded messages to targeted portions of the population.[227] The system allows emergency personnel to phone a centralized calling center, record a message over the phone, and designate an area where the message should be delivered.[228] Within minutes, telephones throughout the targeted area ring, communicating an important emergency message.[229]

The FCC should enact regulations[230] requiring landline telephone companies to integrate all customers into the EAS.[231] Customers should be notified upon signing up with their telephone or wireless service provider that they are automatically enlisted in the program.[232] While consumers will ultimately absorb the costs, such a program should have minimal administrative costs once companies integrate this system into their normal record-keeping process.

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[222] *See supra* text accompanying note 217.

[223] *See* Cellular Emergency Alert Sys. Ass'n, *at* http://www.ceasa.us/faqs.htm (last visited Jan. 4, 2005).

[224] *See supra* text and accompanying note 17.

[225] *Id.;* EFFECTIVE DISASTER WARNINGS, *supra* note 13, at 34-35.

[226] Nearly 95% of American households had access to at least one telephone line in 2001. STATISTICAL ABSTRACT OF THE UNITED STATES: 2003, *supra* note 23, at 721 tbl.1126.

[227] The system is known as Public Warning and Information by Telephone ("PWIT"). *See* NSCWIP: INTERIM REPORT, *supra* note 161, app. H.

[228] *Id.*

[229] *Id.*

[230] The United Kingdom has enacted legislation called the Data Protection Act that provides privacy guidelines for consumers' data. *See* NSCWIP: PROGRESS REPORT, *supra* note 161, at 21.

[231] The United Kingdom developed a database to keep track of landline telephone subscribers. *See* NSCWIP: INTERIM REPORT, *supra* note 161, app. H.

[232] *Id.* British Telecommunications maintains a database of all subscribers' information in the United Kingdom. *See* NSCWIP: PROGRESS REPORT, *supra* note 161, at 20-21.

C. Long Term Solutions: Foreseeing the Future

Future technological advances present obvious problems for regulators seeking an up-to-date public warning mechanism. Foresight of coming technological advances is difficult to achieve.[233] However, it is these technological advances that may produce opportunities to reach a greater population niche. The FCC regulates new communications technologies and is in a position to determine the appropriateness of incorporating the EAS into these new advances.[234] The Commission must strengthen the EAS by requiring emerging technologies to implement the system sooner rather than later in order to achieve a comprehensive system designed to save the most lives and property.[235] The development of satellite television services presents a prime example.[236] Only broadcasters and cable systems are currently required to carry EAS messages.[237] However, over the past decade, satellite television services have proliferated within a large segment of American society and such services are not mandated to support EAS capabilities.[238] While the FCC currently encourages these service providers to participate, mere encouragement is insufficient.[239] Because the agency does not mandate participation, a significant segment of the population may not receive EAS messages.[240]

Digital television also presents an innovative mechanism for regulators to disseminate emergency messages. An estimated 40% of households in the United Kingdom have access to a digital television set.[241] The country has adopted the technology and many households have purchased the sets.[242] The National Steering Committee for Warning and Informing the Public has explored the capabilities of this technology and determined that it presents a cost effective means of spreading emergency messages.[243] Unlike analog sets, digital television sets may easily be adapted so that regulators may determine the

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233 *See* Communications Act of 1934, 47 U.S.C. §157 (2000).

234 *See id.*

235 The Commission has made significant strides towards improving public safety by mandating Emergency 911 requirements. *See In re* Revision of the Commission's Rules To Ensure Compatibility with Enhanced 911 Emergency Calling System, *Report and Order and Further Notice of Proposed Rulemaking*, 11 FCC Rcd. 18,676 (1996).

236 *See* STATISTICAL ABSTRACT OF THE UNITED STATES: 2003, *supra* note 23, at 720 tbl.1125.

237 *In re* Review of the Emergency Alert System, *Notice of Proposed Rulemaking*, 19 FCC Rcd. 15,775, 15,779, para. 12 (2004).

238 *Id.*

239 *See* Emergency Alert System (EAS), 47 C.F.R. §11.41 (2004); *In re* Review of the Emergency Alert System, 19 FCC Rcd. at 15,776, para. 3.

240 *See* PPW: EAS ASSESSMENT, *supra* note 15, at 21.

241 *See* NSCWIP: PROGRESS REPORT, *supra* note 161, at 18.

242 *See* NSCWIP: INTERIM REPORT, *supra* note 161, at 20.

243 *Id.* at 18.

geographic location of each set.[244] Additionally, digital television sets can receive a signal and automatically switch on to deliver a potentially life-saving emergency message.[245] Both the FCC and Congress have endorsed the switch from analog to digital television within the United States.[246] The FCC should seize this opportunity to configure a comprehensive plan to integrate this technology into the EAS.

D. Summation: Modernizing the EAS

The key to an effective public warning mechanism is the ability to reach the largest portion of the population effected by emergency.[247] Integrating certain features of the United States' telecommunications industry presents perhaps the most logical and effective method of informing the greatest number of people.[248]

The FCC must abandon its policy of merely encouraging participation in the EAS in favor of a policy of mandatory participation. History has demonstrated that communication service providers choose not to participate in the EAS a significant amount of the time unless required to do so.[249] In the short-term, the FCC must work to integrate well-established technologies, such as cell phones and the Internet, into the EAS. In the long-term, the Commission must anticipate the potential proliferation of emerging communications technologies and determine whether to mandate EAS participation. If the technology presents the possibility of reaching a broad audience, such as digital television, the FCC must mandate participation. Otherwise, the FCC should weigh the burden of requiring private industry participation in the EAS with the potential of saving lives and preserving property.

V. ISSUES PRESENTED BY LACK OF EDUCATION

Ensuring that an emergency alert reaches a broad range of the population is only one part of the equation.[250] The message must also be effective and must

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[244] *Id.* at 20-21.

[245] McConnell, *supra* note 14, at 1, 34. The United Kingdom is currently experimenting with utilizing digital television to deliver geographically-targeted emergency communications. NSCWIP: INTERIM REPORT, *supra* note 161, at 20-21.

[246] Communications Act of 1934, 47 U.S.C. §309(j)(14)(A) (2000).

[247] *See* EFFECTIVE DISASTER WARNINGS, *supra* note 13, at 6.

[248] *Id.*

[249] Only broadcasters and cable systems actively participate in the EAS. FCC regulations require such participation. *See* Emergency Alert System (EAS), 47 C.F.R. §11.41 (2004). Statistics indicate that these entities may not carry messages unless required to do so. PPW: EAS ASSESSMENT, *supra* note 15, at 11.

[250] *See* EFFECTIVE DISASTER WARNINGS, *supra* note 13, at 9.

result in appropriate action on the part of individuals who receive the message.[251] Otherwise, the purpose of an emergency warning system is undermined.[252]

Additionally, the participants in the system must be knowledgeable about the technological aspects of activating and dispersing messages.[253] The EAS is a largely automated system,[254] yet emergency managers and first responders still need to be educated about properly accessing the EAS via designated entry points.[255]

A. Educating the American Public and EAS Participants

A widespread lack of EAS funding has resulted in inconsistent implementation of the system on the state and local levels.[256] Without providing adequate training to individuals, such as emergency managers and first responders, who will access the system, the EAS is less likely to be utilized properly and timely.[257]

Currently, no federal entity specifically funds training for EAS equipment uses and activations.[258] While the Society of Broadcast Engineers[259] ("SBE") has attempted to fill this void by providing training for members of SECC's and LECC's at SBE events, the organization does not have a budget for other EAS support.[260] Currently, SECCs and LECCs consist of voluntary participants from government, emergency services, and industry.[261] While these individuals may develop EAS State or Local Area Plans, they may not necessarily

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[251] *Id.* at 18.

[252] *Id.* at 9.

[253] *See* P'SHIP FOR PUB. WARNING, COMMENTS CONCERNING THE FCC REVIEW OF THE EMERGENCY ALERT SYSTEM 27 *at* http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6516782571 (Oct. 25, 2004) [hereinafter COMMENTS CONCERNING THE FCC REVIEW OF THE EMERGENCY ALERT SYSTEM].

[254] *See generally* PPW: EAS ASSESSMENT, *supra* note 15, at 13, 42-44.

[255] COMMENTS CONCERNING THE FCC REVIEW OF THE EMERGENCY ALERT SYSTEM, *supra* note 253, at 27.

[256] *See* MSRC: FINAL REPORT, *supra* note 18, at 16; PPW: EAS ASSESSMENT, *supra* note 15, at 26.

[257] MSRC: FINAL REPORT, *supra* note 18, at 10; *see also Emergency Warning Systems: Hearing Before the Subcomm. on Emergency Preparedness and Response of the House Select Comm. on Homeland Sec.*, 108th Cong. (2004) (statement of Frank M. Lucia, Member, Public Communications and Safety Working Group, Media Security and Reliability Council), *at* http://hsc.house.gov/files/Testimony%20Lucia.doc (Sept. 22, 2004).

[258] PPW: EAS ASSESSMENT, *supra* note 15, at 24-25.

[259] The Society of Broadcast Engineers maintains an EAS Committee which also provides support to broadcasters. *See generally* Soc'y of Broad. Eng'rs, *at* http://www.sbe.org/eas/eas.html (last visited Oct. 3, 2004).

[260] PPW: EAS ASSESSMENT, *supra* note 15, at 25.

[261] *Id.* at 16.

understand how the system functions.[262] No federal funding exists for members of these committees or media outlets who may wish to disseminate an EAS message.[263] While the SBE has attempted to fill this void by training members of the media, SECCs, and LECCs, the program is not mandatory and is threatened by a general lack of funding.[264] The SBE provides a robust EAS training program, yet the organization receives no federal support and only allots a small budget for these activities and training.[265]

FEMA must take an active role in coordinating and educating participants in the EAS. The agency has both the statutory authority and the responsibility to do so.[266] FEMA currently coordinates emergency response on the federal, state, and local levels and provides training courses for interested parties[267] in addition to publishing materials regarding emergency operations planning.[268] However, FEMA does not have a training course or publication specifically dealing with EAS. FEMA must remedy this omission and integrate EAS activation information into current educational programs sponsored by the agency.[269]

The EAS will not succeed as a public warning mechanism unless system activation results in proper action on the part of the message recipient. The United Kingdom's National Steering Committee on Warning and Informing the Public has undertaken extensive exploration of education issues related to public warning.[270] The group discovered a general lack of awareness within the country's citizenry as to an appropriate course of action during an emergency situation.[271] As a result, the group produced a video entitled "Go In, Stay In, Tune In" targeted at the nation's youth.[272] The video is based on the idea that

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262 *See id.*

263 *Id.*

264 *Id.* at 25.

265 PPW: EAS ASSESSMENT, *supra* note 15, at 25.

266 *See* Homeland Security Act of 2002, 6 U.S.C. §312(5) (2000). The Homeland Security Act of 2002 requires the Under Secretary to "establish training and equipment standards, provide resource grants, and encourage intelligence and information sharing among federal agencies, state emergency management officials, and local first responders . . ." S. REP. NO. 107-175, at 25 (2002). FEMA's Preparedness, Training, and Exercises Directorate has the responsibility of training federal, state, and local entities to "prepare for, respond to, [and] recover from a broad range of emergencies . . ." Preparedness, Training, and Exercises Directorate, 44 C.F.R. §2.42(b)(3) (2004).

267 For more information on these training programs, see U.S. Fire Administration, *at* http://training.fema.gov (last visited Jan. 5, 2005).

268 This guide briefly mentions the EAS. *See generally* FED. EMERGENCY MGMT. AGENCY, STATE AND LOCAL GUIDE (SLG) 101: GUIDE FOR ALL-HAZARD EMERGENCY OPERATIONS PLANNING, *at* http://www.fema.gov/pdf/rrr/slg101.pdf (Sept. 1996).

269 *See* U.S. Fire Admin., *at* http://training.fema.gov (last visited Jan. 5, 2005).

270 NSCWIP: INTERIM REPORT, *supra* note 161, at 13.

271 *See id.* at 13.

272 According to the National Steering Committee on Warning and Informing the Pub-

when there is danger outside, people should congregate inside their homes.[273] Once people are inside their homes, the government may then communicate with them as to what further action to take.[274] The Public Education Group recommended that the "Go In, Stay In, Tune In" video be expanded to cover an entire campaign of literature and other materials which could be distributed to the public.[275]

FEMA's mandate does not extend to the creation of a public education campaign of this nature.[276] In the United States, FEMA could petition a public/private partnership or non-profit organization to develop a comprehensive advertising campaign targeted toward educating the American public about the EAS.[277] Working with the Advertising Council ("Ad Council"), a non-profit organization, provides the best option for this type of promotion. The Ad Council works with other non-profit or government entities to develop advertising campaigns in the public interest.[278] The Ad Council solicits marketing firms to donate pro bono services[279] and has been the driving force behind several widely recognized public interest campaigns from the past fifty years such as Smokey the Bear, McGruff the Crime Dog, and Rosie the Riveter.[280] Through this cost effective method, FEMA may help initiate a public education campaign backed by an entity with a history of developing effective public service advertisements.

B. Summation: Overcoming Educational Obstacles

The United Kingdom's reliance on educating the nation's youth regarding

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lic's Public Education Group, youth aged seven to eleven years old tend to be more "impressionable at developing safety lessons for life." Further, the group believes that these young people are prone to relaying these safety messages to their parents and family members. NSCWIP: PROGRESS REPORT, *supra* note 161, at 31; *see also* NSCWIP: INTERIM REPORT, *supra* note 161, at 13-15 (summarizing the Public Education Group's national education strategy).

[273] *See* NSCWIP: INTERIM REPORT, *supra* note 161, at 14.

[274] *Id.*

[275] *Id.* at 16.

[276] *See generally* Homeland Security Act of 2002, 6 U.S.C. §312(5) (2000 & Supp. II 2002); Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 U.S.C. §5196 (2000) (listing the functions and duties of FEMA); 42 U.S.C. §5196(g).

[277] The Partnership for Public Warning recommends the development of a comprehensive public service announcement campaign in order to educate the public of the role of the EAS as a public warning mechanism. PPW: EAS ASSESSMENT, *supra* note 15, at 31.

[278] *See* Adver. Council, *at* http://www.adcouncil.org/about/faq (last visited Nov. 4, 2004).

[279] Each Ad Council campaign has a subject expert that provides funds for distribution and production costs. *Id.*

[280] ADVER. COUNCIL, MATTERS OF CHOICE: ADVERTISING IN THE PUBLIC INTEREST, *at* http://www.adcouncil.org/pdf/matters_of_choice.pdf (2002).

public warnings is well placed. By instructing children of an impressionable age of preventative actions to take during an emergency, the chances of retaining this pertinent knowledge increases over a long period of time. Further, these young people are likely to relay lessons learned to other individuals within their social circles.[281] FEMA could strengthen the effectiveness of the EAS by incorporating this strategy into its duty to coordinate emergency systems among the many levels of government.

IV. CONCLUSION

The tragedy of September 11 demonstrated the need for an effective public warning mechanism spanning a broad range of technologies. Had the capabilities been in place at the time, first responders and emergency managers at the scene of the World Trade Center could have activated the EAS and forwarded text messages calling for an evacuation to all cell phones located within the area. This type of implementation may have saved the lives of those people awaiting rescue below the impact zone and the first responders attempting to reach them.[282]

The primary obstacle confronting the EAS is the lack of clearly defined roles among participants on the federal, state, local, and industry level. The current cooperative federalism structure for implementing the system is ideal because it allows the federal government to specify standards to be utilized throughout the country, while giving states and localities the flexibility to modify the system as they see fit. Despite this ideal structure, the many players must strengthen their roles in administering the system, particularly on the federal level. As the agency at the forefront of communications technologies, the FCC is well positioned to meet the challenges of incorporating the EAS into emerging technologies that will proliferate throughout our society. FEMA must also strengthen its role in coordinating the EAS among participants in the system. By adopting the United Kingdom's concept of regional coordinators, FEMA may provide guidance to states and localities to increase communication regarding the system among the different levels of government.

The failure to require EAS participation in newer, well-established technologies impedes the effectiveness of the EAS. Although the evolving telecommunications industry within the United States presents innovative opportunities for regulators to warn the public during an emergency, the FCC has failed to capitalize on these prospects. The FCC must adopt a stronger stance in requiring technologies that will or have already proliferated our society, to

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[281] NSCWIP: PROGRESS REPORT, *supra* note 161, at 31.
[282] *See* EFFECTIVE DISASTER WARNINGS, *supra* note 13, at 13.

participate in the EAS. Merely encouraging participation does not provide the level of certainty needed in a system designed to keep the nation secure.

Finally, the federal government, especially FEMA, must ensure that EAS messages are properly disseminated by developing and undertaking a comprehensive educational campaign. FEMA must confront how to best educate broadcasters and other entities that own EAS equipment. Additionally, FEMA should also seek to educate the nation's public, particularly the youth, regarding the national public warning system. A minimal amount of training will increase the chances that a recipient of an EAS message will take proper action.[283] As a result, lives will be saved and property will be preserved.

[283] *Id.* at 18.