MEDIA SECURITY AND RELIABILITY COUNCIL
Adopted Best Practices Recommendations

Communications Infrastructure Security, Access & Restoration Working Group

Prevention Task Force

National Recommendations

1. All media companies should reassess their vulnerabilities considering the possibility of deliberate attacks in addition to natural disasters and equipment failures and take appropriate measures to prevent loss of service and to expedite rapid recovery.

    1.1 In contemplating the possibility of deliberate attacks, vulnerability assessments should consider system redundancies and their geographic distribution.

    1.2 Because commercial communications satellites are the predominant means of national signal distribution for mass media, the vulnerability of the satellite infrastructure, especially TT&C, should continue to be examined and reinforced.

        1.2.1 Each major source of news should consider alternatives to commercial communication satellites (*e.g.*, DBS satellites, Internet, etc.) as a last-resort backup means of signal distribution, even if technical signal quality is substantially degraded under such conditions.

2. Under government declared emergency conditions, news media should consider agreements that allow unconventional flexibility in local use and retransmission of the content to serve the public interest.

    2.1 In order to cost-effectively gain additional geographic diversity, news networks should consider the possibility of a backup carriage plan with other non-news networks that can be exercised under government declared emergency conditions.

Local Recommendations

3. Each local media facility (television stations, radio stations and cable headends) should have a vulnerability assessment and disaster recovery plan that is periodically reviewed, updated and practiced.

4. Local media (television stations, radio stations and cable operators) in each market should cooperate to assess their collective vulnerability and to develop reciprocal agreements and a cooperative emergency response plan to ensure that some media will remain in service even under extreme circumstances.

    4.1 Vulnerability assessments should consider the location and geographic distribution of key facilities in the market, such as news studios, ENG receive sites, towers and cable headends.

    4.2 Vulnerability assessments and cooperative emergency response plans should consider the scenario of widespread power outage and the resulting importance of radio to reach battery powered and automotive receivers.

Radio Best Practices

Physical security

5. Radio broadcasters should have appropriate physical security, augmented by security personnel and/or video surveillance at their key facilities, including studios/newsrooms, satellite transmit and receive sites and antenna/transmitter sites.

Backup Power

6. Radio Broadcasters should employ diverse power grid sources wherever feasible.

7. Radio broadcasters should take appropriate measures to provide backup power capabilities for their key facilities, including studios/newsrooms, satellite communications and transmitters.

8. Radio broadcasters with local news origination should ensure that they have robust and redundant ways to communicate with external news services and remote news teams, such as the use of mobile radio and Internet to augment cell phones.

9. Radio broadcasters should have backup signal feeds to their primary satellite transmit and receive sites.

10. Radio broadcasters should have redundant signal paths to their primary and backup transmission facilities.

Redundant Facilities

11. Radio broadcasters with local news origination should plan to have emergency origination capability at a separate location from their primary studio (e.g., backup studio, transmitter site, remote van, another station, etc).

    11.1 Radio broadcasters with local news origination should have a remote vehicle, or some means of delivering live news and information from a remote site.

    11.2 Radio broadcasters should have the capability of receiving a remote feed at an additional site from their primary studio (e.g., directly at their tower site, at a backup studio, etc).

12. Radio broadcasters should have a backup satellite transmitter and receiver, or an alternate means (e.g., a Satellite Radio receiver, a dedicated phone line or a streaming audio Internet connection) to send and receive signals from and to national news services in emergency situations.

13. Radio broadcasters should have a backup transmitter, and should attempt to make practical arrangements for geographic diversity where possible (e.g., provisions for emergency use of other backup transmitter/antenna facilities in the community or other means).

14. With the cooperation of federal and local policy makers, all radio broadcasters in a market should collaborate to increase their collective site diversity and redundancy, including their collective news studios, operations, satellite transmit and receive facilities and transmitter and antenna sites.

<u>Local Television Best Practices</u>

Physical Security

15. Television broadcasters should have appropriate physical security, augmented by security personnel and/or video surveillance at their key facilities, including studios/newsrooms, satellite communications facilities and antenna/transmitter sites.

Backup Power

16. Television broadcasters should employ diverse power grid sources wherever feasible.

17. Television broadcasters should take appropriate measures to provide backup power capabilities for their key facilities, including studios/newsrooms, satellite communications and transmitters.

Redundant Communications

18. Television broadcasters with local news origination should ensure that they have robust and redundant ways to communicate with external news services and remote news teams, such as the use of mobile radio and Internet to augment cell phones as well as some means of receiving remote feeds (e.g., directly at tower site or at a cable headend) and delivering live news and information from a remote site (e.g., ENG/SNG truck).

19. Television broadcasters should have backup signal feeds to their primary and backup satellite transmit and receive sites.

20. Television broadcasters should have redundant signal paths to their primary and backup transmission facilities.

Redundant Facilities

21. Television broadcasters with local news origination should plan to have emergency origination capability at a separate location from their primary studio (e.g., backup studio, transmitter site, ENG remote, another station, cable headend, etc).

    21.1 Television broadcasters with local news origination should have an ENG or SNG truck, or some means of delivering live news and information from a remote site.

    21.2 Television broadcasters should have the capability of receiving a remote feed at an additional site from their primary studio (e.g., directly at their tower site, at a backup studio, etc).

22. Television broadcasters should have a backup satellite transmitter and receiver, or an alternate means (e.g., a DBS receiver, or a streaming video over a broadband Internet connection) to send and receive signals from and to national news services in emergency situations. (We recognize that there may be copyright issues involved but recommend that operators negotiate a reasonable solution).

23. Television broadcasters should have a backup satellite transmitter and receiver, or an alternate means (e.g., a Satellite Radio receiver, a dedicated phone line or a streaming audio Internet connection) to send and receive signals from and to national news services in emergency situations.

    23.1 Television broadcasters should examine the possibility of their DTV facilities providing emergency backup capabilities to their analog facilities.

24. Television broadcasters should provide the same prevention approaches to their DTV facilities, to the extent economically feasible.

25. With the cooperation of federal and local policy makers, all television broadcasters in a market should collaborate to increase their collective site diversity and redundancy, including their collective news studios, operations, satellite transmit and receive facilities and transmitter and antenna sites.

Cable Television Best Practices

Physical Security

26. Cable Operators should have appropriate physical security, augmented by security personnel and/or video surveillance at their key facilities, including their headend, hub, plant and customer service facilities.

Backup Power

27. Cable Operators should employ diverse power grid sources wherever feasible.

28. Cable Operators should take appropriate measures to provide backup power capabilities for their key facilities, including their headend, hub, plant and customer service facilities.

Redundant Communications

29. Cable systems should have backup satellite receivers for their major news and information channels. In cases where a backup satellite receiver is unaffordable or impractical, cable operators should consider the use of DBS receivers at headend and/or hub facilities for use in emergency situations.

30. Cable systems should have redundant signal routes as far out in their network as economically practical.

Redundant Facilities

31. Cable Operators should take appropriate measures to provide redundant and geographically diverse equipment for their headend, hub and plant facilities, appropriate to the system's operations and facilities.

    31.1 Cable systems should have capability in an emergency situation to provide some news or information from a location other than their primary headend, where economically practical.

32. Cable systems should have some capability to obtain news and information in an emergency situation, such as their own studio or an arrangement to receive signals

from local television broadcasters or cable program providers (e.g., ENG/SNG trucks or satellite links).

33. All Cable Operators in a market should collaborate, where possible, to increase their collective site and equipment diversity, redundancy and interconnections.

34. All Local Media (e.g., Television Broadcasters, Cable Operators and Radio Broadcasters) in a market should collaborate to increase their collective geographic diversity and to establish redundant interconnections capable of supporting emergency operations.

    34.1 Cable systems and local broadcasters in a market should work jointly to develop prevention plans and to improve the redundancies in their interconnections.

    34.2 Radio broadcasters should work with television broadcasters and cable operators to establish diverse primary and backup signal feeds from local television broadcasters and cable systems for use in emergency situations.

Restoration Task Force:

1. Radio and television broadcasters, cable companies, direct broadcast satellite (DBS) and digital satellite radio providers, and other delivery media should develop and implement written disaster recovery plans, geared not only to short-term disruption but to the possibility that primary transmission and studio facilities may suffer catastrophic failure.

2. Television and radio stations and other media organizations should update their disaster recovery plans as events warrant, and regularly conduct emergency drills at least once a year.

3. FCC licensees, MSOs, and other electronic media organizations (including television, radio, cable, DBS, digital satellite radio, and telecommunications) should establish market-by-market restoration committees.

4. Radio and television stations and cable systems should implement studio and transmitter reciprocity arrangements to ensure signal availability in all markets.

5. Television stations should develop plans for utilization of ENG trucks as emergency alternate studios, with microwave links at transmitter sites for both analog and digital service.

6. Television stations should create plans for alternate paths to cable headends. Alternate emergency distribution paths could include: DTV transmitter to cable headend, downconverted to NTSC; SNG to DBS to cable headend and DBS to homes; cross-connecting cable systems; opening local-to-local DBS service to all subscribers on an emergency basis; low data rate Internet links; and portable microwave links.

7. Radio and television stations should develop recovery timelines in situations where backup facilities exist. Stations with backup facilities should be prepared to provide service within 15 minutes of loss of primary facility.

8. The Federal Emergency Management Agency (FEMA), or another appropriate federal entity, should acquire and administer emergency response broadcast equipment packages. These containerized recovery systems would be stored in regional depots for use in emergency situations and would include self-contained VHF, UHF, AM and FM transmission units and mobile generators, along with sections for 500-foot and 100-foot towers. The federal government should also have the authority to designate emergency channels for television and radio where needed.

9. Federal preemption authority should be established during declared emergencies for replacement towers and other essential broadcast and delivery media needs.

10. Radio and television stations should have the ability to access alternate telecommunications capabilities. These may include: satellite phones, amateur radio facilities in studios, and alternate 450 MHz communication repeater sites with portable handheld units.

Future Technologies/Digital Solutions Task Force

1. Government should coordinate development of a Media Common Alert Protocol (MCAP). This protocol should be designed to deliver emergency messages via digital networks. It should flow over all methods of digital transport and be received by all digital receivers. This protocol should be optimized for point-to-multi-point networks and devices only.

    1.1 Key attributes of the MCAP should be addressability, scaleability, interoperability and prioritizing.

    1.2 Industry organizations and companies should develop standards and specifications for carriage of MCAP on various media.

2. The existing tool set of digital television, comprised of standards for over-the-air, cable and satellite, should be leveraged in the development of new emergency notification standards and practices. Many of the existing capabilities are readily applicable, including but not limited to multiple video and audio channels, uniform channel designation, closed captioning and the ACAP middleware standard.

Public Communications and Safety Working Group

1. A single federal entity should be responsible for assuring:

    - Public communications capabilities and procedures exist, are effective, and are deployed for distribution of risk communication and warnings to the public by appropriate federal, state and local government personnel, agencies and authorities.

    - Lead responsibilities and actions under various circumstances are established at federal, state and local levels within the overall discipline of emergency management.

    - A national, uniform, all-hazard risk communication warning process is implemented from a public and private consensus on what best meets the needs of the public, including people of diverse language and/or with disabilities, including sensory disabilities.

2. Effective delivery of emergency information to the public should be achieved through a public/private partnership that makes coordinated use of mass media and other dissemination systems to quickly reach large numbers and diverse groups of the public at risk to deliver emergency information to the public.

3. Consistent with best practices in emergency management and business continuity planning, local and state governments and the media should cooperate to create, review and update emergency communications procedures, such as EAS, Amber plans and their components, to quickly disseminate critical information to the largest possible audience.

    3.1 Effective use should be made of current, emerging, and legacy systems, including television, radio and weather radio that includes EAS.

    3.2 Local media must be included in the creation of the communications and warning plan and understand their key role in its successful implementation.

    3.3 The skill set of both federal and local agency participants should include training and process knowledge of how to work with and the benefits of utilizing the media to inform the public in a timely fashion during emergencies. Emergency managers should have a working knowledge of how to access EAS and other public warning systems.

    3.4 Local media should assist government to create and deliver more effective public education about emergencies and preparedness.

3.5 Local media should agree to develop consistent presentation guidelines to ensure that all emergency delivery systems work well together to accurately deliver emergency information to the entire community.

3.6 Government and local media should conduct regular testing and rehearsals of emergency communications plans.

4. All local media should form emergency jurisdiction/market cooperatives to assure delivery of local government emergency messages in a coordinated way to all constituencies in the community.

4.1 Local media in each market should be encouraged to create media pools for risk communication and warning; in markets where pools exist, a working committee should take the pool to the higher level of security, isolating it from the traditional news coverage pool concerns.

4.1.1 Local media should consider the creation of an Emergency Communications Coordinator position to serve as single media point of contact for government and develop a cooperative relationship with the local government lead agency.

4.2 Media and government jurisdictions should agree to take pre-planned actions upon authenticated notice from authorized government agencies, and incorporate these pre-planned actions in overall emergency management training exercises.

4.2.1 Local media and appropriate public safety and other government agencies should establish local and state emergency communication committees to plan well coordinated community responses for disasters.

4.2.2 Local media should engage in coordinated activities to assure the flow of emergency information using multiple languages and means to make this information available to persons with disabilities in their communities.

4.3 Pre-planned coordinated activities/roles appropriate to local conditions for each media under various scenarios (e.g., the type and number of delivery systems continuing to function) should be created, developed, rehearsed and tested.

4.3.1 In particular, emergency communications plans must take into account the probability of widespread power outages when AM and FM radio is the only way to communicate to battery powered receivers in the community.

5. As the nation's current means to issue timely warnings through mass media, the Emergency Alert System should be periodically tested, upgraded as necessary, implemented and maintained at the local, state, and national levels.

    5.1 EAS equipment should be uniformly implemented to make use of the latest EAS codes approved by the FCC.

    5.2 Written state and local EAS plans should be brought up to date with close participation by broadcasters and cable operators.

    5.3 Wired and wireless paths to EAS entry points from warning sources designated in state and local EAS plans should be in good working order.

    5.4 The Primary Entry Point system that gives the President the ability to address the nation through EAS should be in good working order and be regularly reviewed and improved if necessary in terms of reliability, reach and robustness.

6. Research into development of alternative, redundant and/or supplemental means of communicating emergency information to the public should be accelerated.

    6.1 An expanded government partnership with the media, consumer electronics and computer industries should harness free market innovation, foster competition, and enhance interoperability to meet changing national warning needs.

        6.1.1 The partnership should explore the use of emerging new technologies to improve and/or complement existing infrastructures and to leverage emerging new infrastructures.

7. Local jurisdiction/market cooperatives should be encouraged to share their locally developed best practices for coordinating their efforts, delivering risk communications and warnings to their diverse public constituencies, and joint continuity planning to maintain communications under crisis conditions.