

BROWN COUNTY EMERGENCY SUPPORT FUNCTION (ESF) 2 COMMUNICATIONS

LEAD COORDINATING AGENCY: 911 Communications Center

SUPPORT AGENCIES: Brown County Sheriffs Office
Brown County Emergency Management
Jurisdictions with 911 and Communications Capabilities
Amateur Radio Emergency Service (ARES)

I. INTRODUCTION

A. Purpose

The purpose of this Emergency Support Function (ESF) is:

- a) To serve as a basis for planning the coordination of communication assets in Brown County in accordance with the Brown County Emergency Response Plan.
- b) To provide guidance for rapid alerting and warning to key local jurisdictions officials and the general public of an impending or occurring natural or technological emergency or disaster.
- c) To provide guidance for organizing, establishing, and maintaining the communications and information system capabilities necessary to meet the operational requirements of the county and local jurisdictions in responding to, and recovering from, emergencies and disasters.
- d) To develop guidance and procedures to ensure Emergency Management staff at the state, local and federal levels have accurate and timely information on which to base their decisions and response actions.
- e) To coordinate the effective restoration of communications after a disaster with the service providers and private utilities.

II. POLICIES

- A. The Brown County Emergency Response Plan as described by this ESF will guide all county communications, information systems, and warning activities related to mitigating, preparing for, responding to, and recovering from emergencies or disasters.
- B. Communications, information systems and warning support requirements which cannot be met at the local level will be escalated upward for resolution at the state level by Wisconsin Emergency Management (WEM)

and appropriate state agencies. If needed, federal assistance will be requested.

III. CONCEPT OF OPERATIONS

A. General

1. Reliable communications and information system capabilities are necessary at all levels of government for day-to-day communications, warning of impending events, response and recovery operations, search and rescue operations, and coordination with other state and public safety agencies. Such capabilities must be available to the county for operations from the primary or alternate EOC as well as any other location selected because of existing conditions at the time of the emergency or disaster.
2. The federal government, under the National Response Plan (NRP) may, through the Federal Emergency Management Agency (FEMA), provide temporary emergency communications assistance to state and/or local jurisdictions prior to or during an emergency or disaster.
3. A request for state communications resources must be processed through the County command and control organization.
4. The Emergency Alert System (EAS) operates through designated radio, television stations and cable systems and is intended to provide federal, state, and local jurisdictions with the means to disseminate prompt alerting and warning information to the general public (See State EAS Map in Appendix 3). NOAA National Weather Service radio transmitter will augment the warning and information process (See Map in Appendix 4).
5. The communications and warning capabilities presently available are:
 - a. Telephone Systems (describe)
 1. County/Local
 - a) 24/7 Telephone Systems
 - b) County NAWAS (capability) System
 - c) Private/leased Lines
 - d) Commercial telephones
 - e) Cellular telephones
 - f) Facsimile
 - g) Satellite Phones
 - h) Siren Systems
 - i) Pager Systems

- j) Government Emergency Telephone System (GETS) cards
 - k) Alternative Routing Phone System (i.e., CLAR)
 - l) CodeRed
- 2. State assets that support county ESF 2 (See **Appendix 2** for detailed descriptions of State communications system):
 - a) WEM 24-hour Hotline ()
 - b) State Patrol microwave telephone
 - c) NAWAS (National Warning System, intra-state landline-voice)
 - d) Private and leased lines
 - i. Dial-Select System (Kewaunee & Manitowoc Co. only)
 - ii. City Watch System (Pierce Co. only)
- b. Communications and Warning Systems (describe including operating frequencies)
 - 1. County/Local
 - a) County Radio Systems
 - b) Local Radio Systems
 - c) Amateur Radio Systems
 - d) Siren Systems
 - e) CodeRed
 - f) NWS Radio System
 - g) Others, as appropriate (i.e., PAC, MARC, MABAS, etc.)
 - 2. State assets that support county ESF 2 (See **Appendix 2** for detailed descriptions of State communications system):
 - a) WEM Local Government Radio
 - b) State Patrol Radio
 - c) Emergency Alert System (EAS) Relay Network (Public Safety radio and the broadcast industry).
 - d) Amateur Radio System: (which includes: RACES (Radio Amateur Civil Emergency Services), ARES (Amateur Radio Emergency Services).
 - e) Federal Emergency Management Agency National Radio System (FNARS), a high frequency radio system.
 - f) Mobile Command Center and associated equipment.

- g) Other Radio Systems
- c. Computer Systems (describe)
 - 1. County/Local
 - a) County government networks and computer systems
 - b) Transaction of Information for Management of Enforcement (TIME) System
 - c) Weather Data Systems
 - d) Mobile Data Systems
 - 2. State assets that support county ESF 2 (See **Appendix 2** for detailed descriptions of State communications system):
 - a) National Weather Service Emergency Management Weather Information Network (EMWIN) weather data system.
 - b) Department of Justice's (DOJ), Transaction of Information for Management of Enforcement (TIME) System.

B. Organization

The County ESF 2, Communications consists of:

BROWN COUNTY E911 SYSTEM DESCRIPTION

1. Airbus VESTA 4.x NG9-1-1 System Overview

One Agency Public Safety Answering Point (PSAP) located in Green Bay, Wisconsin.

VESTA NG9-1-1 is a next generation call-processing system that is Standards compliant (NENA i3) and utilizes a purpose-built Internet Protocol (IP) soft switch design. In addition to telephony features VESTA provides Automatic Location Information (ALI) display and integrated Text-to-911 functions.

Equipment is geo-located with equipment in the Brown County Public Safety Communications Department and the Brown County Technology Center.

a. Backroom Equipment

The backroom equipment includes 2 geo-diverse sites with the below equipment.

- FSX and FXO gateways for connection to phone trunks
- Server running DDS, MDS and Microsoft AD virtual servers
- TCP/IP networking equipment (Switch & Firewall)
- ALI Modems
- Firewall
- Integration for CAD and position and trunk recording

c. PSAP Equipment

The PSAP design for Brown County includes call answering equipment for 23 standard positions, 2 training positions, 4 remote positions and 1 Activity View position

Position equipment includes:

- One workstation with call-taking, text-to-911 and Instant Recall Recording (IRR) software
- One 19-inch color touchscreen monitor
- One 80 Button Key Expansion Module (KEM)
- One Sound Arbitration Module
- One Speaker

d. Trunks/ALI

This PSAP has been designed to accept 10 CAMA (911) lines and about 20 Administrative lines spread between the two sites. The system has a total of 4 ALI modems to provide ALI/ANI display to VESTA workstations and CAD.

e. Fifteen (15) and one remote position are also dispatch positions, with capabilities listed as follows:

2. Motorola MCC 7500 ELITE Radio Console

Radio Control Center Overview

MCC 7500 Elite is Motorola's top of the line software-based dispatch control center. Elite features an intuitive, user-friendly Graphical user Interface (GUI). The GUI works under the Microsoft Windows NT operating system and follows Windows design standards such as pull-down menus, drag and drop capability, visual icons, on-line help, graphical toolbar and resizing capabilities. The Elite control center system consists of dispatch positions connected to Central Electronics Banks via seven-pair cables and to each other via a LAN (Local Area Network).

Brown County will be provided with fifteen (15) dispatch positions and two remote positions.

Each of the fifteen (15) dispatch positions will include the following equipment:

- Console Interface Enclosure
- Dispatch computer
- Twenty-one-inch Monitor
- One Instant Recall Recorder (IRR)

The one remote position will include the following:

- Console Interface Enclosure
- Dispatch Computer
- Nineteen Inch Monitor

3. Multi-Select and patch

The Radio Consoles are able to contact multiple radios using different resources simultaneously, or to allow users from different frequencies to temporarily communicate with each other, temporary groups of resources can be created.

Resources can be group in two ways:

Multi-Select Group - A multi-select group is a group of two or more channels/frequencies that can be either talk-groups or conventional channels. This allows the dispatcher to simultaneously transmit messages to the resources in the multi-select group, but the resources cannot communicate with each other.

Patch Group - A patch group is a group of frequencies/channels that can both receive messages from the console and transmit to all other members of the patch group. Create a patch group to allow users of dissimilar resources such as trunked talk groups and conventional channels to communicate with each other. During trunked patched operations, multiple talk groups that are included in a patch are temporarily merged into a larger single group for the patch duration.

Paging Capabilities

The Elite console has a built-in paging encoder that is capable of sending tone-only or tone and voice pages out over a conventional station. The paging encoder is capable of being programmed to send the following paging formats:

- quick Call I and II
- Digital Dial 1-3
- Touch Code (DTMF)
- Single Tone
- Call Alert

Pages can be sent on multiple channels simultaneously, or sequentially, depending on the console programming/configuration. The paging tones will be heard in the speaker for the channels that are sending the pages. After the last page ends, there is a talk extend time during which the console operator may initiate a voice transmission using the general transmit button or the foot switch. The base station remains keyed anywhere from 0 to 7 seconds so that the dispatcher can initiate a voice message without a break in the radio transmission.

IV. Other Available Resources

A. National Warning System (NAWAS)

The national Warning System (see attachment 2) is a dedicated, open-wire telephone system that links the Wisconsin State Patrol, Wisconsin Emergency Management state and regional offices, National Weather Service offices and twenty-eight county warning centers. Non-NAWAS Counties receive relay from NAWAS equipped counties or State Patrol Districts. The National Weather Service issues watches and warnings over NAWAS in addition to broadcasts over the NOAA Weather Radio Network.

B. NOAA Weather Radio Network

NOAA weather radio is a 24-hour a day, 7 days a week continuous broadcast of weather information. Broadcasts originate from National Weather Service offices (see Attachment 3 for National Weather Service warning areas) Weather radio broadcasts provide current conditions, 5-day forecasts, and watches and warnings. Generally, each NOAA Weather Radio transmitter has a listening area of approximately 40 miles from the transmitter site. See Attachment 4 for locations of Transmitter sites. Reception of the signal varies depending on quality of the receiver, local terrain, and distance from the transmitter. Weather radios with SAME (Specific Area Message Encoding) technology can be programmed to receive watches and warnings for specific counties.

C. Emergency Alert System (EAS)

The Federal Communications Commission (FCC) as a means of notifying the public, through broadcast media and TV cable systems, that an emergency situation is occurring or imminent, established the Emergency Alert System. It is intended to alert the public with a two-minute message and tell them what media to turn to for further information. Special encoder/decoder equipment must be utilized to send and receive encoded messages. County-level EAS alerts are issued by the Emergency Management office. See ESF-5 for the county EAS plan.

D. Wisconsin Emergency Management (WEM)

WEM has some communications equipment that can be loaned. Contact the Regional Director for assistance.

- Mobile radio network (i.e., VHF repeaters, control stations, mobile and portable radios)
- Handheld radios {70 5-watt radios (30 State EOC, 18 Emergency Police Service Director, 5 each regional office except for Southwest Region)}
- Portable repeaters {2 165 lb. GE Master II. Each has either the WEM statewide or Mutual Aid Radio Channel (MARC) frequency pair. They can be used with WEM's portable tower or at pre-positioned WEM antenna sites in Seneca (Crawford County) or Wheeler (Dunn County.)}
- Separate, trailer-mounted, thirty-foot tower that may be used with either of WEM's transportable repeaters to set up a localized communications center
- Two 6.5 KW generators self-contained in a stand-alone trailer

- Mobile Command Center
 - Forty-foot trailer towed by a pickup truck
 - Mobile data terminal (no print, not computer)
 - Radios (VHF and UHF)
 - Two Facsimile machines (cellular and land line)
 - Telephone service (cellular and land line)
 - Copy machine
 - TV/VCR Satellite Dish
 - 10 KW Generator
 - Tripod Halogen lighting device
 - Computers (desktop and laptop with printer)

E. Amateur Radio

The Amateur Radio Emergency Service (ARES) is a division of the American Radio Relay League and consists of licensed amateurs who have voluntarily registered their qualifications and equipment for communications duty in the public service when disaster strikes. ARES is organized into national, section, district, and local levels, with managers or coordinators at each level. Emergency Coordinators have jurisdiction over communities, an entire county, or a group of counties.

A ham RACES (Radio Amateur Civil Emergency Service) operator is a licensed amateur who has registered with the state to make their talents and abilities available in case of emergency. The Chief Radio Officer and person responsible for RACES database is Dr. Stanley Kaplan.

F. Mitigation Activities

1. Identify areas where mutual aid agreements, private organization and non-profit organization support may assist in county communications support during an emergency.
2. Enhance communication system interoperability, redundancy, and long-term backup power capability in county and local communications systems.
3. Harden communications and warning infrastructure physical security.

G. Preparedness Activities

1. Pre-identify communications facilities, equipment, personnel, and training needs in county and local jurisdictions that could be made available to support response and recovery efforts.

2. Assess selected sites to store pre-staged communications assets for rapid deployment into the affected area.
3. Encourage and promote interoperability among county and local jurisdictions.
4. Conduct regularly scheduled communications and siren tests and drills with NWS, State Patrol communications centers, and other pre-designated emergency communications support facilities to insure operational readiness and procedural familiarity.
5. Conduct regular checks of all communications and IT equipment and systems in the EOC and associated facilities.
6. Utilize EOC communications and IT equipment as an integral part of all communications and warning systems in exercises and county EOC participation.
7. Develop plans for alternate warning systems and disseminate information to the public.

H. Response Activities

1. Receive and disseminate warning information countywide and to local jurisdictions.
2. Coordinate communications support to all governmental, private communications providers, and volunteer agencies as required.
3. Determine what assets are available and nearest to the affected area(s) by each ESF 2 support agency and mutual aid support entities and the time frame in deploying those assets.
4. Prioritize the deployment of services and equipment based on available resources and critical needs.
5. Coordinate the acquisition and deployment of communications and warning equipment, personnel, and resources to establish temporary communications capabilities within the affected area.
6. Identify the actual and planned actions of commercial communications companies to restore services.
7. Compile communication and warning system damage information obtained from assessment teams, the communications industry, the local/county emergency management director and other city and county/State agencies and report that information through ESF 5, Emergency Management.

8. Assess the need for and obtain communications industry support as required.
 9. Maintain a continuous communications capability as the county point-of-contact for emergency reporting.
- I. Recovery Activities
1. Use public, private and volunteer communications assets available to support a recovery mission. Other volunteer and local agencies with communications assets may be requested to contribute assets to the response effort.
 2. Private resources may also be considered for availability and effectiveness. Furthermore, availability, operational condition, and duration of need must be considered. The logistical requirements necessary to obtain critically needed equipment will also be evaluated.
 3. Plan and prepare the communication systems to support the establishment of staging areas, distribution sites, Joint Information Centers, and other local, State, and federal recovery facilities and emergency workers in the impacted area. ESF 2 describes the working relationship with State and Federal agencies to establish recovery communications operations.
 4. Coordinate with local and county agencies to establish recovery communications operations, as appropriate.
 5. Maintain appropriate records of work schedules and costs incurred by ESF 2 agencies during an event.
 6. Generate in a timely manner, information to be included in County EOC briefings, situation reports, and/or action plans.

V. RESPONSIBILITIES

- A. Primary Agency:
Brown County Public Safety 911 Communications Center
- a. Overall responsibility for planning and coordinating the emergency communications, warning, and information

technology programs within the county, including assistance to local jurisdictions.

- b. Coordinate and maintains a countywide communications and warning capability and provides warning of impending emergencies or disasters to affected political subdivisions.
- c. Operates and maintains the County Communications Center (identify) on a 24/7 basis.
- d. Coordinates the acquisition and deployment of additional communications equipment, personnel, and resources necessary to establish temporary communications capabilities.
- e. Work with commercial communications companies to restore communications capabilities and services.
- g. Supplements other county and local emergency communications systems requirements within capabilities.

B. Support Agencies: Brown County Sheriff's Office
Brown County Emergency Management
Amateur Radio

- 1. Assist in planning and coordinating the emergency communications, warning, and information technology systems within the county to include assistance to local jurisdictions, to develop and enhance interoperability.
- 2. Prepare & maintain the agency's warning plans, SOPs, & call lists.
- 3. Participate in training and exercises with local jurisdictions and the county as appropriate.
- 4. Develop plans to establish and maintain communications links between EOC and Field Operations based on the agency's capabilities.
- 5. Provide communications support as requested within the agency's capabilities.
- 6. Identify critical communications equipment and personnel to ensure agency primary responsibilities are met.
- 7. Identify non-critical communication assets that could be used to support response and recovery operations.
- 8. Assist in developing a phased plan for the use the agency's non-

critical assets to identify personnel, equipment, and duration of assistance.

9. Work with other agencies to develop and maintain comprehensive reference with equipment type and common frequencies.
10. Work with other agencies to develop common communications protocols and terminology.

C. Communications Service Providers

Provide technical support and repair/replacement of communications systems to local jurisdictions.

D. Volunteer Agencies

- Amateur Radio Groups
- Radio Amateur Civil Emergency Services (RACES)
- Civil Air Patrol

VI. RESOURCE REQUIREMENTS

EOC Phone Extensions:		
Emergency Management	Lauri Maki Sam Martin	391-7401 391-7431
Mayor/Executive	Eric Genrich/ Troy Streckenbach	
Emergency Medical Services	Dustin Ridings	
Public Information Officer (PIO)	Nick Craig/Chad Weininger	
Law Enforcement	Todd Delain	
Fire	David Litton	
Port/Schools	Dean Haen/ Mike Stangel	
Hazmat	Rob Goplin	
Public Works/Highway Dept	Paul Fontecchio	
Hospitals/Health Dept.	Steve Pelch/ Chua Xiong	
Red Cross/Human Services	Bob Mayer	
GIS Mapping (city)	Mike Hronek	
GIS Mapping (county)	Jeff Dumez	
Fax		

VII. REFERENCES (located in EOC)

Brown County EOC Amateur Radio equipment: 1 Kenwood 2m. fm transceiver
The SOP for transmission of warning messages on NOAA Weather Radio

Procedures and Guidelines for Using NOAA Weather Radio for Civil Emergencies

VIII. APPENDICES

- Appendix 1 Brown County Communications Systems
- Appendix 2 State of Wisconsin Communications System
- Appendix 3 State Emergency Alert System
- Appendix 4 NOAA National Weather Service Radio Network

Appendix 1 Brown County Communication Systems

Brown County System Frequencies

Appendix 2

State of Wisconsin Communications System

A. Telephone Systems

1. WEM 24-hour Hotline ()

WEM operates a dedicated 24-hour hotline system for single-point of contact notification for both emergency information and hazardous materials incidents. During normal working hours (M-F 8AM to 4:30PM) the hotline is answered in WEM HQ Office in Madison. After normal working hours and on holidays, the hotline is answered by State Warning Center I, which is located at District 1, Wisconsin State Patrol. All after-hours calls are referred to the WEM Duty Officer for disposition.

The 24-hour hotline system utilizes the standard phone system on a PBX. Thus, if the phone system or associated equipment fails, the hotline is not operable.

Specific operational information and procedures are located in the “Emergency Operating Center (EOC) Communications Equipment and Operating Procedures” manual located in the State EOC.

2. State Patrol microwave telephone

A microwave telephone (red phone) is located in all Wisconsin State Patrol (WSP) District Offices, WEM Regional Offices and the State EOC. It is primarily, a communications device for the WSP but is available for WEM use. It is operated and maintained by the WSP and provides a link for WEM to contact the counties if there are commercial phone line problems.

Specific operational information, procedures and phone numbers are located in the “Emergency Operating Center Communications Equipment and Operating Procedures” manual located in the State EOC.

3. NAWAS (National Warning System, intra-state landline-voice)

The National Warning System (NAWAS) is used primarily for disseminating warnings concerning possible threats of an attack to the nation and is the primary means of disseminating this information to state and local jurisdiction officials within the state. The federal government has permitted and encourages each state to employ NAWAS for disseminating warnings concerning the above hazards.

For Wisconsin, the Warning Center I is operated 24-hours a day by Wisconsin Emergency Management (WEM) and the Wisconsin State Patrol (WSP) Communications Center. Wisconsin State Patrol District 1 is the Primary Warning Point (Wisconsin Warning Center 1) and WEM as the

Alternate Warning Point (Wisconsin Warning Center 2).

The state portion of the NAWAS consists of the WEM Headquarters, seven State Patrol District headquarters, five National Weather Service offices and 28 primary county warning points (normally, located in the county 911 centers). Warnings to the 44 non-NAWAS counties are done using the most expedient method by the NAWAS counties.

Specific operational information and procedures are located in the “Emergency Operating Center Communications Equipment and Operating Procedures” manual located in the State EOC.

4. Private and leased lines

a) Dial-Select System

The Dial Select System is a dedicated party line system used by Point Beach and Kewaunee Nuclear Power Plants and is the primary means for notification and communication between the Manitowoc and Kewaunee County’s and State EOC.

The priorities for the Dial Select System are:

1. Siren Activation
2. Event Notification/Protection Action Recommendation Upgrade
3. Status Update
4. General Information/Coordination

Dial-Select phones (beige, in color) are located in the EOC communications room and at the reception desk. There are also active jacks in the EOC at the Operations Officer area and in so phones can be hooked up if needed.

b) City Watch System

The City Watch System, a computer-generated call system using commercial phone lines, is used by the Prairie Island Nuclear Generating Plant to notify the State of Minnesota, State of Wisconsin, Pierce County, and affected Minnesota counties of an incident. For this system, NAWAS is used as the backup notification system.

The City Watch System uses a two-step process to notify:

1. Incident notification is faxed to all recipients (for Wisconsin this includes the State EOC; Reception desk; State Patrol District 1 and Pierce County).

2. A conference call is made by the plant communicator to all FAX recipients to confirm the Notification Form was received. If the form was received, recipient can hang up; if form was not received, recipient gets information from plant communicator.

The City Watch phones (black, in color) are located in the EOC communications room and at the reception desk. There are also active jacks in the EOC at the Operations Officer area and (SRC) so phones can be hooked up if needed.

Specific operational information and procedures for both phone systems are located in the "Emergency Operating Center Communications Equipment and Operating Procedures" manual located in the State EOC.

5. Commercial telephone system

The Wisconsin EOC has operational lines for emergency use and jacks for installing 8 additional lines in including Dial-select and City Watch. Several critical phones lines are on the Cellular Locater Automatic Routing (CLAR) system, which allows them to be forwarded to cell phones.

The phone system is maintained by DMA (internal) and SBC (external).

Specific operational information and procedures for both phone systems are located in the "Emergency Operating Center Communications Equipment and Operating Procedures" manual located in the State EOC.

6. Facsimile

WEM uses a number of facsimile machines programmed for transmitting to individual counties/agencies or pre-designated groups.

EOC incoming facsimile machines are programmed to search for next available machine, thus, if the machine that is dialed into is busy, the message is forwarded to the next machine, and so on, until a machine can accept the transmission.

Specific operational information and procedures for the facsimile system is located in the "Emergency Operating Center Communications Equipment and Operating Procedures" manual located in the State EOC.

7. Cellular Phones

WEM currently has cellular phones assigned to a majority of the WEM staff.

8. Satellite Phones

WEM has acquired 10 satellite telephones. A SAT phone is assigned to each WEM Regional Director, the Emergency Police Services Deputy Director, WEM Central Headquarters and the Mobile Command Center (MCC) and ACU-1000 trailers. All SAT phones have ground cellular embedded as secondary call capability.

B. Communications Systems

1. WEM Local Government Radio

County government radio systems can vary by frequency, sub-audible tones and in some cases encryption usage. To enhance state access to local governments, WEM and State Patrol can reach the county sheriffs office via radio from the closest State Patrol District Headquarters, using a “point-to-point” frequency MHz, monitored by all counties. In addition, WEM has seven permanently installed VHF repeaters statewide and two portable repeaters for emergency communications and one or more system combinations could be set up for communications in an emergency. State Patrol vehicles are equipped with multi-channel VHF Hi-Band Mobile radios for communicating with District Headquarters and other vehicles.

2. State Patrol Radio

The State Patrol Radio system is operated by the Wisconsin Division of State Patrol and includes high-band base-to-mobile communications. WEM can access the system through telephone communication to Warning Center 1 (District #1, DeForest). The system offers statewide coverage, although dispatching occurs on a district basis through each State Patrol District Office.

3. Secure Video Teleconference Communications

Secure Video Teleconference Communications equipment, including the Secure Telephone (STU-III), is located primarily for secure communication with the other states and the Department of Homeland Security. Special security clearance is necessary for access to this equipment or its use.

4. Emergency Alert System (EAS) Relay Network (Public Safety radio and the broadcast industry).

WEM has access to the statewide Wisconsin Emergency Alert System (EAS). Emergency broadcasts can be made from WEM and originate over the stations of the State Educational FM radio network. Commercial radio stations have the option to pick up and rebroadcast EAS messages from the State system. This system is tested regularly.

While these systems would be available in any event, they generally are not used. County emergency management works out individual agreements with commercial radio (FM & AM) stations serving the affected area. While the system is statewide there are many areas that are not covered by the EAS.

5. Amateur Radio System: (which includes: RACES (Radio Amateur Civil Emergency Services), ARES (Amateur Radio Emergency Services).

In Wisconsin, the Amateur Radio System consists of volunteer amateur radio operators who have agreed to participate in emergency situations and has statewide coverage with over 1200 operators. Amateur radio is used as a back up to other systems or as a supplement to state or local communications and is activated on an informal fan-out from the Ham Shack located in the State EOC.

Primarily, Amateur Radio utilizes either high frequency single side-band voice devices used primarily for point-to-point, or VHF mobile and hand-held portables operated through repeaters for local communication. High-frequency elements are tested twice a-week and VHF elements are used regularly.

6. Federal Emergency Management Agency National Radio System (FNARS), a high frequency radio system.

A FEMA high frequency radio is located at WEM EOC. The FNARS radio has voice capability for long distance common telephone, as well.

7. Mobile Command Center and associated equipment.

The Mobile Command Center is intended to provide local communications capability in the event of an emergency or disaster. It can be operated as a stand-alone communications center, thus allowing the county 911 center to operate normally during disaster events.

The Mobile Command Center and ACU Trailer are both equipped with ACU-1000 radio interconnect devices. The ACU-1000 technology allows for the cross connect of dissimilar public safety radio systems on a short notice. The permanently installed radios cover the 150-160 MHz bands and 800MHz conventional and trunked systems. It is also able to cross connect cell phones to public safety radio. In support of those units are a mobile tower system and mobile repeaters.

The WEM Central Office has 30 Motorola MT-1000 radios (with chargers and batteries). Emergency Police Services Deputy Director has 11 Motorola MT-1000 radios in his vehicle, and each WEM Regional Director has 5 Motorola MT-1000 radios at his/her office location.

Any Sheriff or Police Chief through the Regional Director of Emergency Management can request these radios in an emergency by calling .

The Division Administrator, Deputy Administrator, the Deputy Director of Emergency Police Services, the Communications and Warning Officer, or Wisconsin Emergency Management Line of Succession can give permission for the radios to be committed. In an emergency, that person will also arrange for delivery to the scene. In non-emergency requests, it will be the responsibility of the requesting agency for pick-up and return of the radios.

All radios must be inventoried through the WEM Communications and Warning Officer. The requesting party must sign for them. Damaged or lost radios are the responsibility of the requesting agency. Inventory forms are in the cabinet with the radios.

8. Other Radio Systems

WEM can call upon independent radio systems operated by the DNR, Civil Air Patrol, the Wisconsin National Guard, and the American Red Cross, if needed.

C. Computer Systems

1. National Weather Service Emergency Management Weather Information Network (EMWIN) weather data system.

EMWIN captures all national Weather Service text data pertinent to Wisconsin. The system provides a "hard copy" of weather information on demand.

2. Department of Justice's (DOJ), Transaction of Information for Management of Enforcement (TIME) System.

The TIME System is operated by the Wisconsin Department of Justice and consists of a central computer facility; terminals located at WEM and approximately 2850 other outlets in Wisconsin law enforcement agencies (city police, county sheriffs, State Patrol, and FBI). It operates statewide over dedicated telephone lines and is used primarily to transmit law enforcement information. TIME is used by WEM during an emergency to transmit and receive hard copy administrative traffic. TIME provides automated severe weather alerts (tornado watch/warning, severe thunderstorm watch/warning and FEMA flood watch/warning) to counties.

D. The DHS/FEMA communications capabilities presently available are:

Mobile Emergency Response Support (MERS) and Mobile Air Transportable Telecommunications System (MATTS)

The MERS and MATTS are communications support elements that can be driven or airlifted to a disaster location. They provide mobile telecommunications, operational support, life support and power generation assets for the on-site management of disaster and all-hazard activities. The MERS and MATTS support local, state, and federal responders.

Appendix 3
State Emergency Alert System

Appendix 4 NOAA National Weather Service Radio Network

