



EF 2 – Communication

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Tasked Agencies	
Primary County Agency(s)	Sheriff's Office
Supporting County Agency(s)	California Department of Forestry and Fire Protection (CAL FIRE), Health and Human Services Department
Primary City Agency(s)	*Sheriff's Office
Supporting City Agency(s)	Fire Department, Police Department
Community Partner(s)	Amateur Radio Emergency Services
State Agency(s)	California Governor's Office of Emergency Services – Public Safety Communications Office
Federal Agency(s)	Department of Homeland Security

1 Introduction

1.1 Purpose

Emergency Function (EF) 2 describes how the County and City will provide for, support, and enhance the requisite technology (hardware and software) for emergency communications systems; alert, warning, and notification systems; and redundant communications systems during all phases of the emergency management cycle, including response and recovery operations.

Operational priorities for EF 2 include:

- Maintain situational awareness and provide situational updates up the chain of command to develop a common operating procedure.
- Establish and maintain interoperable communications capacity to support response operations by all response partners.
- Restore and maintain service on critical communications networks.

Preparedness, response, recovery, and mitigation activities that may be conducted to complete these priorities are listed in Appendix B.

1.2 Scope

This function emphasizes the technical considerations of communication functions. Collection, control, and dissemination of emergency public information are covered by EF 15 – Public Information.

The following activities are within the scope of EF 2:

- Maintain a reliable alert, warning, and notification system.
- Establish and maintain an effective communications system, including owned and commercially leased systems, for use in a disaster.
- Coordinate the provision of redundant and temporary communications as required. Impacts to cellular services, external internet connectivity, local phone services, etc. are dependent upon the vendor services utilizes.

- Monitor and report on the overall status of the communications infrastructure during a disaster.
- Maintain critical information technology infrastructure, including, but not limited to, the provision of cybersecurity measures. *See EF 18 – Cybersecurity for more information.*

1.3 Policies and Authorities

1.3.1 Policies

The following communication-related policies are currently in place:

- The National Warning System (NAWAS) is the primary method of communicating alert and warning messages from national authorities to state authorities and between state authorities and local authorities or warning points.
- The Emergency Alert System (EAS) is the primary method of communicating alert and warning messages to the public.

1.3.2 Agreements

The following agreements are currently in place:

- The Lassen County Sheriff's Office serves as the public safety answering point for all 9-1-1 calls within the County, which are then dispatched to the appropriate agency.
- Firenet Lassen provides fire and emergency medical services dispatching via a contract with CAL FIRE through the Susanville Interagency Fire Center.
- Amateur radio operators are available to augment City and County communications. In addition, the County Health and Social Services Agency maintains trained operators and equipment.

2 Situation and Assumptions

2.1 Situation

The area is faced with a number of hazards that may require communications support. The following considerations should be taken into account when planning for and implementing activities:

- For the purposes of this document, “communication” is defined as the transference of information, and may involve the representation, transfer, interpretation, and processing of data among persons, places, and machines. The term may also refer to the transmission, emission, or reception of signs, signals, writing, images, and sounds or intelligence of any nature by wire, radio, optical, or other electromagnetic system.
- An emergency can disrupt or even destroy communications systems by damaging antennas, repeaters, power supplies, or other components. During hazardous conditions, access to, and functionality of, communications equipment and infrastructure may be limited and prevent the timely restoration of services.
- The distribution of accurate and timely information is a critical component of any effective emergency response.

- A large-scale incident may result in a surge of user requests for utilization access to the local telecommunications infrastructure (e.g., jammed cell and landline phone switches, high-speed internet bandwidth degradation, etc.).
- During emergencies, heavy demand for communication services can quickly exceed the capacity of existing systems, limiting user access or shutting them down entirely.
- Response agencies often maintain and operate their own radio systems and may use different frequencies, potentially hindering timely and effective response/coordination unless interoperable communication systems are in place.
- Protection/restoration of emergency communications is one of the highest priorities in an emergency. Priority communications include emergency 9-1-1 calls and dispatch; interoperable communications among responders and supporting agencies; Emergency Operations Center (EOC) contact with field units; and communication with the public and media.

2.2 Assumptions

EF 2 is based on the following planning assumptions:

- Local jurisdictions will require accurate and timely information on which to base their decisions and focus their response actions.
- Routine, day-to-day modes of communication will continue to be utilized to the degree that they survive the disaster.
- There are identified frequencies that will be used for primary direction and control.
- Normal forms of communication may be severely interrupted during the early phases of an emergency or disaster and may reduce or eliminate the effectiveness of the EOC public information lines, as well as the majority of departments.
- The management and logistics of communications support is highly situational and requires flexibility, adaptability, and redundancy of systems.
- Significant incidents may require evacuation of significant numbers of affected populations. Such evacuations may require extensive coordination of inter- and intra-jurisdiction communications and may exceed normal radio communication capabilities.
- In the event of an emergency or disaster that damages the digital radio system, a backup analog system may be utilized.
- Local amateur radio operators have the ability to set up field communications to support or augment public safety operations, as appropriate. One use of this amateur radio system may be for providing communications between the EOC and Red Cross shelters.
- At a time when the need for real-time electronically processed information is greatest, the capability to produce it may be seriously restricted or nonexistent due to widespread damage to communications and power systems facilities.
- If electronic emergency information systems are not available, paper logs may be used to record events, communications and messages, damage assessments, situation reports, resources utilized, staff hours expended, etc.

3 Roles and Responsibilities

See Appendix B for a checklist of responsibilities by phase of emergency management.

4 Concept of Operations

4.1 General

When communication-related activities are staffed in the EOC, the communication representative will be responsible for the following:

- Serve as a liaison with supporting agencies and community partners.
- Provide a primary entry point for situational information related to communication.
- Share situation status updates related to communication to inform development of Situation Reports.
- Participate in, and provide communication-specific reports for, EOC briefings.
- Assist in development and communication of communication-related actions to tasked agencies.
- Monitor ongoing communication-related actions.
- Share communication-related information with the Public Information Officer to ensure consistent public messaging.
- Coordinate communication-related staffing to ensure that the function can be staffed across operational periods.

4.2 Warning Systems

4.2.1 Emergency Notifications

- 9-1-1 calls may be answered by the Sheriff's Office and transferred to the appropriate responding agency for both City and County departments.
- Emergency messages may be received via radio or telephone and will be distributed according to departmental procedures.
- The EOC becomes the primary coordination point for incident response, amateur radio, and satellite telephone communications.

4.2.2 Employee Notification

Employees are notified using:

- Phone-based systems—group voice mail, paging networks, faxes, employee information line, and communication notification technology
- Computer network systems
- Department notification procedures—each department is responsible for establishing and maintaining internal emergency communications
- Instant messaging/texting
- Web pages
- Social media

4.2.3 Public Notification

4.2.3.1 CodeRED

CodeRED is a reverse call emergency notification system utilized to inform residents and business owners of local emergencies that may impact them. Notifications can be made to both landlines and wireless services.

4.2.3.2 Emergency Alert System

The EAS is used when a life-threatening hazard requires immediate protective action, with participating broadcast stations and cable operators transmitting the emergency alert over their networks. EAS messages may not exceed two minutes and are designed to provide a brief, initial warning to be followed by more detailed information.

Residents are encouraged to monitor local radio and television broadcasts for emergency information. The North American Oceanic and Atmospheric Administration Weather Alert Net also provides effective emergency warning for weather-related hazards.

4.2.3.3 National Warning System

NAWAS is a government-to-government warning system that connects the National Warning Center at Colorado Springs to each state and, in turn, to the designated warning points in each county.

4.3 Response Systems

A variety of emergency response communications systems are used, including the following:

- Cellular and landline telephones, pagers, voicemail, and fax.
- Computer networks, Intranet, Internet, and email.
- Radio voice and data nets (very high frequency [VHF], 800 megahertz [MHz], mobile data communications, and both alpha-numeric and two-way pagers).
- Satellite phones and amateur radio expand field and EOC communications capabilities.
- Instant messaging/texting.
- Most marked police vehicles and most fire vehicles are equipped with mobile or hand-held public address systems that may be used for alert and warning.
- Door-to-door alert may be necessary in the event of a rapidly emerging incident that poses a clear threat to public safety. Residents will be directed to temporary areas of safety such as a shelter depending on the weather and the expected duration of the emergency.

4.3.1 Amateur Radio Emergency Services

HAM radio is a critical element of emergency communications, particularly since other communications systems may be unavailable or overloaded in an emergency. Amateur radio volunteers are federally licensed and registered as emergency service workers and provide emergency voice and data communications.

Amateur radio operators provide a robust, reliable communication network until usual communications channels and services can be restored.

4.4 Interoperability

Interoperability is the ability of public and private agencies, departments, and other organizations to operate and communicate effectively together through the use of systems, personnel, and equipment. In recognition that successful emergency management and incident response operations require the continuous flow of critical information among jurisdictions, disciplines, organizations, and agencies, interoperability plans or procedures should be developed that include training and exercises, standard operating procedures, new technology, and considerations of individual agency governance, as well as consideration of use within a stressful and often chaotic context of a major response. Interoperable voice, data, or video-on-demand communications systems allow emergency management/response personnel to communicate within and across agencies and jurisdictions in real time, when needed, and when authorized.

The core emergency communications system is an ultra high frequency (UHF) and VHF radio system; the following should be noted:

- Interoperability remains a challenge, as many agencies utilize their own systems for communications.
- Amateur radio operators are available to assist in augmenting communications.

4.5 Access and Functional Needs Populations

Access and Functional Needs Populations may require targeted outreach to be communicated with following an incident. The City and County's Public Information Officer and Joint Information Center will ensure that public messaging and communications are accessible to these populations through targeted tactics such as:

- Provide sign language interpreters for individuals who are deaf or hard of hearing, as available (use of signage if personnel are unavailable).
- Provide alternatives to signage for individuals who are blind or have poor vision (braille, support personnel, recordings).
- Provide translation services for persons with limited English proficiency or for non-English-speaking individuals.

4.6 Coordination with Other EFs

The following EFs support communication-related activities:

- **All EFs:** Support interoperable and redundant communications systems to ensure that responding agencies can communicate with each other and the EOC.

5 Annex Development and Maintenance

The Sheriff's Office is responsible for coordinating regular review and maintenance of this annex. Each primary and supporting agency will be responsible for developing plans and procedures that address assigned tasks as well as testing equipment, backup EOC sites, and overall coordination of technical and communication requirements with the EOC and Dispatch Center.

6 Appendices

- Appendix A – EF 2 Resources
- Appendix B – Roles and Responsibilities

Appendix A EF 2 Resources

The following resources provide additional information regarding EF 2 and communications-related issues at the local, state, and federal level:

City

- None at this time

County

- Tactical Interoperable Communications Plan
- Susanville Interagency Fire Center Radio Call Plan

State

- California Emergency Plan: EF 2 – Communications and EF 15 – Public Information
- California Statewide Communications Interoperability Plan

Federal

- National Response Framework
- National Emergency Communications Plan
- Executive Order 13636, Improving Critical Infrastructure Cybersecurity

Appendix B Roles and Responsibilities

The following checklist identifies key roles and responsibilities for EF 2 – Communications. It is broken out by phase of emergency management to inform tasked agencies of what activities they might be expected to perform before, during, and after an emergency to support all tasked agencies should maintain agency-specific plans and procedures that allow them to effectively accomplish these tasks.

Preparedness

Preparedness activities take place **before** an emergency occurs and include plans or preparations made to save lives and help response and recovery operations. Preparedness roles and responsibilities for EF 2 include the following:

- Develop plans and procedures for EF 2 activities, as appropriate.
- Participate in EF 2–related trainings and exercises as appropriate.
- Maintain interoperable and redundant communications equipment.
- Develop plans, procedures, and protocols for communications in accordance with the National Incident Management System (NIMS), Standardized Emergency Management System (SEMS), State of California, and local ordinances, and existing agreements.
- Ensure that redundant communications systems are available.
- Coordinate common communications procedures.
- Develop and test emergency procedures.
- Develop written mutual aid agreements as needed to ensure coordination within the Operational Area.
- Develop and/or review procedures for requesting additional crisis resources.
- Review departmental plans and procedures and maintain personnel call-up lists.
- Develop and conduct training to improve all-hazard incident management capability for response communications.
- Develop exercises and drills of sufficient intensity to challenge management and operations and to test the knowledge, skills, and abilities of individuals and organizations for response communications.
- Participate in emergency management training and exercises.
- Develop and maintain a communications resource inventory.
- Coordinate regular review and update of this annex with supporting agencies.
- Facilitate collaborative planning to ensure the capability to support EF 2 activities.
- Coordinate with telephone service providers.
- Evaluate and recommend improvements to EOC communications capability.

Response

Response activities take place **during** an emergency and include actions taken to save lives and prevent further property damage in an emergency situation. Response roles and responsibilities for EF 2 include the following:

- Provide situational updates to the City and County EOC as required to maintain situational awareness and foster a common operating picture.

- Provide a representative to the County EOC, when requested, to support EF 2 activities.
- Use established common response communications language (i.e., plain English) to ensure that information dissemination is timely, clear, acknowledged, and understood by all receivers.
- Monitor the status of the County's communication infrastructure during or following any disaster.
- Coordinate and assign resources necessary to respond to an incident that impacts the communications infrastructure.
- Establish or confirm communications methods.
- When necessary, coordinate provision of a temporary or interim communications capability as required.
- Implement incident communications interoperability plans and protocols.
- Communicate incident response information.
- Request external resources using mutual aid processes.
- Ensure that all critical communications networks are functioning.
- Establish and maintain response communications systems on site.
- Maintain existing equipment and follow established procedures for communicating with organization personnel performing field operations.
- Implement procedures for inspecting and protecting communications equipment.
- Arrange for emergency communications equipment repair service 24 hours/day.
- Ensure that redundant communications are available for use in the event that the equipment is out of service.
- Establish and ensure radio connectivity between the Incident Command Post and the EOC. Keep the EOC informed of field operations as much as possible.
- Ensure that adequate dispatchers are staffed to handle radio communications for the incident.

Amateur Radio Services

- Augment communications capabilities through use of amateur radio operators and systems.
- Develop and maintain an Emergency Communications Plan.
- Provide trained personnel and equipment.

Recovery

Recovery activities take place **after** an emergency occurs and include actions to return to a normal or an even safer situation following an emergency. Recovery roles and responsibilities for EF 2 include the following:

- Demobilize response activities.
- Maintain incident documentation to support public and individual assistance processes.
- Prepare to support recovery operations by identifying community needs.
- Demobilize, as appropriate.
- Continue to perform tasks necessary to expedite restoration and recovery operations.
- Clean, repair, and perform maintenance on all equipment before returning to normal operations or storage.

- Compile and keep all documentation collected relating to the management of communication equipment and software.
- Coordinate all after-action activities and implement corrective actions as appropriate.

Mitigation

Mitigation activities take place **before and after** an emergency occurs and include activities that prevent an emergency, reduce the chance of an emergency happening, or reduce the damaging effects of unavoidable emergencies. Mitigation roles and responsibilities for EF 2 include:

- Participate in the hazard/vulnerability identification and analysis process.
- Take steps to correct deficiencies identified during the hazard/ vulnerability identification and analysis process as appropriate.
- Test all communications and warning equipment to ensure that it is operating.
- Develop and maintain back-up systems, including back-up power ability.
- Attempt to construct/place new equipment away from possible hazards.
- Ensure that methods are in place to protect communications equipment, including cyber and telecommunications resources.

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