

**ANNEX B**  
**STATE EMERGENCY FUNCTION (SEF) #2**  
**COMMUNICATIONS AND WARNING**

**LEAD AGENCY:** Colorado Office of Emergency Management (COEM)

**SUPPORT AGENCIES:** Division of Information & Technology, General Support Services, Department of Personnel, Colorado State Patrol and Colorado Bureau of Investigation Department of Public Safety, Colorado Department of Military Affairs, Colorado Department of Natural Resources, Colorado Department of Corrections, Radio Amateur Civil Emergency Services (RACES), Amateur Radio Emergency Services (ARES), and the EOC Communications Support Group.

**I. PURPOSE**

The purpose of this annex is two fold. First, to provide emergency telecommunications and telecommunications support for use in disaster or emergency situations; and second, to provide for the receipt and disseminations of emergency notifications that include but are not limited to Homeland Security Alert Levels, enemy attack, natural and technological disasters, hazardous materials incidents, nuclear fallout and any other large scale emergencies or alerts that will affect the state and local governments of Colorado, and hence, the populace and private organizations in potentially affected areas in keeping with all existing references, laws and guidelines.

**II. SCOPE**

The scope of this annex is to describe the overall communications and warning systems that will be employed by the Colorado State Emergency Operations Center (SEOC) prior to, during and after a disaster or emergency situation. These systems will be used in support of the operations of the SEOC, local governments and the response community and include, but are not limited to radio communications, land line, cellular, secure, and special telephonic communications, computer internet and modem communications and the Emergency Alert System (EAS) that coordinates all broadcast and cable mediums. Each of these systems will be described later in greater detail.

**III. SITUATION**

Communications and warning systems are an integral part in the successful completion of any emergency or disaster type situation. This communication and warning annex is developed as an integral part of the Colorado State Emergency Operations Plan (SEOP), but it is also designed to be a stand alone plan with which other state agencies and local government jurisdictions may base their communications and warning plans upon. This annex describes the systems which will be used for communications and for alerting public officials and the general public to impending emergencies or disaster situations that require prompt action to save lives, prevent injuries, and safeguard property. This annex is issued for the guidance of all levels of government within the State of Colorado and is applicable statewide. It is the policy of the state that all available resources for emergencies are ready for immediate use at any time, therefore, this annex provides for the routine use of state telecommunications and warning resources to augment local resources for any multi-agency response as a means of testing and exercising such equipment and systems.

#### **IV. PLANNING ASSUMPTIONS**

It is assumed that all incidents, to include training exercises and exercise support, no matter what the cause, have the potential for escalation into an emergency or disaster situation that will require support of the SEOC and all of its inherent communications and warning systems will be required until determined differently.

#### **V. CONCEPT OF OPERATIONS**

As defined, communications will be a separate and distinct system from warning. Each of these systems will be defined and detailed separately.

#### **COMMUNICATIONS**

- A. General - A prime requirement of all organizations engaged in disaster and emergency operations is effective comprehensive telecommunications with all of the involved and potentially involved elements. The magnitude of a particular situation determines the extent of the emergency response and the need for communications. The degree to which and the type of telecommunications systems that are utilized is directly related to the scope of the incident.
- B. In a disaster or emergency all available telecommunications will be used to the extent necessary to achieve a coordinated response. A description of each the systems available to support emergency operations is contained in an appendix to this annex.
- C. Voice communications is necessary to the command and control of response and support forces. However, the more information such as damage reports and resource lists which can be transmitted by other means such as facsimiles and computer interface, reduces the impact on telecommunications and increases the amount of information available to decision makers.
- D. The linkages required in a disaster emergency can be grouped as follows:
  - 1. Warning and Notification Systems
  - 2. Inter- and Intra-jurisdictional communications at all levels
  - 3. Communications to subordinate, adjacent and superior jurisdictions
- E. It is recognized that some telecommunications elements of the emergency or disaster response organization will of necessity be established before the activation of any plans. Recognizing the emergent nature of the telecommunications system, no pre-ordained or pre-set formal structure is desirable. However, the following guidelines will be used:
  - 1. The incident communications officer will be designated by the incident commander as soon as practical, if not pre-designated.
  - 2. Multiple, independent link systems (such as landline, cellular, and satellite telephones) should be used whenever possible in preference to common link systems such as radio communications.

3. Hard copy telecommunications (Such as facsimile and computer generated) will be used whenever possible for emergency nature operational traffic.
  4. The Incident Communications Officer will establish net discipline on all nets and frequencies being used as soon as possible.
  5. The Incident Communications Officer may move activities between available circuits/ nets in order to maximize efficiency. In making such decisions the Communications Officer should take into account availability of resources, difficulties of transition and potential administrative alternatives.
- F. A fully equipped mobile communications van, five (5) portable VHF/UHF packages and two (2) HF portable packages designed for the replacement of base station or communications centers and or use at forward command posts or locations in the field are available through the Colorado State Patrol.
- G. Should landline or cellular telephonic communications become overtaxed with system overload, access to the Federal Government Emergency Telephone System (GETS) is also available through the Office of Emergency Management (COEM) and cellular priority access system (CPAS) when available from cellular vendors.

## **WARNING**

- A. General
1. In order to pass warning promptly, a fanout system is utilized. At the state level, this fanout system is based primarily upon three (3) separate elements, one, the National Warning System (NAWAS) two, the Colorado Crime Information Center (CCIC) System and three, the Emergency Alert System (EAS). These three elements are the backbone of the Colorado warning system. Other resources will be utilized as required including email.
  2. The Colorado warning structure consists of warning points at the national, state, county and municipal level, as well as specialized facility warning points. These points compose the Colorado elements of the National Warning System for subordinate and adjacent jurisdictions as well as notification.
  3. Warnings to the county, area, state, regional and national warning points may originate at any point having knowledge of an imminent threat to life or property and access to the system. The original source of these warnings may be spotter networks, law enforcement, fire, or state agencies or federal agencies such as the National Weather Service.
  4. All available communications will be used to verify and disseminate warnings. Specific operational warning procedures are detailed in the operational appendices.
  5. Redundant warning messages via NAWAS, CCIC and EAS are intended as a means of assuring warning delivery.

6. Many types of incidents may occur requiring warning actions, may include but are not limited to hazardous materials incidents, severe weather, attack warnings, civil disturbances and others. The origination of these warnings may be virtually any source. Because of their closed and secure nature, traffic via NAWAS and CCIC may be assumed to be valid. Other reports and warnings should be validated if time and situation allow.

## **VI. ORGANIZATION AND RESPONSIBILITIES**

### **COMMUNICATIONS**

#### **A. Organization**

1. Federal Emergency Management Agency (FEMA) - FEMA is the designated federal lead agency for federal emergency management and disaster assistance for information and planning (ESF 5). FEMA operates the Federal National Alert Radio (FNARS) which is available for state use. Additionally, FEMA Region VIII has a number of portable radios and the Mobile Emergency Response System (MERS) which may be used to augment state communication resources.
2. Federal Communications Commission (FCC) - The FCC has only limited telecommunications resources, but may be utilized to declare communications emergencies, limiting use of telecommunications in certain areas, as well as being the contact point for Special Temporary Authorization (SEA) which will allow the state and local governments to operate for the duration of an emergency or disaster, in ways normally precluded by FCC regulations. They also are available for technical assistance.
3. Department of Defense (DOD) - DOD is the single largest user of telecommunications within the federal government. DOD installations throughout Colorado have a plethora of telecommunications assets, as well as personnel, that may be utilized for local emergencies when a national defense emergency is not also in progress. DOD also is the proponent agency for the DSN network which allows access to DOD facilities nation wide.
4. National Aeronautic and Space Administration (NASA) - NASA has available a wide range of satellite telecommunications systems which should function in virtually any disaster area regardless of the geographical constraints of local terrain.
5. General Services Administration (GSA) - GSA is the designated manager of most federal civilian telecommunications resources. The GSA administers the Federal Telephone System (FTS) as well as data and radio systems.
6. The National Weather Service (NWS) - The NWS has two statewide data systems which are used in their everyday activities. The systems allow

written one way traffic. One is restricted to NWS facilities only. However, with access to CCIC and to NAWAS the NWS can be used for redundancies in communications.

7. United States Forest Service (USFS) - The USFS has a large network of repeater bases and mobiles, many of which are currently networked with the State Forest Service, Sheriffs Departments and Colorado State Patrol Dispatch Centers throughout the state.
8. Department of Interior (DOI) - DOI has two (2) agencies, the Bureau of Land Management and the Bureau of Indian Affairs which together have a system similar to the USFS listed earlier. The National Park Service has extensive telecommunications facilities within the limited boundaries of its own jurisdictions. Additionally, the Bureau of Reclamation has limited telecommunications resources.
9. Department of Justice (DOJ) - DOJ relies primarily on the radio systems of the Federal Bureau of Investigation (FBI) and the Drug Enforcement Agency (DEA) composed of repeaters and mobiles in certain areas of the state. Because of the restricted nature of these DOJ systems, they are not considered a viable resource for other than national security emergencies.
10. Colorado Department of Public Safety (DPS)
  - a) Colorado State Patrol (CSP) - CSP has an extensive network of bases, mobiles and communication centers. The CSP has in place dispatch personnel to interface with many sheriffs offices, police departments, fire departments, and emergency medical service agencies, particularly in rural areas of the state.
  - b) Colorado Bureau of Investigation (CBI) - CBI has limited coverage base radio systems and a few mobiles, and maintains the Colorado Crime Information Center (CCIC) system which allows virtually instantaneous written messages to be transmitted to and from virtually every public safety, dispatch center, and most law enforcement agencies in the state. A similar capability with bordering state jurisdictions is also maintained. The CCIC system also interfaces with the National Crime Information Center (NCIC).
11. Colorado Department of Local Affairs (DOLA)
  - a) Office of Emergency Management (COEM) - COEM's low band radio net currently covers the front range and several south and southeast areas of the state. The system is a dynamic system that is continually being expanded to cover more areas of the states. COEM also has access to a local government frequency and mobile communications van, and has several portable packages and a protected comprehensive coverage backup communications center that includes internal and external 800 MHz and standard low band bases and mobiles. COEM is also connected to the state microwave system as well as the DOD

DSN system, and with the cooperation of FEMA can have access to the FTS.

12. Colorado Department of Military Affairs (DOMA)
  - a) Air National Guard (ANG) - The ANG has a metro Denver area VHF repeater system as well as a large number of HF and low band airmobiles. Additionally, ANG has a mobile communications van and can offer service facilities and technicians.
  - b) Army National Guard (ARNG) - The ARNG has HF facilities at each armory as well as mobile HF and low band units. The ARNG also has service facilities, communications and signal units and technicians.
  - c) DOMA maintains the state's alternate emergency operations center which has similar communications capabilities as the current state emergency operations center.
  - d) Civil Air Patrol (CAP) - the CAP has an extensive network of volunteer run repeaters, base stations and HF and VHF mobiles and airmobiles located throughout the state, as well as a large cadre of qualified amateur radio operators. CCOEM has a station on the CAP network.
13. Colorado Department of General Support Services. The Division of Information & Technology provides all telecommunications engineering and service facilities and staffing for the state except for the Colorado National Guard facilities. They maintain radio systems, frequency management duties and maintenance of all assets such as the state repeater and microwave system.
14. Colorado Department of Natural Resources (DNR) - DNR has a limited system available for Division of Wildlife (DOW) and Parks and Recreation. A large number of mobiles from DOW are available in all areas of the states.
15. Others - Each state correctional, medical and high education institution has its own radio system with mobiles and limited coverage of the area in which it is located.
16. County and Local Governments - Most county and local governments have at least one radio system that includes dispatchers, remote base and repeaters and mobiles. A large number of these, particularly in the rural areas network with the CSP. An increasing number of local governments are also starting the mandated switch to the 800 MHz systems.

B. Responsibilities

1. Federal Agencies - as specified in federal plans and federal/state agreements

## 2. State Agencies

- a) All agencies - Provide agency telecommunications resources as directed by the state coordinating officer in all emergency and disaster incidents.
- b) Colorado Department of Support Services Division of Communications Services - Provide maintenance and engineering support for the state emergency telecommunications systems.
- c) Department of Local Affairs (DOLA) - Coordinate and manage telecommunications resources in support of state and local jurisdictions operations.
- d) Radio Amateur Civil Emergency Services (RACES) and Amateur Radio Emergency Services (ARES) - Supply manpower, equipment and technical services to the SEOC in support of this plan.

## **WARNING**

### C. Organization

- 1. The Federal Emergency Management Agency (FEMA) is the lead and primary Federal agency involved in emergency management and warning activities and actions.
- 2. National Weather Service (NWS) is the lead and primary Federal agency involved in weather warning and direct public warning activities.
- 3. State of Colorado Department of Public Safety (CSP) provides primary staffing for state and some area warning points located in their dispatch centers.
- 4. State of Colorado Department of Local Affairs, Division of Local Government (COEM) is the lead and primary state agency for emergency management and warning activities and actions.
- 5. County and Municipal Government
  - a) The local emergency management agency is the lead and primary local agency involved in emergency management and warning activities.
  - b) The local warning points (As designated by the Colorado Warning Point SOP) provides primary staffing for local warning points

### D. Responsibilities

Overall responsibilities for warning procedures are detailed later in this annex.

- 1. The Federal Emergency Management Agency (FEMA) under applicable regulations and statutes:

- a) Manages and is the primary point of contact for the National Warning System (NAWAS)
- b) Is primarily responsible for alerting state government for any significant national security incident or event.
- c) Coordinates weather warnings on NAWAS with the NWS
- d) Is responsible for the relay of communications traffic from national to regional to state levels and reverse.
- e) Is the recipient of information regarding any local emergency that may have a national impact or be declared a national disaster.

2. National Weather Service (NWS) under federal regulations:

- a) Determines and forecasts the nature of weather incidents.
- b) Disseminates advisories over the NAWAS, the National Oceanic and Atmospheric Administration (NOA) National Weather Wire Service (NWWS) and the National Weather Radio (NWR). The Denver NWS Office will also employ the use of the Colorado Crime Information Computer (CCIC) system for advisories.
- c) Disseminates nation security warnings over NWR.

3. Colorado Department of Local Affairs Office of Emergency Management (COEM)

- a) Establishes, disseminates, maintain and update the State Warning Plan and SOP.
- b) Assists local agencies with warning planning as necessary
- c) Serves as an Alternate State Warning Point in the event of unavailability of a State Warning Point listed below.
- d) In conjunction with the State Emergency Communications Committee (SECC) coordinates all Emergency Alert System (EAS) activities and responsibilities.

4. Colorado State Patrol (CSP)

- a) Provide 24 hour coverage of the State Warning Point - Denver, and maintain contact with the following warning points via NAWAS:
  - (1) CSP Pueblo
  - (2) Greeley/Weld County Communications
  - (3) CSP Grand Junction
  - (4) CSP Alamosa
  - (5) Boulder County Communications
  - (6) Grand Junction DOE
  - (7) Denver Fire



- (8) Littleton Police
- (9) Prowers County 911
- (10) La Plata County Sheriff
- (11) Sterling Police
- (12) CSP Craig
- (13) Chaffee County Sheriff
- (14) Executive Security Unit Command Center
- (15) Larimer County Sheriff
- (16) Aspen Combined Communications
- (17) Lincoln County Sheriff
- (18) Adams County Fire
- (19) Colorado Springs Fire
- (20) Goodland Kansas NWS
- (21) Fort Carson Duty Officer
- (22) Jefferson County Sheriff
- (23) Douglas County Sheriff
- (24) Morgan County Communications Center
- (25) La Junta DPS (Police)
- (26) CSP Montrose
- (27) El Paso County COEM
- (28) Denver (Boulder) NWS \*
- (29) Pueblo NWS \*
- (30) Grand Junction NWS \*
- (31) State EOC \*

\* Have NAWAS terminals but are not designated warning points

- b) Disseminate warning to areas of concern (Potential hazard areas) by COEM as an alternate to CSP.
- c) Keep COEM (SEOC) advised of significant events within the state.
- d) Receive and route warnings from local and area warning points to other threatened areas.
- e) Provide Area Warning Point staffing as appropriate.

5. Area Warning Points (Which may be a State, County or Local Point)

- a) Provide 24 hour contact for appropriate area. Advise State Warning Point of any significant events within area of responsibility and of changes in area warning system.
- b) Develop, implement, maintain and update a system for passing warnings and other traffic as required to warning points within operational area and provide COEM a copy of such plans or systems.
- c) Training area warning point staff as to warning point system operation and responsibilities.

## **AREA WARNING POINTS**

### JURISDICTION/AGENCY

### NOTIFICATION RESPONSIBILITY

Colorado State Patrol (CSP) Denver Entire system and Clear Creek and Gilpin (Primary)

Colorado EOC Golden Entire system  
(Alternate)

Adams County Fire Adams County

Alamosa CSP Alamosa, Conejos, Costilla, Mineral, Rio Grande and Saguache

Boulder Police Boulder County

Colorado Springs Fire El Paso and Teller

Chaffee County Sheriff Chaffee, Gunnison, Hinsdale and Park Counties

Craig CSP Grand, Jackson, Moffat, Rio Blanco and Routt Counties

Denver Fire Denver City and County

Douglas County Sheriff Douglas County

La Plata Sheriff Archuleta, Dolores, La Plata, Montezuma and San Juan Counties

Aspen Eagle, Garfield, Lake, Pitkin and Summit Counties

El Paso County EOC El Paso County

Ft Carson Duty Officer None

Executive Security Unit  
Command Center None

Greeley/Weld County Commo Weld County

Grand Junction DOE None

Goodland, KA weather None

Jefferson County Commo Jefferson County

La Junta DPS La Junta

Larimer County Sheriff Larimer

Prowers 911 Baca, Bent, Kiowa, Otero and Prowers Counties

Lincoln County Sheriff	Cheyenne, Elbert, Lincoln and Kit Carson Counties
Littleton Police	Arapahoe County
Montrose CSP	Montrose County
Morgan County Commo	Morgan County
Pueblo CSP	Crowley, Custer, Fremont, Huerfano, Las Animas and Pueblo Counties
Sterling PD	Logan, Phillips, Sedgwick, Washington and Yuma Counties

- d) Disseminate warning to and accept notification from assigned counties via radio, telephone, E-Mail, facsimile or any other means appropriate.

#### 6. Counties

- a) Provide a 24 hour contact for the county either by the county warning point or by arrangement with another warning point. Advise COEM of any significant event(s) within the county and of changes in the local system used.
- b) Develop, implement, maintain and update a system for warning the general public. Publish a municipal warning plan and provide a copy and updates to COEM and the appropriate area or county warning point.
- c) Educate the public regarding the system(s) of warning, warning signals and procedures.
- d) Train county staff as to warning system responsibilities and operations.

#### 7. Municipalities

- a) Provide 24 hour contact list for municipality, either by Municipality Warning Point, or by an on-call list of municipality staff. Advise County and State Warning Point of any significant event(s) within the municipality or any changes in the local warning system.
- b) Develop, implement, maintain and update system for warning the general public. Publish a municipal warning plan and provide a copy and updates to COEM and appropriate area or county warning point.
- c) Educate the public regarding the system of warning, warning signals and applicable procedures.
- d) Train city staff on warning system responsibilities and operations.

## 8. Warning Point Area Assignments

Warning points are assigned county responsibilities as shown above.

## VII. SYSTEM DESCRIPTIONS

- A. ARES/RACES - Two groups of amateur radio operators (Hams) that support both the Emergency Operations Center and local governments by the operations of amateur radio systems that includes voice operations, Packet Radio, Slow Scan/Fast Scan TV and radio maintenance as required.
- B. Office of Emergency Management (COEM) has several internal and external communications systems in addition to the amateur support listed above. First, COEM has access to the CSP statewide channel 3 (Described below) from the EOC and all of its radio equipped vehicles.. COEM also has the Local Government System which is a series of stations and repeaters on 45.24 MHz which is accessed both by the EOC and its vehicles.. Additionally, COEM has both internal and external 800 MHz capabilities with mobiles and a base station.
- C. Colorado State Patrol (CSP) System - Through their dispatch centers and communications van, CSP supports the communications effort by the use of their statewide repeaters and channels, their 800 MHz system and their interface with the COEM Local Government system (45.24 MHz).
- D. Government Emergency Telephone System (GETS) - The State of Colorado has been granted access to the federal governments GETS. This is a telephonic priority system. If, during an emergency, telephone circuits are not available due to high usage, using GETS will get priority access to lines and cell sites. The COEM Communications and Warning Officer has the access cards required to use the system. This access can be used by state and local government representatives, however, all calls will be paid for upon conclusion of the event.
- E. COLONET - This is the State of Colorado microwave telephone system. This system can be accessed from state agencies for calls through out the state. Please see COLONET telephone book for area access codes.
- F. FEMA Systems - The Federal Emergency Management Agency supports communications in several ways. They provide an 800 telephone number for use by the EOC and its representatives for nationwide long distance telephone calls. Secondly, through their MERS, they can provide additional telephone and cellular service as well as radio communications support. FEMA also provides the nationwide and statewide Nation Alert Warning System (NAWAS). These are dedicated national and statewide telephone systems that connect federal and state warning points to include National Weather Service Offices.
- G. Colorado National Guard - The CONG has several strategic and tactical systems that can be utilized in support of emergency operations. These systems are available at both fixed and mobile or field sites.
- H. COEM also has limited access to the Colorado Crime Information Computer System (CCIC). This system is operated and maintained by the Colorado

Bureau of Investigation and allows for almost immediate computer communications with several hundred public safety agencies throughout the state.

- I. COEM maintains a system of cellular telephones and pagers for staff.

#### VIII. DEFINITIONS AND ABBREVIATIONS

- IX. Please see Basic Plan Tab 1 for commonly used abbreviations and definitions.