

**ANNEX B**

**COMMUNICATIONS**

**City of Sherman, Texas**

**December 6, 2006**

**APPROVAL & IMPLEMENTATION**

**Annex B**

**Communications**

\_\_\_\_\_  
Signature – Police Chief

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature – Fire Chief /EMC

\_\_\_\_\_  
Date

**ANNEX B**

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**ANNEX B**  
**COMMUNICATIONS**

**I. AUTHORITY**

See Basic Plan, Section I.

**II. PURPOSE**

This annex provides information about our communications equipment and capabilities available during emergency operations. Our entire communications system is discussed and procedures for its use are outlined.

**III. EXPLANATION OF TERMS**

**A. Acronyms**

ARES	Amateur Radio Emergency Services
CATV	Cable TV
COG	Council of Government
DDC	Disaster District Committee
EAS	Emergency Alert System
EMP	Electromagnetic Pulse
EOC	Emergency Operations Center
FEMA	Federal Emergency Management Agency
IC	Incident Commander
JIC	Joint Information Center
NIMS	National Incident Management System
NRP	National Response Plan
SOC	State Operations Center
SOP	Standard Operating Procedures
RACES	Radio Amateur Civil Emergency Service
TLETS	Texas Law Enforcement Telecommunications System
TRCIP	Texas Radio Communications Interoperability Plan

**B. Definitions**

Local Computer Network	Local, Metropolitan, or Wide-Area Networks.
State Warning Point	Warning Point for the state operated by the SOC.

**IV. SITUATION AND ASSUMPTIONS**

**A. Situation**

1. As noted in the general situation statement in the basic plan, we are at risk from a number of hazards that could threaten public health and safety and personal and

government property. A reliable and interoperable communications system is essential to obtain the most complete information on emergency situations and to direct and control our resources responding to those situations.

2. The Dispatch/Communications Center is located at Sherman Police Department. It is staffed on a 24-hour basis by communications personnel. Equipment is available to provide communications necessary for emergency operations.

## **B. Assumptions**

1. Adequate communications are available for effective and efficient warning, response and recovery operations.
2. Any number of natural or manmade hazards may neutralize or severely reduce the effectiveness of communications currently in place for emergency operations.
3. Additional communications equipment required for emergency operations will be made available from citizens, business, volunteer organizations, and/or other governmental agencies.

<b>V. CONCEPT OF OPERATIONS</b>
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## **A. General**

1. Communications play a critical role in emergency operations. Extensive communications networks and facilities are in existence throughout the City. A diagram of the communications network is in Appendix 1. When these capabilities are properly coordinated, response activities become more effective and efficient.
2. Our existing communications network consisting of telephone, computer, teletype, and radio facilities will serve to perform the initial and basic communications effort for emergency operations. Landline circuits, when available, will serve as the primary means of communication with radio as a back up.
3. During emergency operations, all city departments will maintain their existing equipment and procedures for communicating with their field operations units. They will keep the EOC informed of their operations and status at all times.
4. To meet the increased communications needs created by an emergency, various state agencies, amateur radio operators, and business/industry/volunteer group radio systems will be asked to supplement communications capabilities through the Disaster District.

## **B. Activities by Phases of Emergency Management**

1. Prevention
  - a. Develop an adequate survivable communications system.

- b. Develop coordinated communications procedures to meet the needs and requirements of city.
  - c. Periodically review the system and formulate plans for improvement as necessary.
2. Preparedness
- a. Review and update this communications annex.
  - b. Acquire, test, and maintain communications equipment.
  - c. Ensure replacement parts for communications systems are available and make arrangement for rapid re-supply in the event of an emergency.
  - d. Train personnel on appropriate equipment and communication procedures as necessary.
  - e. Conduct periodic communications drills and make communications a major element during all exercises.
  - f. Review assignment of all personnel.
  - g. Review emergency notification list of key officials and department heads.
  - h. Provide the Verizon Telephone Company with a list of circuit restoration priorities for essential governmental systems.
3. Response
- a. Supervisors will determine which communications personnel will be required when emergency operations are initiated. Staff requirements will vary according to the incident.
  - b. Ensure emergency equipment repair on a 24-hour basis.
  - c. Initiate warning procedures as outlined in Annex A, Warning, if required.
4. Recovery

All activities in the emergency phase will continue until such time as emergency communications are no longer required.

<b>VI. ORGANIZATION AND ASSIGNMENT RESPONSIBILITIES</b>
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**A. General**

- 1. Our emergency communications system is operated by the Police Department and includes a variety of government-owned and operated equipment as well as equipment owned and operated by certain volunteer groups. The departments, agencies, and groups that are part of our communications system are listed in Section VII.C.

2. The Police Chief will ensure that warning information received at our warning point, the Dispatch/Communications Center, is disseminated to city officials and, where appropriate, to the public. The responsibility of ensuring the communications system is operational and incorporates all available resources rests with the Police Chief, who may appoint a Communications Coordinator to carry out this task.

## **B. Task Assignments**

1. Communications Coordinator will:

- a. Coordinate common communications procedures.
- b. Develop and maintain a communications resource inventory (See Annex M, Resource Management).
- c. Ensure a communications capability exists between the Dispatch/Communications Center of the Police Department and the Emergency Operations Center to include coordination with the telephone company for installation of dedicated telephone lines into the Dispatch/Communications Center and/or EOC.
- d. Ensure communication restoration procedures are developed.
- e. Ensure that the local telephone company is forwarded a list of circuit restoration priorities.
- f. Ensure procedures are in place for dissemination of message traffic.
- g. Coordinate the inclusion of business/industry and amateur radio operators into the communications network.
- h. Develop and maintain SOPs to include message-handling procedures and recall rosters for essential personnel.

2. Radio Operators will be:

Responsible for proper use and maintenance of the equipment and for correct message handling procedures, including routing of all incoming messages and logging all incoming and out-going messages.

3. Public Information Officer will be:

Responsible for monitoring commercial radio and telephone broadcasts for accuracy of public information.

4. Switchboard Operators will be:

Responsible for proper screening and routing of all incoming telephone calls.

## VII. DIRECTION AND CONTROL

### A. General

1. The Mayor establishes general policies for emergency communications.
2. The Communications Coordinator is under the supervision of the Police Chief and is directly responsible for facilities, equipment, and operation of the Communications Center.
3. Communications personnel from individual departments and support agencies, while under control of their own department or agency and operating their own equipment, are responsible for knowing and following the procedures outlined in this annex.
4. During emergency situations involving multiple agencies and/or jurisdictions, the various code systems used for brevity will be discontinued and normal speech will be used to insure comprehension. In addition, local time will be used during transmissions.
5. During emergency situations, communications will be maintained between the Disaster District and the EOC.

### B. Continuity of Government

Each department or agency with communications responsibilities shall establish a line of succession for communications personnel.

### C. Existing Communications Systems

1. Local Networks
  - a. Sherman Police Department
  - b. Sherman Fire Department
  - c. Sherman Parks Department
  - d. Sherman Utilities Department
  - e. Sherman Public Services Department
  - f. Grayson County Sheriff's Office
  - g. Grayson County Road Maintenance
2. Other Networks
  - a. Texas Law Enforcement Telecommunications System (TLETS) is a statewide telecommunications network connecting the State Warning Point (State EOC), with approximately 1,292 city, county, state, federal, and military law enforcement agencies in Texas. Emergency communications between state, district, and local

governments will be transmitted through this system. The city principal terminal is located at Sherman Police Department.

- b. Joint Information Center (JIC), Joint Operations Center (JOC), and SOC.
- c. Individual Amateur Radio Operators
- d. Radio Amateur Civil Emergency Service (RACES) is a state sponsored program composed of amateur radio operators. It is used to supplement state and local government communications systems in emergencies or disaster operations.

## VIII. READINESS LEVELS

### **Level 4: Normal Conditions**

See the prevention and preparedness activities in paragraphs V.B.1 and V.B.2 above.

### **Level 3: Increased Readiness**

- 1. Alert key personnel.
- 2. Check readiness of all equipment and facilities and correct any deficiencies.

### **Level 2: High Readiness**

- 1. Alert personnel for possible emergency duty.
- 2. Monitor situation of possible issuance of warning or alerts.

### **Level 1: Maximum Readiness**

- 1. Institute 24-hour operations.
- 2. Conduct periodic communication checks.

## IX. ADMINISTRATION AND SUPPORT

### **A. Facilities and Equipment**

A complete listing of equipment is included in Appendix 1 of Annex M.

### **B. Maintenance of Records.**

All records generated during an emergency will be collected and filed in an orderly manner so a record of events is preserved for use in determining response costs, settling claims, and updating emergency plans and procedures.

### **C. Preservation of Records**

Vital records should be protected from the effects of disaster to the maximum extent feasible. Should records be damaged during an emergency situation, professional

assistance in preserving and restoring those records should be obtained as soon as possible.

#### **D. Communications Protection**

##### 1. Radio

###### a. Electromagnetic Pulse (EMP)

One of the effects of a nuclear detonation that is particularly damaging to radio equipment is EMP. Plans call for the disconnection of radios from antennas and power source when an Attack Warning is issued. A portable radio unit will then be employed as a backup to maintain limited communications with field units. This procedure will be used until an All Clear is announced. Telephones will also be used while operable.

###### b. Lightning, Wind, and Blast

- 1) Standard lightning protection is used including arrestors and the use of emergency power during severe weather.
- 2) Damaged antennas can be quickly replaced with spare units kept in the mobile command post and at the radio services contractor.
- 3) Mobile repeaters kept in the communications shack can be quickly positioned at predetermined locations to resume radio communications in the event of damage to radio towers.

##### 2. Telephone (Common Carrier)

###### a. Overloaded Circuits

To avoid overloaded circuits during emergencies, citizens will be advised to listen to EAS for information and to use telephones only if they have a genuine emergency. If overloaded circuits do become a problem, coordinate with the Verizon Telephone Company to begin immediate restoration of priority circuits.

###### b. Emergency Service

During major emergencies, a dedicated cellular communications line to be used for contacting Verizon Telephone Office is located in the dispatch facility for emergency service calls.

##### 3. Computer Equipment and Facilities

The physical protection of computer equipment and facilities will be maintained under normal and emergency operations to help ensure continuity of communications.

#### **E. Security**

1. Measures will be taken to ensure that only authorized personnel will have access to the E.O.C. and Operation Center.
2. Communications security will be maintained in accordance with national, state, and local requirements.

**F. Training**

- 1. Each organization assigning personnel to the EOC for communications purposes is responsible for making certain those persons are familiar with the agency's operating procedures.
- 2. The Police Chief will provide additional training on emergency communications equipment and procedures as necessary.

**G. Support**

If requirements exceed the capability of local communications resources, the Mayor will request support from nearby jurisdictions or state resources from the Disaster District in Garland, Texas

**X. ANNEX DEVELOPMENT AND MAINTENANCE**

- A. The Police Chief will be responsible for maintaining this annex. Each agency will develop SOPs that address assigned tasks. Copies of the SOPs will be provided to the EMC for inclusion in the emergency management plan.
- B. This annex will be updated in accordance with the schedule outlined in Section X of the Basic Plan.

**XI. REFERENCES**

- A. Federal Emergency Management Agency (FEMA), 1996. Guide For All-Hazard Emergency Operations Planning. (SLG-101)
- B. Division Of Emergency Management *Local Emergency Management Planning Guide*. (DEM-10)

**APPENDICES**

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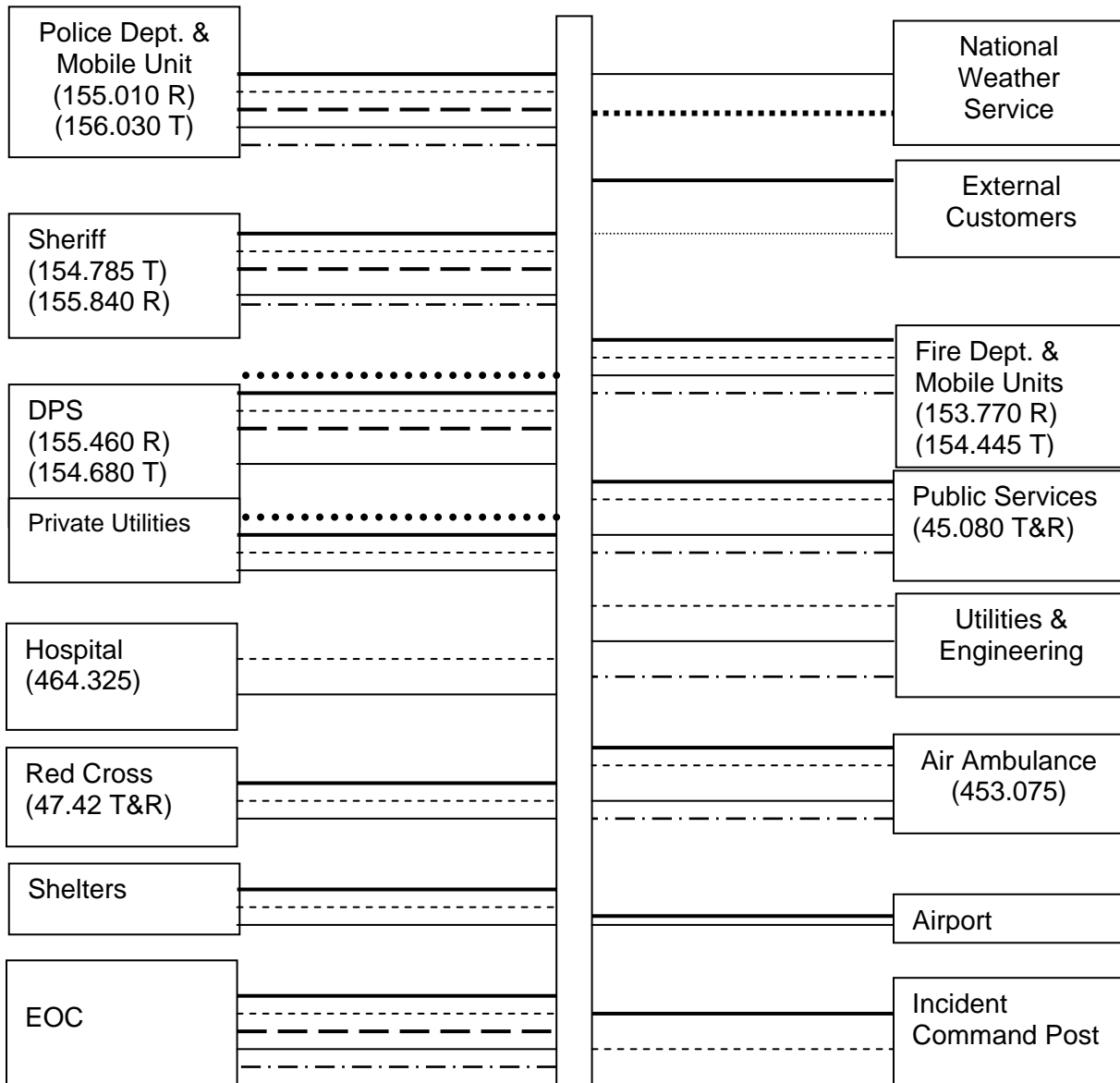
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**COMMUNICATIONS DIAGRAM**



**LEGEND:**

- Radio
- ..... CATV or Satellite
- ===== Telephone and/or Fax
- TLETS
- Amateur Radio
- Local Computer Network

- ..... Satellite Phones
- Cell Phones
- R Receive Only
- T Transmit Only
- T&R Transmit and Receive
- \*\* Internet Access & E-mail

**Appendix 1 to Annex B**

**COMMUNICATIONS TABLE**

FACILITY	COMMUNICATIONS									
	Cable TV Or Satellite	Phone/ Fax	TLETS	RACES/ ARES	Radio VHF/UHF	Radio HF	Cell Phones	Satellite Phones	Local Computer Network	Internet E-mail
Airport		X					X			X
Department of Public Safety	X	X	X	X	X	X	X	X		X
Engineering		X			X		X		X	X
EOC	X	X	X	X	X	X	X	X	X	X
External Customers (Citizens, Private Industry)		X		X	X	X	X			X
Fire Department & Mobile Units	X	X			X		X	X	X	X
Hospital		X		X	X					X
Municipal Utilities		X			X				X	X
National Weather Service	X	X	X	X		X				X
Police Department & Mobile Units	X	X	X	X	X	X	X	X	X	X
Private Utilities		X			X		X	X		X
Public Works		X			X		X		X	X
Red Cross		X		X	X	X	X			X
Shelters		X			X					
Sheriff's Office	X	X	X		X		X	X	X	X

## **Appendix 2 to Annex B**

### **TELEPHONE COMMUNICATIONS RESTORATION**

This list is provided to establish a priority for restoration of telephone services for the City of Sherman Emergency Services in the event of a disaster or catastrophic event.

1. Wilson N. Jones Hospital, Main Campus
2. Emergency Operations Center
3. Sherman Police and Fire Departments
4. City of Sherman, City Hall and Municipal Buildings
5. Water Control and remote well sites
6. Waste water facilities

**Amateur Radio Emergency Service  
Standard Operating Procedure  
For Grayson County, Texas**

**1.0 INTRODUCTION**

- 1.1 The Grayson County Amateur Radio Emergency Service (ARES) is composed of FCC licensed amateur radio operators who have voluntarily registered their capabilities and equipment for public service communications duty.
- 1.2 The Grayson County ARES functions by this standard operating procedure under the direction on the Emergency Coordinator (EC) who is appointed by the Amateur Radio Relay League (ARRL) North Texas Section Communications Manager.
- 1.3 The EC may appoint assistant emergency coordinators (AEC) sufficient to function efficiently.
- 1.4 All amateur radio operators in the area should monitor the repeater whenever severe weather conditions appear to be developing or when an emergency communications situation may exist.
- 1.5 Frequencies to be monitored are as follows:

- Primary 147.000 MHz (+600Kc)
- Alternate 1 147.080 MHz (+600Kc)(100 PL)
- Alternate 2 146.52 MHz (simplex)
- Alternate 3 146.46 MHz (simplex)

**2.0 PURPOSE**

- 2.1 The purpose of this plan is to provide a written guide giving the minimum information that would be needed in weather alert or emergency.
- 2.2 The primary responsibilities of ARES is to furnish local communities advance warning of approaching funnel clouds, tornadoes, or other damaging weather conditions.
- 2.3 The secondary responsibility is to furnish emergency communications in the event of natural disasters when regular communications fail or are inoperable.
- 2.4 Drills, training and instructions shall be carried out to insure readiness in providing effective amateur operations whenever the need arises.
- 2.5 The following agencies could be served during an emergency:
  - 1) Emergency Management Agencies of Grayson County
  - 2) The American Red Cross
  - 3) The Salvation Army
  - 4) Any other agency requesting assistance

### **3.0 ACTIVATING THE PLAN**

- 3.1 Any member of ARES who is aware of severe weather conditions or knows of a communications emergency should take steps to activate the Grayson County ARES net. He or she should notify those on the repeater of this condition and request all stations to standby.
- 3.2 If local telephone service is available, The EC or an AEC should be notified by telephone.
- 3.3 The ARES net may be activated by the EC or an AEC upon notification by Emergency Management Officials of the City, County, Red Cross, or similar official.

### **4.0 ALERT PROCEDURES**

- 4.1 All amateur radio operators in the Grayson County area should monitor the 147.000 repeater whenever a severe weather condition or communication emergency exists. Refer to paragraph 1.4 for alternate frequencies.
- 4.2 A standby weather alert may be called as in paragraph 3.1. In this case a directed net is operated and stations should check in, ready to respond to the net control station.
- 4.3 If after viewing the number of check-ins and the station warrants, the EC or AEC shall implement the telephone alert roster.
- 4.4 Mobile units are activated if the station warrants as determined by the net control station (NCS).
- 4.5 The EC will assume net control or delegate another station as the net control station. Control will be from the NCS home station until the Emergency Operations Center (EOC) in Sherman (K5GQD) is activated.
- 4.6 The RACES Radio officer and his assistants will report to the EOC in Sherman.

### **5.0 COMMUNICATION EMERGENCY PROCEDURES**

- 5.1 The RACES radio officer or his designee will operate from the Sherman EOC.
- 5.2 A disaster team will set up local communications for Emergency Management and/or other served agencies as needed.
- 5.3 Key 2-meter stations will link with area repeaters as listed in paragraph 6.3.
- 5.4 The AEC of HF operations will set up one or more HF stations and arrange to have operators and assistants as needed.
- 5.5 The Red Cross liaison will contact the local chapter and set up a 2-meter link as needed. He will determine if an additional HF station is needed for Red Cross traffic.

- 5.6 There will be a location designated and an AEC assigned to that location to receive out-of-town (county) amateur radio operators who are willing to assist with emergency operations. They will remain at that location until they are assigned to a served agency.
- 5.7 The EC will maintain liaison with Emergency Management and Government officials, served agencies, local amateurs, ARRL Section Emergency Coordinator(s) and the Section Communication Manager.

## 6.0 DUTIES OF THE NET CONTROL STATION

- 6.1 The Grayson County ARES will be called to order by the NCS.
- 6.2 Members are checked into the net from their mobile units or home station to await further instructions. Stations should re-check with the NCS at least every 15 minutes. Stations must let the NCS know when they change location and advise of their new location. Stations that are checked into the net must check out with the NCS when their assignment or task is complete
- 6.3 Liaison stations will be assigned to the following:
 

1)	Collin County ARES	147.78 MHz.
2)	Denton County ARES	146.92 MHz.
3)	Cooke County EM	147.34 MHz.
4)	Bryan County EM	147.39 MHz.
5)	Fannin County ARES	145.47 MHz.
- 6.4 Mobiles are dispatched to their assigned spotting location if ARES is operating under a weather alert. At other times they are dispatched to locations as needed.
- 6.5 Operators of home stations not on emergency power are coordinated to operate key 2-meter and HF station during an emergency.
- 6.6 If under a weather alert, the NCS should repeat the weather bulletins. He shall log the time the net was activated and keep track of reporting stations and what they are reporting. He shall logs times of reports, particularly suspicious cloud, wall clouds, funnel clouds and tornado touchdowns.
- 6.7 Report necessary information to local police departments and then to the NWS in Fort Worth. NWS may be notified through repeater link or by telephone.
- 6.8 Keep all reporting to short, abbreviated communications. As NSC keep your transmissions extremely brief and allow ample time for breaking stations.
- 6.9 If the storm has caused damage, dispatch mobiles to survey and report the damage. Establish video transmission back to the EOC if requested. Find out if public services have been disrupted. If so, follow procedures under section 5 of this SOP.
- 6.10 If the danger is over, check all participating stations out by going down the check-in log and calling each station's call sign, being sure all stations are accounted for, then secure the net. The repeater will be returned to normal amateur usage.

- 6.11 Assignment of net frequencies will be made as needed. Assign net frequencies using the guidelines in paragraph 1.4

## **7.0 OPERATIONS**

- 7.1 All messages must be written as close as possible to ARRL format.
- 7.2 All messages should be signed by the originator with his official title.
- 7.3 All messages will carry a precedence of "Emergency, Priority, Welfare or Routine" as defined on ARRL CD Form 3.
- 7.4 Stations do not transmit unless directed to do so by the NCS. To be recognized by NCS, announce your call sign only. Use the pro-sign "Break-Break" before your call sign to indicate an emergency situation.

## **8.0 DRILLS; TESTS; ALERTS**

- 8.1 An annual test will be conducted in conjunction with the nationwide simulated test in October.
- 8.2 Annual participation in Field Day is recommended to set-up our entire HF portion of this Emergency Operations Plan.
- 8.3 The Grayson County ARES meets in net fashion for the purpose of training the 2<sup>nd</sup> and 4<sup>th</sup> Sunday of each month at 2100 local time.
- 8.4 At the discretion of the EC, ARES will be activated unannounced via the telephone alert roster at least once a year.

# Guidance for Radio Amateur Civil Emergency Service

## Foreword

This Civil Preparedness Guide (CPG) has been prepared as a reference to assist State and local emergency management officials in establishing and operating Radio Amateur Civil Emergency Service (RACES) capabilities for use in responding to and managing emergencies and disasters. This CPG outlines the procedures for developing a RACES plan and provides an example of a plan format.

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## Chapter 1 - General Information

### 1-1. Purpose.

This Civil Preparedness Guide (CPG) provides guidance to State and local governments that utilize Radio Amateur Civil Emergency Service (RACES) as a means of emergency communications.

### 1-2. Applicability and Scope.

- a. The provisions of this CPG are applicable to State and local Governments that Utilize RACES in emergencies.
- b. In cases of conflict, Federal Communications Commission (FCC) Rules and Regulations will take precedence over the provisions of this CPG.

### 1-3. Authorities.

- a. The Communications Act of 1934, Section 606, as amended.
- b. Executive Order 12472, Assignment of National Security and Emergency Preparedness Telecommunications Functions.

### 1-4. Reference.

Title 47 Code of Federal Regulations (CFR), Part 97, Subpart F, and RACES.

### 1-5. Background.

- a. RACES is an organization of amateur radio operators who volunteer to provide radio communications for State and local governments in times of emergency. Created in 1952 primarily to serve in civil defense emergencies, RACES provides essential communications and warning links to supplement State and local government assets during emergencies.
- b. RACES is a special part of the amateur operation sponsored by the Federal Emergency Management Agency (FEMA). RACES provides emergency communications for civil preparedness purposes only. RACES is conducted by amateurs using their primary station licenses or by existing RACES stations. In the event that the President invokes the War Emergency powers, amateurs officially enrolled in the local civil preparedness group would become limited to certain frequencies, while all other amateur operations would be silenced.

### 1-6. Definitions.

- a. RACES is a radio communications service, conducted by volunteer licensed amateur radio operators, for providing emergency communications support to State and local governments.
- b. RACES Station is an amateur radio station licensed civil defense organization, at a specific land location, to provide the facilities for amateur radio communications in the RACES.
- c. Amateur Radio Communications is noncommercial radio communications by or among amateur radio stations solely with a personal aim and without pecuniary or business interest.

### **1-7. The Role of State and Local Governments.**

- a. Local Governments. The role of local governments is to establish and train a RACES organization designed to provide or supplement essential emergency communications within their local jurisdiction.
- b. State Governments. The role of State governments is to establish and train a RACES organization designed to provide or supplement emergency communications between elements of State Government and between State and local governments.

### **1-8. FEMA's Role.**

FEMA's role is to provide planning guidance, technical assistance, and funding for establishing a RACES organization at the State and local government level.

### **1-9. Emergency Situations.**

The RACES organization provides or supplements communications during emergencies where normal communication systems have sustained damage. It may be used in a wide variety of situations, including:

- a. Natural Disasters;
- b. Technological Disasters;
- c. Nuclear Accidents;
- d. Nuclear Attack;
- e. Terrorist Incidents; and
- f. Bomb Threats.

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## **Chapter 2 - Eligibility and Procedures for RACES**

### **2-1. General.**

This chapter provides information on the requirements and procedures for establishing a RACES organization. Operator privileges in RACES are dependent upon the class of license held by the amateur.

### **2-2. RACES Eligibility.**

Any United States citizen, who possesses a valid FCC Amateur Radio Operator License, technician class or higher, is eligible to become a member of RACES. The services of amateurs who have a Novice Class license may be used, but this is not recommended due to the privilege limitations.

### **2-3. Procedures for Establishing a RACES Organization.**

The following procedures are to be followed for establishing a RACES organization:

- a. To establish a RACES organization, the Director, State or local government Emergency Operating Center (EOC) or Director of Emergency Management (or designated representative) should first appoint, in writing, a reliable amateur to serve as the RACES Officer. This individual serves as a liaison between the RACES organization and the Director's office and assists in the development of the RACES organization, recruits members, and keeps the Director, EOC, informed of all RACES activities, progress, and needs.
- b. The RACES Officer is a General Class Amateur, or higher, thoroughly knowledgeable of FCC Rules and Regulations and familiar with the functions of the Amateur Radio Relay League (ARRL) and the Amateur Radio Emergency Services of the ARRL. Individuals with strong organizational abilities,

good verbal and written communications skills, and experience in emergency center operations are ideal candidates.

#### **2-4. Recruitment and Retention.**

- a. Each prospective member completes a RACES Operator Application and returns it to the RACES Officer. The RACES Officer designs the application to meet local requirements. The application must not contain information that is protected under the Privacy Act. The RACES Officer recommends acceptance or nonacceptance to the Emergency Management Director. Once approval is granted, the Director prepares a letter designating the applicant as a certified RACES member. A photograph identification card for each RACES member is highly recommended.
- b. In order to serve effectively as a volunteer member of the emergency staff, access to otherwise restricted areas, such as the EOC or the jurisdiction's communications center, may be associated with RACES participation and assignments. To the extent that similar requirements exist for other members of the emergency staff with access to restricted areas, a limited background check for RACES applicants is also recommended. This should be performed in accordance with the jurisdiction's regulations and procedures.
- c. RACES members are responsible for:
  - (1) Participating in the training sessions;
  - (2) Briefing the RACES Officer of any changes in equipment or amateur status that may affect operation in the RACES program;
  - (3) Developing a strong background in emergency procedures, FCC Rules and Regulations, and network procedures;
  - (4) Being available when emergency communications are required by the appointing Director;
  - (5) Helping strengthen the organization by offering suggestions and positive feedback to correct deficiencies;
  - (6) Complying with volunteer standards established by the jurisdiction; and,
  - (7) Notifying the RACES Officer, in writing, when terminating membership.
- d. Membership participation should be evaluated every 2 years. If a member's participation is lacking, membership terminates; if deemed adequate, membership continues for another 2 years.

#### **2-5. Training.**

- a. Training sessions should be scheduled to exercise the efficiency of the emergency plan and the proficiency of the RACES members. On the average 1 hour per week should be devoted to RACES activities and training.
- b. RACES organizations may be utilized during drills and exercises in order to train members and exercise the emergency plan. RACES exercises will help with updates or revisions to the RACES plan. Special RACES drills and exercises serve as a mechanism for honing skills in emergency communications procedures in general and for training in any specific or unusual protocols used by the jurisdiction. Periodic participation in full scale exercises is also beneficial in promoting familiarity with other elements of the jurisdiction's emergency plans and procedures the communications function must support.
- c. All training must be recorded in the participant's and RACES unit's files.

#### **2-6. Development of a RACES Plan.**

- a. Once membership reaches a strength that is considered adequate by the RACES Officer, bylaws and an emergency plan that meet local requirements must be written.
- b. Development of a RACES plan is vital to the organization and its importance cannot be overemphasized. A plan must be prepared in accordance with the local area needs and the facilities

available within that particular area. Written plans must clearly describe each area to be covered. All local government RACES plans are forwarded to the State disaster preparedness communications officer for coordination and retention. All State Government RACES plans are forwarded to the FEMA Regional Communications Officer for coordination and retention.

- c. The following items should be addressed, at a minimum, within the plan and provisions made to cover them:
  - (1) Identify the community or area where coverage is required;
  - (2) Identify the type of support needed, i.e., shelter, communications, hospital, etc.
  - (3) Identify the network to be used to provide each type of support, the operating frequency, mode of operation, and location of the network control station for each network;
  - (4) Establish the RACES Unit's chain of command, identifying the emergency management organization's communications officer (or other official) to whom the RACES unit reports;
  - (5) Identify frequencies--high frequency and very high frequency--to be used by the mobile, portable, repeater, and fixed stations;
  - (6) Provide the addresses of all known fixed station locations required to support each network;
  - (7) Define the areas of operation of mobile stations required to support each network;
  - (8) Describe, briefly, the communications equipment required for portable, mobile, and fixed operations;
  - (9) Describe, briefly, the communications equipment, antenna, and power source required for portable, mobile, and fixed operations;
  - (10) Include a statement that states, "FCC Rules and Regulations apply to the operation of a radio in the amateur service and therefore apply to the RACES organization."
- d. A checklist unique to the local requirements may be developed and incorporated into the plan. Testing and drills may be scheduled but must not exceed a total time of 1 hour per week.
- e. The appendix provides an example of a local plan which may aid in the development of a local plan.

## **2-7. RACES Activation.**

- a. RACES may be activated by the appointed Director of an Emergency Management Office, or authorized representative, for a particular area. The activation is in accordance with an approved civil defense communications plan in any emergency concerning the following:
  - (1) Safety of life;
  - (2) Preservation of property;
  - (3) Alleviation of human suffering and need;
  - (4) Any disaster endangering the public;
  - (5) Act of sabotage; or
  - (6) Testing and drills.
- b. RACES stations and operators supplement surviving communications facilities, or provide emergency communications requirements.

## **2-8. RACES Unit Records.**

It is recommended that the Emergency Management organizations provide appropriate space and maintain custody of these records. The following records should be maintained by the RACES Unit:

- a. The jurisdiction's current RACES plan;
- b. Records of all RACES Unit activation, drills, and training;
- c. Individual RACES Unit member files, including application form, copy of license, and a record of participation in activation, drills, and training;
- d. Equipment manuals, with additional operating instructions, where appropriate. This includes equipment owned by RACES Unit members, but made available for common use (e.g., equipment including personal equipment on loan and installed in the EOC); and

- e. Additional records or other documentation, as required by the Emergency Management Office.
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## **Chapter 3 - Operations - War Time Emergency Situations and RACES Drills**

### **3-1. General.**

This chapter provides information on the use of frequencies in emergency situations when the War Emergency Powers, under the provisions of the Communications Act of 1934, Section 606, as amended, have been invoked by the President.

### **3-2. List of Frequencies (Wartime Emergency Situations).**

- a. The frequency bands listed below are available to stations transmitting communications in RACES on a shared basis with the amateur service. In the event of an emergency that necessitates the invoking of the President's War Emergency powers under the provision of Section 706 of the Communications Act of 1934, as amended, only RACES stations and amateur stations participating in RACES may transmit on the following frequencies:

Frequency or Frequency Bands

KHz :

1800-1825

1975-2000

3500-3550

3930-3980

3984-4000

7079-7125

7245-7255

10100-10150

14047-14053

14220-14230

14331-14350

21047-21053

21228-21267

MHz :

28.55-28.75

29.237-29.273

29.45-29.6

50.35-50.75

52-54

144.50-145.71

146-148

2390-2450

- b. In addition, 1.25 cm (220.0-225.0), 70 cm (420.0- 450.0), and 23 cm (1240-1300 MHz) are available.
- c. Frequencies at 3.997.0 MHz and 53.30 MHz are used in emergency areas to make initial contact with a military unit and for communications with military stations on matters requiring coordination.

### **3-3. Message Format and Transmission Mode.**

- a. The RACES message format should parallel other communications services such as ARRL, United States Army Military Affiliated Radio System and/or FEMA.

- b. Each message element should be defined to minimize confusion. In emergency communications, most messages are assigned immediate transmission precedence. The emergency communication individual must understand the order of transmission and the precedence governing its sequence. The following defines message precedence:
  - (1) IMMEDIATE precedence messages are processed ahead of all other precedence messages and sent or delivered in the order of receipt.
  - (2) PRIORITY precedence messages are processed in the order of receipt and processed after IMMEDIATE precedence messages and ahead of all ROUTINE precedence messages. PRIORITY precedence messages are sent or delivered in the order of receipt.
  - (3) ROUTINE precedence messages are processed in the order of receipt and after the IMMEDIATE and PRIORITY precedence messages.
- c. The mode of transmission should be selected to suit the emergency situation and to utilize the available communication resources. The mode must remain flexible in the emergency plan. To eliminate confusion, list modes in order of preference. The following are several recommended modes:
  - (1) Voice Communications (telephone)-In most situations, voice fulfills the communications requirement. Use voice communications when a printed copy is not necessary.
  - (2) Radio Teletype (ASCII/BAUDOT)-When printed copy is essential, select one of these.
  - (3) Packet (High Frequency/Very High Frequency (VHF))- VHF Packet operation is synonymous with the transfer of information between amateur stations throughout the United States. Packet is an extremely accurate mode that could be used for most local emergency communications. Information may be passed between packet stations at high speed with complete accuracy. Packet is highly recommended when an accurate printed copy is required for an emergency operation.
- d. Many other modes are available that could be used for emergency communications; however, the modes listed in subparagraphs 3-3c(1), (2), and (3) should be considered before other modes. Mode selection must be within the boundaries of FCC Rules and Regulations and the authorized modes for the frequencies listed in this plan. VHF frequency modulation could provide a reliable voice link between mobile units, pedestrians, and the EOC.

### **3-4 General Limitations.**

- a. RACES stations operating in any of the frequency bands listed in this plan shall not cause harmful interference to other services that might share the frequencies.
- b. All messages transmitted by a RACES station must be authorized by the emergency organization for the affected area.
- c. All messages transmitted in connection with drills or tests are plainly identified as such by use of the words drill or test in the body of the messages.

### **3-5. Limitation on the Use of RACES Stations (Wartime Emergency Situations).**

- a. While performing duties as a RACES operator, members may not communicate with amateurs who are not RACES members. Only emergency communications may be transmitted as defined in FCC Rules and Regulations. No amateur radio station shall be operated in the RACES unless it is certified as registered in a disaster service organization.
- b. No RACES station shall be used to transmit or receive messages for hire, nor for communications for compensation, direct or indirect, paid or promised.