



**AMATEUR RADIO  
EMERGENCY SERVICE  
(ARES)**



**Tom Green County, Texas**

**THE TOM GREEN COUNTY  
AMATEUR RADIO EMERGENCY SERVICE®  
EMERGENCY COMMUNICATIONS PLAN**

**1 February 2009**

**I. INTRODUCTION**

1. The Tom Green County Amateur Radio Emergency Service® (ARES®) is composed of FCC licensed amateur radio operators who have voluntarily registered their capabilities and equipment for public emergency communications service.
2. Under Federal regulations, the contents of messages handled by amateur radio are not divulged to unauthorized persons and such public service communications are furnished without compensation of any kind.
3. The Tom Green County ARES® functions in this EMERGENCY PLAN under the direction of the Tom Green County Emergency Coordinator (EC), who is appointed by the West Texas Section Emergency Coordinator of the American Radio Relay League (ARRL) with the support of the San Angelo Amateur Radio Club.
4. The EC may appoint Assistant Emergency Coordinators (AECs) for the group to sufficiently function efficiently as an emergency communication service group for the county of Tom Green, the City of San Angelo and any of the surrounding counties as required.

**II. PURPOSE**

1. The purpose of this plan is to provide a written guide containing the minimum information that would be needed in an emergency. Each emergency is different and flexibility is a necessity to provide an adequate response for the group.
2. The primary responsibility of the Tom Green County ARES® is to furnish emergency communications in the event of a natural or a man-made disaster when regular communications fail or become inadequate.
3. All drills, training and instruction shall be carried out to ensure readiness to respond quickly in providing effective amateur emergency communications within the county and surrounding counties.
4. The following jurisdictions/agencies shall be served, as requested, in an emergency:

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- a. Incorporated Jurisdictions in Tom Green County.
- b. The Unincorporated Area or Populations under the authority of the Tom Green County Judge and the Tom Green County / City of San Angelo Office of Emergency Management (OEM).
- c. The American Red Cross
- d. Area Law Enforcement and Fire Departments (both paid and volunteer)
- e. Area Hospitals and Nursing Homes
- f. The District Emergency Coordinator, West Section of the ARRL, when surrounding counties request assistance.
- g. The State of Texas Division of Emergency Management
- h. The Federal Emergency Management Agency (FEMA)

**III. PLAN ACTIVATION**

- 1. Any member of the Tom Green County ARES® who becomes aware that a communications emergency may exist, should contact the EC/AECs and monitor the Tom Green County Emergency Net repeaters for activity. (Emergency repeater frequencies and tones are documented in attached Attachment 1 - TGC-ARES Frequency Listing)
- 2. If local telephone service is available, the EC and/or Assistant ECs shall be notified by telephone or by any other means available
- 3. In any emergency in which amateur radio is requested to serve, amateur radio operators may be alerted by any City/County Emergency Management Coordinator, Red Cross, or State official notifying the EC.
- 4. In the event the EC is unavailable, an Assistant EC of the group shall be notified. The Assistant will attempt to notify the EC periodically.

**IV. MOBILIZATION**

- 1. The EC will notify all ARES® group members by any type of paging system, to include texting thru cell phone, as required or need, any type of Email System and if the Emergency Management Coordinator (EMC) of the affected jurisdiction considers the emergency of sufficient magnitude, the ARES® EC will contact all local Television and Radio Media to assist in the activation of the members for immediate service. (Further information on this operation is described in Appendix 1.)
- 2. If telephone service is available, the Telephone Tree (see attached ARES Telephone Tree Listing) will be activated. If telephone service is not available, notification will be by radio and/or runner, as necessary. (Emergency repeater frequencies and tones are documented in attached Attachment 1 - TGC-ARES Frequency Listing and Appendix 1)

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3. The EC, or operator designated by him, will transmit on each VHF 2-Meter repeater and UHF, 70-cm repeater, in turn, advising all stations of the ARES® activation and request that all operators switch to the primary ARES® frequency for further instructions (see Attachment 1 - TGC-ARES Frequency Listing for further).
4. Upon the awareness or notification that a communications emergency exist, members of the Tom Green County ARES® group will check-in on the Tom Green County Emergency Net Control and then maintain radio silence after contact to await further information from Net Control. (See Attachment 1 - TGC-ARES Frequency Listing for further emergency repeater frequencies and tones).
5. Any / All Mobile and Portable units will be activated, as required.
6. All personnel should check and recheck their “Go-Bags” and/or “Ready Bags” for possible deployment, if need.
6. The EC will assume NET CONTROL or delegate another operator to act as Net Control Station (NCS) on the primary Tom Green County Emergency Net repeater or any other group assigned frequency to be determined by the EC. (See Attachment 1 - TGC-ARES Frequency Listing for further emergency repeater frequencies and tones).
7. Control will be established at the City/County Emergency Operation Center (EOC) and activated by the Emergency Management Coordinator (EMC) of the jurisdiction involved with the emergency.
8. Only VHF/UHF radio equipment will be used at the EOC until such time or unless otherwise directed by the EC to use the HF station as required for further communications outside of the response area or to contact the State of Texas Emergency Operations Center, as required.
9. If there is a need to establish a net control center away from the disaster site or away from the city/county EOC, then one will be assigned to a residence or mobile of one of the ARES® group operators, as need.
10. HF stations will maintain a link with the EOC via the Tom Green County Emergency Net repeater and use appropriate HF frequencies as required.
11. Operators with pre-assigned operating positions/locations shall contact the EC/AECs to determine if they should proceed to their operating locations immediately or standby on the primary net frequency for further instructions.

**V. DUTIES OF NET CONTROL STATION, (NCS)**

1. OPEN NETS - The Tom Green County Emergency Net will be activated by the Net Control Station. All stations will be fully advised as to the nature of the disaster and what actions will be required.
2. CHECK-IN STATIONS
  - Stations will be checked in from their home stations, mobiles, portable stations and handheld radios. All stations shall standby for further instructions.

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- Pre-assigned station operators will be deployed to their Served Agency as safety conditions and need are determined.
- Operators of hand-held portables will be advised to save batteries by switching them off while in hearing distance of a non-battery operated unit.
- Mobile operators will be reminded to re-fuel if possible and run engines only when necessary.
- Stations operating from generators will be reminded to arrange for fuel.
- An inventory list will be made of operators and equipment for possible assignment as relief operators.

3. HF liaison stations will be assigned to the Texas Traffic Net. See Appendix 5 for frequency information. If possible an EOC liaison on 2 meters will be assigned to HF liaison stations for maintaining contact with EOC NCS on the assigned VHF frequency.

4. The NCS will establish other nets as conditions dictate, on various frequencies, for handling Welfare type traffic.

- An incoming and outgoing traffic system will be established with mobile runners.
- NCS OPERATOR, DEPLOYED NCS AND LIAISON STATION relief shift schedules shall be developed when 24 hour operation is needed.

5. NCS operators on each net should wear HEADPHONES at agencies, as need, to reduce background noise and to reduce audible interference.

6. Mobiles and Portables will be dispatched as needed. The location of each will be noted at all times by the NCS.

7. Operators in an area that is without electrical power may be deployed to an area that has power.

## **VI. OPERATIONS**

### **1. MESSAGES**

#### **a. Winlink based e-mail**

1. Local messages should be sent with Winlink when messages are not time critical. This system allows greater accuracy and message though-put when this system is available.
2. See Appendix 2 for a list of local Winlink server station including HF nodes.
3. These resources must be monitored to insure that local Internet service is functioning at a particular node.
4. In no event should time critical information be sent via Winlink without voice tracking to insure delivery has occurred.

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### ***2. Formal Messages***

- Formal messages should follow proper National Traffic System procedures as outlined in Appendix 4.

### ***3. Tactical Messages***

- Tactical Emergency messages, such as FIRE, POLICE or Life-or-Death situations do NOT require NUMBERS.
- These are first priority messages and we use "Break, Break!" to get attention of the NCS, between transmissions. When accepting such messages for transmission, require only the following information:

To (Example: XXXXXXXX Fire)

What (Example: Pumper)

Why (Example: Structure fire)

Where (Example: XXXXXXXXXX High School)

Who (Example: Name of Requestor, Name of agency requesting – example SAFD)

### **2. TRANSMITTING**

- Stations do not transmit unless invited to do so by the Net Control (NCS).
  1. Exceptions:
    - A. Stations having Emergency traffic
    - B. To recheck into the net after having been directed by NCS to pass traffic on a different frequency.
    - C. Keep transmissions short and to the point.

## **VII. DRILLS, TESTS AND ALERTS**

1. An annual test will be conducted during October of each year in conjunction with the nationwide Simulated Emergency Test (SET) sponsored by ARRL.
2. Periodic exercises will be conducted in cooperation with the various Tom Green County agencies and the city/county Emergency Management Coordinator (EMC).
2. The Tom Green County Amateur Radio Emergency Service (ARES) Training Net will be held at 8:00 P.M., local time, every Monday night, on the N5SVK (444.350 – PL Tone 162.2) repeater.
3. On the last Monday of each month, the training net will also held training and meetings on one of the listed Simplex Channels for the group and called upon by the EC on that night or on the pervious Monday night net. (See Attached Simplex Channel 09 Word Document for further).
4. At the discretion of the EC, ARES® will be activated unannounced at least once a year.

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5. A Standard Operating Procedure detailing emergency response procedures and actions shall be attached as part of this plan.

6. The Tom Green County Amateur Radio Emergency Service (TGC-ARES) Plans and Standard Operating Procedures (SOPs) and any Standard Operating Guides (SOGs) shall be reviewed annually with updates as necessary to keep this plan and the others current and viable at all times.

Tom Green County ARES® Emergency Coordinator  
Signed: This Date 1 February 2009

## **APPENDIX 1: TGC-ARES® PAGING FACILITIES / TELEPHONE TREE OPERATION**

### **1. Purpose:**

This section gives a general outline of how to use the Page Alert System and the Telephone Tree in the event a TGC-ARES ® Net or activation is needed.

### **2. Telephone Tree Operation:**

The Telephone Tree is divided into small groups made up of members and divided by telephone exchanges so no toll calls are required. To activate TGC-ARES® the EC contacts the Alert AECs which in-turn phone each group until somebody answers. The first person contacted in that group becomes the Group Leader for that event and calls the rest of the members of their group. After calling all of the members in their group the Group Leader checks in with Net Control and gives a list of those that could not be contacted. At a later time Net Control could request that the missing members be called again or in extreme cases may request a member to drive to the homes of those in their group to personally notify them of the call-up.

### **3. How the Page Alert System works:**

The Page Alert System uses pagers and/or cell phones that can receive SMS (Short Message Service) text messages to alert TGC-ARES® members when a Net is activated. Even when cell phone circuits are overloaded with calls, SMS messages have been known to get through. By using SMS messages we have the redundancy of the Internet and various pager/cell phone providers to get the activation notice.

### **4. Who should activate a Net and when?**

Before the lights go out and the telephone lines go dead the person receiving the request should activate the Net. If they have any reservations they should at least alert the EC/AECs and or NCSs. There is a sub-set of the Page Alert System to activate the EC, AECs and NCSs.

### **5. What should the Page Alert Message say?**

Say the most with the least words **without** wasting time figuring out what to say. Keep the message shorter than 128 characters including spaces. If the message is too long it will get broken into smaller messages which cause delays.

Examples:

TGC-ARES® Net 147.300 Now! You're Call Sign.

TGC-ARES® Net 147.300 5 alarm fire SAFD. You're Call Sign.

TGC-ARES® Net 146.940 Tornado reported West of Dove Creek. You're Call Sign.

TGC-ARES® Net 147.300 HAZMAT spill Hwy 87 N of Carlsbad. You're Call Sign.

### **6. Why waste time stating the Net is for TGC-ARES?**

The Page Alert System (PAS) also activates the Duty Officers for Tom Green Co. ARES.

**7. Can I test the Page Alert System?**

Yes, if you want to send out the Alert(s) for our weekly ARES® Nets contact Mike Dominy, TGC-ARES EC at 325-716-9675 for the details.

**8. Do I have to use a PC to activate the Net?**

No, you can use a cell phone or two way pager that has SMS capabilities to send a short message to the pageall or pagencs address. Contact Mike Dominy, TGC-ARES EC at 325-716-9675 for the details.

**9. Paging addresses: (use [xxx@yyy.zzz](#) format)**

Go to the [tgc-ares.org](http://tgc-ares.org) web site for access to the paging system setup. Here you can then send a page or text message out to everyone who has signed up for the program and is on the list.

Just follow the instructions on the page for more information. Some of the text that can be sent is listed above at **5. What should the Page Alert Message say?**

You can also use the following as part of the text message:

PageAll at [tgc-ares dot org](http://tgc-ares.org) to page the entire group  
PageEC at [tgc-ares dot org](http://tgc-ares.org) to page the Emergency Coordinator  
PageAEC at [tgc-ares dot org](http://tgc-ares.org) to page Assistant Emergency Coordinators  
PageNCS at [tgc-ares dot org](http://tgc-ares.org) to page Net Control Stations

**See also document: Paging Alert System / Telephone Tree - Standard Operating Procedures**

**APPENDIX 2: FORMAL TRAFFIC GUIDELINES**

Definition:

Formal messages are those which request material or services which may require payment or replacement.

Message Forms:

All formal messages must be written in standard ARRL format. The served agency representative can create his printed message on the Message Forms provided by the radio operator for that purpose.

Message Precedence:

The Operator must assign the message an ARRL PRECEDENCE, defined on ARRL CD Form 3. This PRECEDENCE will be used on all messages.

Signature:

All FORMAL MESSAGES require the SIGNATURE and TITLE of the Originator. MESSAGES RECEIVED REQUESTING MATERIALS OR SERVICES WHICH MAY LATER REQUIRE PAYMENT WILL NOT BE TRANSMITTED UNTIL SIGNED AND TITLE SHOWN.

Save Messages:

All Operators must save his copy of all such messages.

Winlink systems can be used to send and receive NTS formatted messages when it makes sense to do so by using appropriate templates.

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**APPENDIX 3: HF NET FREQUENCIES**

HF frequencies used by the Texas Traffic Net:

Daytime: 7290 KHz

Nighttime: 3873 KHz

(NOTE: If neither band works nor close in operation is desired, it is possible that 60M will be usable. An NVIS antenna may be necessary.)

Packet operation should be used whenever possible to expedite message handling.