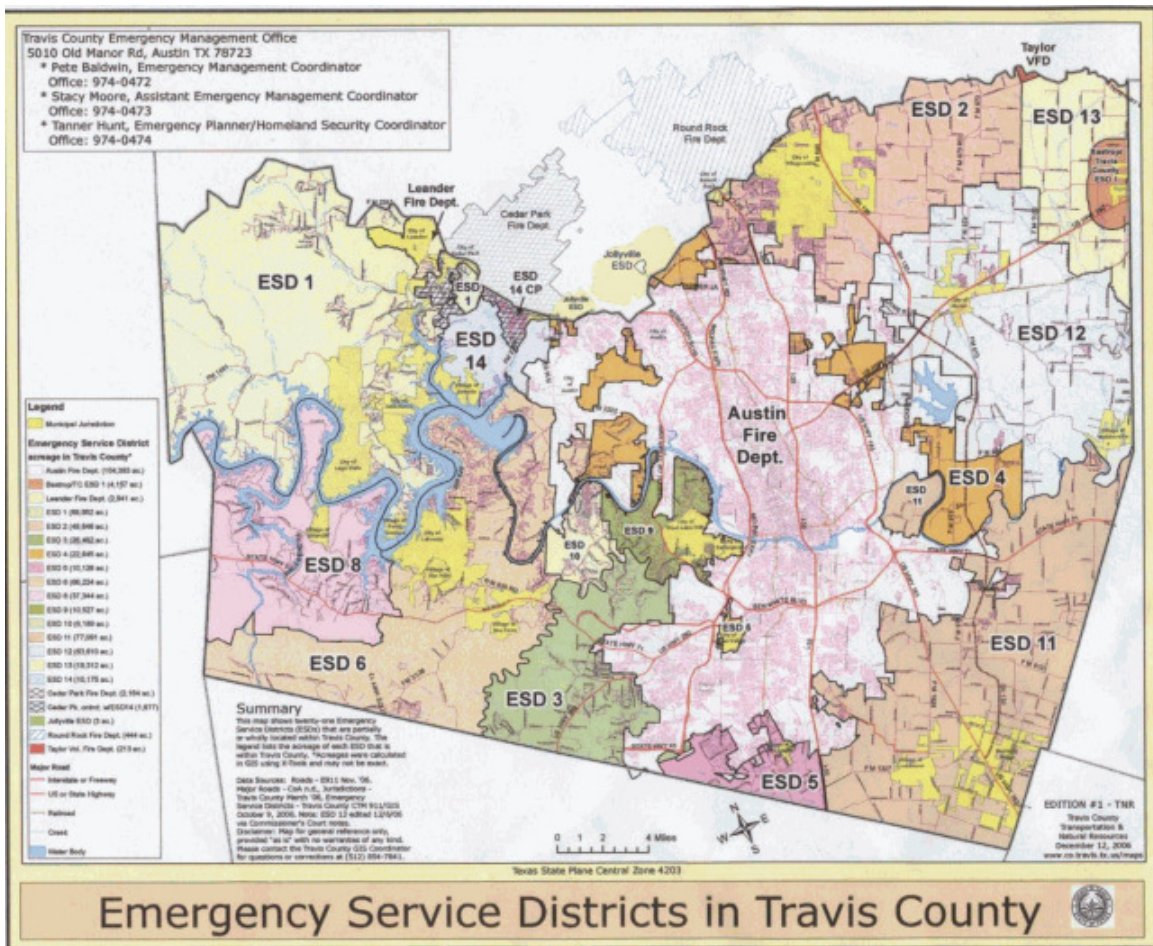


American Radio Relay League, Inc. ®
South Texas Section
Travis County, Texas
Amateur Radio Emergency Service ®

EMERGENCY COMMUNICATIONS PLAN





This document is hereby accepted for implementation and supersedes all previous editions.

Glen Reid, K5FX
TCARES Emergency Coordinator
January 26, 2012



American Radio Relay League, Inc. ®
 South Texas Section
 Travis County, Texas
 Amateur Radio Emergency Service ®
TRAVIS COUNTY ARES

**EMERGENCY
 COMMUNICATIONS
 PLAN**

Record of Changes

Action	Change Date	Changed By
Updated EC and added Duty Officer definition in Sec. 1	July 12, 2011	W5SMP
ICS 217 added	11 August 2011	W5SMP
Miscellaneous changes per Stuart Rohre	18 September 2011	W5SMP
Tactical Call Sign Use appendix added	1 January 2012	W5SMP
ICS 217 updated	26 January 2012	W5SMP



Cover image: <http://www.co.travis.tx.us/maps/>

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**THE AUSTIN/TRAVIS COUNTY AMATEUR RADIO EMERGENCY SERVICE
EMERGENCY COMMUNICATIONS PLAN**

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1 Authority.

The Austin/Travis County Amateur Radio Emergency Service (TCARES) is a field organization of the American Radio Relay League (ARRL) and is composed of Federal Communications Commission-licensed amateur radio operators who are trained emergency communicators, volunteering personal time, skill and equipment to serve in the public interest. TCARES participates in Volunteer Organizations Active in Disasters (VOAD) and is recognized by the Texas Division of Emergency Management, the Capitol Area Council of Governments (CAPCOG), the Travis County Office of Emergency Management, City of Austin Homeland Security and Emergency Management, and other entities within Travis County.

The Austin/Travis County ARES functions in this Emergency Communications Plan under the direction of the ARES Austin/Travis County Emergency Coordinator (EC). The EC is appointed by the South Texas Section Emergency Coordinator of the American Radio Relay League (ARRL) with the support of the local amateur radio clubs.

The EC may appoint Assistant Emergency Coordinators (AEC's) as needed.

The EC may appoint Duty Officers (DO's), whose primary duty is to activate Austin/Travis County ARES if needed. Unless otherwise indicated, "Duty Officer" means the EC or his or her designee(s).

When activated, the EC or DO performing the activation will become the ARES Officer In Charge (OIC), or will designate an OIC. The OIC will be the final authority within Austin/Travis County ARES for the event.

This document is prepared and authorized by a TCARES planning group consisting of the Emergency Coordinator and Assistant Emergency Coordinators. This document includes by reference the Emergency Communications Plan of the South Texas Section ARES and the District 7 STX ARES plan when approved.

2 Purpose.

The purpose of this plan is to provide TCARES leaders and members with a written guide containing the minimum information needed to perform public service during an emergency. Each emergency is different and flexibility is necessary to provide an adequate response.

3 Situation and Threats

3.1 Situation

3.1.1 General

Travis County is exposed to many hazards, all of which have the potential for disrupting the community, causing casualties, and damaging or destroying public or private property. The following table provides an overview of threats as noted in the Travis County Emergency Management Plan, August 2010, Page 19, which along with the more detailed Travis County Hazard Analysis (Hazard Mitigation Plan) is incorporated here by reference. The likelihood of occurrence is divided into four possibilities: unlikely, occasional, likely, or highly likely. Impact is divided into three estimate levels: limited, moderate, and major.

Hazard Type	Likelihood of Occurrence	Estimated Impact on Public Health and Safety	Estimated Impact on Property
NATURAL			
Drought	Occasional	Moderate	Moderate
Earthquake	Unlikely	Moderate	Moderate
Flash Flooding	Highly Likely	Major	Moderate
Flooding, River or Tidal	Occasional	Moderate	Moderate
Hurricane	Unlikely	Limited	Limited
Subsidence	Unlikely	Limited	Limited
Tornado	Occasional	Major	Major
Wildfire	Likely	Major	Major
Winter Storm	Occasional	Moderate	Moderate
TECHNOLOGICAL			
Dam Failure	Occasional	Major	Major
Energy/Fuel Shortage	Occasional	Moderate	Limited
Hazmat/Oil Spill, Fixed Site	Highly Likely	Moderate	Limited
Hamzat/Oil Spill, Transport	Highly Likely	Moderate	Limited
Major Structural Fire	Likely	Moderate	Major
Nuclear Facility Incident	Unlikely	Limited	Limited
Water System Failure	Occasional	Moderate	Limited
SECURITY			
Civil Disorder	Highly Likely	Limited	Moderate
Enemy Military Attack	Unlikely	Major	Major
Terrorism	Likely	Major	Major

3.1.2 Climate

The climate of Austin is humid subtropical with hot summers and relatively mild winters. Austin, the capital of Texas, is located at the junction of the Colorado River and the Balcones escarpment, separating the Texas Hill Country from the Blackland Prairies to the east. Elevations within the city vary from 400 feet to just above 1000 feet above sea level. Native trees include cedar oak, walnut, mesquite and pecan.

During winter, the area is alternately influenced by a continental regime, with winds from the north and west, and by a modified maritime regime, with south and southeast winds from the Gulf of Mexico. Mild weather prevails during most of the winter. Sub-freezing temperatures occur on average about 25 days each year. North winds with strong cold fronts block any moderating affects from the Gulf of Mexico, and occasionally usher in frigid conditions to central Texas. The coldest low for Austin Mabry was -2 on January 31, 1949 and for Austin Bergstrom -5 on January 31, 1949. Although daytime highs are restrained in cloudy winters, overnight lows can be potentially higher, sometimes preventing the area from having much colder minimums, that come under clear skies. In these patterns, the coolest monthly average temperatures may follow, because daytime highs are limited by the cloud cover. On sunny winter days, the temperature warms to pleasant levels, while nights are cooler. In these regimes, with colder than normal nights, the average temperature can be close to normal, because the sunny days warm daytime highs above normal. Very warm days occur when dry west winds in a mild airmass allow winter temperatures to climb to spring or summerlike levels, such as 90 on December 25, 1955; 90 January 30, 1971; and 99 February 21, 1996 at Austin Mabry.

Daytime temperatures in summer are hot, with highs over 90 about 80 percent or more of the time. Cool fronts may affect the area and drop overnight lows to the 50s on some occasions. In these cases, warm winds quickly return, pushing lows to the 70s in a few days. In very hot summers, the continental regime of West and North Texas can have an impact of keeping daytime highs near and above 100, especially with hot west and southwest winds. Most of the time, the moderating affects of the Gulf of Mexico limit daytime highs; however, they also add to the discomfort with higher humidity. Sometimes, when weak fronts that have lost most of their cool air properties move through the area, warmer than normal daytime highs follow, because the area is blocked from the moderating affects of the Gulf of Mexico. The highest temperature of record was 112 September 5, 2000 at Austin Mabry and Austin Bergstrom.

Precipitation is fairly evenly distributed throughout the year with heaviest amounts occurring in May, September and sometimes in October and November. This comes from either tropical cyclones that migrate out of the Gulf of Mexico, or stalled out cool fronts. Precipitation from April through September usually results from thunderstorms, with large amounts of rain falling within short periods of time. Rainfall amounts have exceeded 5 inches in several hours, causing flash floods. While thunderstorms and heavy rains may occur in all months of the year, most of the winter precipitation consists of light rain. Although snow is not a significant source of moisture, it does visit the area during some winters. Average yearly rainfall is near 33 inches. Extremes at Austin

Mabry, since 1856, vary from 11.52 inches in 1954 to 64.68 inches in 1919. At Austin Bergstrom the extremes, since 1943, vary from 9.98 inches in 1954 to 55.74 inches in 1957. Prevailing winds are southerly; however, in winter, northerly winds are about as frequent as those from the south.

Average sunshine varies from about 50 percent in the winter to near 75 percent in the summer. Stratus clouds frequently develop at night during all seasons with south and southeast winds, as Gulf moisture is lifted from the coastal plains to the higher terrain over the Balcones escarpment. On some days, these clouds do not dissipate, persisting all day, with few or no late afternoon/early evening breaks. In the winter, these stratus clouds may be accompanied by fog and drizzle, as south and southeast wind brings Gulf moisture over the top of a cool air dome at the surface. In some years, when very cloudy conditions prevail, even if these low clouds break up, mostly cloudy skies linger due to a dense high deck of cirrus, caused by Pacific moisture over Texas from an active subtropical jet stream.

The average occurrence of the last temperature of 32 degrees in spring is early March and the average first fall occurrence of 32 degrees is late November. The extremes vary from 31 October 26, 1924 to 32 April 9, 1914. Strong winds come from microbursts, squall lines, strong cold fronts and dissipating tropical storms, that move inland from the Gulf of Mexico. Dissipating tropical storms affect the city with not only strong winds, also heavy rains. Although tornadoes are rare, they have occurred, and they have most often been associated with the dissipating tropical storms. (Source: National Weather Service, <http://www.srh.noaa.gov/ewx/?n=ausclidata.htm> accessed November 8, 2010)

3.2 Threats

3.2.1 Extreme Weather

The Austin climate can be mild but can also experience temperature and condition extremes. Summers can be hot, with drought-like conditions. In 2009 a record number of 100 degree days were observed at Austin Bergstrom with 55 one hundred degree days. July 2009 was the warmest month and July on record for Austin Mabry. One of the hottest 5 day periods of any summer came September 1st to 5th, 2000. On Tuesday, September 5, 2000 an all time record high of 112 came at Austin Mabry and Austin Bergstrom.

Austin experiences heavy rains and flooding (for example, from late June to Mid July 2002, and the summer of 2007). For Austin July of 1919, with 12.80 inches of rain, was the wettest July of record.

Hurricanes are rare in Austin, but hurricane remnants do affect the weather. A hurricane entered northeast Mexico on September 6th, 1921. The remnants of this hurricane moved north across South Texas the 7th and 8th. As the remnants of the hurricane arrived over South Central and Central Texas, a very heavy rain event followed. This flood caused 215 fatalities. Thrall in eastern Williamson County received 23.4 inches of rain in 6

hours; 31.8 inches in 12 hours; and 38.2 inches of rain in 24 hours. Taylor had 23.11 inches of rain in 24 hours. Storm total rainfall at Thrall was 39.70 inches and at Taylor 23.98 inches. Austin had its wettest day of record September 9, 1921 with 15.00 inches of rain and then 4.03 inches of rain the following day on the 10th. In a 24 hour period Austin received 18.23 inches of rain from September 9th to 10th, 1921. September 1921 is the wettest month of record for Austin with 20.78 inches of rain. (Source: National Weather Service, <http://www.srh.noaa.gov/images/ewx/wxevent/summer2010.pdf>, accessed November 8, 2010)

Winters have occasional ice storms, snowfalls, and freezing temperatures. These can include freezing drizzle, freezing rain, and sleet.

3.2.2 Weather Threats

In addition to the heat, drought, and flooding mentioned above, Travis County sees tornados /funnel clouds, flash flooding (rains in excess of 1 inch per hour), non-thunderstorm strong winds/wind damage (winds of 40 mph or higher), and thunderstorms and hail (per Skywarn Manual page 3, winds 58 mph or higher and/or 3/4" or larger diameter hail indicates a severe thunderstorm). ARES members are encouraged to train and participate in Skywarn. Skywarn's manual (A Guide for National Weather Service Spotters in South Central Texas) is incorporated here by reference.

3.2.3 Technological Threats

Austin is home to advanced technology manufacturers, sellers/dealers, wholesalers, and retailers. Austin has a large student population, including educational institutions teaching and testing engineering, electrical, mechanical, and software developments. Austin is home to software- and Internet-intensive industries including the financial sector, energy sector, and medical sector. Austin is also the home of state government and has a large federal presence, including the Internal Revenue Service. The Travis County area has experienced technological incidents including loss of 911 service, telephone communication reduction or outages, and computer-based attack vectors.

3.2.4 Hostile Individuals

Austin has experienced significant incidents involving hostile individuals. These include:

- September 28, 2010, a 19-year old sophomore math major fired four rounds from an automatic weapon near the Littlefield Fountain near 21st Street and Whitis Avenue about 8:15 a.m. He then ran into the Perry-Castaneda Library and up the stairs to the sixth floor, where he committed suicide.
- February 18, 2010, a man crashed his Piper Cherokee PA-28 into the side of the Echelon Building on Research Boulevard to protest taxes.
- June 8, 2008, an unknown individual threw a Molotov cocktail onto the Governor's Mansion, causing extensive fire and smoke damage.

- April 26, 2007, a 27-year-old Austin man placed a bomb containing some 2,000 nails in the parking lot of an abortion clinic. The explosive device also included a propane tank and a rocketlike mechanism but was disarmed before it could explode.

4 Concept of Operations

The primary responsibility of the Austin/Travis County Amateur Radio Emergency Service is to furnish emergency communications in the event of a natural or a man made emergency when regular communications fail or become inadequate or overloaded.

4.1 Agency Assistance

Following is a list of jurisdictions/agencies that will be served, as requested, in an emergency. Other city and/or state agencies will be served as requested by the [City of Austin](#) and/or [Travis County](#) Office's of Emergency Management.

- Incorporated jurisdictions in the greater Austin metropolitan area.
- The unincorporated area or populations under the authority of the Travis County Judge and the Austin/Travis County Office of Emergency Management.
- [The American Red Cross](#)
- Police and fire departments
- Hospitals and nursing homes
- The District Emergency Coordinator South Texas Section of the ARRL when requested by surrounding counties needing assistance.
- [The State of Texas Division of Emergency Management](#)
- [The Federal Emergency Management Agency](#)
- [The Salvation Army](#)
- Capital Area Planning Council of Governments (CAPCOG)
- Capital Area Trauma Regional Advisory Council (CATRAC)
- Austin/Travis County ARES may provide volunteer communications support for other public events in non-emergency situations.
- Austin/Travis County ARES runs the Central Texas Weather Net when [weather conditions](#) warrant and reports to the [National Weather Service \(NWS\)](#). No request from a served agency is needed.

4.2 ARES Member Response to Actual or Potential ARES Need

Any member of the Austin/Travis County ARES who becomes aware that a communications emergency exists, should contact the EC, a Duty Officer, or an AEC and monitor the current assigned Resource and Tactical net frequencies. A member may also contact the Duty Officer by the Duty Officer pager number or by paging the EC or DEC direct.

Operators are forbidden to go to the site of any emergency event unless authorized to do so by Net Control.

4.3 Communications Emergencies

ARES is available to respond to communications emergencies.

4.4 Amateur Radio as a Force Multiplier

ARES is available to assist served agencies with additional manpower when its communications capabilities can be of benefit. For example, ARES personnel may monitor low water crossings or provide status updates at various points like water stops for walks/runs/bicycle events.

4.5 ARES Response

Net Control will only authorize operators to go to the site of an emergency event if the appropriate served agency requests ARES help at that site. The request, requester name, title, served agency, and time should be documented in the net log.

The EC, Designated Duty Officer, or Assistant EC shall be notified by telephone or pager. Other methods including amateur radio or courier may be used if needed.

In any emergency in which amateur radio is requested to serve, amateur radio operators may be alerted by any Emergency Management Coordinator, Red Cross, or state official notifying the EC or designated Duty Officer. If the EC and Duty Officer are unavailable, notify an AEC. The AEC will periodically attempt to contact the EC and Duty Officer. The EC or designated Duty Officer who activates ARES will become the ARES Officer in Charge (OIC).

The ARES OIC will document the name, title, and served agency of the requester.

The ARES OIC will be in charge of all ARES operations during any emergency activation. He/she will be the top Austin/Travis County ARES authority for the event. All ARES participants will take direction from him/her. The OIC may change during the event at the discretion of the OIC or EC.

The OIC or designee will notify ARES members by using AWACS pagers and other paging systems if available. E-mail may also be used when appropriate.

If necessary, the telephone tree will be activated. If telephone service is not available, notification will be by radio and/or runner, as necessary.

TCARES members use several methods to receive or exchange information. The website www.tcares.org is a general reference tool. In addition, we have several local repeaters, Alpha-numeric Pagers, a dedicated Yahoo mail group and mail announcements from the membership database.

The dedicated repeater for TCARES is located in West Austin near the TV towers. It is the 147.36 repeater and has a 131.8 tone required for access (positive offset). Weekly nets are held on this machine. Other repeaters in the area may be found on the website of our sponsor organization, the Austin Amateur Radio Club. The primary repeaters used for events, training, weather nets, and activations are in red. For a very extensive list of repeaters see Wikippeater.com This site is user maintained and frequently more up to date than others you may find.

AWACS pagers are available to TCARES members. This is a sponsored program where TCARES members get access to the alert and notification system used by the City of Austin and Travis County for emergency notifications. A number of message types are transmitted but we only get notice of road closures/re-routes, fire/rescue calls, CTECC activations, weather forecasts, and storm watches/warnings. We also have the ability to do an "All Call" alert to ARES members for an activation. The application form for AWACS pagers and a help card are both in file download area on the home page menu.

The Yahoo mail group for TCARES is TRAVISCOUNTYARES. You may subscribe to this group by sending a mail to traviscountyares-subscribe@yahoogroups.com This e-mail address is being protected from spambots. You need JavaScript enabled to view it This mail must be sent from the account you will use on the group. You may subscribe additional addresses by repeating the process. This would allow you to post from a different account if needed. Group members are protected from spam since only a group member may post a message. Applications must be approved by a moderator to join but you may post mail at any time once you are a member. If you want to learn a little more about the group before joining, use this address. All TCARES members are strongly encouraged to be a member of this group so we can reach you with info about activities and get input from TCARES members.

Upon notification that a communications emergency exists, members of the Austin/Travis County Amateur Radio Emergency Service will listen to the frequency and will only check in if they have urgent information or when the Net Control Station (NCS) asks for checkins on the Austin/Travis County Emergency Net. Stations will maintain radio silence, unless they have business with the net.

4.6 ARES Member Safety

Any time an ARES member deploys, he or she assumes certain risks, as a normal day provides hazards from weather, traffic, or actions of others through neglect or intention. Disaster responders generally may be faced with a crime scene, potential radiation or hazardous materials, live downed wires, injured individuals, or hostile actors. The amateur radio hobby adds risks related to antennas, handling equipment, transmitting near explosive devices, and travel in general.

The Centers for Disease Control and Prevention list thirteen possible hazards in disasters: Unstable work surfaces, Excessive noise, Breathing dust (asbestos), Heat Stress, Confined spaces, Potential chemical exposures, Traumatic stress, Electrical, Carbon

monoxide, Eye injuries, Flying debris; particles, Heavy equipment use, and Rescuing victims (<http://www.cdc.gov/niosh/topics/emres/emhaz.html>).

ARES member safety is paramount and should not be compromised. ARES members should be trained to identify and avoid or mitigate unnecessary risks. ARES members should assess any scene before entering, and approach any situation in a manner designed to reduce risk of harm to anyone while maximizing the safety of anyone in the area.

If a member on assignment determines that a requested action would result in harm to people or equipment, the member should not implement that action but rather withdraw and immediately notify Net Control. An ARES member has the right to refuse an assignment or task if their safety is at risk.

5 Organization

5.1 Districts

The county level is the smallest level of organization within ARES. Travis County is in District 7 of the South Texas Section of the West Gulf Division.

5.2 Training

Drills, training and instruction shall be carried out to ensure readiness to respond quickly in providing effective amateur emergency communications.

TCARES is committed to maintaining a high current level of training and readiness for its members. To meet this goal, multiple training programs exist. Lew Thompson, W5IFQ has devised the Incentive Achievement Program to provide a continuing skills improvement training plan. Please download the plan from the TCARES website and begin reviewing which tasks you can already claim credit for. All members should begin to complete the remaining items required for the next (or first) certification level.

Monthly meetings along with weekly Voice and Packet nets contain training segments or training schedule reminders. ARES as an organization is now being driven to adhere to the National Incident Management System. The reason for this is Homeland Security and other Federal and State agencies have adopted NIMS as a event management plan. ARES members will be expected to understand and operate under NIMS during activations. Without this training, you may be excluded from participating or gaining access to emergency sites during activations.

Always check the AustinHams.org and tcares.org sites for additional training details concerning license upgrades, Helicopter Landing Zone, Skywarn and similar. Sometimes there are class notices from other ham organizations and public service groups listed there. NIMS courses are offered by FEMA and are available on their website. Other

training in the Incentive Achievement Program is offered by the ARRL. Please refer to the course catalog on the ARRL site.

Winlink and Airmail are very important to our ARCHES hospital communications program. Detailed guides for installing and using Airmail with the internationally supported Winlink system are on the tcars.org website. Please download these documents for future reference from the TCARES website.

Travis County ARES holds two training nets each Sunday evening. The first net is a voice net and here we practice proper radio techniques and share important information on upcoming events. The net is held at 7:30 P.M., local time, every Sunday night, on the 147.36 Repeater (131.8 Tone). Backup repeater is 146.94 with a 107.2 tone, and if both repeaters are unavailable, please use 146.58 simplex (no tone) to continue the net. This weekly test will be preceded by an all call activation at 7:00pm on the ARES-AWACS Pager Alerting System.

The second scheduled net is a packet net and is used to test our skills and equipment using 1200 baud Packet to support Winlink/Airmail operations. Sunday Night Packet Training Net is at 8:00 PM, on 145.73, simplex, using the unconnected mode. Set up your TNC to change the value of unproto as follows: Use firstname via x,y where [ausrly1 n5hpc-5 w5tq-4] are the real digipeaters instead of x and y. For example, my name is Bill and I can digipeat through n5hpc-5 easily. Use this argument to set your unproto: unproto Bill via n5hpc-5,ausrly-1,w5tq-4. ausrly-1 is at 3M on 2222, n5hpc-5 is at 41st and Guadalupe and w5tq-4 is at CTECC. Be sure to include all 3 digipeaters in your unproto line.

An annual test will be conducted during the Fall of each year in conjunction with the nationwide Simulated Emergency Test (SET) sponsored by ARRL. Periodic exercises will be conducted in cooperation with the various Austin/Travis County Emergency Management Coordinators. At the discretion of the EC, ARES will sponsor an unannounced activation at least once a year.

Training requires preparation. For example, in preparing for a Simulated Emergency Test (SET), have a pre-SET group check of Go Kits at an ARES meeting well ahead of the SET, to allow kits to be updated, repaired, and improved. Things like repeater lists need to be up to date, and obsolete lists removed. Batteries need to be checked and refreshed.

5.3 EC authority

The EC has the authority to appoint Assistant ECs and other appointees as necessary. Travis County ARES Officers and Contacts are:

- (EC) Emergency Coordinator. The Emergency Coordinator for Travis County ARES, along with his AEC's are responsible for activating the unit when needed, organizing and training hams, and coordinating with the South Texas Section leadership.

- (AEC) Database and Website Coordinator. Responsible for all of our membership database, online tools and reporting systems and for functionality of the website.
- (AEC) NET Operations Coordinator is responsible for Net Operations, Scheduling Net control operators, scripts, procedures and other items related to our Net Control programs.
- (AEC) Training Coordinator: is responsible for all training related issues within the group and for overseeing the directions and content of our training.
- (AEC) PIO, the Public Information Officer, is tasked with briefing media, promoting the visibility of ARES and its activities and fielding questions from the media and public when we are active.
- (AEC) Interoperability Coordinator tasks include attending CCG, CATRAC and HSEM planning meetings and serving as the information exchange point between TCARES and external organizations.
- (AEC) ARCHES Equipment Coordinator coordinates the ARCHES and Regional ARCHES issues for us and is point of contact for installed hospital ham stations.
- (AEC) Skywarn/Weather Net: (open). This position is responsible for coordinating the Weather nets along with potential training of NCS and coordination with the NWS and KVUE TV.

Other Liaisons: We also have several liaisons that coordinate between TCARES and other groups. These groups include the Motorcycle Special Events Team (MSET), the American Red Cross, the HF National Traffic System Nets, Army MARS communications, and the Travis County REACT group.

5.4 Situation Report

NA

5.5 Mutual Aid

TCARES is available to assist outlying served agencies in a mutual aid function.

5.5.1 ARES Response Levels

5.5.1.1 Level 1 Response

See South Texas Section Emergency Communications Plan.

5.5.1.2 Level 2 Response

See South Texas Section Emergency Communications Plan.

5.5.1.3 Level 3 Response

See South Texas Section Emergency Communications Plan.

5.5.1.4 Level 4 Response

See South Texas Section Emergency Communications Plan.

5.5.2 Mutual Assistance Resources

TCARES and the Austin Amateur Radio Club have equipment and trained members available for mutual assistance missions. TCARES participates with the Texas Rapid Response Task Forces and other entities in combined efforts with other agencies to provide emergency communications.

6 Readiness Conditions

Standard operating procedure for all conditions is below. Otherwise, for other subheadings in this section see South Texas Section Emergency Communications Plan.

OPEN NETS : The Austin/Travis County Emergency Net will be activated by the Net Control Station. Based upon the facts, stations will be fully advised as to the nature of the emergency. Net Control will establish backup frequencies and a backup NCS station. As appropriate, Net Control will periodically announce that a net is in progress, give brief summaries, and remind users of backup frequencies and backup net control, etc.

CHECK IN STATIONS: Stations will be checked in from their home stations, mobiles, and portable stations. All stations shall stand by for further instructions. An inventory list will be made of operators and equipment for possible assignment as relief operators.

DISPATCH: Mobile and portable stations will be dispatched as needed either to a "Staging" location or directly to the incident site as determined by the OIC. OIC must notify NCS which Agency Official, by name and title, requested our deployment should our deployed units encounter a restricted access condition or other challenges. The location of each will be noted at all times by the NCS.

SITE SUPERVISION: Each site will have a designated Communications Supervisor (CS) who will coordinate amateur communication at their specific deployment site.

6.1 Condition 4 - Normal

6.1.1 ARES Leader Actions

6.1.2 ARES Member Actions

6.2 Condition 3 - Increased Readiness

6.2.1 ARES Leader Actions

6.2.2 ARES Member Actions

6.3 Condition 2 - Escalated Response Condition

6.3.1 ARES Leader Actions

6.3.2 ARES Member Actions

6.4 Condition 1 - Emergency

6.4.1 ARES Leader Actions

6.4.2 ARES Member Actions

7 County Emergency Frequencies

For voice communications, an ARES member will typically check in on a Resource Net on 146.94 Mhz (107.2 tone, negative offset). The Resource Net Control will acknowledge the check-in, take necessary information including cell phone number, and refer the member to a Tactical net on 147.36 Mhz (131.8 tone, positive offset). Weather nets will typically be called on 146.94 Mhz (107.2 tone, negative offset). Other frequencies may be used in accordance with radio interoperability provisions.

7.1 Emergency and Tactical Traffic

7.1.1 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: Austin Fire Department)
- What (Example: Pumper truck needed ASAP)
- Why (Example: Structure fire)

- Where (Example: Travis High School)
- Who (Lt. Scott Gibson, Austin Fire Department)

7.1.2 Transmitting

Keep transmissions short and to the point. All stations, including net control, should leave frequent gaps in their transmissions for emergency traffic. (Long enough for someone to recognize the gap and call "BREAK BREAK.") Stations must not transmit unless invited to do so by the Net Control (NCS).

7.1.3 Exceptions

- A. Stations having tactical emergency traffic.
- B. As designated in the standard operating procedure of Amateur Radio.

7.1.4 Interoperable Frequencies with Adjoining Counties

7.2 Health and Welfare Traffic

7.2.1 Messages

7.2.1.1 Formal Messages – ARRL Radiogram

Formal messages are those which are written in a standard format. All messages which request material or services which may require payment or replacement must be formal messages.

Message Forms: All formal messages must be written in standard ARRL format unless otherwise directed by the served agency.

It is strongly encouraged to restrict messages to 25 words or less, particularly if the message will be relayed multiple times or sent out of the area. Messages over 25 words are much less likely to reach their destination quickly. Operators receiving messages from officials should encourage the officials to produce messages in 25 words or less to ensure prompt and reliable delivery.

The served agency representative can create his/her 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.

Any operator receiving messages should check the precedence of messages received for EMERGENCY precedence messages.

Anyone giving messages to an operator should check the messages and inform the operator if any of the messages are of EMERGENCY precedence. The person passing the messages should be sure the receiving operator acknowledges this precedence.

Requester name: All FORMAL MESSAGES require the PRINTED NAME, TITLE, SERVED AGENCY and SITE of the requester .

All requests to dispatch operators to a location require PRINTED NAME, TITLE, SERVED AGENCY and SITE of the requester. These requests should be written down in the netlog.

MESSAGES RECEIVED REQUESTING MATERIALS OR SERVICES WHICH MAY LATER REQUIRE PAYMENT or REPAYMENT OF FUNDS WILL NOT BE TRANSMITTED UNTIL THEY CONTAIN THE PRINTED NAME, TITLE, SERVED AGENCY AND SITE OF THE REQUESTER.

Save Messages: All operators must save a copy of all formal messages.

7.2.2 Formal Messages – ICS 213

See Appendix. There is also a variation for hospitals referred to as HICS-213.

7.2.3 Communications Methods

Operators should use the most efficient method available to transmit their message. If available and appropriate, use the telephone, fax, cell phone, internet, packet, foot, automobile, etc. The more traffic passed off the air, the more available ham radio is for traffic to/from locations without alternate means of communications.

ARES operators will comply with the federal Health Insurance Portability and Accountability Act of 1996 (“HIPAA“) and State of Texas legal requirements. The HIPAA “ Privacy Rule “ affords patients and individuals the right to access, amend, and safeguard the privacy and confidentiality of their personal, protected health information (PHI). PHI is defined as any identifiable health, medical or demographic information that describes the individual’s personal identity. This includes but is NOT limited to name, address, phone number, e-mail, photographs, charts, tests, records etc. This information will not be transmitted by voice communication.

In all written communication, please print legibly.

7.3 Digital Messaging

TCARES uses a variety of digital messaging methods and packages, including APRS, packet messaging, HSMM, D-STAR, and others. Digital messaging is very important for disaster communications. In its various forms it provides a HIPAA compliant method for transmitting patient data, a way to transmit pictures from a remote site, a way to provide

Internet service over airwaves, and a way to transmit documents including signed documents that are currently required by NIMS protocols.

ARES members are encouraged to learn more and become proficient in digital modes.

8 Appendices

8.1 Pre-defined Staging Areas

Mobile units may stage in the parking lots of pre-defined staging areas which are:

- HEB Grocery Stores
- Wal-Mart Stores
- Austin Parks and Recreation Department Community Recreation Centers

8.2 Training Levels

CERTIFIED

- Complete basic training course
 - Meet minimum participation requirements: Check into 9 TCARES nets per quarter
 - Participate in one emergency operation
 - Send in monthly participation reports
 - Compose and send 2 formal ARL Radiograms by voice.
 - Program CTCSS Tones into a VHF radio
 - Attend a Skywarn class
 - Serve on a TCARES committee
 - Complete ARRL EC-001 Course
 - Complete FEMA ICS-100 & ICS-200 Courses

ADVANCED (in addition to qualification as Certified Communicator)

- OPERATIONAL
 - NCS for 3 months (digital or voice)
 - NCS for emergency operation (drill, weather or actual) or serve as member of a SET planning team
- TECHNICAL
 - Send/receive ARCHES Winlink Traffic
 - Send/receive HF Pactor Winlink Traffic
 - Send ARRL Radiogram via HF SSB on a NTS net
 - Check into the TCARES Packet Net
 - Demonstrate or explain Cross-Band repeating
 - Demonstrate the ability to read and convey by radio a GPS position
- ORGANIZATION
 - Serve as a leader of a TCARES committee or as an AEC.
 - Send in monthly participation reports
 - Participate in 75% of all nets and meetings
 - Develop and present 1 training class to TCARES
 - Recruit 1 new TCARES member or recruit at 1 HAMFEST or other PR Event
- EDUCATION
 - Obtain General Class license or higher
 - Complete ARRL EC-002 Course
 - Complete FEMA ICS-700 Course
 - Complete TCARES Safety Course

MASTER (in addition to qualification as Advanced Communicator)

- OPERATION
 - TCARES member for 3 years
 - Serve as a NCS for 1 year (once per month)
 - Participate in 3 emergency operations or public service events.
- TECHNICAL
 - Demonstrate full WL2K capable (Packet, Pactor, Telnet)
 - Construct and deploy HF NVIS and VHF antennas
 - Demonstrate extended HF portable operation
 - Serve as a TELPAC/PMBO assistant SYSOP or CTECC operator
 - Demonstrate VOIP (Echo Link, IRLP) capability
 - Demonstrate the ability to navigate to remote location using a hand-held GPS unit.
- ORGANIZATION
 - Maintain a good record of participation reports
 - Serve as an AEC
 - Develop and present 3 training classes to TCARES
 - Recruit 3 members (1 per year) or recruit at 3 HAMFESTS or public events
- EDUCATION
 - Complete ARRL EC-003 Course
 - Obtain the Amateur Extra Class License
 - Complete FEMA ICS-800 Course
 - Complete 1 ARRL Technical CE class from following: Radio Frequency Propagation – EC-011
 - HF Digital Communications – EC-005
 - VHF/UHF Life Beyond Repeaters – EC-008
 - Antenna Design and Construction – EC-009
 - Antenna modeling – EC-004

8.3 Combined Transportation, Emergency & Communications Center (CTECC)

-- Office --

Combined Transportation, Emergency & Communications Center (CTECC)
5010 Old Manor Road, Suite 330, Austin, TX 78723

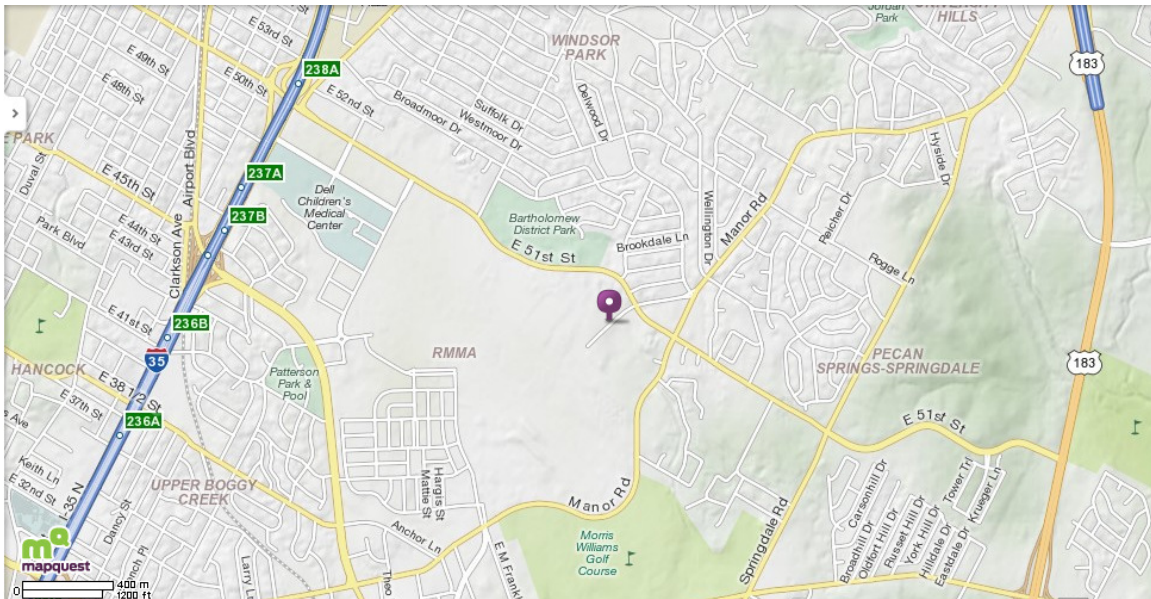
[Map](#)

-- Mailing Address --

City of Austin, HSEM, P.O. Box 1088, Austin, TX 78767-1088

Phone (512) 974-0450

Fax (512) 974-0499



8.4 ARCHES

NOVEMBER 2010 DRILL HOSPITAL CALL SIGNS

Non-Hospital Stations

CTECC, Drill Winlink Address: w5tq-1@Qwinlink.org

RMOC (if activated), Drill Winlink Address: w5oem-1@winlink.org

Llano County

Llano Memorial Hospital, Drill Winlink Address: k5hla-7@ewinlink.org

Travis County Hospitals

Austin Surgical Hospital, Drill Winlink Address: ke5twr-5@winlink.org

Seton Medical Center, West 38th St., Drill Winlink Address: w5oem-15@winlink.org

St. David's Medical Center, Drill Winlink Address: w5oem-8@winlink.org

St. David's North Austin Medical Center, Drill Winlink Address: w5oem-9@winlink.org

St. David's South Austin Medical Center, Drill Winlink Address: w5oem-12@winlink.org

Williamson Co. Hospitals

Cedar Park Medical Center, Drill Winlink Address: w2mn-1@winlink.org

S & W University Medical Center, Drill Winlink Address: na5bd-2@winlink.org

St. David's Medical Center, Georgetown, Drill Winlink Address: kd4hnx-1@winlink.org

St. David's Medical Center, Round Rock, Drill Winlink Address: kd4hnx-4@winlink.org

S & W Taylor Hospital, Drill Winlink Address: n5exy-2@Qwinlink.org

8.5 Digital Messaging

To come. Specifics on how hospitals are set up, VHF airmail packets at hospitals, RMS server at CTECC, W5TQ, and how digital supplies HIPAA compliance, and an appendix with available RMS packet servers. And that CTECC has HF Winlink.

8.6 ICS 213 Form

MESSAGE>

TO:	POSITION:
FROM:	POSITION:
SUBJECT:	

TEXT:				
SIGNATURE:			POSITION:	
RECD BY:	RECD TIME:	Z	RECD DATE:	

REPLY>

TEXT:				
SIGNATURE:			POSITION:	
RECD BY:	RECD TIME:	Z	RECD DATE	

OP NOTES:

The ICS 213-AR is a general use message form for use by Amateur Radio Emergency Communicators.

The ICS 213-AR has two parts:

Part 1 is the original message

Part 2 is the reply

Complete the parts as follows.

PART 1 - MESSAGE

TO: The person to whom the message is intended. **POSITIONS:** Rank, ICS Title, Organization

FROM: The sender originating the message. **POSITION:** Rank, ICS title, Organization

SUBJECT: A short description of why the message is being sent

TEXT: Message goes here. The “TEXT” section contains forty (40) spaces for words. Messages containing more than forty words may need editing by the sender. Longer messages may be continued on the reverse.

SIGNATURE: Signature of the sender. An actual signature may be required by some recipients. Message requiring actual signatures may have to be sent as images.

POSITION: Same as above.

RECVD BY: Initials of the communications operator.

RECVD TIME: Zulu time received

RECEIVED DATE: Zulu date received

PART 2 – REPLY

ALL AS ABOVE.

OP NOTES: The Communications Operator should record any pertinent information needed to complete the message communication here.

The operator may see a multipart version of the ICS 213. Retain extra copies.

8.7 Communications Resource Availability (ICS 217)

TRAVIS COUNTY ARES COMMUNICATIONS RESOURCE SCHEDULE						Frequency Band		Description	
						HF/VHF/UHF/IP		Travis County ARES	
VHF - UHF VOICE									
<u>Channel Configuration</u>	<u>Channel Name</u>	<u>Eligible Users</u>	<u>RX Freq N or W</u>	<u>RX Tone</u>	<u>TX Freq N or W</u>	<u>Tx Tone</u>	<u>Mode A/D</u>	<u>Remarks</u>	
VHF Repeater	"88R"	ARES/CCG/RTF/RACES	146.880 MHz. W	100.0 PL	146.280 MHz. W	100.0 PL	A	Resource Net - W5KA	
VHF Repeater	"36R"	ARES/CCG/RTF/RACES	147.360 MHz. W	131.8 PL	147.960 MHz. W	131.8 PL	A	Tactical Net - WA5VTV	
VHF Repeater	"94R"	ARES/CCG/RTF/RACES	146.940 MHz. W	107.2 PL	146.340 MHz. W	107.2 PL	A	Tactical Net - W5KA (Out of Service)	
VHF Repeater	"90R"	ARES/CCG/RTF/RACES	146.900 MHz. W	CSQ	146.300 MHz. W	CSQ	A	Tactical Net - W3MRC	
VHF Repeater	"32R"	ARES/CCG/RTF/RACES	147.320 MHz. W	114.8 PL	147.920 MHz. W	114.8 PL	A	Tactical Net - W5MOT	
VHF Repeater	"68R"	ARES/CCG/RTF/RACES	146.680 MHz. W	123.0 PL NAC 123	146.080 MHz. W	123.0 PL NAC 123	A/D	Tactical Net - KE5ZW // WILLCO Interop // P-25Capable	
UHF Repeater	"100U"	ARES/CCG/RTF/RACES	444.100 MHz. W	103.5 PL	449.100 MHz. W	103.5 PL	A	Technical Resource Net - W5KA	
VHF Simplex	"58S"	ARES/CCG/RTF/RACES	146.580 MHz. W	CSQ	146.580 MHz. W	CSQ	A	Simplex Net Freq.	
VHF Simplex	TAC1*	ARES/CCG/RTF/RACES	145.500 MHz. W	CSQ	145.500 MHz. W	CSQ	A	ARES TACTICAL SIMPLEX	
VHF Simplex	TAC2*	ARES/CCG/RTF/RACES	147.430 MHz. W	CSQ	147.430 MHz. W	CSQ	A	ARES TACTICAL SIMPLEX	
VHF Simplex	TAC3*	ARES/CCG/RTF/RACES	145.790 MHz. W	CSQ	145.790 MHz. W	CSQ	A	ARES TACTICAL SIMPLEX	
VHF Simplex	TAC4*	ARES/CCG/RTF/RACES	147.530 MHz. W	CSQ	147.530 MHz. W	CSQ	A	ARES TACTICAL SIMPLEX	
*TAC CHANNELS SHOULD BE ASSIGNED FOR USE IN ORDER TAC 1 - TAC 4									

VHF PACKET									
PACKET 1	ARCHES /CAPCO	ARES/CCG/R RTF/RACES	145.730 MHz. W	CSQ	145.730 MHz. W	CSQ	A	HOSPITAL NET PRIMARY	
PACKET 2	ARCHES /CAPCO	ARES/CCG/R RTF/RACES	145.070 MHz. W	CSQ	145.070 MHz. W	CSQ	A	HOSPITAL NET SECONDARY	
VOIP INTERNET									
Echolink (ERILS)	ARRL WGD	ALL						Echolink K5FX-R	
IRLP	ARES-A/TC	ARES/CCG/R RTF/RACES	147.570 MHz. W	67.0 PL	147.570 MHz. W	67.0 PL	A	IRLP Node 3772 - K1BDX	
IRLP InterOp	ARES/TC	ARES/CCG/R RTF/RACES	Primary REFLECTOR 9073				A	CCG-RRTF InterOp	
HF VOICE									
ARES/Texas	HF DAY Primary	ARES/RRTF	7.290 LSB		7.290 LSB		A	via STX ARES/CTECC	
ARES/Texas	HF DAY Secondary	ARES/RRTF	7.285 LSB		7.285 LSB		A	via STX ARES/CTECC	
ARES/Texas	HF NIGHT Primary	ARES/RRTF	3.873 LSB		3.873 LSB		A	via STX ARES/CTECC	
ARES/Texas	HF NIGHT Secondary	ARES/RRTF	3.845 LSB		3.845 LSB		A	via STX ARES/CTECC	
ARES/Texas	HF Tertiary	ARES/RRTF	5.373 USB		5.373 USB		A	via STX ARES/CTECC	
WINLINK									
WINLINK	CCG EMAIL	CCG/MARS						kt5ccg@winlink.org	
WINLINK	CTECC EMAIL	CTECC						w5tq-1@winlink.org	
WINLINK	CTX RED CROSS	CTX RC						w5ka@winlink.org	
TEXAS INTEROP COMMUNICATIONS PLAN									
CCG INTEROP	TICP/VT AC11**	CCG	151.1375 N	156.7	151.1375 N	156.7	A	CCG INTEROP	
TASK FORCE AUSTIN	TICP/VT AC12**	TASK FORCE AUSTIN	154.4525 N	156.7	154.4525 N	156.7	A	TEAM AUSTIN INTEROP	
**Use call sign "ARES" and ICS identifier on these public safety channels. (Examples: "ARES Seton"; "ARES CTECC"; "ARES Fire Station 1001")									

COMMUNICATIONS RESOURCE AVAILABILITY WORKSHEET

Frequency Band Description

**ARES HF
 AUSTIN/TRA
 VIS**

<u>Channel Configuration</u>	<u>Channel Name/Trunked Radio System Talkgroup</u>	<u>Eligible Users</u>	<u>RX Freq</u> N or W	<u>RX Tone/NAC</u>	<u>TX Freq</u> N or W	<u>Tx Tone/NAC</u>	<u>Mode</u> A, D or M	<u>Remarks</u>
	ARES HF Primary Night		3.873 MHz. (LSB)	N/A	SAME	N/A	A	W5TQ CTECC
	ARES HF Secondary Night		3.845 MHz. (LSB)	N/A	SAME	N/A	A	W5TQ CTECC
	ARES HF Primary Day		7.290 MHz. (LSB)	N/A	SAME	N/A	A	W5TQ CTECC
	ARES HF Secondary Day		7.265 MHz. LSB	N/A	SAME	N/A	A	W5TQ CTECC
	ARES HF Tertiary		5.373 MHz. USB	N/A	SAME	N/A	A	W5TQ CTECC
	HF Maritime Net		14.300 MHz. (USB)	N/A	SAME	N/A	A	W5TQ CTECC
	HF Hurricane Watch Net		14.325 MHz. (USB)	N/A	SAME	N/A	A	W5TQ CTECC

8.8 Tactical Call Sign Use During Drills and EMCOMM Operations

Travis County ARES will use tactical call signs to reduce confusion and enhance the efficiency and efficacy of all drills and operations. Tactical callsigns may be assigned by the Net Control Station (NCS), a Team Leader, CTECC or, in some instances, self assigned. Deployed “GO” teams and “Field Op” teams will use tactical call signs as follows:

Fixed Stations will use tactical call signs that designate LOCATION and FUNCTION.

Examples:

“North Staging” “MANOR CP” “SOUTH LAMAR OPS” “FIRE STATION 1101”

Mobile stations use call signs that designate FUNCTION and a UNIQUE NUMERIC DESIGNATOR. Examples: *“FIRST AID 1” “TRANSPORT 6” “AMBULANCE 903”*

NET CONTROL will use the tactical callsign *“NET”*

CTECC will use the tactical callsign *“CTECC”*

Red Cross Headquarters will use the tactical callsign *“RED CROSS”*

Stations not assigned to a location or operation will use the last two characters of their FCC assigned callsign as their tactical callsign. ICAO phonetic will be used if radio conditions are poor or the letters/numerals alone are likely to be misunderstood.

Examples: K5FX will use *“FX”* or *“FOXTROT XRAY”*

KE5DTP will use *“TP”* or *“TANGO PAPA”*

K5TOC will use *“OC”* or *“OSCAR CHARLIE”*

NG5V will use *“5V”* or *“FIVE VICTOR”*

To comply with the FCC identification rules, append your full FCC call sign to the end of your last transmission (or every ten minutes for longer exchanges) the other station(s) should do the same. To contact another station always state the called station first, followed by the proword “this is”, then your station name.

“NORTH STAGING, this is OPS ONE”

“LAMAR COMMAND, this is FIRST AID TWO”

Responding to a call: The correct response is to identify with YOUR tactical call sign, followed by the proword “go”: *Team 2, go” “Brush 21, go”*

To end a contact, use the proword “OUT” and your FCC assigned callsign:

“SAR Base out, K5XXX”

“Fair Oaks Command OUT, W5ZZZ”