Texas Emergency Alert System

Plan for Alerting the Public about Imminent Risk to Life or Property

Adopted by Texas State Emergency Communications Committee

In Accordance with Directions of the President of the United States, the Federal Communications Commission and the U.S. Department of Homeland Security – Federal Emergency Management Agency
APPROVED 12-18-2017
UPDATED 1-28-2026

The Texas EAS Plan details systems for governmental agencies and media to cooperate to warn the public about serious potential threats to life or property and to suggest actions to take to minimize risk and danger. This version of the plan is on file with the FCC and also is available for downloading at www.TAB.org

Texas EAS Plan – Table of Contents

Checklist 2
Approval & Concurrence Signatures 3
Purpose / Authority / General 4
Concept of Operation 5
Definitions 7
Delivery of Emergency Messages
- National 12
- State 14
- Local 14
- Cable Operators. 14

Activation - EAS Message Priorities 15
- Emergency Action Notifications - National 16
- Emergency Action Notifications - State 17
- Emergency Action Notifications - Local 18

EAS Activation Guidelines 19
Implementation - EAS Tests 19
- Required Weekly Tests 20
- Required Monthly Tests 20
- Test Formats & Scripts 21
- Real Alert Formats & Scripts 22

Guidance for Originators 23
Guidance for Programming Decoders 25
Modes of Operation 26
Required/Suggested Event and Location Codes 26
Required and Suggested Event Codes To Program for EAS Decoders 27
Appendix A: List of Officials Designated to Activate the Texas EAS 28
Appendix B: Authentication Procedure to Activate the Texas EAS 29
Appendix C: Map of Texas Local Operational Areas 30
Appendix D: Lists of Counties in 25 Local Operational Areas 31
Appendix E: EAS Codes Transmitted by Key EAS Originators 33
Appendix F: Texas EAS Local Primary Stations 34
Appendix G: Broadcast Station & Cable Operator Monitoring Assignments 41
Appendix H: Procedure for Requesting Monitoring Assignment Waiver 42
Appendix I: Diagrams of National and State Message Delivery Paths 43
Appendix J: Map of National Weather Service Coverage Areas 47
Appendix K: Frequencies of NWS Stations Serving Texas Counties 49
Appendix L: Web sites for FCC Rules & Regulations, Part 11, and Operations Manuals 62
Appendix M: List of “Local Area” Plans 63
Appendix N: List of AMBER Child Abduction Alert Plans 64
Appendix O: List of Texas State Emergency Communications Committee Members 66
Appendix P: Texas County & Offshore FIPS Codes 67
Appendix Q: Cable Override Agreement Example Letter 70
Appendix R: EAS CAP information 71

Checklist

Emergency Alert System (EAS) Checklist for Broadcast Stations and Cable Operators

Your EAS Operational Area*		
Your EAS Monitoring Assignments	**#1**	
	#2	
	#3 **Alternate**	

✓✓	**Responsibilities**
	1. All personnel trained in EAS procedures and in use of EAS equipment.
	2. EAS encoders and decoders installed and operating with recommended activation codes programmed. *(See Appendix E)*
	3. Correct assignments monitored, according to the State EAS Plan.
	4. At least two weekly tests and one monthly EAS test received and logged.
	5. Weekly and monthly EAS test transmissions made and logged.
	6. Appropriate FCC EAS documents, web addresses and Orders available (AM/FM, TV or Cable.)
	7. Copies of State EAS plan immediately available. *(See www.tab.org for latest version)*
	8. Copies of "Local Area" EAS plan - if one exists - immediately available.
	9. Copy of FCC EAS Rules and Regulations (Part 11) and, if appropriate, AM station emergency operation (Section 73.1250) available.
	10. CAP equipment has been installed and successfully tested.

*An "EAS Operational Area" or "Local Area" in the Texas State EAS Plan actually is a multi-county area designated as " Operational Area" or "Local Area" for EAS activation purposes. The state is divided into 25 "Local Areas" based on how the Department of Public Safety divided the state when the 1996 Texas State EAS Plan was adopted. Since then DPS and the Texas Local Council of Governments have redrawn lines and created 24 "disaster areas." The SECC plans to revise the EAS districts to make the local areas more consistent with actual broadcast markets and signal coverage of radio and TV stations.

(A map of existing EAS Local Areas is included in Appendix C. A list of the counties included in each district is included in Appendix D.)

Approval & Concurrence

Approval

Name	Signature	Date	Title
Oscar Rodriguez			Chair, Texas State Emergency Communications Committee
Ben Downs			Co-Chair, Texas State Emergency Communications Committee
David G. Simpson			Chief, Public Safety & Homeland Security Bureau, Federal Communications Commission

Concur

Name	Signature	Date	Title
Steven McCraw			Director, Texas Department of Public Safety
W. Nim Kidd			Chief, Division of Emergency Management
Ben Downs			Chairman of the Board of Directors of, Texas Association of Broadcasters
Dale Laine			President, Texas Cable Association
Joe Arellano, Jr.			Meteorologist-in-Charge, National Weather Service, Austin-San Antonio, TX

Purpose

The purpose of this document is to establish procedures and delineate responsibilities for broadcast stations, cable operators and designated government officials in Texas to disseminate emergency information and instructions to alert the public about threatened and occurring national, state and local emergencies, and to provide continuous communications services during an emergency. The plan (1) outlines how the Governor, other state officials, the National Weather Service (NWS) and authorized local/regional government entities can provide emergency messages affecting a large area, multiple areas, or the entire state, (2) provides guidance for the broadcast and cable industry in the use of the Emergency Alert System, both voluntarily and in the event of a national alert from the President of the United States, and (3) outlines the framework for how emergency warning centers and the broadcast community can work together to ensure that residents in the State of Texas and adjacent States can receive timely information that will better help them take protective actions to save lives and property.

Authority

Title 47 U.S.C. 151, 154 (i) and (o), 303 (r),544 (g) and 606; and 47 C.F.R. Part 11, FCC Rules and Regulations, Emergency Alert System (EAS) as pertains to day-to-day emergency operations. NUREG 0654, Federal Emergency Agency, establishes emergency notification requirements for Nuclear Power Plants.

General

These procedures were prepared by the Texas State Emergency Communications Committee which includes representatives of the Texas Department of Public Safety, Texas Division of Emergency Management; the Federal Communications Commission; the National Weather Service, the Federal Emergency Management Agency, and the broadcasters and cable operators of Texas. The plan provides background data and prescribes specific procedures and priorities for the broadcast and cable media to issue emergency information and warning to the general public in the State of Texas or any portion thereof within the broadcast coverage and cable system service areas, at the request of designated local, regional, state and/or federal government officials.

Acceptance of, or participation in, this plan shall not be deemed a relinquishment of program control and shall not prohibit a broadcast licensee or cable operator from exercising his/her independent discretion and responsibility in any given situation. The concept of each broadcast station management or cable system management exercising discretion regarding the transmission of emergency messages and instructions to the general public is provided by the FCC Rules and Regulations, Part 11. Broadcast stations and cable systems originating emergency communications shall be deemed to have conferred rebroadcast authority as specified in Section 11.54 (b).

Detailed procedures, agreed upon by the broadcast and cable industries and the local area governments, which will permit designated government officials to issue local emergency messages and instructions, via the EAS primary or alternate/secondary route in threatened or actual emergencies, will be published as separate documents and will be attached as appendices for each EAS local area.

Concept of Operation

Texas' EAS State Plan will utilize (for the Primary EAS Distribution Method) the resources of the four national Primary Entry Point (PEP) stations located in the state, the National Weather Service, a web of State Relay (SR) entities, and Local Primary (LP1, LP2 and in some cases LP Spanish) stations in 25 geographic areas, a satellite delivered radio news service (Texas State Networks), participating National Public Radio (NPR) affiliate radio stations located in the state and the Texas Department of Public Safety and the DPS Division of Emergency Management, to disseminate emergency messages to the public throughout the state's 254 counties. *(See Appendix I for a flowchart of pathways.)*

National emergency messages will be disseminated across the state through a web (also called a "daisy chain") emanating over the air from Texas' four national Primary Entry Point (PEP) stations, KTRH Houston, WBAP Dallas-Fort Worth, KLBJ Austin and KROD El Paso.

The PEP stations have hardened sites and direct communications from the White House, Air Force One or wherever the President of the United States is through communication systems installed and maintained by the Federal Emergency Management Agency (FEMA). The PEP stations will rebroadcast national and state emergency messages. Specific procedures for how state and local authorities will deliver emergency messages for stations to broadcast still need to be developed and agreed upon by entities that want to activate EAS and broadcasters in that area.

State Relay (SR) responsibilities for disseminating national, state and regional emergency messages will be handled by five broadcast stations (WBAP Dallas-Fort Worth, KTRH Houston, KLBJ Austin, KROD El Paso (which also happen to be PEP stations) and WOAI San Antonio, a private satellite delivered radio service (Texas State Networks), participating National Public Radio affiliate radio stations and the National Weather Service.

WOAI San Antonio, KTRH Houston, WBAP Dallas-Fort Worth, KLBJ Austin and KROD El Paso, in addition to alerting their own listeners, also will serve as State Relay (SR) points to disseminate warnings to broadcasters in other areas of the state (under Texas' Primary EAS Distribution method).

Texas State Networks, a Dallas based news & information radio network, will make EAS tests and national and state emergency messages available to its 100+ affiliates in media markets across the state via its satellite delivery system. TSN will function as the state relay for a number of stations unable to monitor other broadcast sources outside their own area. (TSN will broadcast emergency messages and required tests on both their Comstream (ABR) and ICP (DCR) digital channels.) TSN has made this important service available even to non-affiliates.

National Public Radio at the national level has agreed to make presidential emergency messages available directly from the White House to its affiliates across the country via the private satellite system that it uses to disseminate programming. FEMA has made NPR a Primary Entry Point with a communications link so it will receive presidential messages simultaneously with all the other PEP stations across the nation. In Texas, NPR has 44 affiliates in 32 markets. NPR member stations participating in this program may be monitored for EAN but no other emergency information. No decision has been made whether NPR affiliates will relay any emergency alerts other than an EAN.

The National Weather Service, in a cooperative arrangement set up through the Austin/San Antonio Weather Service Office, also will serve as a State Relay for state emergency messages. The Austin/San Antonio office of the National Weather Service (which is located in New Braunfels, TX) will accept state emergency messages from KTRH, WBAP, KLBJ and KROD, the DPS Division of Emergency Management and/or other entities authorized to activate EAS. The weather office will disseminate state emergency messages via its computer system to all National Weather Service offices serving areas of Texas. Meteorologists at each of the 13 offices will be responsible for putting the state emergency messages on their respective weather wires and broadcasting the alert on their respective NOAA weather radio stations.

Concept of Operation (continued)

(See Appendix J for map and Appendix K for list of stations and frequencies.)

Texas' 254 counties currently are divided into 25 Local Primary areas (also called EAS operational districts). In the future, the district boundaries will be redrawn with lines reflecting the realities of broadcasters' and weather service station coverage areas and incorporating to the fullest extent possible the alignments of counties in the Department of Public Safety's and the Texas' Regional Councils of Government Disaster Districts. *(See Appendix C for a map of Texas' existing EAS Districts and Appendix D for a listing of the counties in each local operating area.)*

The State of Texas has revised its map of "disaster areas" since the Texas EAS Map was created. The Texas EAS Map and state disaster area delineations are similar but not identical. Since the State EAS Plan has been in effect since 1997, there is a record to justify assumptions about which areas can receive broadcasts from which station locations, so successful operations can be anticipated using those monitoring assignments for the time being. Changing the EAS district lines will require considerable research to make sure monitoring assignments will be realistic so that stations and cable operators are not told to monitor sources in areas for which they cannot possibly receive over-the-air signals. For that reason, the Texas SECC opted for now to keep the existing EAS district map. Changes will be made as soon as work can be completed to ascertain if market coverage realities will permit broadcast monitoring sites to be re-aligned. After this initial realignment, the SECC plans to re-evaluate operational areas from time to time and update boundaries to conform to any new realities.

Any station that cannot reliably receive the stations they are assigned to monitor should discuss the problem with the other station(s) in the area to see if a solution can be found and, if not, contact the State EAS Coordinator for help in solving the problem. Oscar Rodriguez is the Texas EAS Coordinator as well as President of the Texas Association of Broadcasters. He can be emailed at oscar@tab.org, or addressed at TAB, 502 E. 11th Street, Suite 200, Austin, TX 78701. His direct phone number is 512-322-9944. *(See Appendix H for procedures for requesting an EAS Monitoring Assignment Waiver.)*

Two Local Primary (LP) stations are designated for each of the 25 areas for all other stations and cable companies in those areas to monitor as sources of emergency communications from the White House, other national alert information, and state and regional alarms. Unless another alternative is agreed upon and designated to disseminate emergency information on particular issues (such as AMBER) or for a delineated geographic area, the Local Primary stations for each EAS District will be presumed to be an appropriate point for dissemination of information by any governmental entity with emergency information that needs to reach the public for urgent protection of life and/or property. In some cases other stations will agree to play a special role in disseminating information about emergencies such as child abductions. The entities responsible for providing those alerts and the stations involved should be careful to be sure pertinent information about the arrangement is always available to the public and is routinely and regularly communicated to all media and governmental units in the district. *(See Appendix N for an explanation of Texas' AMBER plans and a map of the areas covered by regional AMBER organizations. Abductions in any area that does not have a regional organization are referred to the Texas Department of Public Safety to issue AMBER kidnapping alerts.)*

Where appropriate and available, a Local Primary-Spanish (LP-S) station will be designated to disseminate emergency messages in Spanish in that local operating area. The LP-S stations will be listed along with the LP1 and LP2 for each district. *(See Appendix F for a listing of the stations carrying alerts in Spanish).* In many areas with large non-English speaking populations many of the LPs or other broadcasters will attempt to disseminate messages in Spanish or other appropriate languages in addition to English.

Concept of Operation (continued)

All TV stations, cable systems and wireless video systems are required under FCC rules 11.52 (d) to attempt to provide visual messages containing the same details as broadcast over-the-air to be sure individuals who are deaf or have other hearing issues or disabilities have access to the emergency information. DeafLink, a corporation headquartered in San Antonio, maintains a contact list for many individuals needing such assistance and often provides help to stations translating critical information into American Sign Language (ASL). Contact Kay Chiodo at Kaychiodo@deaflink.com or 512-590-7446.

As required by FCC rules 11.52 D 2, all broadcast radio and television stations and cable operations other than PEP stations will be given at least two monitoring assignments to receive emergency notifications over the airwaves, via satellite, Internet or by some other means of communication. The plan also will include recommendations for a third and a fourth EAS source for every station capable of monitoring more than two sources.

For a secondary EAS distribution method Texas will use the Integrated Public Alert & Warning System (IPAWS) – the new Internet based system for communicating alerts developed and operated by the Federal Emergency Management Agency. FEMA has created and activated a national alert aggregator for IPAWS capable of receiving alerts from authorized originators anywhere in the U.S. and relaying the alerts via the Internet to any affected area. To receive these IPAWS messages via the Internet stations will be required to maintain a web connection and to regularly check the FEMA IPAWS aggregator for alerts. Stations will then air the alert in affected areas.

The Texas Division of Emergency Management (TDEM) is a division within the Texas Department of Public Safety located in Austin. TDEM's State Operations Center (SOC) is a 24-hour Watch Center in an underground facility and has redundant power and communication systems in order to provide public warning as required. The SOC will be a primary source for distributing emergency messages from the Governor during critical incidents. The SOC also will issue alerts when the State's AMBER alert network is activated for an abducted child.

Definitions

AMBER Alert/Child Abduction Emergency (SAME code: CAE) is a child abduction alert bulletin in several countries throughout the world, issued upon the suspected abduction of a child. AMBER is officially an acronym for "America's Missing: Broadcasting Emergency Response" but was originally named for Amber Hagerman, a 9-year-old child who was abducted and murdered in Arlington, Texas in 1996.

AMBER Plan – Dallas area broadcasters created the nation's first AMBER Plan in July 1997 to help safely recover missing children that police believe have been abducted and are in danger of serious harm or death. The Dallas Association of Radio Managers (ARM) created the program in memory of Amber Hagerman. AMBER plans use broadcasters' EAS equipment to quickly relay information about an abducted child so the public can be aware of the abduction and assist in locating the child. There are specific AMBER plans for use at the local level. There is also a state AMBER plan for use in those areas without a local AMBER plan. More than 550 children have been successfully recovered using AMBER alerts.

Attention Signal – The solid dual tone 8 second signal transmitted just prior to the audio message in an actual EAS message.

Definitions (continued)

Common Alerting Protocol (CAP) – a data format for exchanging public warnings and emergency information. CAP facilitates rapid and simultaneous delivery of alert and warnings across multiple dissemination methods. CAP also can deliver huge packets of information that can be extremely useful in emergency situations such as detailed architectural drawings of a building that is on fire. The CAP standard has provisions so audio, video, pictures or graphics can be delivered with alerts to deliver more and better information to the public. The standard alert relayed by the IPAWS Open Aggregator will not relay actual audio or video files within messages that CAP-EAS devices receive. When a CAP EAS device polls a CAP message from IPAWS OPEN CAP aggregator, there may be a reference to an audio file on a separate server. If there is a URL pointer in the CAP message, the receiving CAP EAS device will automatically seek the referenced audio file and compile a complete message from both elements. Even though the new CAP EAS system can handle much more, the FCC opted to retain the existing legacy EAS messaging system and requires broadcasters to translate the CAP message to the old SAME format to air for the public. FEMA says EAS will be the backbone of the nation's alert and warning system for the foreseeable future.

CONELRAD (Control of Electromagnetic Radiation) – The U.S. government in 1951 set up and in 1953 implemented a plan for most broadcast stations to go off the air in the event of a nuclear attack to prevent an enemy from honing in on a station's frequency to guide a bomb or missile to a target. Certain designated stations were to continue operating on 640 and 1240 kilohertz to provide emergency information to the public. The Emergency Broadcast System (EBS) replaced CONELRAD in 1963.

EAN (Emergency Action Notification) – A notice sent by the President to all broadcast stations, cable systems, participating industry entities, and to the general public that the EAS has been activated for a national emergency.

EAS (Emergency Alert System) – A system for the rapid dissemination of emergency information through radio and television stations, cable and satellite systems and the Internet. The Federal Communications Commission (FCC) directed the establishment of EAS in 1994 to replace the old Emergency Broadcast System. EAS equipment deployment began in 1997. An EAS warning may be for a few blocks or widespread - large parts of a city, sections of specified areas (such as a county or parts of adjoining counties) or a part or all of a region; or several states or the entire nation.

EAS Designations – EAS designations such as Local Primary 1, Local Primary 2, or Local Primary Spanish, State Relay Station (SRS) or Primary Entry Point (PEP) reflect the EAS status of every EAS participant that is more than just a participating station.

EAS Districts – An EAS district is an operational area designated by the state EAS plan, (also called a "local area"). An "EAS district" or "Local Area" in the Texas State EAS Plan actually is a multi-county area designated to handle emergency communications a single unit for EAS activation purposes. The state is divided into 25 "local areas" or "EAS districts." The SECC plans to revise the EAS districts in the coming days to make the local areas more consistent with actual broadcast markets and signal coverage of radio and TV stations. (*See Appendix C for a map of existing EAS Local Areas. See Appendix D for a list of the counties that are part of each EAS district.)*

EAS Encoder – A device capable of transmitting digitally coded, EAS-formatted emergency messages. Equipment manufacturers must have their devices certified by the FCC.

EAS Encoder/Decoder – A combination Encoder / Decoder that can monitor specified frequencies, record and resend emergency messages by transmitting EAS formatted, digital coded alerts. The decoder can be programmed with filters to activate only for specific types of emergencies in designated geographic areas.

Definitions (continued)

EAS Header – A digitally coded character string that is broadcast three times at the beginning of an EAS Alert. The header contains codes that identify the originator, the event type, the affected locations, the duration of the emergency event, the time and date of transmission, and an ID of the sending station. These short bursts of data are sometimes referred to as "duck squawks."

EBS (Emergency Broadcast System) – The national plan for quick dissemination of alerts developed in 1963 to replace CONELRAD. EBS, in turn, was replaced by the Emergency Alert System (EAS) in 1997.

Effective Date - Effective June 30, 2012 all EAS participants subject to FCC 47 CFR Part 11 must monitor the FEMA IPAWS Common Alerting Protocol (CAP) aggregator. This will initially be accomplished though Internet Protocol (IP) connection of an approved IPAWS OPEN CAP-capable EAS device, and entry into these devices of information that will allow the device to poll the aggregator. This change means that all warning centers authorized by Texas and/or FEMA cannot only issue warnings that will reach the public through broadcast, cable and satellite program content providers, but also simultaneously through other warning systems such as cellular phones (CMAS), Reverse 911, sirens, and a wide variety of social communications media.

Emergency – An emergency is a situation posing an extraordinary threat to the safety of life and property. Examples are, but not limited to emergency situations such as: tornadoes, flash floods, icing conditions, heavy snows, widespread fires, discharge of toxic gases, widespread power failures, industrial explosions, child abductions, civil disorders, terrorist attacks/threats and nuclear incidents.

EOC (Emergency Operations Center – State of Texas) – The emergency operations center for Texas is located in a special underground command center at the state headquarters of the Texas Department of Public Safety in Austin. The EOC is expected to be the primary distribution point to originate alerts by the Governor or other designated state officials. The Governor and other designated state officials also can activate the EAS system by directly contacting any of Texas' four Primary Entry Point stations, KTRH Houston, WBAP Dallas-Fort Worth, KLBJ Austin and KROD El Paso. Confidential phone numbers are provided to the governor.

EOM (End of Message) – A character string comprised of four ASCII "N" characters broadcast three times at the tail end of the EAS message as a termination signal for EAS Decoders.

Event Code – Describes why the EAS was activated. The FCC has defined codes for a number of emergencies including many weather-related events such as hurricanes and tornadoes. There are specific event codes for child abduction events, evacuations, telephone and power outages, hazardous material events, nuclear and radiological hazards and terrorist threats. *(See Appendix E.)*

FCC (Federal Communications Commission) – Acronym for the federal agency that regulates the broadcast, cable, satellite and telephone – landline and wireless – industries.

FEMA (Federal Emergency Management Agency) – Acronym for the federal agency responsible for operating the White House Communications system and direct links to Primary Entry Point Stations across the nation to give the President a direct line to speak to the American people in a national emergency. FEMA also operates the IPAWS aggregator that allows state, regional and local entities to send an emergency message via the Internet to any impacted area. FEMA also coordinates federal response to disasters such as hurricanes and tornadoes.

IPAWS (Integrated Public Alert & Warning System) – IPAWS is the acronym for the Federal Emergency Management Agency's Integrated Public Alert and Warning System (IPAWS) which is the Nation's next generation infrastructure of alert and warning networks. FEMA is expanding upon the existing radio and

television Emergency Alert System to provide one message over more media to more people, before, during and after a disaster. As part of IPAWS, FEMA has created and activated a national alert aggregator capable of receiving an alarm from anywhere in the U.S. and relaying it via the Internet to any affected area. The system utilizes a set of securely hosted web servers to enable the routing of standards compliant emergency messages to people in the affected area. To receive these Internet messages stations will be required to maintain a web connection and to regularly check the FEMA IPAWS aggregator for alerts. Stations will then air alerts for an affected area in their coverage area.

LECC (Local Emergency Communications Committee) – A group of volunteers who develop a plan for utilizing EAS to carry alerts in a particular city or region.

Local Operational Area – An EAS district as designated by the state EAS plan, often referred to in local EAS plans. There are 25 EAS districts or local operational areas in Texas. *(See Appendix D.)*

LP (Local Primary Station) – The LP-1 is a radio or TV station that acts as a key EAS monitoring source. Each LP-1 station must monitor the PEP station for its region and a backup source for presidential messages. The local broadcast station (equivalent to the previous CPCS-1 station under EBS) that will receive emergency messages from the PEP and State Relay entities and in turn broadcast national and state alerts over the air to the public and other broadcasters. FCC regulations require immediate broadcast of a national emergency message. As a public service, Local Primary stations also agree to immediately interrupt their programming to rebroadcast a state emergency message. A Local Primary-2 provides the same function but monitoring alternative sites. *(See Appendix F.)*

LPFM – Low Power FM stations are authorized for noncommercial educational broadcasting only and operate with a lower effective radiated power than full power stations. The service range of an LPFM station is less than a full power station, and LPFM stations are not protected from interference that may be received from other classes of FM stations. LPFM stations are available to noncommercial educational entities and public safety and transportation organizations but not available to individuals or for commercial operations. Current broadcast licensees with interests in other media (broadcast or newspapers) are not eligible to obtain LPFM stations. In the 5th Report and Order (effective April 23, 2012) the FCC said LPFM stations are only required to "transmit test script" and to log receipt of the test.

LPS (Local Primary Spanish) – In appropriate areas, a station that agrees to receive emergency messages from a State Relay or an English language Local Primary station and translate the emergency information and broadcast the alerts over the air in Spanish to warn non-English speakers.

LPTV – Low Power Television Stations were created by the FCC in 1982 to provide opportunities for locally-oriented television service in small communities. These communities may be in rural areas or may be individual communities within larger urban areas. LPTV stations are operated by diverse groups and organizations including high schools and colleges, churches and religious groups, local governments, large and small businesses and individual citizens. LPTV programming can include satellite-delivered programming services, syndicated programs, movies, and a wide range of locally-produced programs. As LPTV signals are comparatively weak, LPTV stations don't generally interfere with larger TV stations using the same frequency.

There are three categories of low-power television stations:

- LPTV stations are low-power stations that may rebroadcast TV signals and originate programming in any amount and in any combination.
- Class A TV stations are LPTV stations that, under the Community Broadcasters Protection Act of 1999, are entitled to greater interference protection than ordinary LPTV stations, if they broadcast a minimum of 18 hours per day and air at least three hours of locally-produced programming each week.

Definitions (continued)

- A TV translator station rebroadcasts the programming of a full-power TV broadcast station on another channel. TV translator stations typically serve communities that cannot receive the signals of full-power over-the-air TV stations because the translator is too far away from the full-power station or because of intervening geography that disrupts a signal (such as uneven or mountainous terrain).

NN (Non-Participating National) – The FCC in 2012 eliminated provisions for stations to choose not to participate in airing national emergency messages. All stations now must participate in airing any national alert.

NOAA (National Oceanic and Atmospheric Administration) – An agency in the Department of Commerce that maps the oceans and conserves their living resources; predicts changes to the earth's environment; provides weather reports and forecasts floods and hurricanes and other natural disasters related to weather. The National Weather Service is part of NOAA.

NWR (NOAA Weather Radio All Hazards) – A nationwide network of radio stations broadcasting continuous weather information directly from the nearest National Weather Service office. NWR broadcasts official Weather Service warnings, watches, forecasts and other hazard information 24 hours a day, seven days a week. *(See Appendices J and K for coverage areas of NWS stations in Texas and their frequencies.)*

Originator – The original source for an EAS alert. Civil authorities, designated elected officials for the state, county or regional councils of government, the National Weather Service, law enforcement authorities, or the national level Emergency Action Notification Network can originate an EAS alert. A Primary Entry Point Station, a Local Primary Station or any broadcast station also can activate EAS and originate an alert – usually at the request of a local or state official.

PEP (Primary Entry Point Station) – FEMA originally selected 34 stations as PEPs in 1951 when EBS replaced CONELRAD. Now there are more than 60 and plans to add even more PEP stations. Each PEP station is connected to the FEMA Operations Center with special communications systems to enable the President to broadcast a live message to the country in a national emergency. Texas has four PEP Stations, KTRH Houston, WBAP Fort/Worth Dallas, KLBJ Austin and KROD El Paso.

RMT (Required Monthly Test) – A test initiated by entities such as the PEP stations or an entity designated by Texas' EAS Coordinator. The test will run during the first full week of the month. All broadcasters and cable operators must retransmit the RMT within 60 minutes of receiving the test. The monthly test must include a digital header signal, two-tone attention signal, an audio message and a digital end-of-message signal. Stations are required to log receipt of RMT's and in the event of a non-receipt find out why any failures occurred.

RWT (Required Weekly Test) – A system wide test initiated by all EAS participants each week, except no weekly tests are required during the week of a monthly test. EAS participants are required to follow monitoring assignments and log receipt of a RMT and a RWT from a LP-1 or LP-2 or other assigned source(s). The RWTs only need to be logged, not rebroadcast. All EAS participants are required to initiate and transmit their own RWT, though stations and cable operators are free to run their own tests at a time of their choosing. The weekly tests do not have to include an audio message and may just broadcast the alert tones. Stations should log their RWT broadcast. Stations may air an audio announcement before or after a RWT explaining why alert tones are aired with no message, i.e. to be sure equipment is operating. Stations transmitting an actual EAS alert need not also transmit a RWT later that week.

Definitions (continued)

SECC (State Emergency Communications Committee) – A group of volunteers empowered by the FCC to develop a new Texas EAS Plan in 2012 to incorporate rule changes, CAP conversion and the new federal IPAWS site that delivers warnings via the Internet. The IPAWS aggregator will disseminate any national emergency message and EAS alerts forwarded from state or local government. The state and local government messages will be targeted to the appropriate geographic region. A similar SECC in 1996 drew up the plan for implementing EAS and updating the former EBS (Emergency Broadcast System) in Texas. The SECC includes people from broadcast, cable, phones (landline and wireless) and emergency planning/response officials. The SECC reviews regional EAS operational plans drafted by Local Emergency Communications Committees and determines whether to recommend FCC approval.

SR (State Relay Entities) – Texas has seven SRs. KTRH Houston, WBAP Dallas-Fort Worth , KLBJ Austin and KROD El Paso. In addition to being PEP stations, they operate as state relays with WOAI San Antonio, the Texas State Networks and National Public Radio affiliates to relay national or state emergency messages from the White House or Governor to local areas. Local primary stations monitor State Relay sources where possible. Otherwise Local Primaries are assigned to monitor other Local Primaries that in turn monitor State Relay Points. National Public Radio affiliates can carry national EAS messages relayed over the NPR satellite system.

State EAS Coordinator – Individual designated by the FCC to facilitate development/operation of a state EAS plan. Oscar Rodriguez is the Texas State EAS Coordinator and SECC chair. He can be reached at the Texas Association of Broadcasters, 512-322-9944.

Texas State Networks (TSN) – State radio network that provides hourly newscasts and weekend and special long form and short form news, sports and talk programming. TSN is the oldest and largest state radio network in the country with 121 affiliate stations in 99 towns and cities and 18 media markets in Texas. TSN has volunteered to use its satellite delivery system to disseminate EAS to its affiliates and a number of other stations that cannot receive broadcasts over the air from the Texas daisy chain.

Delivery of Emergency Messages

National Emergency Message Delivery

The primary delivery path for all National messages in Texas, pursuant to plans established previously by FEMA, will come from the White House via special, “hardened” phone lines to Texas’ four Primary Entry Point (PEP) stations, KTRH Houston, WBAP Dallas-Fort Worth, KLBJ Austin and KROD El Paso. FEMA installs and operates the phone lines and EAS encoder/decoders at PEP stations. FEMA also plans satellite delivery to PEP stations and that could become the primary path. Because the satellite is proprietary the federal agency’s messages will be sent all across the nation but will only be received by PEP stations, instead of allowing every broadcaster to take down the satellite-delivered alarms.

To provide alerts to non-PEP stations, FEMA also will operate a secondary dissemination system via the Internet to encode and send any national emergency message from the President. The FEMA IPAWS aggregator also will accept and reroute state and local emergency messages in CAP format. State or local emergency managers that want to distribute alerts via the IPAWS must have an IPAWS-approved interface. The state and local messages will be targeted to affected geographic areas.

Delivery of Emergency Messages (continued)

From the PEP stations in Texas Primary dissemination system an EAS message will go out simultaneously for: 1. Listeners in their areas; 2. Local Primary-1 stations and their audiences; 3. Local Primary-2 and Local Primary-Spanish stations and their audiences; 4. State Relay Sources such as WOAI San Antonio and Texas State Networks and 5. the National Weather Service stations. All alerts will be broadcast over the air except on TSN which delivers messages via satellite feeds to its affiliates and their audiences.

The PEP stations will broadcast the message over the air for audiences in their operational areas and for specified other stations assigned to monitor a particular PEP. The two other State Relay entities (besides PEPs) WOAI AM San Antonio and Texas State Networks – will repeat the national emergency message (including audio of the President) from the PEPs. Stations that cannot monitor a PEP will be assigned to monitor a closer Local Primary that in some cases may be monitoring another Local Primary that can monitor a PEP or state relay station. Warnings thus are disseminated across the state in a huge daisy chain that is intended to activate every radio and TV station and cable operator in Texas.

PEP stations also will relay Amber Alert messages via telephone to the National Weather Service office in New Braunfels. The PEP station operator should ask for the lead forecaster. The weather service forecaster may choose to call the PEP station back to verify the source of the emergency information. (Unlisted phone and fax numbers will be provided for KTRH, WBAP, KLBJ, KROD and the National Weather Service Office for Austin/San Antonio along with names of key personnel.)

The NWS office in New Braunfels does not have an EAS encoder/decoder and is not equipped to receive or transmit audio. So statewide emergency messages should be reduced to written form and sent to the National Weather Service in New Braunfels. Email will be the primary way of sending the EAS message; fax will be used as a backup procedure. A call to the Weather Service will serve as a notice that a message has been sent. The NWS office in New Braunfels will distribute the message via its computer network to the 12 other National Oceanic and Atmospheric Administration (NOAA) Weather Service Stations in Texas and adjoining states that service portions of Texas.

Participating National Public Radio member stations may serve as a source of national emergency messages received via the NPR satellite communications system. Local NPR stations that agree to be responsible for retransmitting an EAN also can serve as a State Relay for National Emergency Messages. No decision has been made, however, at this point about what role Texas' 44 NPR affiliates want to play in the Texas EAS State Plan.

Local Primary stations across the state will receive a national emergency message from either a PEP station (KTRH Houston, WBAP Dallas-Fort Worth, KLBJ Austin and KROD El Paso), a state relay (WOAI San Antonio and the Texas State Networks – TSN), a local National Public Radio station, a NWS station or another Local Primary that is closer to a PEP station. Local Primary stations that are not able to monitor a PEP station either directly or through a relay system as described in this State EAS Plan or an approved Local EAS Plan may make arrangements to monitor a participating NPR Member station to satisfy their monitoring obligations as set forth in CFR 47 Part 11.2(b). The changed monitoring plan must be documented with a waiver from the Texas EAS Coordinator. *(See Appendix G for form to request an alternate monitoring assignment.)*

The Texas relay entities all broadcast EAS alerts over the air except TSN which utilizes satellite delivery. (NPR's satellite system extends from Washington across the county but does not link NPR affiliates in a state together for other communications purpose.)

All other broadcast stations and cable operators are assigned to monitor one of the PEP stations, weather service stations, local primary stations and/or other state relay entities. In problem situations, the State EAS Coordinator may authorize a different monitoring assignment to make sure each station can receive EAS messages. *(See Appendix H for procedures for requesting an EAS Monitoring Assignment Waiver.)*

Delivery of Emergency Messages (continued)

State Emergency Message Delivery ***(See also Appendix I.)***

A public official authorized to activate EAS for the entire state can initiate action by contacting KTRH Houston, WBAP Dallas-Fort Worth, KLBJ Austin or KROD El Paso by telephone or in person. All four stations are set up to record, properly code and broadcast a statewide EAS alert around the clock every day of the week. The stations provided unpublished phone numbers to designated authorizing officials. PEPs will need to establish authentication procedures to ensure only authorized officials have access to the stations' communications resources. KTRH, WBAP, KLBJ and KROD will be responsible for relaying the messages to one another to ensure widest possible dissemination.

There currently is no state mechanism for quickly and simultaneously disseminating emergency information directly to the public. Texas is too big, however, for all areas to receive alerts directly from PEPs or state relays. The daisy chain is strictly a voluntary extra effort by broadcasters to try to solve the problem.

A station's EAS responsibilities under FCC rules are limited to installing and operating a CAP-enabled EAS encoder/decoder, monitoring assigned sources and airing any National Emergency message.

At least two Local Primary (LP) stations are designated for each local operational area across the state, a Local Primary-1 and a Local Primary-2. Each LP-1 is assigned to monitor either a weather station if available and/or one of the four PEP stations (KTRH Houston, WBAP Dallas-Fort Worth, KLBJ Austin or KROD El Paso,) a designated State Relay such as WOAI San Antonio, the Texas State Networks) and/or an NPR affiliate for emergency messages.

Each LP-2 is assigned to monitor a weather station if available and/or the first Local Primary station and/or one of the four PEP stations (KTRH Houston, WBAP Dallas-Fort Worth, KLBJ Austin or KROD El Paso), a designated State Relay (WOAI San Antonio or the Texas State Networks), a NPR affiliate or another Local Primary for emergency messages.

All other broadcast stations and cable operators are assigned in turn to monitor an NWS Station and a Local Primary Station where possible and/or a State Relay entity. *(See Appendix G for specific monitoring assignments for each Texas EAS region.)*

Local Emergency Message Delivery

The delivery path for local emergency messages will be set out in a local EAS plan. Each local area should organize a Local Emergency Communications Committee including broadcasters, cable operators, cell phone company representatives, law enforcement, emergency responders, emergency operations personnel and other local government officials to draft a plan to submit to the State Emergency Communications Committee.

In addition to any delivery path designated by the LECC, IPAWS-authorized local and regional governmental entities that have CAP enabled equipment can use the Internet to relay any emergency notices to the FEMA IPAWS aggregator that will resend the warnings to every affected broadcaster and cable operator. *See also Emergency Area Notifications Local areas and Guidance for EAS Alert Originators below.*

Coordination for Delivery of EAS Messages by Cable Operators and Broadcasters

All television stations and cable systems are required by FCC rules to provide both audio and video (full-screen text or video crawl) versions of national EAS messages, the Required Monthly Test, and the Required Weekly Test on all programmed channels. For the Required Weekly Test, however, the audio may consist of an EAS alert "tone only" interruption on all programmed channels.

Delivery of Emergency Messages (continued)

For State and Local EAS messages, television stations and cable systems are encouraged to provide emergency information as an audio message, full-screen text summary or video crawl summarizing the EAS message, including the originator, event, location, and valid time period of the message, and any recommended public protective actions. This will provide the hearing-impaired audience with a visual message about the emergency.

Any EAS video crawl should be displayed at the top of the screen or another location carefully selected in order to prevent interference with any closed captioning system or character-generated supers. Spanish-language television stations can display a text summary or video crawl in either Spanish or English.

In addition, television stations and cable systems are encouraged to provide a small color-coded map of their viewing area showing the extent of any warning currently in effect. This map should be displayed continuously over all programming as long as any warning remains in effect.

To prevent repetition of canned EAS tests and messages and avoid interrupting live reports of emergencies, as well as to provide viewers with the maximum amount of real-time information about emergencies where they are threatened or occurring, cable systems are strongly encouraged, as early as possible, to enter into written agreements with their local franchise authorities (if required) and each local television station carried on their cable systems to prevent the cable override of each television station's emergency-related broadcast matter. The agreements should stipulate cable operators will not interrupt a broadcast station's programming with duplicate EAS messages or other messages received by the cable system, provided the broadcast station's General Manager has certified to the cable system that the station meets the following requirements:

1. Originates local news and weather programs at the studio facility;
2. Has weather equipment at the studio facility to support the station's news or weather department;
3. Has the ability to run video crawls over network or local programming to advise the public of weather conditions or other public emergencies; and
4. The station's master control center is manned at all times when the station is on-the-air.

Such agreements are subject to approval by the area LECC and the Texas SECC for compliance with EAS requirements as well as the Local Area EAS Plan and Texas State EAS Plan.

(See Appendix Q for sample letter of agreement between broadcasters and cable operators on override issue.)

Activation / EAS Message Priorities

The National EAS is activated by the White House and communicated by FEMA through phone lines to PEP stations and secondarily through an EAN distributed via the Internet through the IPAWS aggregator.

The State EAS is activated by a request from an authorized official such as the Governor, Lieutenant Governor or from the State EOC to one of the state relays - KTRH Houston, WBAP Dallas-Fort Worth, KLBJ Austin or KROD El Paso (which also happen to be PEP stations). *(See Appendix A for list of officials authorized to activate EAS in Texas.)*

Each local area plan will need to specify what officials or entities are authorized to activate the Local EAS and under what circumstances. *(See also Local Area Activation below.)*

Activation / EAS Message Priorities (continued)

EAS priorities are set forth in the FCC Rules as follows:

1. A National activation of the EAS for a presidential message with the Event code EAN as specified in FCC Rules Part 11.31 must take priority over any other message and preempt any message in progress.

2. Once an EAN is completed, or if there is no presidential alert, EAS participants should transmit other EAS messages in the following order: first, Local Area messages; second, State Messages. Previous guides indicated non presidential national messages would have third priority. To date, however, no steps have been taken to make provisions for such national messages.

3. Key EAS sources (PEP stations and State Relays) during a National emergency must carry presidential messages "live" at the time of transmission or immediately upon receipt. Activation of the National level EAS must preempt State and Local area EAS operations.

Emergency Action Notifications (EANs)

The dissemination of an EAN in Texas is as follows:

National Level

The EAN is released at the national level at the direction of the White House. The EAN message is disseminated from the origination point by a communications systems furnished by FEMA to PEP stations.

The EAN is then further disseminated as follows by:

1. The PEP Stations broadcast the Presidential message for their audience and for other stations monitoring their transmissions. FEMA Operations Center notifies all National Weather Service Offices of the pending EAN via the dedicated National Warning System (NAWAS).

2. State Relays (SRs) retransmit the message over the air or via satellite to reach stations not in range of a PEP station.

3. Local primaries 1, 2 and Spanish air the message for their audiences.

4. National Weather Service offices serving Texas may release a notification that a presidential emergency message has been issued. (FEMA recommends NWS not transmit a WSAME message containing the EAN code until conclusion of the Weather Radio Improvement Program which may allow the weather radio system to relay a true voice presidential message.) Although NWS stations cannot currently record and relay the audio for an EAN, the FEMA Operations Center notifies all NWS offices that the President is issuing an EAN via the dedicated National Warning System (NAWAS).

5. National Public Radio affiliate stations can retransmit the presidential emergency message disseminated to them via the NPR satellite delivery system. NPR receives the EAN directly from FEMA the same as other Primary Entry Point stations.

Receipt of the national EAN is sufficient to begin emergency actions.

Emergency Action Notifications (EANs) (continued)

State Level

An emergency alert such as a HUR (Hurricane) warning is released at the state level at the direction of any of the following individuals:

- Governor, State of Texas
- Lieutenant Governor, State of Texas
- Attorney General, State of Texas
- Director, Texas Department of Public Safety
- Chief, Division of Emergency Management
- National Weather Service Meteorologist-in-Charge

An emergency alert at the state level will be disseminated to Texas' state relays (WBAP Dallas-Fort Worth, KTRH Houston, KLBJ Austin and KROD El Paso, via confidential telephone lines between each station and the SOC to allow authorized officials to reach the PEP stations. Authentication procedures will be developed by the PEP stations themselves. Station personnel will tape the authorized official's message, code the alert for automatic dissemination and broadcast the announcement via the Texas EAS plan. *(See Appendix E for a list of event codes.)*

Under FEMA's new Integrated Public Alert and Warnings System (IPAWS), state or local governmental entities that have CAP enabled EAS equipment can craft an emergency message, send it to the FEMA aggregator and have it disseminated via the Internet to all affected areas. FEMA requires state or county emergency managers who want to originate a CAP message to use a compatible CAP authoring tool and be trained and credentialed by FEMA.

1. Activation at the State level will occur for emergencies that pose a threat to the safety of life and property at the State level or a regional area. Examples of these emergency situations, which may warrant either an immediate or delayed response, are: tornadoes, hurricanes, floods, tidal waves, earthquakes, icing conditions, heavy snows, widespread fires, discharge of toxic gases, widespread power failures, industrial explosions, civil disorders, and an AMBER alert for a child abduction in an area not covered by a local AMBER plan. *(See Activation Guidelines below)*

2. The EAS can be activated prior to commencing routine operation or originating any emissions under program or equipment tests, experimental, or other authorizations, or for any other purpose.

3. Although it is rare, in appropriate situations an individual broadcast station has authority to craft an alert using appropriate codes and headers and activate EAS on its own initiative. The broadcaster with first-hand knowledge about a situation imposing an imminent threat to life or property can activate EAS on its own authority and broadcast an alert even if no "authorizing official" is available to warn the public about the danger. Local broadcasters more routinely act at the request of a local official or receipt of an EAS message on their automatic equipment. A local broadcaster that is authorized by FEMA to be a local IPAWS alerting entity may originate a CAP-based EAS message via IPAWS. Authorities recommend entities capable of issuing CAP-EAS messages and EAS messages only originate messages one time and use only one of the dissemination systems per message.

Emergency Action Notifications (EANs) (continued)

Once a broadcaster or cable operator receives an alert on their EAS Encoder/Decoder, they will take steps first to ascertain whether the EAS has been activated by one or all of the following methods:

a. Monitoring the NWR Station in the area.
b. Monitoring the other State Relays (SRs), (KTRH, WBAP, KLBJ, KROD, WOAI, TSN).
c. Monitoring the assigned Local Primary stations
d. Checking the wire services (AP, Reuters, etc.)

Local Area Level

The dissemination arrangements for the local area emergency warnings will be based on a plan originated by a Local Area Emergency Communication Committee or if no LECC is available, whatever agreement a broadcaster or group of broadcasters makes with a local authority such as a police or fire chief, emergency management coordinator, county judge or sheriff, to disseminate emergency information.

Pursuant to FCC rules, a Local Area Plan organizes and implements the Emergency Alert System for local operational areas as designated by the Texas EAS Plan.

Ideally a LECC will be organized and include representatives of local governmental authorities and area broadcasters and cable operators. Once a local committee is organized, the names of the participants and the chair should be submitted to the Texas State Emergency Communications Committee, which will in turn submit nominations to the Federal Communications Commission for approval. The LECC can then create its own Local EAS Plan. A Local EAS Plan is expected to comply with FCC and FEMA regulations and follow the guidelines established in the State EAS Plan.

Since dissemination of local emergency messages by broadcasters is totally voluntary, it is the responsibility of concerned governmental representatives to work with media representatives to negotiate an acceptable plan for communicating emergency messages, determining what entities will be permitted to input alerts to the broadcast stations or cable systems, setting priorities for what situations warrant automatic emergency activations and establishing procedures to make the system work.

Note: Broadcasters serving as local primary sources for national and state emergency message dissemination have full discretion to decide whether and how to participate in local EAS dissemination. Local EAS activations shall be in accordance with the EAS State Plan and Local Area plan. Local area plans must be submitted to the State Emergency Communications Committee for approval and incorporation in the state EAS Plan.

Although circumstances may vary from one local area to another, each local plan should designate which representatives of local government such as a mayor, county judge, city emergency manager or county emergency manager, will be authorized to issue an emergency alert. The local plan should specify what entity or entities will communicate any emergency message to the broadcast stations as well as which stations will agree to disseminate emergency alerts and under what circumstances.

Only the standard event codes authorized by the FCC can be used.

EAS Activation Guidelines

In general the following conditions should be considered in determining whether an alert is warranted:

1. Severity – will an alert aid in reducing loss of life or reducing substantial loss of property?
2. Timing – does situation require immediate public knowledge to avoid adverse impact?
3. Are other means of disseminating information inadequate to ensure rapid delivery?
4. Can an alert be issued to the general public within two minutes or less?
5. Can this information be provided to all radio, television and cable companies by any other means?

EAS Activation Checklist

Yes	**No**	
☐	☐	Does the situation pose an immediate threat to life or property?
☐	☐	Does the situation have the potential to adversely impact a significant population or geographic area?
☐	☐	Does the situation require immediate public knowledge to seek shelter or take protective action?
☐	☐	Are other means of disseminating information inadequate to ensure rapid delivery of the information?

IMPORTANT: Do **NOT** request EAS activation if the answer is **NO** to **ANY** of these questions.

Implementation – EAS Tests

Statewide tests of the Texas Emergency Alert System will be conducted on the Tuesday during the first full week of each month (Sunday through Saturday). The statewide test will be the Required Monthly Test for Texas broadcasters and cable operators. In every other week besides the first week of the month each broadcast station and cable system operator will have the option to conduct an independent test or participate in a local area or regional test in order to comply with the FCC's requirement for the Required Weekly Tests.

For the statewide test during the first week of the month the State Emergency Communications Committee will establish a plan for the four PEP stations (KTRH, WBAP, KLBJ and KROD) to initiate the tests simultaneously. Days and times will be selected with an eye to minimizing interference with regular broadcast programs while still achieving a random test sufficient to demonstrate the reliability of the EAS web to disseminate an emergency message across the state. Efforts will be made to coordinate tests on some occasions with the Department of Public Safety/Division of Emergency Management to demonstrate the reliability of its role in disseminating emergency information. A current Test schedule can be found at: http://www.tab.org/emergency-systems/rmt-schedule.

Both the Required Weekly Test (RWT) and the Required Monthly Test (RMT) requirements apply to the following FCC regulated entities: all AM, FM and TV stations; all cable systems including those with fewer than 5,000 subscribers per head end; and all wireless cable systems including those with more than 5,000 subscribers. Analog and digital class D non-commercial educational FM, analog and digital LPFM stations, and analog and digital LPTV stations are required to transmit only the test script.

Implementation – EAS Tests

Class D non-commercial educational FM and LPTV stations are not required to transmit tests but must log receipt. Thus, these stations are exempt from running the weekly digital coded RWT. However, these types of stations must re-transmit the RMT as outlined below, minus the EAS header codes and attention signal. In addition, LPTV stations must present all EAS information visually, just as all other TV stations must do. FM Translator and TV translator stations are not required to have any EAS equipment.

Required Weekly Test (RWT)

Transmission: All broadcasters and cable operators must transmit an RWT once each week at random days and times except for the week of the Required Monthly Test. There are no time-of-day restrictions. This is a 10.5 second test, consisting of only the EAS Header and End-of-Message Codes.

Reception: All broadcasters and cable operators receiving a RWT from one of their monitored sources must log receipt of this test. No further action is required. In the event an RWT was not received, FCC rules require stations and cable systems to make a "good faith effort" to ascertain why, such as calling the local primary stations to see if one was sent. The results of the inquiry should be noted in the station and cable system EAS log.

Scheduling: Each broadcast station and cable operator will have the option of deciding when to conduct its own weekly test.

Note: FCC inspectors routinely check EAS operations at local broadcast stations and cable systems and impose fines for thousands of dollars if a station or cable operator does not have operational EAS equipment or a fully annotated test log.

Required Monthly Test (RMT)

Transmission: Required Monthly tests are to be initiated on a statewide basis. The State EAS Coordinator will assign responsibility for initiating the required monthly test to the four PEP stations (WBAP, KTRH, KLBJ and KROD) or another appropriate entity. The State Committee will solicit participation from the state Emergency Operations Center (Department of Public Safety/Division of Emergency Management) in a sufficient number of tests to determine the operational effectiveness of the EAS plan for distributing state emergency messages.

To facilitate planning the SECC will direct the random airing of a required monthly test during the first full week of each month. During the designated week for this test, all other broadcasters and cable operators are to wait for this test and then react. These tests shall always use the Event Code "RMT", never codes such as "State Test", or "Local Area Test", etc.

Scheduling: Required Monthly Tests shall always occur during the first Tuesday of the first full week of the Month. If that day falls on a holiday, the test will be the following day. During even months the test will be between 4:45 am and 6:45 am, Central Standard Time. During odd months the test will be between 11 am and 1pm, CST. In the event that a PEP station fails to send a Required Monthly Test on the scheduled day, the test may be sent at the same time on the following Wednesday, Thursday or Friday of that week.

Recommended Time Constraints: Judgment will be exercised in the scheduling of times for RMTs. Since all broadcasters and cable operators are required to rebroadcast this test, care will be taken not to

Required Monthly Test (RMT) (continued)

schedule tests during highest-revenue programming. On a daily basis, these periods would include all major newscasts, early morning, noon-time, evening and late-evening. The times of major events also are recommended to be avoided, such as pre-planned presidential speeches, prime time or drive time hours, a major national or local news story carried outside of normal newscast hours, local and national election coverage, and major sporting events like the World Series games and the Super Bowl.

Broadcasters and cable operators with a complaint regarding the scheduling of RMTs in their Area should make their concerns known to their Local Area EAS Chair. If a satisfactory resolution is not reached at that level, the State EAS Coordinator should be contacted.

Reception/Re-transmission of RMTs: RMTs expire one hour after origination. All stations must rebroadcast the test within the one hour window. To facilitate this, state relay entities are encouraged to retransmit tests within 5 minutes or less. (Delays would mean stations that receive emergency alerts through five relays - as is necessary in some geographic areas of Texas - would not receive the EAS test until after the automatic 60 minute expiration programmed into the EAS system by FCC specification.)

All broadcasters and cable operators receiving the RMT test should re-transmit this test within 60 minutes of receiving the test. (For Daytime-only stations receiving a night-time RMT, this test must be re-transmitted within 60 minutes of the Daytime-only station's sign-on.) Transmission of this RMT test takes the place of the Required Weekly Test (RWT). Times should be logged for both the receipt and re-transmission of the RMT test. Broadcast and cable management should impress upon their staff that re-transmission of this test is not optional. The FCC requires retransmission of the required monthly test within 60 minutes of receipt. Violators are subject to substantial fines. The best policy may be to set an EAS unit for a 5-minute automatic countdown upon receiving an RMT (Semi-Automatic Mode). If the operator on duty does not send the test manually within that window, the box will do it for him/her when time runs out.

In the event an RMT is not received, FCC rules require stations and cable systems to make a "good faith effort" to ascertain why the RMT was not received, such as calling the local primary stations to see if one was sent. Any corrective action needed should be undertaken as soon as possible. The FCC regards broadcasters' readiness to alert citizens in emergencies as a serious obligation.

Test Formats & Scripts

The following test formats and scripts shall be used by all Texas broadcasters, cable operators, and emergency agencies when originating EAS tests.

Required Weekly Test

Entire test takes 10.5 seconds. Format is as follows:

- Stop regular programming
- One-second pause
- Send EAS Header Code 3 times
- One-second pause
- Send EAS End-of-Message Code 3 times
- One-second pause
- Resume normal programming

No script is used for the regular weekly test. The Federal Communications Commission suggests broadcast stations may want to give listeners some explanation **before or after** the test, however, to let

Test Formats & Scripts (continued)

their audiences know what the unusual sounds are. A script similar to the following text for the Required Monthly Test would be appropriate with the insertion of the name of the local area, the city of license or the market served by the station or cable operator in front of the word, “Texas.”

Required Monthly Test

Anyone originating this test should use the following format. All other broadcasters and cable operators will receive the test in this format and must re-transmit it within 60 minutes in the same format.

Format is as follows

- Stop regular programming
- Optional intro: ***"This is a test of the Texas Emergency Alert System."***
- One-second pause
- Send EAS Header Code 3 times [All sources must use Event Code "RMT" for this test]
- One-second pause
- Send the 8-second EAS Attention Signal
- Read Test Script: ***“This is a test of the Texas Emergency Alert System. In the event of an emergency, this system would bring you important information. This test is now concluded.”***
- One-second pause
- Send EAS End-of-Message Code 3 times
- One-second pause
- Resume normal programming

Timing Note: The script above can be read in 9-10 seconds. All other elements of the Required Monthly Test (the Header Codes and an 8-second Attention Signal) take from 19-21 seconds to complete. (Precise length depends on the number of county codes contained in the Header.) The goal of writing this short script was to fit the entire test into a 30-second time period. State Relay and Local Primary stations and emergency agencies should make every attempt to complete this test in 30 seconds. Pre-recording the script at the length needed to achieve this goal would probably be helpful.

Identification Note: Stations originating the Required Weekly Test or Required Monthly Test should not put the station call letters in the test.

Real Alert Formats & Scripts

NOTE: Due to limitations of hardware, EAS messages cannot exceed 2 minutes in length.

State Activation

The State Emergency Operations Center, or any other governmental entity needing to send emergency information to all or part of Texas, shall transmit a statewide EAS alert to all Texas broadcasters and cable operators via the State Relay Network Plan *(See Appendix I)* unless a more direct, efficient delivery system is created.

The format is as follows:

- Send ACTIVATION SCRIPT: ***“We interrupt this program to activate the Texas Emergency Alert System. Important information will follow.”***
- One-second pause
- Send EAS Header Code 3 times

Real Alert Formats & Scripts (continued)

- One-second pause
- Send EAS Attention Signal (0:08)
- Send ACTIVATION SCRIPT: ***"This is an activation of the Texas Emergency Alert System requested by (Emergency Agency)."***
- Governor or other designated official to give live address NOT TO EXCEED 90 SECONDS. (Some EAS decoders automatically cut the message off if time limit is exceeded.)
- Following the designated official's address, send TERMINATION SCRIPT: ***"This concludes activation of the Emergency Alert System. We now resume normal programming."*** (0:10)
- Send EAS End-of-Message Code 3 times
- One-second pause

Local Area Activation

Areas which have developed a specific Local Area EAS Plan (which should be attached to the State Plan) and will have their own Activation Format presented in their Local Area Plan.

The following is suggested Local Area Activation Format for general use by areas that have not developed a specific EAS Plan:

- Stop regular programming
- Optional Intro: ***"We interrupt our programming to activate the (Local Area, City of License or Market Served) Texas Emergency Alert System. Important information will follow."(0:05)***
- One-second pause
- Send EAS Header Code 3 times *(Use appropriate Event Code from list provided in Appendix E of this plan.)*
- One-second pause
- Send 8-second EAS Attention Signal
- Activation announcement: ***"This is an activation of the (Local Area) Texas Emergency Alert System requested by (Emergency Agency)."(0:08)***
- Broadcast emergency message
- Termination announcement**:** ***"This concludes activation of the (Local Area) Texas Emergency Alert System. We now resume normal programming." (0:10)***
- One-second pause
- Send EAS End-of-Message Code 3 times
- One-second pause
- Resume normal programming

Guidance for Originators of EAS Alerts

National Weather Service Personnel

NWS personnel should issue EAS Weather Alerts via NWR and other dissemination methods using the NOAA-SAME/EAS Codes. NWS may also issue warnings in CAP through FEMA IPAWS. NWS procedures should be followed relating to the transmission of the SAME/EAS Codes, the 1050 Hz Alert Tone, and the reading of the weather bulletin script.

Since NWR is an "all-hazards" radio network, NWS personnel may originate alerts for emergencies other than weather emergencies. Specific station staffing limitations, however, will make it difficult for NWS to handle large numbers of alerts or, in some cases, to accept anything other than a national or state

emergency message. **Local authorities should negotiate in advance and make arrangements with the appropriate NWS personnel about having NWS issue alerts about any hazards besides weather and national and state emergency messages.** In the event that NWS personnel originate non-weather EAS Alerts, such as AMBER alerts, procedures found in this Plan, associated Local Area EAS Plans, the State AMBER EAS plan and local AMBER EAS plans regarding those alerts should be followed.

Emergency Services Personnel

The Emergency Alert System (EAS) is designed so agencies with emergency messages need to give that message only once, and it will be received by all broadcasters and cable operators in the affected area as quickly as possible. A local plan is essential to establish the most efficient and effective way to communicate with the Local Primary stations or other broadcasters and cable operators in each area. In order to generate your own EAS message for transmission to broadcast and cable operators, a device called an EAS Encoder is needed. This unit can be connected to broadcasters via two-way radio or phone lines or some other mechanism. The FCC has prescribed operation standards for the equipment.

Each broadcast station and each cable operator will have an FCC approved encoder/decoder device and FEMA/FCC approved CAP compatible EAS equipment capable of receiving emergency messages. CAP messaging will follow the guidelines in the EAS-CAP industry Group's (ECIG's) Implementation Guide for the special digitally coded emergency messages. *(See http://eas-cap.org/ECIG-CAP-to-EAS Implementation Guide-V1-D.pdf to access the EAS CAP Industry Group implementation Guide.)* The EAS encoder/decoder can be activated by a broadcast message, Internet communication or alert relayed over a phone or some other device.

Some broadcasters may have staff skilled enough to put a message in CAP-compatible form to be transmitted for a local entity. Arrangements for any special accommodation such as this need to be negotiated with stations in advance.

The EAS device can be automatically triggered to receive and disseminate national, state and/or local emergency messages. The equipment will make it possible to interrupt programming and disseminate an emergency message even if the station or system is not staffed full time. Stations are free, however, to decide not to carry any emergency alerts except those of the President.

A word of caution: Emergency services agencies have acquired a valuable new tool in gaining access to all area broadcasters and cable operators via the EAS. Discretion is advised in use of this tool. Broadcasters' airing of EAS alerts is entirely voluntary. Broadcasters and cable operators expect EAS alerts to be used only when there is a serious emergency. Overuse can cause broadcasters and/or cable operators to decide not to air any EAS alerts. Broadcasters and cable operators expect the EAS to be used only for life-threatening emergencies.

1. Some broadcasters and cable operators may have their EAS Decoders set to the Automatic Mode. Often there is no one at the station to screen EAS messages and decide if each one should be aired. Broadcasters and cable operators rely on law enforcement, elected officials and emergency managers to only send an EAS alert when there is a very serious emergency. Overuse or frivolous use of the EAS will erode the confidence of broadcasters and cable operators.

2. Although broadcasters' equipment monitors state and local emergency messages, they are not required to air any alerts besides those of the President.

Local EAS plans need to be negotiated with broadcasters and cable operators to win their agreement to disseminate local EAS messages for the good of the community. Broadcasters and cable operators participate in the state and local-level EAS on a voluntary basis.

Guidance for Originators of EAS Alerts (continued)

All broadcast stations are required to transmit **national** emergency messages. The FCC's Fifth Report and Order eliminated the former "non-participating" category that allowed some stations to go off the air during a national emergency rather than transmit a message from the President. Although broadcasters' equipment can monitor statewide and local emergency messages, stations are not required to air any messages besides those of the President. Most broadcasters choose to participate in airing state and/or local alerts because of their longstanding commitment to public service.

Local EAS plans must be negotiated with broadcast stations and cable operators to secure their agreement to program their equipment to automatically or on a delayed basis interrupt programming for local emergency messages. Alerts can be transmitted by broadcast, Internet, phone line or some other communications method. Local emergency operators can craft CAP enabled messages and send it to the IPAWS aggregator for dissemination to designated areas. Broadcasters, cable operators and emergency responders need to work together for the good of the community.

Nuclear Plant and Industrial Plant Personnel

Nuclear Plants and certain Industrial Plants are the only non-governmental entities that may have cause to make preparations for possible emergency alerts and need to work with local emergency responders to develop a plan for how these plants pass on information to first responders in the event of an emergency. EAS Alert Warnings should only be issued for life-threatening emergencies. Only one alert should be sent. Do not retransmit the original alert to be certain of receipt or send a new alert containing minor changes.

Alerts for less-serious conditions could compromise the confidence of local broadcasters and cable operators, all of whom are carrying alerts on a voluntary basis.

Guidance for All Users – Programming Decoders

This section is provided to aid users of the EAS, primarily broadcasters and cable operators, in programming the Event Codes, County-Location Codes, and Modes of Operation into EAS units. This information can also be of value to Emergency Services personnel who are making use of the Decoder section in EAS units.

In order to program EAS units to properly respond to an incoming EAS message, the units must be told three things: which Event Code to respond to, which Counties that the event should apply to, and in what Mode of Operation to respond.

Under FCC rules, Section 11.52(d)(2), EAS Participants' EAS equipment must interface with the Federal Emergency Management Agency's Integrated Public Alert and Warning System (IPAWS) aggregator to enable (whether through "pull" interface technologies, such as Really Simple Syndication (RSS) and Atom Syndication Format (ATOM), or "push" interface technologies, such as instant messaging and e-mail) the distribution of Common Alerting Protocol (CAP)-formatted alert messages from the IPAWS system to EAS Participants' EAS equipment.

Modes of Operation

Under FCC rules 11.33 and 11.52(d)(2), all EAS Decoders must be capable of at least Manual and Automatic Operation. Some manufacturers also offer a Semi-Automatic Mode.

Manual Operation: EAS units will only notify operators of an incoming EAS Alert to which the unit is programmed to respond. Operators must push a button to cause the Alert to be re-transmitted on the station/cable system.

Automatic Operation: This type of operation would normally be used with a Program Interrupt connection on the EAS Unit. On-air audio and/or video is "looped through" the EAS Unit so that the unit can interrupt the audio/video when necessary.

In the Automatic mode, when the EAS Decoder receives an EAS Alert to which it has been programmed to respond, it immediately interrupts programming to transmit the EAS Alert.

Semi-Automatic Operation: Under this mode of operation, when the EAS Decoder receives an EAS Alert to which it has been programmed to respond, it will begin a preset countdown to automatic interrupt. The idea is for the operator to run the EAS Alert on the air manually at his/her earliest convenience. If the Alert is not run by the time the preset countdown time expires, the EAS unit will take over and do it for the operator. The same could apply to a broadcast automation system where the automation system should insert the received Alert in the next commercial break. If it fails to do that, the EAS unit will put the Alert at the end of the time-out.

EAS units can be programmed to respond to different Alerts in different Modes, such as responding to all Weather Watches in Manual Mode, and all Weather Warnings in the Automatic Mode. The Required Monthly Test (RMT) must be re-transmitted within 5-60 minutes of origination. Stations operating in Semi-Automatic Mode are encouraged to use a 30-minute countdown window to ensure that messages are rebroadcast within 60 minutes of origination. This would give operators the opportunity to run the RMT himself/herself at a break in the show. However, if he/she forgets, the EAS unit would then do it to prevent an FCC violation.

Broadcasters and cable systems operating unattended should program EAS units in the Automatic Mode.

Required/Suggested Event and Location Codes

EAS units must be programmed to respond to certain events in the coverage area. A list of some of those events appears below. *(See Appendix E for a full list of all FCC authorized EAS event codes.)* When programming EAS units for other optional EAS alerts, broadcasters and cable operators will want to include any other counties in those entities “service area.” *(See Appendix P for a list of county codes.)* EAS units also should be programmed for the national location code (000000).

Each type of alert can be whatever counties broadcasters and cable operators wish to alert. EAS units may be programmed in the Manual Mode to notify operators of any EAS Alert received for a county of license. That way, all events need not be programmed separately. Operators can program separately the events for which broadcasters and cable operators actually want the EAS unit to take over the stations’ system in the Automatic Mode.

Required/Suggested Event and Location Codes (cont.)

Required Event Codes that must be programmed for EAS Decoders

The FCC requires that broadcasters and cable operators program EAS Decoders for the following events:

"EAN" (National EAS Activation) = Must be re-transmitted immediately.
"RMT" (Required Monthly Test) containing County of License code = Must be re-transmitted within 5-60 minutes of origination.
"RWT" (Required Weekly Test) containing County of License code = This received test need only be logged. No re-broadcast required.
"NPT" (National Periodic Test) = Must be re-transmitted immediately.

Other Suggested Event Codes to Program for EAS Decoders

At a minimum, broadcasters and cable operators are encouraged to program EAS units to receive and respond to the following event codes. *(See Appendix E for a complete list of event codes.)*

Civil Emergency Message	CEM
Child Abduction Emergency	CAE
Flash Flood Warning	FFW
Fire Warning	FRW
Hurricane Warning	HUW
Hazardous Materials Warning	HMW
Missing and Endangered Persons	MEP
Severe Thunderstorm Warning	SVR
Tornado Warning	TOR
Winter Storm Warning	WSW

APPENDIX A

List of Officials Designated to Activate the Texas EAS

Governor, State of Texas

Lieutenant Governor, State of Texas

Attorney General, State of Texas

Director, Texas Department of Public Safety, Chief of DPS Division of Emergency Management

National Weather Service Meteorologist-in-Charge, NWS Austin/San Antonio

National Weather Service Meteorologist-in-Charge, NWS Dallas-Fort Worth

APPENDIX B

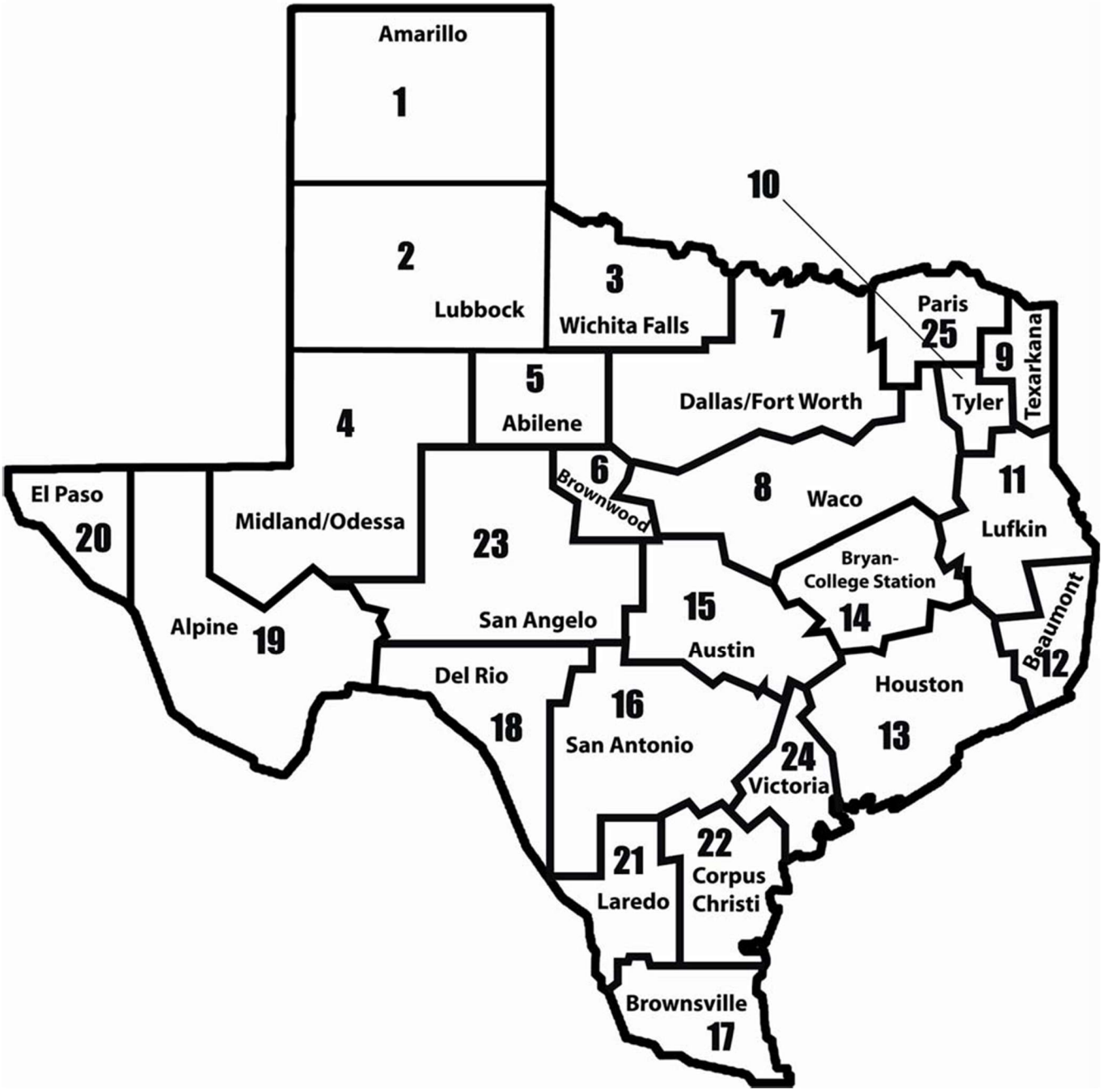
Authentication Procedure to Activate the Texas EAS

The authentication to be used for activation will be determined by the Primary Entry Point stations, KTRH Houston, WBAP Dallas-Fort Worth, KLBJ Austin and KROD El Paso.

Note: National Weather Service (NWS) warnings do not need additional authentication.

APPENDIX C

Map of Texas EAS Districts or Local Operational Areas



APPENDIX D

Lists of Counties in 25 Local Operational Areas

District #1: **Amarillo** includes Armstrong, Carson, Collingsworth, Dallam, Deaf Smith, Donley, Gray, Hansford, Hartley, Hemphill, Hutchinson, Lipscomb, Moore, Ochiltree, Oldham, Potter, Randall, Roberts, Sherman and Wheeler counties.

District #2: **Lubbock** includes Bailey, Briscoe, Castro, Childress, Cochran, Cottle, Crosby, Dickens, Floyd, Garza, Hall, Hale, Hockley, Kent, King, Lamb, Lubbock, Lynn, Motley, Parmer, Stonewall, Swisher, Terry and Yoakum counties.

District #3: **Wichita Falls** includes Archer, Baylor, Clay, Foard, Hardeman, Knox, Wichita and Wilbarger counties.

District #4: **Midland/Odessa** includes Andrews, Borden, Crane, Dawson, Ector, Gaines, Glasscock, Howard, Loving, Martin, Midland, Mitchell, Reagan, Reeves, Scurry, Upton, Ward and Winkler counties.

District #5: **Abilene** includes Callahan, Fisher, Jones, Nolan, Shackelford and Taylor counties.

District #6: **Brownwood** includes Brown, Coleman, McCulloch and San Saba counties.

District #7: **Dallas/Fort Worth** includes Comanche, Collin, Cooke, Dallas, Denton, Eastland, Ellis, Erath, Grayson, Haskell, Hood, Jack, Johnson, Kaufman, Montague, Palo Pinto, Parker, Rockwall, Somervell, Stephens, Tarrant, Throckmorton, Young and Wise counties.

District #8: **Waco** includes Anderson, Bell, Bosque, Coryell, Falls, Freestone, Hamilton, Henderson, Hill, Lampasas, Limestone, McLennan, Mills, Navarro, Rains and Van Zandt counties.

District #9: **Texarkana** includes Bowie, Camp, Cass, Harrison, Marion, Morris, and Titus counties.

District #10: **Tyler** includes Gregg, Smith, Upshur and Wood counties.

District #11: **Lufkin** includes Angelina, Cherokee, Houston, Nacogdoches, Panola, Polk, Rusk, Sabine, San Augustine, Shelby, Trinity and Tyler counties.

District #12: **Beaumont** includes Hardin, Jasper, Jefferson, Newton and Orange counties.

District #13: **Houston** includes Austin, Brazoria, Chambers, Colorado, Fort Bend, Galveston, Harris, Liberty, Matagorda, Montgomery, San Jacinto, Waller and Wharton counties.

District #14: **Bryan-College Station** includes Brazos, Burleson, Grimes, Leon, Madison, Milam, Robertson, Walker and Washington counties.

District #15: **Austin** includes Bastrop, Blanco, Burnet, Caldwell, Fayette, Gillespie, Hays, Lee, Llano, Travis and Williamson counties.

District #16: **San Antonio** includes Atascosa, Bandera, Bexar, Comal, Dimmit, Frio, Gonzales, Guadalupe, Karnes, Kendall, Kerr, Medina, Real, Uvalde, Wilson and Zavala counties.

District #17: **Brownsville/McAllen** includes Brooks, Cameron, Hidalgo, Jim Hogg, Kenedy, Starr and Willacy counties.

APPENDIX D (continued)

District #18: **Del Rio** includes Edwards, Kinney, Maverick and Val Verde counties.

District #19: **Alpine** includes Brewster, Culberson, Jeff Davis, Pecos, Presidio and Terrell counties.

District #20: **El Paso** includes El Paso and Hudspeth counties.

District #21: **Laredo** includes Duval, La Salle, McMullen, Webb and Zapata counties.

District #22: **Corpus Christi** includes Aransas, Bee, Jim Wells, Kleberg, Live Oak, Nueces, Refugio and San Patricio counties.

District #23: **San Angelo** includes Coke, Concho, Crockett, Irion, Kimble, Mason, Menard, Runnels, Schleicher, Sterling, Sutton and Tom Green counties.

District #24: **Victoria** includes Calhoun, Dewitt, Goliad, Jackson, Lavaca and Victoria counties.

District #25: **Paris** includes Delta, Fannin, Franklin, Hopkins, Hunt, Lamar and Red River counties.

APPENDIX E

EAS Codes Transmitted by EAS Originators

PEP	Primary Entry Point station	CIV	Civil Authorities
WXR	National Weather Service	EAS	Broadcast Station or Cable System

National Location Code: 000000

Nature of Activation	Event Code
Emergency Action Notification (National)	EAN
National Information Center	NIC
National Periodic Test	NPT
Required Monthly Test	RMT
Required Weekly Test	RWT
Tornado Watch	TOA
Tornado Warning	TOR
Severe Thunderstorm Watch	SVA
Severe Thunderstorm Warning	SVR
Severe Weather Statement	SVS
Special Weather Statement	SPS
Flash Flood Watch	FFA
Flash Flood Warning	FFW
Flash Flood Statement	FFS
Flood Watch	FLA
Flood Warning	FLW
Flood Statement	FLS
Winter Storm Watch	WSA
Winter Storm Warning	WSW
Blizzard Warning	BZW
High Wind Watch	HWA
High Wind Warning	HWW
Hurricane Watch	HUA
Hurricane Warning	HUW
Hurricane Statement	HLS
Evacuation Immediate	EVI
Civil Emergency Message	CEM

Nature of Activation	Event Code
Practice/Demo Warning	DMO
Administrative Message	ADR
Hazardous Material Incident	HMI
Emergency Public Information	EPI
Avalanche Watch	AVA
Avalanche Warning	AVW
Child Abduction Emergency	CAE
Civil Danger Warning	CDW
Coastal Flood Watch	CFA
Coastal Flood Warning	CFW
Dust Storm Warning	DSW
Earthquake Warning	EQW
Fire Warning	FRW
Hazardous Materials Warning	HMW
Law Enforcement Warning	LEW
Local Area Emergency	LAE
Missing Endangered Person	MEP
Network Message Notification	NMN
911 Phone Outage Emergency	TOE
Nuclear Power Plant Warning	NUW
Radiological Hazard Warning	RHW
Shelter in Place Warning	SPW
Special Marine Warning	SMW
Tropical Storm Watch	TRA
Tropical Storm Warning	TRW
Tsunami Watch	TSA
Tsunami Warning	TSW
Volcano Warning	VOW

APPENDIX F – Section 1

Texas EAS Local Primary Stations

Abilene

LP-1	KEAN	105.1	FM
LP-2	KTJK	106.3	FM
NWS	WXK-29	162.4	VHF
TSN			

Alpine

LP-1	KVLF	1240	AM
LP-2	KFST	94.3	FM
NWS	KJY-69	162.550	VHF
TSN			

Amarillo

LP-1	KGNC	710	AM
LP-2	KGNC	97.9	FM
NWS	WXK-38	162.55	VHF
TSN			

Austin

LP-1	KLBJ	590	AM
LP-2	KASE	100.7	FM
NWS	WXK-27	162.4	VHF
TSN			

Beaumont

LP-1	KLVI	560	AM
LP-2	KQXY	94.1	FM
NWS	WXK-28	162.475	VHF
TSN			

Brownsville/McAllen

LP-1	KFRQ	94.5	FM
LP-2	KURV	710	AM
NWS	KHB-33	162.4	VHF
TSN			

Brownwood

LP-1	KOXE	101.3	FM
LP-2	WBAP	820	AM
NWS	WXK-29	162.4	VHF

Bryan/College Station

LP-1	KNDE	95.1	FM
LP-2	KSAM	101.7	FM
NWS	WXK-30	162.55	VHF
TSN			

Corpus Christi

LP-1	KNCN	101.3	FM
LP-2	KZFM	95.5	FM
NWS	KHB-41	162.55	VHF
TSN			

Dallas/Fort Worth

LP-1	WBAP	820	AM
LP-2	KSCS	96.3	FM
NWS	KEC-56	162.4	VHF
TSN			

Del Rio

LP-1	KTDR	96.3	FM
LP-2	KWMC	1490	AM
NWS	WXJ-98	162.4	VHF
TSN			

El Paso

LP-1	KLAQ	95.5	FM
LP-2	KTSM	99.9	FM
NWS	WXK-25	162.475	VHF
TSN			

Houston

LP-1	KTRH	740	AM
LP-2	KUHF	88.7	FM
LPS	KLAT	1010	AM
NWS	KGG-68	162.4	VHF
TSN			

Laredo

LP-1	KRRG	98.1	FM
LP-2	KQUR	94.9	FM
NWS	WXK-26	162.475	VHF
TSN			

Lubbock

LP-1	KFYO	790	AM
LP-2	KKYN	106.9	FM
NWS	WXK-79	162.4	VHF
TSN			

APPENDIX F – Section 1 (continued)

Lufkin/Nacogdoches

LP-1	KOOI	106.5	FM
LP-2	KYKS	105.1	FM
NWS	WXK-23	162.550	VHF
TSN			

Midland/Odessa

LP-1	KNFM	92.3	FM
LP-2	KCRS	550	AM
NWS	WXK-32	162.4	VHF
TSN			

Paris

LP-1	KOYN	93.9	FM
LP-2	KPLT	107.7	FM
NWS	WXK-31	162.5	VHF
TSN			

San Angelo

LP-1	KGKL	97.5	FM
LP-2	KELI	98.7	FM
NWS	WXK-33	162.55	VHF
TSN			

San Antonio

LP-1	WOAI	1200	AM
LP-2	KKYK	680	AM
NWS	WXK-67	162.55	VHF
TSN			

Texarkana

LP-1	KKYR	102.5	FM
LP-2	vacant		
NWS	KWN-32	162.425	VHF
TSN			

Tyler/Longview

LP-1	KNUE	101.5	FM
LP-2	KYKX	105.7	FM
NWS	WXK-36	162.475	VHF
TSN			

Victoria

LP-1	KIXS	107.9	FM
LP-2	KVNN	1340	AM
NWS	WXK-34	162.4	VHF
TSN			

Waco

LP-1	WACO	99.9	FM
LP-2	KWTX	97.5	FM
NWS	WXK-35	162.475	VHF
TSN			

Wichita Falls

LP-1	KNIN	92.9	FM
LP-2	KWFS	102.3	FM
NWS	WXK-31	162.475	VHF
TSN			

APPENDIX F – Section 2

Texas Local Primary RMT Monitoring Assignments

Abilene

LP-1: KEAN 105.1 FM

RMT: WBAP → TSN → KEAN NWR: WXK-29 → KEAN

LP-2: KTJK 106.3 FM

RMT: WBAP → TSN → KTJK NWR: WXK-29 → KTJK

Alpine

LP-1: KVLF 1240 AM

RMT: WBAP → TSN → KCRS → KVLF NWR: KJY-69 → KVLF

Alt: WBAP → TSN → KLBJ → TX DPS/OEM PHONELINE → KVLF

LP-2: KFST 94.3 FM

RMT: WBAP → TSN → KFST NWR: WNG-695 → KFST

Amarillo

LP-1: KGNC 710 AM

RMT: WBAP → TSN → KGNC; NWR: WXK-38 → KGNC

LP-2: KGNC 97.9 FM

RMT: WBAP → TSN → KGNC NWR: WXK-38 → KGNC

Austin

LP-1: KLBJ 590 AM

RMT: WBAP → TSN → KLBJ NWR: WXK 27 → KLBJ

LP-2: KASE 100.7 FM

RMT: WBAP → TSN → KASE NWR: WXK 27 → KASE

Beaumont

LP-1: KLVI 560 AM

RMT: KTRH → KLVI NWR: WXK-28 → KLVI

LP-2: KQXY 94.1 FM

RMT: KTRH → KQXY NWR: WXK-28 → KQXY

Brownsville /McAllen

LP-1: KFRQ 94.5 FM

RMT: WBAP → TSN → KFRQ NWR: KHB-33 → KFRQ

Alt: WBAP → TSN → KLBJ → TX DPS/OEM PHONELINE→ KFRQ

LP-2: KURV 710 AM

RMT: WBAP → TSN → KURV NWR: KHB-33 → KURV

Brownwood

LP-1: KOXE 101.3 FM

RMT: WBAP → KEAN → KOXE NWR: WXN89 → KOXE

LP-2: WBAP 820 AM

RMT: RMT originating station NWR: KEC-55 → WBAP

Bryan/College Station

LP-1: KNDE 95.1 FM

RMT: WBAP → TSN → KNDE NWR: WXK-30 → KNDE

LP-2: KSAM 101.7 FM

RMT: KUHF → KSAM NWR: KXI-55 → KSAM

Corpus Christi

LP-1: KNCN 101.3 FM

RMT: WBAP → TSN → KNCN NWR: KHB-41 → KNCN

LP-2: KZFM 95.5 FM

RMT: WBAP → TSN → KZFM NWR: KHB-41 → KZFM

Dallas/Fort Worth

LP-1: WBAP 820 AM

RMT: PEP / RMT originating station NWR: KEC-55 → WBAP

LP-2: KSCS 96.3 FM

RMT: WBAP → KSCS NWR: KEC-55 → KSCS

Del Rio

LP-1: KTDR 96.3 FM

RMT: WBAP → TSN → WOAI → KTDR NWR: WXJ-98 → KTDR

Alt: WBAP → TSN → KLBJ → TX DPS/OEM PHONELINE→ KTDR

LP-2: KWMC 1490 AM

RMT: WBAP → TSN → WOAI → KTDR → KWMC NWR: WXJ-98 → KWMC

Alt: WBAP → TSN → KLBJ → TX DPS/OEM PHONELINE → KTDR → KWMC

El Paso

LP-1: KLAQ 95.5 FM

RMT: WBAP → TSN → KLAQ NWR: WXK-25 → KLAQ

Alt: WBAP → TSN → KLBJ → TX DPS/OEM PHONELINE → KLAQ

LP-2: KTSM 99.9 FM

RMT: WBAP→ TSN → KLAQ → KTSM NWR: WXK-25 → KTSM

LP-S: KBNA 97.5 FM

RMT: WBAP→ TSN → KLAQ/KTSM → KBNA NWR: WXK-25 → KBNA

Houston

LP-1: KTRH 740 AM

RMT: PEP / RMT originating station NWR: KGG-68 and KHB-40 and KJY78 → KTRH

LP-2: KUHF 88.7 FM

RMT: KTRH → KUHF NWR: KGG-68 and KHB-40 → KUHF

LPS: KLAT 1010 AM

RMT: KTRH → KLAT NWR: KHB-40 → KLAT

Laredo

LP-1: KRRG 98.1 FM

RMT: WBAP → TSN → KLBJ → TX DPS/OEM PHONELINE→ KRRG NWR: WXK-26 → KRRG

LP-2: KQUR 94.9 FM

RMT: WBAP → TSN → KQUR NWR: WXK-26 → KQUR

Lubbock

LP-1: KFYO 790 AM

RMT: WBAP → TSN → KFYO NWR: WXK-79 → KFYO

LP-2: KKYN 106.9 FM

RMT: WBAP → TSN → KKYN NWR: WNG-561 → KKYN

Lufkin/Nacogdoches

LP-1: KOOI 106.5 FM

RMT: WBAP → K261CW (KERA-FM Translator) → KOOI NWR: WXK-36 → KOOI

LP-2: KYKS 105.1 FM

RMT: WBAP → TSN → KYKS NWR: WXK-23 → KYKS

Midland/Odessa

LP-1: KNFM 92.3 FM

RMT: WBAP → TSN → KNFM NWR: WXK-32 → KNFM

LP-2: KCRS 550 AM

RMT: WBAP → TSN → KCRS NWR: WXK-32 → KCRS

Paris

LP-1: KOYN 93.9 FM

RMT: WBAP → TSN → KOYN NWR: WKX-20 → KOYN

LP-2: KPLT 107.7 FM

RMT: WBAP → TSN → KPLT NWR: WKX-20 → KPLT

San Angelo

LP-1: KGKL 97.5 FM

RMT: WBAP → TSN → KGKL NWR: WXK-33 → KGKL

LP-2: KELI 98.7 FM

RMT: WBAP → TSN → KGKL → KELI NWR: WXK-33 → KELI

San Antonio

LP-1: WOAI 1200 AM

RMT: WBAP → TSN → WOAI NWR: WXK-67 → WOAI

LP-2: KKYX 680 AM

RMT: WBAP → TSN → WOAI → KKYX NWR: WXK-67 → KKYX

Texarkana

LP-1: KKYR 102.5 FM

RMT: WBAP → TSN → KKYR NWR: WXJ-49 → KKYR

LP-2: vacant

RMT: TBA NWR: TBA

Tyler/Longview

LP-1: KNUE 101.5 FM

RMT: WBAP → TSN → KNUE NWR: WXK-36 → KNUE

LP-2: KYKX 105.7 FM

RMT: WBAP → K261CW (KERA-FM Tyler Translator) → KYKX NWR: WXK-36 → KYKX

Victoria

LP-1: KIXS 107.9 FM

RMT: WBAP → TSN → KIXS NWR: WXK-34 → KIXS

LP-2: KVNN 1340 AM

RMT: WBAP → TSN → KVNN NWR: WXK-34 → KVNN

Waco

LP-1: WACO 99.9 FM

RMT: WBAP → WACO NWR: WXK-35 → WACO

LP-2: KWTX 97.5 FM

RMT: WBAP → KWTX NWR: WXK-35 → KWTX

Wichita Falls

LP-1: KNIN 92.9 FM

RMT: WBAP → TSN → KNIN NWR: WXK-31 → KNIN

LP-2: KWFS 102.3 FM

RMT: WBAP → TSN → KNIN → KWFS NWR: WXK-31 → KNIN → KWFS

APPENDIX G

Broadcast Station and Cable System Monitoring Assignments based on location of facility:

EAS Area	LP-1	LP-2	NWS	Alt. LP / NWS	LP-S
ABILENE	KEAN-105.1	KTJK-106.3	WXK-29, 162.400	TSN	
ALPINE	KVLF-1240	KFST-94.3	KJY-69, 162.550 or WNG-695, 162.450	TSN Alt. NWS	
AMARILLO	KGNC-710	KGNC-97.9	WXK-38, 162.550	TSN	
AUSTIN	KLBJ-590	KASE-100.7	WXK-27, 162.400	TSN	
BEAUMONT	KLVI-560	KQXY-94.1	WXK-28, 162.475	TSN	
BROWNSVILLE / MCALLEN	KFRQ-94.5	KURV-710	KHB-33, 162.400 or WWG-34, 162.550 or WZ-2541, 162.475 or WZ-2542, 162.450	TSN Alt. NWS Alt. NWS/Span. Alt. NWS/Span.	
BROWNWOOD	KOXE-101.3	WBAP-820	WXN-89, 162.475	TSN	
BRYAN / COLLEGE ST.	KNDE-95.1	KSAM-101.7	WXK-30, 162.550 or KXI-55, 162.500	TSN Alt. NWS	
CORPUS CHRISTI	KNCN-101.3	KZFM-95.5	WXK-30, 162.550	TSN	
DFW	WBAP-820	KSCS-96.3	KEC-55, 162.550 or KEC-56, 162.400	TSN Alt. NWS	
DEL RIO	KTDR-96.3	KWMC-1490	WXJ-98, 162.400	TSN	
EL PASO	KLAQ-95.5	KTSM-99.9	WXK-25, 162.475 or WNG-652, 162.550	TSN Alt. NWS/Span.	KBNA-97.5
HOUSTON	KTRH-740	KUHF-88.7	KGG-68, 162.400 or KHB-40, 162.550 or KJY-78, 162.450	TSN	KLAT-1010
LAREDO	KRRG-98.1	KQUR-94.9	WXK-26, 162.475	TSN	
LUBBOCK	KFYO-790	KKYN-106.9	WXK-79, 162.400 or WNG-561, 162.450	TSN Alt. NWS	
LUFKIN / NACOGDOCHES	KOOI-106.5	KYKS-105.1	WXK-23, 162.550	TSN	
MIDLAND / ODESSA	KNFM-92.3	KCRS-550	WXK-32, 162.400	TSN	
PARIS	KOYN-93.9	KPLT-107.7	WXK-20, 162.550	TSN	
SAN ANGELO	KGKL-97.5	KELI-98.7	WXK-33, 162.550	TSN	
SAN ANTONIO	WOAI-1200	KKYX-680	WXK-67, 162.550	TSN	
TEXARKANA	KKYR-102.5	vacant	WXJ-49, 162.550	TSN	
TYLER-LONGVIEW	KNUE-101.5	KYKX-105.7	WXK-36, 162.475	TSN	
VICTORIA	KIXS-107.9	KVNN-1340	WXK-34, 162.400	TSN	
WACO	WACO-99.9	KWTX-97.5	WXK-35, 162.475	TSN	
WICHITA FALLS	KNIN-92.9	KWFS-102.3	WXK-31, 162.475	TSN	

APPENDIX H

Procedure for Securing a Monitoring Assignment Waiver

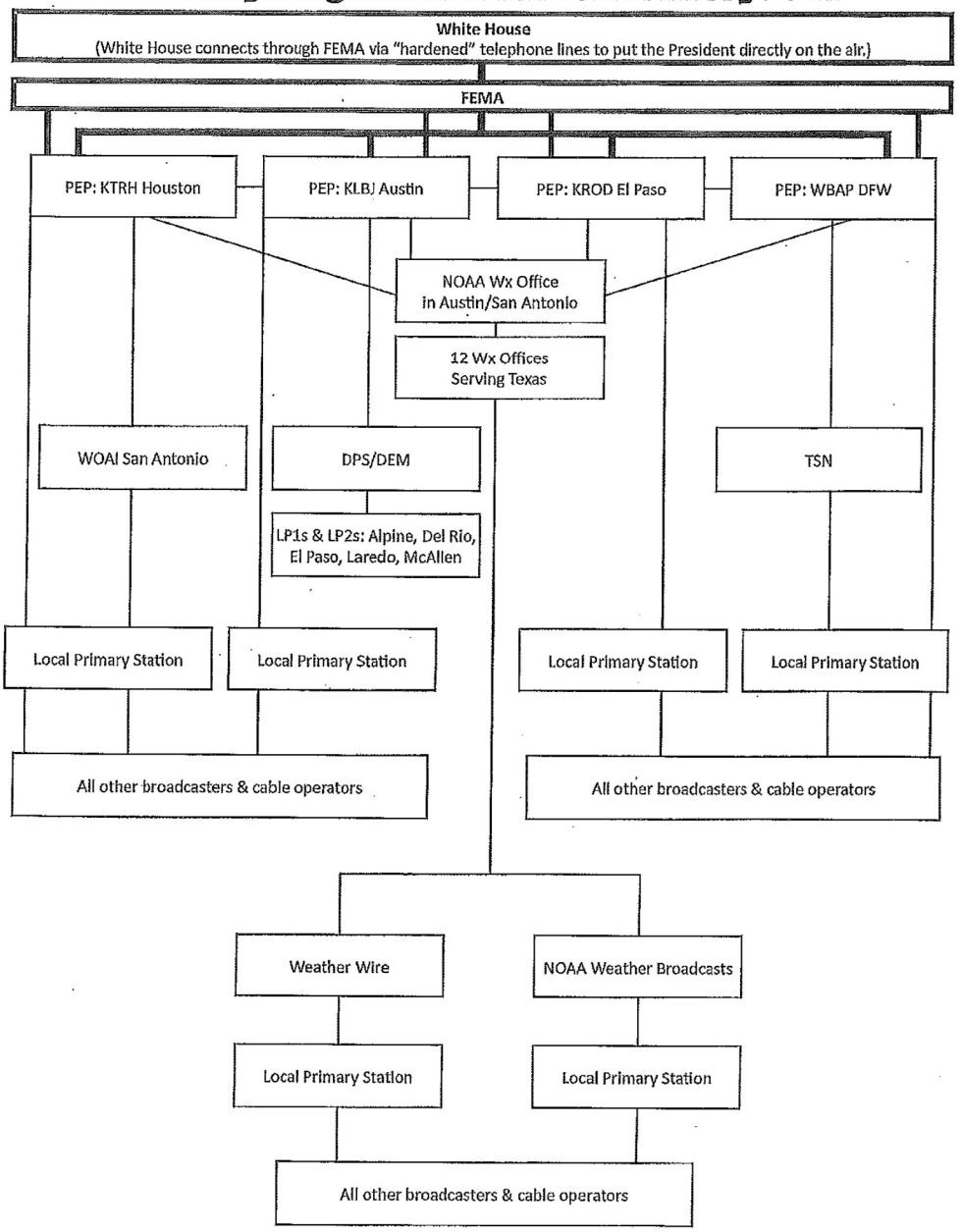
Although much planning has gone into the creation, location and designation of monitoring assignments for Texas' EAS regions, on occasion it may become evident that a radio or TV station, or cable system, may not be able to reliably receive EAS messages through the EAS monitoring assignments as designated for a region in the Texas State EAS Plan. This may especially be the case with NWS WX radio station monitoring assignments in large, multi-county EAS regions. *(See Appendix K for a complete list of current NWS WX radio stations in Texas.)* There may also be problems with reception of the LP-1 or LP-2 station as designated for a region. *(See Appendix F for a complete list of current LP-1 and LP-2 stations in Texas.)*

In such cases, an alternate EAS monitoring assignment may be sought and approved by waiver. Radio or TV stations or cable systems may request a waiver in writing from the FCC's Public Safety and Homeland Security Bureau (Maureen.Bizhko@fcc.gov). Requestors should contact TAB to discuss potential alternative monitoring options prior to requesting a waiver.

The waiver form requires requestors to note the problems with the monitoring assignment as set forth by the Texas State EAS Plan and to propose a suggested alternate EAS monitoring source. Copies of each waiver will be supplied to the FCC. Each station that receives a waiver should keep a copy of the request and acceptance with the station's EAS plan. Station personnel will want to show the waiver to any FCC inspector to demonstrate that the broadcaster is not ignoring its monitoring assignments set out in the state EAS Plan. The FCC has fined stations thousands of dollars for failing to monitor an assigned EAS source.

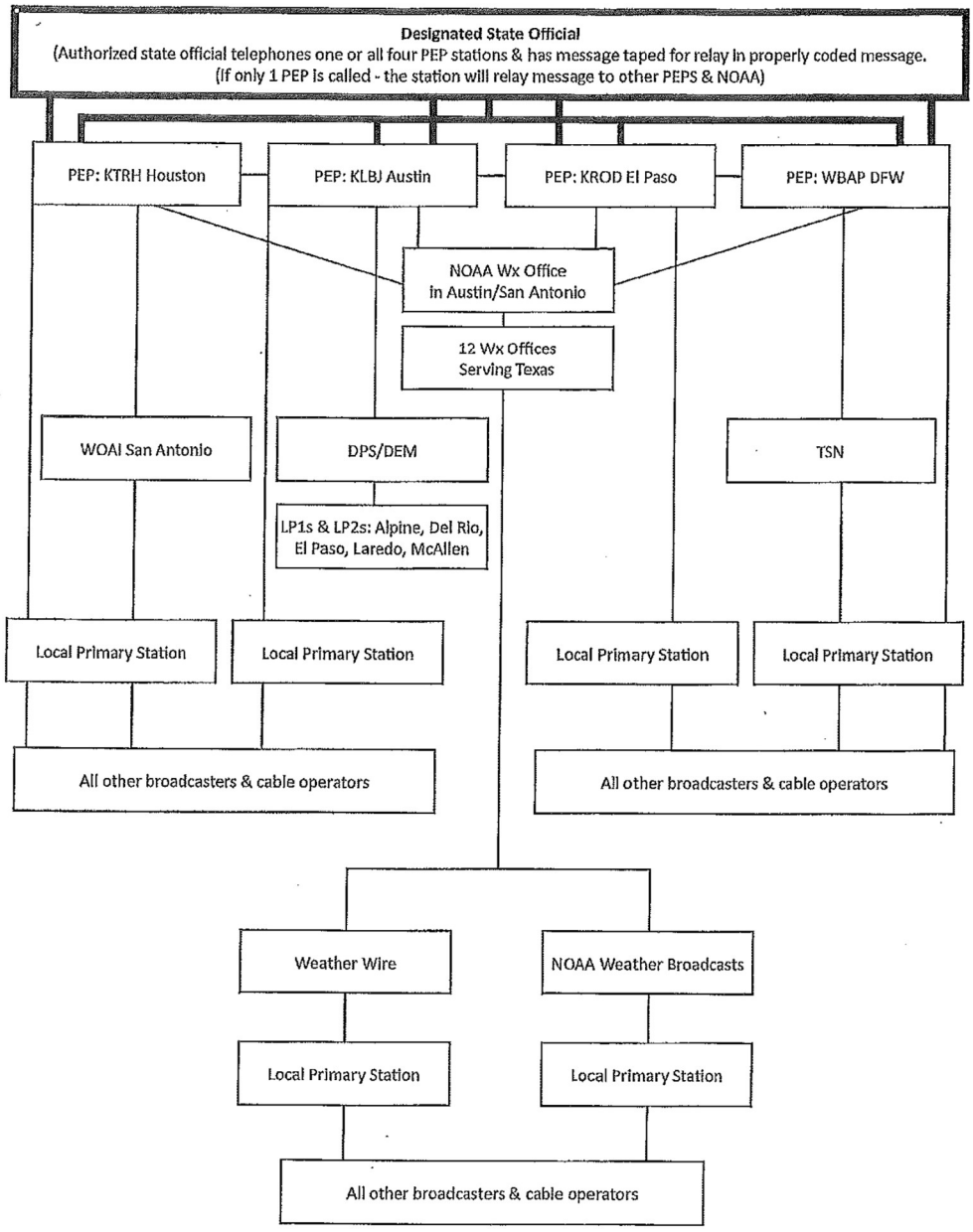
APPENDIX I – Pg. 1 of 4

Primary Diagram of National Delivery Path

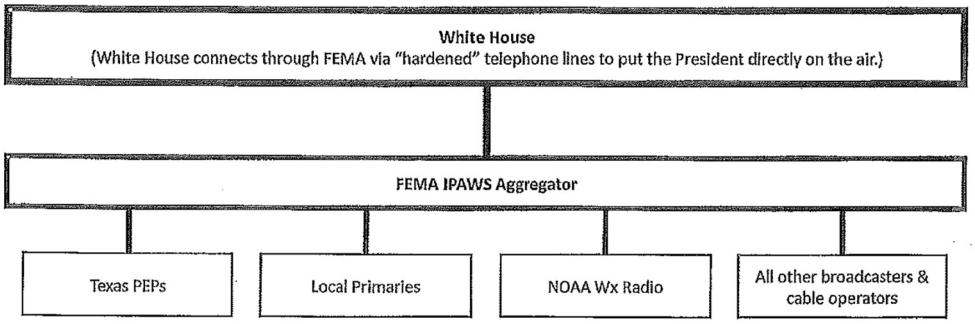


All other broadcasters & cable operators

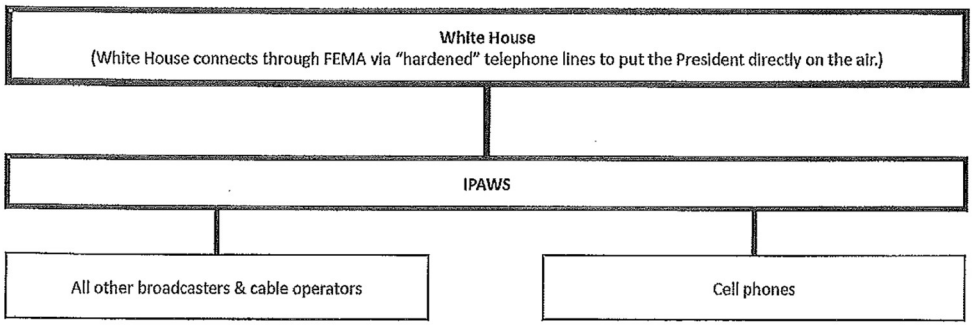
Primary Diagram of State Delivery Path



Primary Diagram of National Delivery Path

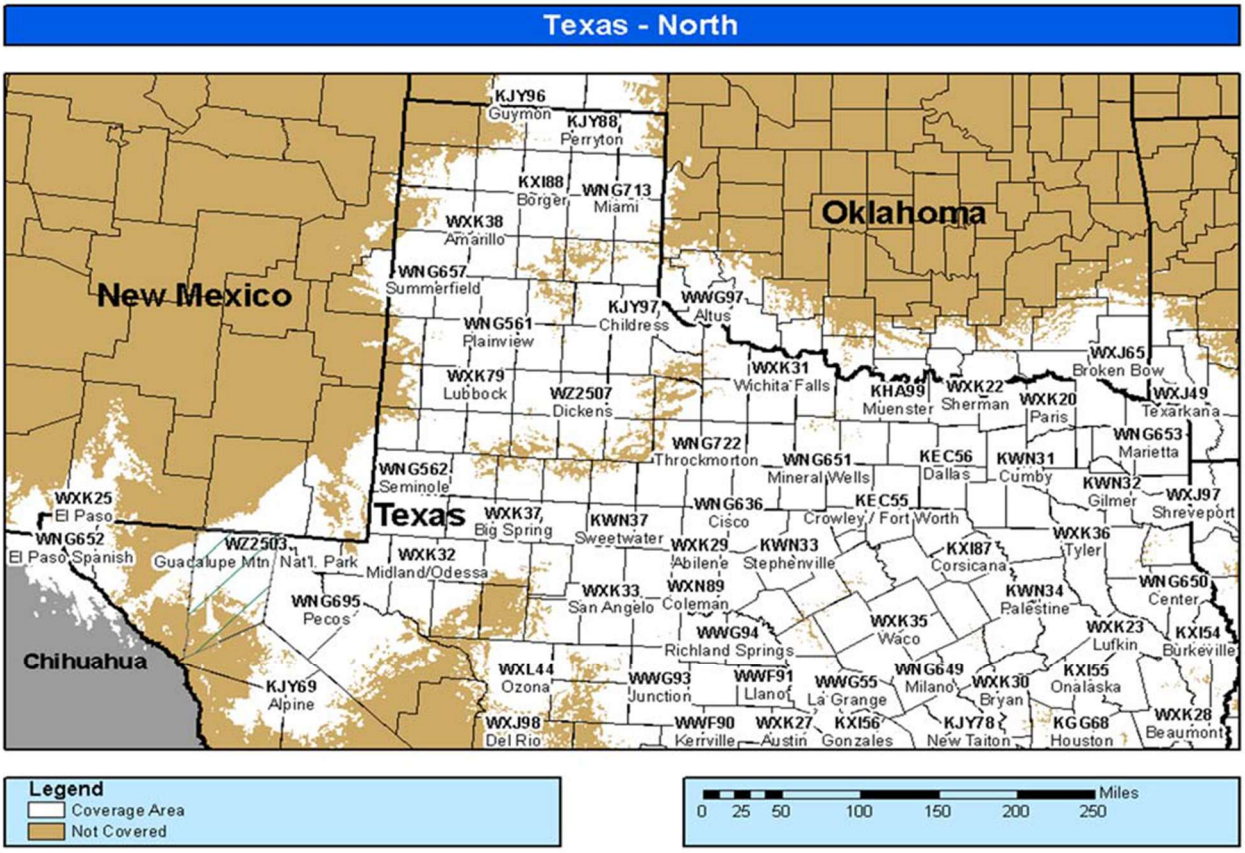


Secondary Diagram of National Delivery Path



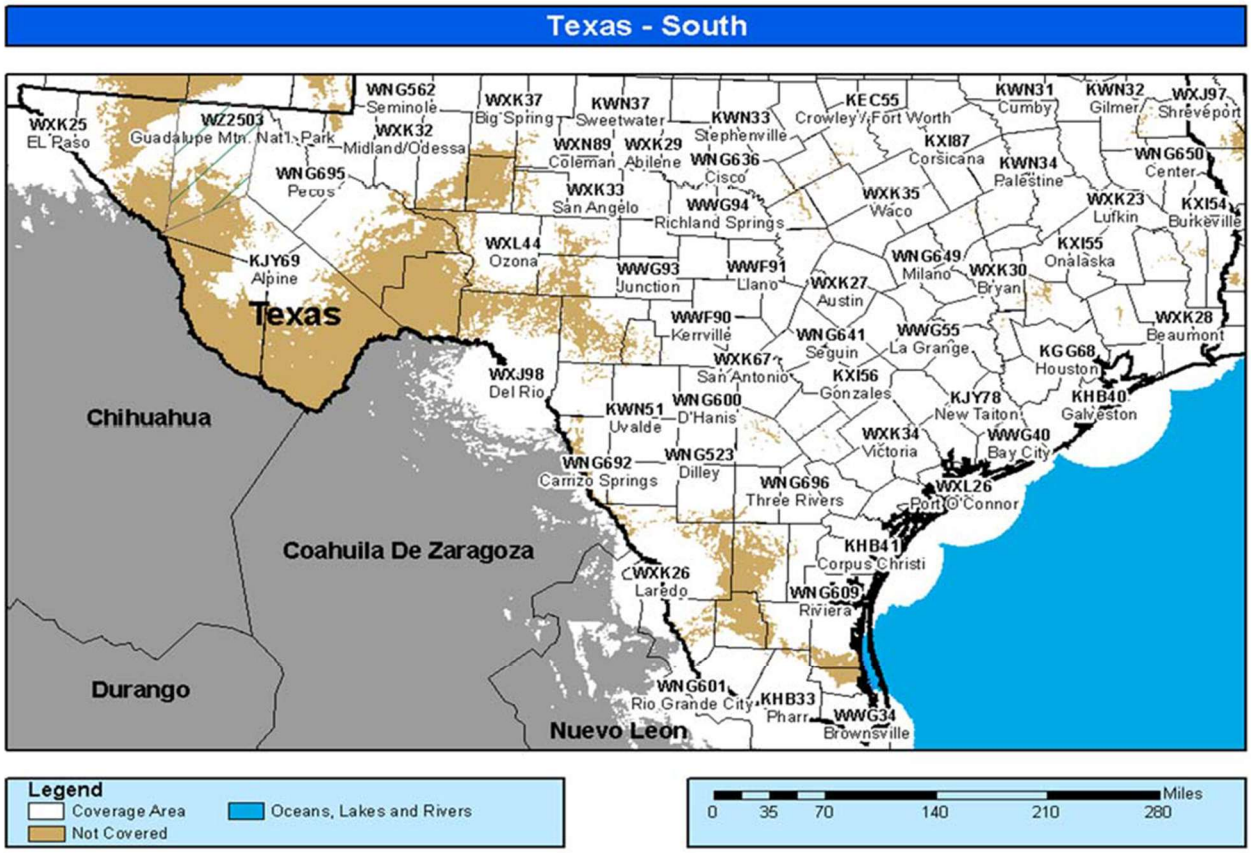
APPENDIX J

Map of National Weather Service North Texas Coverage Areas
Current NWS information can be found at the NWS website:
https://www.weather.gov/nwr/states_dyn?state=TX



APPENDIX J (continued)

Map of National Weather Service South Texas Coverage Areas
Current NWS information can be found at the NWS website:
https://www.weather.gov/nwr/states_dyn?state=TX



APPENDIX K

Frequencies of NWS Stations Serving Texas Counties

This is the list of NWS stations, and the counties they serve, at the time of this revision to the Texas State EAS Plan (6-1-18). The NWS continues to add WX radio stations to Texas. Current NWS NOAA WX radio station information may be found at: https://www.weather.gov/nwr/stations?State=TX and https://www.weather.gov/nwr/county_coverage?State=TX.

COUNTY	TRANSMITTER	CALL SIGN	FREQUENCY	WATTS	ASSIGNED NWS OFFICE
Anderson	Corsicana	KXI87	162.525	1000	Fort Worth
Anderson	Tyler	WXK36	162.475	1000	Shreveport, LA
Anderson	Palestine	KWN34	162.450	1000	Fort Worth
Andrews	Seminole	WNG562	162.425	1000	Midland
Andrews	Midland/Odessa	WXK32	162.400	1000	Midland
Angelina	Lufkin	WXK23	162.550	1000	Shreveport, LA
Aransas	Port O'Connor	WXL26	162.475	100	Corpus Christi
Aransas	Corpus Christi	KHB41	162.550	1000	Corpus Christi
Archer	Wichita Falls	WXK31	162.475	1000	Norman, OK
Archer	Throckmorton	WNG722	162.425	1000	San Angelo
Armstrong	Amarillo	WXK38	162.550	1000	Amarillo
Atascosa	San Antonio	WXK67	162.550	1000	New Braunfels
Austin	New Taiton	KJY78	162.450	1000	Dickinson
Austin	La Grange	WWG55	162.500	1000	New Braunfels
Austin	Bryan	WXK30	162.550	1000	Dickinson
Bailey	Throckmorton	WNG722	162.425	1000	San Angelo
Bailey	Summerfield	WNG657	162.500	1000	Lubbock
Bandera	San Antonio	WXK67	162.550	1000	New Braunfels
Bandera	Kerrville	WWF90	162.450	1000	New Braunfels
Bastrop	La Grange	WWG55	162.500	1000	New Braunfels
Bastrop	Austin	WXK27	162.400	1000	New Braunfels
Baylor	Wichita Falls	WXK31	162.475	1000	Norman, OK
Baylor	Throckmorton	WNG722	162.425	1000	San Angelo
Bee	Three Rivers	WNG696	162.450	1000	Corpus Christi
Bee	Corpus Christi	KHB41	162.550	1000	Corpus Christi
Bell	Milano	WNG649	162.525	300	Fort Worth
Bell	Waco	WXK35	162.475	1000	Fort Worth
Bexar	San Antonio	WXK67	162.550	1000	New Braunfels
Blanco	Llano	WWF91	162.425	1000	New Braunfels
Blanco	Austin	WXK27	162.400	1000	New Braunfels
Borden	Big Spring	WXK37	162.475	1000	Midland
Bosque	Waco	WXK35	162.475	1000	Fort Worth
Bosque	Stephenville	KWN33	162.450	1000	Fort Worth
Bosque	Dallas	KEC56	162.400	1000	Fort Worth
Bosque	Fort Worth	KEC55	162.550	1000	Fort Worth
Bowie	Texarkana	WXJ49	162.550	1000	Shreveport, LA
Brazoria	Bay City	WWG40	162.425	1000	Dickinson
Brazoria	Tomball	KGG68	162.400	1000	Dickinson
Brazoria	Galveston	KHB40	162.550	1000	Dickinson

Brazos	Milano	WNG649	162.525	300	Fort Worth
Brazos	Bryan	WXK30	162.550	1000	Dickinson
Brewster	Alpine	KJY69	162.550	1000	Midland
Briscoe	Plainview	WNG561	162.450	1000	Lubbock
Briscoe	Childress	KJY97	162.525	1000	Lubbock
Brooks	Riviera	WNG609	162.525	500	Corpus Christi
Brown	Stephenville	KWN33	162.450	1000	Fort Worth
Brown	Richland Springs	WWG94	162.525	1000	San Angelo
Brown	Cisco	WNG636	162.500	1000	Fort Worth
Brown	Coleman	WXN89	162.475	300	San Angelo
Burleson	Milano	WNG649	162.525	300	Fort Worth
Burleson	Bryan	WXK30	162.550	1000	Dickinson
Burnet	Llano	WWF91	162.425	1000	New Braunfels
Burnet	Austin	WXK27	162.400	1000	New Braunfels
Caldwell	Seguin	WNG641	162.475	1000	New Braunfels
Caldwell	Gonzales	KXI56	162.525	1000	New Braunfels
Caldwell	Austin	WXK27	162.400	1000	New Braunfels
Calhoun	Victoria	WXK34	162.400	1000	Corpus Christi
Calhoun	Port O'Connor	WXL26	162.475	100	Corpus Christi
Callahan	Coleman	WXN89	162.475	300	San Angelo
Callahan	Abilene	WXK29	162.400	1000	San Angelo
Callahan	Cisco	WNG636	162.500	1000	Fort Worth
Cameron	Pharr	KHB33	162.400	1000	Brownsville
Cameron	Pharr Spanish	WZ2541	162.475	300	Brownsville
Cameron	Brownsville	WWG34	162.550	300	Brownsville
Camp	Gilmer	KWN32	162.425	1000	Shreveport, LA
Carson	Borger	KXI88	162.400	100	Amarillo
Carson	Amarillo	WXK38	162.550	1000	Amarillo
Cass	Texarkana	WXJ49	162.550	1000	Shreveport, LA
Cass	Shreveport, LA	WXJ97	162.400	1000	Shreveport, LA
Cass	Gilmer	KWN32	162.425	1000	Shreveport, LA
Cass	Marietta	WNG653	162.525	300	Shreveport, LA
Castro	Summerfield	WNG657	162.500	1000	Lubbock
Castro	Plainview	WNG561	162.450	1000	Lubbock
Chambers	Tomball	KGG68	162.400	1000	Dickinson
Chambers	Beaumont	WXK28	162.475	1000	Lake Charles, LA
Chambers	Galveston	KHB40	162.550	1000	Dickinson
Cherokee	Tyler	WXK36	162.475	1000	Shreveport, LA
Cherokee	Palestine	KWN34	162.450	1000	Fort Worth
Cherokee	Lufkin	WXK23	162.550	1000	Shreveport, LA

Childress	Childress	KJY97	162.525	1000	Lubbock
Clay	Wichita Falls	WXK31	162.475	1000	Norman, OK
Cochran	Lubbock	WXK79	162.400	1000	Lubbock
Coke	San Angelo	WXK33	162.550	1000	San Angelo
Coleman	Richland Springs	WWG94	162.525	1000	San Angelo
Coleman	Abilene	WXK29	162.400	1000	San Angelo
Coleman	Coleman	WXN89	162.475	300	San Angelo
Collin	Sherman	WXK22	162.475	1000	Fort Worth
Collin	Fort Worth	KEC55	162.550	1000	Fort Worth
Collin	Cumby	KWN31	162.500	1000	Fort Worth
Collin	Dallas	KEC56	162.400	1000	Fort Worth
Collingsworth	Childress	KJY97	162.525	1000	Lubbock
Colorado	New Taiton	KJY78	162.450	1000	Dickinson
Colorado	La Grange	WWG55	162.500	1000	New Braunfels
Comal	Seguin	WNG641	162.475	1000	New Braunfels
Comal	San Antonio	WXK67	162.550	1000	New Braunfels
Comanche	Stephenville	KWN33	162.450	1000	Fort Worth
Comanche	Cisco	WNG636	162.500	1000	Fort Worth
Concho	San Angelo	WXK33	162.550	1000	San Angelo
Cooke	Muenster	KHA99	162.425	300	Fort Worth
Cooke	Sherman	WXK22	162.475	1000	Fort Worth
Coryell	Waco	WXK35	162.475	1000	Fort Worth
Cottle	Dickens	WZ2507	162.500	300	Lubbock
Cottle	Childress	KJY97	162.525	1000	Lubbock
Crane	Midland/Odessa	WXK32	162.400	1000	Midland
Crockett	Ozona	WXL44	162.500	300	San Angelo
Crosby	Lubbock	WXK79	162.400	1000	Lubbock
Crosby	Dickens	WZ2507	162.500	300	Lubbock
Culberson	Guadalupe Mt Nat'l. Park	WZ2503	162.525	1000	Midland
Dallam	Stratford	WWQ51	162.525	1000	Amarillo
Dallas	Fort Worth	KEC55	162.550	1000	Fort Worth
Dallas	Dallas	KEC56	162.400	1000	Fort Worth
Dawson	Big Spring	WXK37	162.475	1000	Midland
Dawson	Seminole	WNG562	162.425	1000	Midland
Deaf Smith	Summerfield	WNG657	162.500	1000	Lubbock
Delta	Paris	WXK20	162.550	1000	Fort Worth
Delta	Cumby	KWN31	162.500	1000	Fort Worth
Denton	Sherman	WXK22	162.475	1000	Fort Worth
Denton	Muenster	KHA99	162.425	300	Fort Worth
Denton	Dallas	KEC56	162.400	1000	Fort Worth

Denton	Fort Worth	KEC55	162.550	1000	Fort Worth
DeWitt	Victoria	WXK34	162.400	1000	Corpus Christi
DeWitt	Gonzales	KXI56	162.525	1000	New Braunfels
Dickens	Dickens	WZ2507	162.500	300	Lubbock
Dickens	Childress	KJY97	162.525	1000	Lubbock
Dimmit	Carrizo Springs	WNG692	162.550	500	New Braunfels
Donley	Childress	KJY97	162.525	1000	Lubbock
Duval	**(No NWR Coverage)**			0	
Eastland	Cisco	WNG636	162.500	1000	Fort Worth
Eastland	Stephenville	KWN33	162.450	1000	Fort Worth
Ector	Midland/Odessa	WXK32	162.400	1000	Midland
Edwards	**(No NWR Coverage)**			0	
Ellis	Corsicana	KXI87	162.525	1000	Fort Worth
Ellis	Fort Worth	KEC55	162.550	1000	Fort Worth
Ellis	Dallas	KEC56	162.400	1000	Fort Worth
El Paso	El Paso **(Spanish)**	WNG652	162.550	1000	Santa Teresa, NM
El Paso	El Paso	WXK25	162.475	300	Santa Teresa, NM
Erath	Stephenville	KWN33	162.450	1000	Fort Worth
Erath	Mineral Wells	WNG651	162.525	300	Fort Worth
Erath	Fort Worth	KEC55	162.550	1000	Fort Worth
Falls	Waco	WXK35	162.475	1000	Fort Worth
Falls	Milano	WNG649	162.525	300	Fort Worth
Fannin	Sherman	WXK22	162.475	1000	Fort Worth
Fannin	Paris	WXK20	162.550	1000	Fort Worth
Fannin	Cumby	KWN31	162.500	1000	Fort Worth
Fayette	La Grange	WWG55	162.500	1000	New Braunfels
Fisher	Sweetwater	KWN37	162.425	300	San Angelo
Fisher	Abilene	WXK29	162.400	1000	San Angelo
Floyd	Plainview	WNG561	162.450	1000	Lubbock
Floyd	Lubbock	WXK79	162.400	1000	Lubbock
Floyd	Dickens	WZ2507	162.500	300	Lubbock
Floyd	Childress	KJY97	162.525	1000	Lubbock
Foard	Childress	KJY97	162.525	1000	Lubbock
Fort Bend	Tomball	KGG68	162.400	1000	Dickinson
Fort Bend	Richmond	WZ2572	162.475	300	Dickinson
Fort Bend	Galveston	KHB40	162.550	1000	Dickinson
Fort Bend	New Taiton	KJY78	162.450	1000	Dickinson
Fort Bend	Bay City	WWG40	162.425	1000	Dickinson
Franklin	Paris	WXK20	162.550	1000	Fort Worth
Franklin	Cumby	KWN31	162.500	1000	Fort Worth

Franklin	Gilmer	KWN32	162.425	1000	Shreveport, LA
Freestone	Palestine	KWN34	162.450	1000	Fort Worth
Freestone	Corsicana	KXI87	162.525	1000	Fort Worth
Frio	Dilley	WNG523	162.500	300	New Braunfels
Frio	D'Hanis	WNG600	162.525	300	New Braunfels
Gaines	Seminole	WNG562	162.425	1000	Midland
Galveston	Tomball	KGG68	162.400	1000	Dickinson
Galveston	Galveston	KHB40	162.550	1000	Dickinson
Garza	Lubbock	WXK79	162.400	1000	Lubbock
Garza	Dickens	WZ2507	162.500	300	Lubbock
Gillespie	Llano	WWF91	162.425	1000	New Braunfels
Gillespie	Kerrville	WWF90	162.450	1000	New Braunfels
Glasscock	Big Spring	WXK37	162.475	1000	Midland
Goliad	Victoria	WXK34	162.400	1000	Corpus Christi
Gonzales	Gonzales	KXI56	162.525	1000	New Braunfels
Gray	Miami	WNG713	162.450	1000	Amarillo
Grayson	Sherman	WXK22	162.475	1000	Fort Worth
Grayson	Muenster	KHA99	162.425	300	Fort Worth
Gregg	Tyler	WXK36	162.475	1000	Shreveport, LA
Gregg	Gilmer	KWN32	162.425	1000	Shreveport, LA
Grimes	Bryan	WXK30	162.550	1000	Dickinson
Guadalupe	San Antonio	WXK67	162.550	1000	New Braunfels
Guadalupe	Seguin	WNG641	162.475	1000	New Braunfels
Guadalupe	Gonzales	KXI56	162.525	1000	New Braunfels
Hale	Plainview	WNG561	162.450	1000	Lubbock
Hale	Lubbock	WXK79	162.400	1000	Lubbock
Hall	Childress	KJY97	162.525	1000	Lubbock
Hamilton	Stephenville	KWN33	162.450	1000	Fort Worth
Hansford	Perryton	KJY88	162.475	1000	Amarillo
Hansford	Guymon, OK	KJY96	162.500	1000	Amarillo
Hardeman	Childress	KJY97	162.525	1000	Lubbock
Hardeman	Altus, OK	WWG97	162.425	300	Norman, OK
Hardin	Beaumont	WXK28	162.475	1000	Lake Charles, LA
Harris	Tomball	KGG68	162.400	1000	Dickinson
Harris	Galveston	KHB40	162.550	1000	Dickinson
Harrison	Shreveport, LA	WXJ97	162.400	1000	Shreveport, LA
Harrison	Gilmer	KWN32	162.425	1000	Shreveport, LA
Hartley	Amarillo	WXK38	162.550	1000	Amarillo
Haskell	Abilene	WXK29	162.400	1000	San Angelo
Haskell	Throckmorton	WNG722	162.425	1000	San Angelo

Hays	Seguin	WNG641	162.475	1000	New Braunfels
Hays	Austin	WXK27	162.400	1000	New Braunfels
Hemphill	Miami	WNG713	162.450	1000	Amarillo
Henderson	Palestine	KWN34	162.450	1000	Fort Worth
Henderson	Tyler	WXK36	162.475	1000	Shreveport, LA
Henderson	Corsicana	KXI87	162.525	1000	Fort Worth
Hidalgo	Pharr	KHB33	162.400	1000	Brownsville
Hidalgo	Pharr Spanish	WZ2541	162.475	300	Brownsville
Hidalgo	Brownsville	WWG34	162.550	300	Brownsville
Hill	Waco	WXK35	162.475	1000	Fort Worth
Hill	Fort Worth	KEC55	162.550	1000	Fort Worth
Hill	Milano	WNG649	162.525	300	Fort Worth
Hill	Dallas	KEC56	162.400	1000	Fort Worth
Hill	Corsicana	KXI87	162.525	1000	Fort Worth
Hockley	Lubbock	WXK79	162.400	1000	Lubbock
Hood	Stephenville	KWN33	162.450	1000	Fort Worth
Hood	Mineral Wells	WNG651	162.525	300	Fort Worth
Hood	Dallas	KEC56	162.400	1000	Fort Worth
Hood	Fort Worth	KEC55	162.550	1000	Fort Worth
Hopkins	Paris	WXK20	162.550	1000	Fort Worth
Hopkins	Cumby	KWN31	162.500	1000	Fort Worth
Houston	Palestine	KWN34	162.450	1000	Fort Worth
Houston	Onalaska	KXI55	162.500	1000	Dickinson
Houston	Lufkin	WXK23	162.550	1000	Shreveport, LA
Howard	Big Spring	WXK37	162.475	1000	Midland
Hudspeth	El Paso **(Spanish)**	WNG652	162.550	1000	Santa Teresa, NM
Hudspeth	El Paso	WXK25	162.475	300	Santa Teresa, NM
Hunt	Paris	WXK20	162.550	1000	Fort Worth
Hunt	Cumby	KWN31	162.500	1000	Fort Worth
Hunt	Dallas	KEC56	162.400	1000	Fort Worth
Hutchinson	Borger	KXI88	162.400	100	Amarillo
Hutchinson	Amarillo	WXK38	162.550	1000	Amarillo
Irion	San Angelo	WXK33	162.550	1000	San Angelo
Jack	Mineral Wells	WNG651	162.525	300	Fort Worth
Jackson	Victoria	WXK34	162.400	1000	Corpus Christi
Jackson	Port O'Connor	WXL26	162.475	100	Corpus Christi
Jackson	New Taiton	KJY78	162.450	1000	Dickinson
Jasper	Lufkin	WXK23	162.550	1000	Shreveport, LA
Jasper	Burkeville	KXI54	162.425	1000	Lake Charles, LA
Jasper	Beaumont	WXK28	162.475	1000	Lake Charles, LA

Jeff Davis	Pecos	WNG695	162.450	1000	Midland
Jeff Davis	Alpine	KJY69	162.550	1000	Midland
Jefferson	Beaumont	WXK28	162.475	1000	Lake Charles, LA
Jim Hogg	**(No NWR Coverage)**			0	
Jim Wells	Riviera	WNG609	162.525	500	Corpus Christi
Jim Wells	Corpus Christi	KHB41	162.550	1000	Corpus Christi
Johnson	Fort Worth	KEC55	162.550	1000	Fort Worth
Jones	Sweetwater	KWN37	162.425	300	San Angelo
Jones	Abilene	WXK29	162.400	1000	San Angelo
Karnes	**(No NWR Coverage)**			0	
Kaufman	Dallas	KEC56	162.400	1000	Fort Worth
Kaufman	Cumby	KWN31	162.500	1000	Fort Worth
Kaufman	Corsicana	KXI87	162.525	1000	Fort Worth
Kendall	San Antonio	WXK67	162.550	1000	New Braunfels
Kendall	Kerrville	WWF90	162.450	1000	New Braunfels
Kenedy	Riviera	WNG609	162.525	500	Corpus Christi
Kent	Dickens	WZ2507	162.500	300	Lubbock
Kerr	Kerrville	WWF90	162.450	1000	New Braunfels
Kimble	Junction	WWG93	162.475	1000	San Angelo
King	Childress	KJY97	162.525	1000	Lubbock
King	Dickens	WZ2507	162.500	300	Lubbock
Kinney	Del Rio	WXJ98	162.400	1000	New Braunfels
Kleberg	Riviera	WNG609	162.525	500	Corpus Christi
Kleberg	Corpus Christi	KHB41	162.550	1000	Corpus Christi
Knox	Throckmorton	WNG722	162.425	1000	San Angelo
Knox	Childress	KJY97	162.525	1000	Lubbock
Lamar	Paris	WXK20	162.550	1000	Fort Worth
Lamb	Summerfield	WNG657	162.500	1000	Lubbock
Lamb	Plainview	WNG561	162.450	1000	Lubbock
Lamb	Lubbock	WXK79	162.400	1000	Lubbock
Lampasas	**(No NWR Coverage)**			0	
La Salle	Dilley	WNG523	162.500	300	New Braunfels
Lavaca	Gonzales	KXI56	162.525	1000	New Braunfels
Lavaca	Victoria	WXK34	162.400	1000	Corpus Christi
Lavaca	New Taiton	KJY78	162.450	1000	Dickinson
Lee	La Grange	WWG55	162.500	1000	New Braunfels
Lee	Milano	WNG649	162.525	300	Fort Worth
Lee	Austin	WXK27	162.400	1000	New Braunfels
Leon	Palestine	KWN34	162.450	1000	Fort Worth
Leon	Bryan	WXK30	162.550	1000	Dickinson

Liberty	Tomball	KGG68	162.400	1000	Dickinson
Limestone	Corsicana	KXI87	162.525	1000	Fort Worth
Limestone	Waco	WXK35	162.475	1000	Fort Worth
Lipscomb	Woodward	WWG46	162.500	1000	Norman, OK
Lipscomb	Perryton	KJY88	162.475	1000	Amarillo
Lipscomb	Miami	WNG713	162.450	1000	Amarillo
Live Oak	Three Rivers	WNG696	162.450	1000	Corpus Christi
Live Oak	Corpus Christi	KHB41	162.550	1000	Corpus Christi
Llano	Llano	WWF91	162.425	1000	New Braunfels
Loving	Pecos	WNG695	162.450	1000	Midland
Loving	Guadalupe Mt Nat'l. Park	WZ2503	162.525	1000	Midland
Lubbock	Lubbock	WXK79	162.400	1000	Lubbock
Lynn	Lubbock	WXK79	162.400	1000	Lubbock
McCulloch	Richland Springs	WWG94	162.525	1000	San Angelo
McLennan	Waco	WXK35	162.475	1000	Fort Worth
McMullen	Three Rivers	WNG696	162.450	1000	Corpus Christi
Madison	Bryan	WXK30	162.550	1000	Dickinson
Marion	Gilmer	KWN32	162.425	1000	Shreveport, LA
Marion	Shreveport	WXJ97	162.400	1000	Shreveport, LA
Martin	Midland/Odessa	WXK32	162.400	1000	Midland
Martin	Big Spring	WXK37	162.475	1000	Midland
Martin	Seminole	WNG562	162.425	1000	Midland
Mason	Richland Springs	WWG94	162.525	1000	San Angelo
Mason	Junction	WWG93	162.475	1000	San Angelo
Mason	Llano	WWF91	162.425	1000	New Braunfels
Matagorda	New Taiton	KJY78	162.450	1000	Dickinson
Matagorda	Bay City	WWG40	162.425	1000	Dickinson
Maverick	Carrizo Springs	WNG692	162.550	500	New Braunfels
Maverick	Del Rio	WXJ98	162.400	1000	New Braunfels
Medina	San Antonio	WXK67	162.550	1000	New Braunfels
Medina	D'Hanis	WNG600	162.525	300	New Braunfels
Menard	Junction	WWG93	162.475	1000	San Angelo
Midland	Midland/Odessa	WXK32	162.400	1000	Midland
Midland	Big Spring	WXK37	162.475	1000	Midland
Milam	Milano	WNG649	162.525	300	Fort Worth
Milam	Waco	WXK35	162.475	1000	Fort Worth
Milam	Bryan	WXK30	162.550	1000	Dickinson
Mills	Stephenville	KWN33	162.450	1000	Fort Worth
Mills	Richland Springs	WWG94	162.525	1000	San Angelo
Mitchell	Sweetwater	KWN37	162.425	300	San Angelo

Mitchell	Big Spring	WXK37	162.475	1000	Midland
Montague	Muenster	KHA99	162.425	300	Fort Worth
Montgomery	Tomball	KGG68	162.400	1000	Dickinson
Montgomery	Onalaska	KXI55	162.500	1000	Dickinson
Moore	Borger	KXI88	162.400	100	Amarillo
Moore	Amarillo	WXK38	162.550	1000	Amarillo
Morris	Gilmer	KWN32	162.425	1000	Shreveport, LA
Motley	Dickens	WZ2507	162.500	300	Lubbock
Motley	Childress	KJY97	162.525	1000	Lubbock
Nacogdoches	Lufkin	WXK23	162.550	1000	Shreveport, LA
Nacogdoches	Center	WNG650	162.525	300	Shreveport, LA
Navarro	Palestine	KWN34	162.450	1000	Fort Worth
Navarro	Corsicana	KXI87	162.525	1000	Fort Worth
Newton	Beaumont	WXK28	162.475	1000	Lake Charles, LA
Newton	Burkeville	KXI54	162.425	1000	Lake Charles, LA
Nolan	Sweetwater	KWN37	162.425	300	San Angelo
Nolan	Abilene	WXK29	162.400	1000	San Angelo
Nueces	Corpus Christi	KHB41	162.550	1000	Corpus Christi
Ochiltree	Perryton	KJY88	162.475	1000	Amarillo
Ochiltree	Miami	WNG713	162.450	1000	Amarillo
Oldham	Summerfield	WNG657	162.500	1000	Lubbock
Oldham	Amarillo	WXK38	162.550	1000	Amarillo
Orange	Beaumont	WXK28	162.475	1000	Lake Charles, LA
Palo Pinto	Stephenville	KWN33	162.450	1000	Fort Worth
Palo Pinto	Mineral Wells	WNG651	162.525	300	Fort Worth
Panola	Shreveport LA	WXJ97	162.400	1000	Shreveport, LA
Panola	Center	WNG650	162.525	300	Shreveport, LA
Parker	Fort Worth	KEC55	162.550	1000	Fort Worth
Parker	Mineral Wells	WNG651	162.525	300	Fort Worth
Parker	Dallas	KEC56	162.400	1000	Fort Worth
Parmer	Summerfield	WNG657	162.500	1000	Lubbock
Pecos	Pecos	WNG695	162.450	1000	Midland
Polk	Onalaska	KXI55	162.500	1000	Dickinson
Polk	Lufkin	WXK23	162.550	1000	Shreveport, LA
Potter	Amarillo	WXK38	162.550	1000	Amarillo
Presidio	Alpine	KJY69	162.550	1000	Midland
Rains	Cumby	KWN31	162.500	1000	Fort Worth
Randall	Summerfield	WNG657	162.500	1000	Lubbock
Randall	Amarillo	WXK38	162.550	1000	Amarillo
Reagan	**(No NWR Coverage)**			0	

Real	**(No NWR Coverage)**			0	
Red River	Paris	WXK20	162.550	1000	Fort Worth
Red River	Broken Bow OK	WXJ65	162.450	1000	Shreveport, LA
Reeves	Pecos	WNG695	162.450	1000	Midland
Reeves	Guadalupe Mt Nat'l. Park	WZ2503	162.525	1000	Midland
Refugio	Corpus Christi	KHB41	162.550	1000	Corpus Christi
Roberts	Perryton	KJY88	162.475	1000	Amarillo
Roberts	Miami	WNG713	162.450	1000	Amarillo
Robertson	Milano	WNG649	162.525	300	Fort Worth
Robertson	Waco	WXK35	162.475	1000	Fort Worth
Robertson	Bryan	WXK30	162.550	1000	Dickinson
Rockwall	Dallas	KEC56	162.400	1000	Fort Worth
Rockwall	Cumby	KWN31	162.500	1000	Fort Worth
Runnels	San Angelo	WXK33	162.550	1000	San Angelo
Runnels	Paris	WXK20	162.550	1000	Fort Worth
Runnels	Coleman	WXN89	162.475	300	San Angelo
Runnels	Abilene	WXK29	162.400	1000	San Angelo
Rusk	Tyler	WXK36	162.475	1000	Shreveport, LA
Rusk	Center	WNG650	162.525	300	Shreveport, LA
Sabine	Center	WNG650	162.525	300	Shreveport, LA
Sabine	Burkeville	KXI54	162.425	1000	Lake Charles, LA
San Augustine	Lufkin	WXK23	162.550	1000	Shreveport, LA
San Augustine	Center	WNG650	162.525	300	Shreveport, LA
San Augustine	Burkeville	KXI54	162.425	1000	Lake Charles, LA
San Jacinto	Onalaska	KXI55	162.500	1000	Dickinson
San Patricio	Corpus Christi	KHB41	162.550	1000	Corpus Christi
San Saba	Richland Springs	WWG94	162.525	1000	San Angelo
Schleicher	San Angelo	WXK33	162.550	1000	San Angelo
Scurry	Sweetwater	KWN37	162.425	300	San Angelo
Scurry	Big Spring	WXK37	162.475	1000	Midland
Shackelford	Cisco	WNG636	162.500	1000	Fort Worth
Shackelford	Throckmorton	WNG722	162.425	1000	San Angelo
Shackelford	Abilene	WXK29	162.400	1000	San Angelo
Shelby	Center	WNG650	162.525	300	Shreveport LA
Sherman	Guymon OK	KJY96	162.500	1000	Amarillo
Smith	Tyler	WXK36	162.475	1000	Shreveport LA
Somervell	Stephenville	KWN33	162.450	1000	Fort Worth
Somervell	Fort Worth	KEC55	162.550	1000	Fort Worth
Starr	Pharr	KHB33	162.400	1000	Brownsville
Starr	Rio Grande City	WNG601	162.425	1000	Brownsville

Starr	Pharr Spanish	WZ2541	162.475	300	Brownsville
Stephens	Mineral Wells	WNG651	162.525	300	Fort Worth
Stephens	Cisco	WNG636	162.500	1000	Fort Worth
Sterling	San Angelo	WXK33	162.550	1000	San Angelo
Stonewall	Dickens	WZ2507	162.500	300	Lubbock
Sutton	Junction	WWG93	162.475	1000	San Angelo
Sutton	Ozona	WXL44	162.500	300	San Angelo
Swisher	Plainview	WNG561	162.450	1000	Lubbock
Tarrant	Mineral Wells	WNG651	162.525	300	Fort Worth
Tarrant	Dallas	KEC56	162.400	1000	Fort Worth
Tarrant	Fort Worth	KEC55	162.550	1000	Fort Worth
Taylor	Sweetwater	KWN37	162.425	300	San Angelo
Taylor	Abilene	WXK29	162.400	1000	San Angelo
Terrell	**(No NWR Coverage)**			0	
Terry	Seminole	WNG562	162.425	1000	Midland
Terry	Lubbock	WXK79	162.400	1000	Lubbock
Throckmorton	Throckmorton	WNG722	162.425	1000	San Angelo
Titus	Paris	WXK20	162.550	1000	Fort Worth
Titus	Gilmer	KWN32	162.425	1000	Shreveport, LA
Tom Green	San Angelo	WXK33	162.550	1000	San Angelo
Travis	Austin	WXK27	162.400	1000	New Braunfels
Trinity	Onalaska	KXI55	162.500	1000	Dickinson
Trinity	Lufkin	WXK23	162.550	1000	Shreveport, LA
Tyler	Lufkin	WXK23	162.550	1000	Shreveport, LA
Tyler	Beaumont	WXK28	162.475	1000	Lake Charles, LA
Upshur	Tyler	WXK36	162.475	1000	Shreveport, LA
Upshur	Gilmer	KWN32	162.425	1000	Shreveport, LA
Upton	Midland/Odessa	WXK32	162.400	1000	Midland
Uvalde	Uvalde	KWN51	162.425	1000	New Braunfels
Uvalde	D'Hanis	WNG600	162.525	300	New Braunfels
Val Verde	Del Rio	WXJ98	162.400	1000	New Braunfels
Van Zandt	Tyler	WXK36	162.475	1000	Shreveport, LA
Van Zandt	Cumby	KWN31	162.500	1000	Fort Worth
Van Zandt	Corsicana	KXI87	162.525	1000	Fort Worth
Victoria	Victoria	WXK34	162.400	1000	Corpus Christi
Walker	Onalaska	KXI55	162.500	1000	Dickinson
Walker	Bryan	WXK30	162.550	1000	Dickinson
Waller	Tomball	KGG68	162.400	1000	Dickinson
Waller	Bryan	WXK30	162.550	1000	Dickinson
Ward	Pecos	WNG695	162.450	1000	Midland

Ward	Midland/Odessa	WXK32	162.400	1000	Midland
Washington	La Grange	WWG55	162.500	1000	New Braunfels
Washington	Bryan	WXK30	162.550	1000	Dickinson
Webb	Laredo	WXK26	162.550	1000	Corpus Christi
Wharton	New Taiton	KJY78	162.450	1000	Dickinson
Wharton	Bay City	WWG40	162.425	1000	Dickinson
Wheeler	Miami	WNG713	162.450	1000	Amarillo
Wichita	Wichita Falls	WXK31	162.475	1000	Norman, OK
Wilbarger	Wichita Falls	WXK31	162.475	1000	Norman, OK
Wilbarger	Altus OK	WWG97	162.425	300	Norman, OK
Willacy	Pharr Spanish	WZ2541	162.475	300	Brownsville
Willacy	Pharr	KHB33	162.400	1000	Brownsville
Willacy	Brownsville	WWG34	162.550	300	Brownsville
Williamson	Milano	WNG649	162.525	300	Fort Worth
Williamson	Austin	WXK27	162.400	1000	New Braunfels
Wilson	San Antonio	WXK67	162.550	1000	New Braunfels
Winkler	Pecos	WNG695	162.450	1000	Midland
Winkler	Midland/Odessa	WXK32	162.400	1000	Midland
Wise	Fort Worth	KEC55	162.550	1000	Fort Worth
Wise	Muenster	KHA99	162.425	300	Fort Worth
Wise	Mineral Wells	WNG651	162.525	300	Fort Worth
Wood	Gilmer	KWN32	162.425	1000	Shreveport, LA
Wood	Tyler	WXK36	162.475	1000	Shreveport, LA
Wood	Cumby	KWN31	162.500	1000	Fort Worth
Yoakum	Seminole	WNG562	162.425	1000	Midland
Young	Throckmorton	WNG722	162.425	1000	San Angelo
Young	Mineral Wells	WNG651	162.525	300	Fort Worth
Zapata	Rio Grande City	WNG601	162.425	1000	Brownsville
Zapata	Laredo	WXK26	162.550	1000	Corpus Christi
Zavala	Carrizo Springs	WNG692	162.550	500	New Braunfels

APPENDIX L

Websites for FCC Rules and Regulations, Part 11 and EAS Operations Manuals

The FCC Fifth Report and Order Adopted Jan. 9, 2012; Released Jan. 10, 2012 can be viewed here:
http://transition.fcc.gov/Daily_Releases/Daily_Business/2012/db0110/FCC-12-7A1.pdf

or the link to the Federal Register provides more information at:
https://www.federalregister.gov/articles/2012/03/22/2012-6601/review-of-the-emergency-alert-system

FCC EAS rules & regulations Title 47 CFR Part 11 relating to broadcast and cable may be viewed at:
http://www.fcc.gov/pshs/services/eas/

The EAS CAP Industry Group Implementation Guidelines can be accessed here:
http://eas-cap.org/ECIG-CAP-to-EAS_Implementation_Guide-V1-0.pdf

The following link is to the FEMA IPAWS website and outlines a guide to CAP and how to use it:
http://www.fema.gov/emergency/ipaws/about.shtm

To poll the IPAWS aggregator, you must use CAP compatible EAS equipment and the manufacturer of that equipment must provide their firmware for the new system. CAP compatible EAS equipment manufacturers must first provide firmware updates to FEMA before message polling will work for your equipment.
Once you have installed CAP compliant EAS equipment and your manufacturer has provided firmware updates, you can poll the following URL: https://apps.fema.gov/

Current FCC EAS handbooks can be found at the FCC web site:
http://transition.fcc.gov/pshs/services/eas/#handbooks

- AM/FM EAS Handbook
- TV EAS Handbook
- Cable

APPENDIX M

“Local Area” Plans

Local Area Plans have been created for the following EAS districts of Texas:

- Amarillo
- Austin
- Beaumont
- Bryan/College Station
- Corpus Christi
- Dallas/Fort Worth
- El Paso
- Houston
- San Antonio

Information on how to create a Local Area Plan can be found at the Texas Association of Broadcasters’ website: www.tab.org.

APPENDIX N

AMBER Child Abduction Alert Plans

AMBER Child Abduction Alert plans have been created for the following EAS districts of Texas

- Amarillo
- Austin
- Beaumont
- Corpus Christi
- Dallas/Fort Worth (Information is available at www.dfwamberalert.com)
- El Paso
- Houston (Information is available at www.amber-plan.net)
- San Antonio
- Wichita Falls
- State of Texas (Any county not included in a local AMBER plan. This was established to allow access to the kidnapping alerts for areas not already served by an AMBER plan.

Information on how to create a local AMBER Child Abduction Alert Plan can be found at the National Center for Missing & Exploited Children's web site: www.missingkids.com

The speed with which local AMBER programs are able to notify the public about child kidnappings is one of the reasons the program has been so successful. More than 500 children have been successfully recovered across the U.S. because of the use of an AMBER alert.

More details on Texas' AMBER program are available at:
http://www.txdps.state.tx.us/dem/Operations/Alerts/index.htm

Amber Hagerman, of Arlington, Texas was nine years old when she was kidnapped and brutally murdered. On January 13, 1996, Amber was riding her bicycle in the parking lot of an abandoned grocery store when a kidnapper threw Amber into his truck and drove away. A neighbor, who had heard Amber's screams, called police and provided investigators with the description of the suspect and the vehicle. Four days later, Amber's body was found in a ditch with her throat cut, only four miles from home. The horrific kidnapping and murder of Amber Hagerman remains unsolved.

Outraged over this incident, concerned citizens contacted several Dallas area radio stations and urged them to broadcast future child abduction information repeatedly, in a similar format used for severe weather bulletins.

The Associations of Radio Managers (ARM) of the Dallas/Fort Worth area, adopted the idea leading to the creation of the nation's first AMBER program. In honor of the tragic death of Amber Hagerman, the letters of her name were used to create the name of the program, America's Missing: Broadcast Emergency Response. Today, each state in the U.S., along with several countries have established AMBER programs

within their communities, making Amber's tragic death a lasting legacy in the battle against serious child abductions.

The Texas AMBER Alert Network (State Program) was established by Gov. Rick Perry in August 2002 through Executive Order RP-16, later codified by the Legislature in early 2003. The Texas Department of Public Safety manages the Network, comprised of several federal, state, local, public and private technologies. The Program provides law enforcement a mechanism for rapid notification of the most serious child abduction cases to the media and the public.

APPENDIX O

Texas State Emergency Communications Committee Members

This is the list of individuals involved in the revision of the Texas State EAS Plan in 2012.

Ann Arnold	– Texas Association of Broadcasters	512-322-9944
Pete Baldwin	– Travis County Office of Emergency Management	512-974-0472
Claudia Bitner	– MyStateUSA	208-472-5761
Ron Boyer	– Boyer Broadband	303-570-5835
Jeff Burdett	– Texas Cable Association	512-474-2082
Kay Chiodo	– DeafLink	210-590-7446
Ed Czarnecki	– Monroe Electronics	703-625-5991
Ben Downs	–WTAW/KNDE/KZNE/KWBC/KAGC	979-695-9595
Dale Gehman	– Gehman Compliance & Consulting	717-859-6410
Dave Halperin	– KLAQ	915-838-4349
Jim Heminway	– Digital Alert Systems	585-765-1155
Jim Henkel	– KLBJ /KLZT/KROX /KGSR /KBPA	512-848-4922
Dale Laine	– Texas Cable & Telecommunications Assn.	512-922-4430
Kevin Lemon	– Texas Division of Emergency Management	512-424-2208
Chuck Loesch	–KLBJ/KLZT/KROX/KGSR/KBPA	512-832-4000
Frank Lucia	– Lucia Consulting	301-788-4804
Jeff Lyon	– KIXS/KLUB	361-573-0777 x203
Mike Mach	– NOAA-NWS-Southern Region Headquarters	817-978-1100 x108
Dave Matyis	– Engineer/Consultant Austin	512-589-6428
Tim McCoy	– KFMK	512-329-4420
Charles McGregor	– KRXT-FM	512-446-6985
Don Miller	– MyStateUSA	360-791-4365
David Ostmo	– KABB/KRRT-TV	210-377-4734
Darryl Parker	– TFT	408-943-9323 x223
Lance Parr	– KEOS	979-820-3468
Harold Price	– Sage Alerting, Inc.	914-872-4069
Brian Purdy	– CBS Texas	214-525-7277
Anna Romero	– Texas Association of Broadcasters	512-322-9944
Gisela Ryan-Bunger	– Texas Division of Emergency Management	512-424-2271
Ed Schaefer	– Capitol Area Council of Governments	512-916-6026
Michael Schneider	– Texas Association of Broadcasters	512-322-9944
John Steel	– KUHF Houston	713-743-8599
Bob Stroupe	– KODA/KKRW/KTBZ/KTRH/KBME/KPRC	713-212-8045
Jeff Suggs	– City of La Porte	281-471-3607
Louis Sutton	– Channel Radio Dallas-Fort Worth	214-866-8900
Mike Wenglar	– KVUE-TV	512-459-2040
Chuck Wolf	– Media Consultants	281-980-1400
Paul Yura	– National Weather Service, WFO Austin/San Antonio	830-606-3600 x223
Walt Zaleski	– NOAA-NWS-Southern Region Headquarters	817-978-1100 x106

APPENDIX P

The Texas County and Offshore FIPS Codes will help Texas EAS Participants put the proper county codes and off shore codes into their decoders. Off shore codes are for Special Marine Warnings and other water alerts.

Texas County FIPS Codes

COUNTY CODE	COUNTY CODE	COUNTY CODE
001 Anderson	171 Gillespie	341 Moore
003 Andrews	173 Glasscock	343 Morris
005 Angelina	175 Goliad	345 Motley
007 Aransas	177 Gonzales	347 Nacogdoches
009 Archer	179 Gray	349 Navarro
011 Armstrong	181 Grayson	351 Newton
013 Atascosa	183 Gregg	353 Nolan
015 Austin	185 Grimes	355 Nueces
017 Bailey	187 Guadalupe	357 Ochiltree
019 Bandera	189 Hale	359 Oldham
021 Bastrop	191 Hall	361 Orange
023 Baylor	193 Hamilton	363 Palo Pinto
025 Bee	195 Hansford	365 Panola
027 Bell	197 Hardeman	367 Parker
029 Bexar	199 Hardin	369 Parmer
031 Blanco	201 Harris	371 Pecos
033 Borden	203 Harrison	373 Polk
035 Bosque	205 Hartley	375 Potter
037 Bowie	207 Haskell	377 Presidio
039 Brazoria	209 Hays	379 Rains
041 Brazos	211 Hemphill	381 Randall
043 Brewster	213 Henderson	383 Reagan
045 Briscoe	215 Hidalgo	385 Real
047 Brooks	217 Hill	387 Red River
049 Brown	219 Hockley	389 Reeves
051 Burleson	221 Hood	391 Refugio
053 Burnet	223 Hopkins	393 Roberts
055 Caldwell	225 Houston	395 Robertson
057 Calhoun	227 Howard	397 Rockwall
059 Callahan	229 Hudspeth	399 Runnels
061 Cameron	231 Hunt	401 Rusk
063 Camp	233 Hutchinson	403 Sabine
065 Carson	235 Irion	405 San Augustine
067 Cass	237 Jack	407 San Jacinto
069 Castro	239 Jackson	409 San Patricio
071 Chambers	241 Jasper	411 San Saba
073 Cherokee	243 Jeff Davis	413 Schleicher
075 Childress	245 Jefferson	415 Scurry
077 Clay	247 Jim Hogg	417 Shackelford
079 Cochran	249 Jim Wells	419 Shelby
081 Coke	251 Johnson	421 Sherman

APPENDIX P (continued)

COUNTY CODE	COUNTY CODE	COUNTY CODE
083 Coleman	253 Jones	423 Smith
085 Collin	255 Karnes	425 Somervell
087 Collingsworth	257 Kaufman	427 Starr
089 Colorado	259 Kendall	429 Stephens
091 Comal	261 Kenedy	431 Sterling
093 Comanche	263 Kent	433 Stonewall
095 Concho	265 Kerr	435 Sutton
097 Cooke	267 Kimble	437 Swisher
099 Coryell	269 King	439 Tarrant
101 Cottle	271 Kinney	441 Taylor
103 Crane	273 Kleberg	443 Terrell
105 Crockett	275 Knox	445 Terry
107 Crosby	277 Lamar	447 Throckmorton
109 Culberson	279 Lamb	449 Titus
111 Dallam	281 Lampasas	451 Tom Green
113 Dallas	283 La Salle	453 Travis
115 Dawson	285 Lavaca	455 Trinity
117 Deaf Smith	287 Lee	457 Tyler
119 Delta	289 Leon	459 Upshur
121 Denton	291 Liberty	461 Upton
123 DeWitt	293 Limestone	463 Uvalde
125 Dickens	295 Lipscomb	465 Val Verde
127 Dimmit	297 Live Oak	467 Van Zandt
129 Donley	299 Llano	469 Victoria
131 Duval	301 Loving	471 Walker
133 Eastland	303 Lubbock	473 Waller
135 Ector	305 Lynn	475 Ward
137 Edwards	307 McCulloch	477 Washington
139 Ellis	309 McLennan	479 Webb
141 El Paso	311 McMullen	481 Wharton
143 Erath	313 Madison	483 Wheeler
145 Falls	315 Marion	485 Wichita
147 Fannin	317 Martin	487 Wilbarger
149 Fayette	319 Mason	489 Willacy
151 Fisher	321 Matagorda	491 Williamson
153 Floyd	323 Maverick	493 Wilson
155 Foard	325 Medina	495 Winkler
157 Fort Bend	327 Menard	497 Wise
159 Franklin	329 Midland	499 Wood
161 Freestone	331 Milam	501 Yoakum
163 Frio	333 Mills	503 Young
165 Gaines	335 Mitchell	505 Zapata
167 Galveston	337 Montague	507 Zavala
169 Garza	339 Montgomery	

APPENDIX P (continued)

Texas Offshore FIPS Codes

77130 Laguna Madre From the Port Of Brownsville to the Arroyo Colorado|-97.2983|26.1926
77132 Laguna Madre From The Arroyo Colorado To 5 NM North Of Port Mansfield TX|-97.3721|26.4894
77135 Laguna Madre From 5 nm North Of Port Mansfield To Baffin Bay TX|-97.4371|26.9253
77150 Coastal waters from Port Mansfield TX to the Rio Grande River out 20 NM|-97.0647|26.2744
77155 Coastal waters from Baffin Bay to Port Mansfield TX out 20 NM|-97.1638|26.9194
77170 Waters from Port Mansfield TX to the Rio Grande River from 20 to 60 NM|-96.5557|26.2725
77175 Waters from Baffin Bay to Port Mansfield TX from 20 to 60 NM|-96.6491|26.9016
77230 Bays and Waterways from Baffin Bay to Port Aransas|-97.3077|27.5432
77235 Bays and Waterways from Port Aransas to Port O'Connor|-96.8194|28.1561
77250 Coastal waters from Baffin Bay to Port Aransas out 20 NM|-97.0497|27.5311
77255 Coastal waters from Port Aransas to Matagorda Ship Channel out 20 NM|-96.5772|28.043
77270 Waters from Baffin Bay to Port Aransas from 20 to 60 NM|-96.5543|27.3997
77275 Waters from Port Aransas to Matagorda Ship Channel from 20 to 60 NM|-96.1529|27.7689
77330 Matagorda Bay|-96.3238|28.6047
77335 Galveston Bay|-94.8742|29.4114
77350 Coastal waters from Freeport to Matagorda Ship Channel TX out 20 NM|-95.7576|28.5432
77355 Coastal waters from High Island to Freeport TX out 20 NM|-94.7914|29.0889
77370 Waters from Freeport to Matagorda Ship Channel TX from 20 to 60 NM|-95.4513|28.1555
77375 Waters from High Island to Freeport TX from 20 to 60 NM|-94.5953|28.6499
77450 Coastal waters from Cameron LA to High Island TX out 20 NM|-93.8475|29.6219

APPENDIX Q

Sample Letter Request for Cable Selective Override Agreement

Request to (Name of Cable System) to not interrupt programming
of (Call Letters and City of License) Television for EAS events and tests

(Date)

(Call Letters and City of License) Television ("we" or "Station") hereby requests that (Name of cable system) ("you" or "your") agree to not interrupt and/or redirect Station's broadcasts on its main and digital channels with national EAS messages, monthly and weekly EAS tests, and actual local and state and weather service EAS events. This request is being made pursuant to Federal Communications Rules allowing, and the Texas State EAS Plan strongly encouraging, cable operators and broadcasters to enter into written agreements to institute selective override agreements with cable systems to provide all EAS participants sufficient flexibility in serving their audience while meeting obligations prescribed by Congress.

Subject to your acceptance of such request, the Station certifies that it shall broadcast all federally mandated national EAS messages, is fully responsible for all FCC mandated tests on (list of associated cable channels), and abides by the required monitoring assignments as specified in the EAS local area plan for the (name of local EAS area).

The Station also accepts full responsibility for all state and local messages that it voluntarily carries that appear on all (name of cable system) cable channels carrying any and all of this station's channels for your cable coverage for (name of local EAS area) region.

The Station is aware that system changes may be necessary for you to agree to this request. Recognizing this, we agree to work with you in good faith to negotiate as expeditiously as possible a written agreement but no later than sixty (60) days that establishes the terms and conditions governing the implementation of selective override by you, including a date certain when such selective override will be implemented.

Within 10 business days, please acknowledge receipt of this request, as well as your willingness to negotiate in good faith such an agreement as expeditiously as possible. You may direct any questions or implementation issues to us at the telephone or email address below.

(Name of Licensee Officer, signature and date)
(Call Letters of Television Station)
(Address of Television Station)
(Contact Phone Number)

APPENDIX R

EAS CAP Information

For detailed information on CAP implementation, click or copy and paste the web address below:

http://eas-cap.org/ECIG-CAP-to-EAS_Implementation_Guide-V1-0.pdf