

# North Carolina Emergency Alert System State Plan

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## Overview

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The Emergency Alert System (EAS) was developed to provide immediate communication and information to the public at the national, state or local levels in an emergency. The purpose of the North Carolina Emergency Alert System Plan is to provide procedures and guidelines for state, federal and private organizations for working together to disseminate emergency information and instructions to the public during threatened or actual emergencies.

Originally, EAS was created to give the President of the United States the capability to relay information to the public immediately at the national, state and local levels during an emergency. The EAS may be used to provide the heads of state and local government, or their designated representatives, with a means of emergency communication with the public in their area. North Carolina adopted the federal model giving state and local emergency management officials the capability to provide information immediately to residents during emergencies. Additionally, the EAS works with the National Weather Service's weather radio emergency notification system.

The North Carolina EAS uses multiple methods to disseminate emergency notification messages to the public including Ethernet and satellite-based technology and the traditional daisy chain method with stations monitoring local primary one and two radio stations. Communications Laboratory equipment and their EMNet technology provide the infrastructure for disseminating emergency notifications.

Participation in the EAS system is voluntary for broadcasters. Broadcaster acceptance of and participation in this plan shall not remove the station's right to exercise independent discretion and responsibility in any given situation. However, under FCC regulation, broadcast stations must either carry the presidential emergency notification or sign off air while the alert is carried.

This plan is the Federal Communications Commission's mandated document outlining the organization and implementation of the Emergency Alert System for North Carolina. It provides detailed guidance to North Carolina broadcasters, cable television operators, state and local entities that are authorized to use the EAS. Included are details that describe the required technical standards and operational procedures of the EAS for analog AM, FM and TV broadcast stations, digital broadcast stations, analog cable systems, digital cable systems, wireline video systems, wireless cable systems, direct broadcast satellite services, satellite digital audio radio service and other participating entities.

## Authority

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The authority of this plan lies within Title 47 U.S.C. 151, 154(i) and (o), 303(r), 544(g) and 606; and 47 Code of Federal Regulations (CFR,) Part 11, Federal Communications Commission Rules and Regulations, Emergency Alert System as it pertains to day-to-day emergency operations. All operations of the Emergency Alert System are in accordance with Subpart G of Part 73, FCC Regulations (Title 47, Code of Federal Regulations; the Federal Communications Commission's EAS Checklist). This plan is consistent with the provisions of the rules and regulations of the Federal Communications Commission and is considered to be a supplement to the National Emergency Alert System Plan.

This Plan is an adjunct to the FCC EAS Rules, and is not meant to be a summary, in whole or in part, of those rules. Consult FCC Rules Part 11 for complete rules regarding the Emergency Alert System. (All references located within brackets in the following text refer to the aforementioned FCC Rules Part 11 of Title 47 of U.S. Code of Federal Regulations.)

## **Participation in and Priorities of the Emergency Alert System**

North Carolina's Emergency Alert System is comprised of dozens of radio, television and cable stations, as well as several government agencies including the N.C. Division of Emergency Management, N.C. State Highway Patrol, N.C. Center for Missing Persons and National Weather Service. All entities work together to disseminate critical information to the public during crisis and emergencies.

### ***Participation in the National System***

All broadcasters, including cable and satellite providers, are required to participate in the national-level Emergency Alert System. Participating national stations and cable operators will carry the presidential message. Non-participating national stations will make an announcement and sign off during the duration of the presidential emergency announcement.

Agencies that make up the Emergency Alert System include: broadcast networks, cable networks, program suppliers, AM, FM and satellite radio broadcast, low power FM, television broadcast stations, Class A television stations, low power TV stations, cable systems, wireless cable systems which may consist of multipoint distribution service, multichannel multipoint distribution service, or instructional television fixed service stations, and other entities and industries operating on an organized basis during emergencies at the national, state and local levels. It requires that at a minimum all participants use a common EAS protocol, as defined in § 11.31, to send and receive emergency alerts.

As a member of the EAS, participants are required to have a working encoder/decoder (en/dec) box with the following exceptions: (a) cable and wireless cable systems serving fewer than 5,000 subscribers are required to install an FCC-certified *decoder* only, and; (b) broadcast satellite and repeater station, which rebroadcast 100% of the programming of their hub station, will be exempt from the requirement to install EAS equipment.

All broadcasters and subject cable operators must transmit a required weekly test (RWT). In addition, once a month every broadcaster must re-transmit a required monthly test (RMT) within 60 minutes [FCC 11.61] of their EAS decoder receiving it. These actions are required of all broadcasters and subject cable operators, regardless of their "PN" or "NN" EAS status.

### ***Participation in the State and Local Systems***

Participation in the state and/or local EAS is voluntary for all broadcasters and cable operators. However, broadcast stations and cable operators electing to participate in the state and/or local EAS must follow the procedures found in this plan. Stations designated "NN" (non-participating national) may participate in the state and/or local EAS without any prior FCC approval even though they elect not to carry national EAS messages.

All participating EAS stations are strongly urged to place their encoder/decoder boxes in “Automatic Relay” mode for incoming messages containing mandatory Local Event Codes listed in Appendix C.

It should be noted that the Emergency Alert System should be used only in short duration life-or-death events.

### **Conditions of Participation**

Broadcasters who participate in the North Carolina EAS program must agree to adhere to the following responsibilities:

- Follow the procedures and policies found in this plan.
- Have a fully functional encoder/decoder box. Participating EAS stations are urged to place their encoder/decoder boxes in “Automatic Relay” mode for incoming messages containing mandatory local event codes listed on page 25 or as determined by the North Carolina SECC but do hold the right to program certain codes for manual relay. Automatic transmission must include a permanent record that contains at a minimum the following information: originator, event, location and valid time period of the message [§11.51].
- Operate at full wattage capacity or notify the SECC Radio-coordinator when they operate at less than full wattage.
- Broadcast emergency notifications message or interrupt programming to announce emergency alerts to the public within one hour of receiving emergency notification message from origination source.
- Use EAS only in short duration during life-or-death events and to use multiple times only when significant new information needs to be disseminated to the public.
- Participate in the required monthly test (RMT) for statewide EAS testing. Each month, every local primary broadcast station must re-transmit a RMT within 60 minutes of receipt within their EAS decoder. All testing should be documented in the station EAS log book.
- Participate in the required weekly test for local EAS testing. All testing should be documented in the EAS log book.
- Monitor their assigned local primary one and local primary two stations and the closest NWS weather radio frequency. For full participation in the North Carolina EAS State Plan, each radio and television station and cable system with city of license in the state should monitor their LP-1, LP-2 and local NWS station.
- National level alert messages must be carried by all radio and television stations and cable systems or that station or system must go off the air. Participation by broadcasters in local, state-level and national weather service activation is voluntary. If carried, the message must be carried in its entirety with no changes.
- Radio stations shall fulfill the audio portion of an EAS activation by carrying the entire audio feed from their LP-1 or LP-2 station. Stations are strongly urged to place their EAS encoder/decoders in full automatic relay for incoming messages.

Daytime only stations receiving an activation message overnight must, upon arrival, immediately broadcast the alert if the time stamp for that emergency is still valid. If the time

stamp for the issued warning or alert has expired, then the station need only note in their log that the message was received.

- Television stations shall fulfill the video portion of EAS activation by transmitting a visual message containing the Originator, Event, Location and the valid time period as contained in the EAS digital header signal of an EAS message. If the message is a video crawl, it shall be displayed at the top of the television screen or where it will not interfere with other visual messages. FCC 11.51(D).

Cable systems with 10,000 or more subscribers shall fulfill the video portion of an EAS activation by transmitting the visual EAS message on all channels. The visual message shall contain the Originator, Event, Location and the valid time period as contained in the EAS digital header signal of an EAS message. If the message is a video crawl, it shall be displayed at the top of the subscriber's television screen or where it will not interfere with other visual messages. (FCC 11.51, G-3).

The State Emergency Communications Committee (SECC) recognizes many local Cable Television Franchise Authorities have agreements in place with local cable companies to provide audio over-rides or similar emergency alerting capabilities in addition to those required by the Federal Communications Commission (FCC). This plan in no way prohibits any such agreements.

Participation in this plan shall not prohibit broadcasters from exercising their independent discretion and responsibility in any given situation without undue penalty. Broadcast stations and cable systems transmitting EAS emergency communications shall have conferred rebroadcast authority. Management of each broadcast station and cable system may exercise discretion regarding the broadcast of emergency information and instructions to the general public. This authority is provided by FCC Rules and Regulations [§11.54d]. EAS is voluntary for emergency notifications originated by state and local agencies for the broadcasters. Under FCC regulation, however, broadcast stations must either carry the presidential emergency notification or sign off air while the alert is carried.

### ***Emergency Alert System Priorities***

The priorities for EAS messages are listed below as set forth in the FCC rules. (Note: *Messages from the National Information Center are follow-up messages sent after a national EAS activation.*)

#### **Emergency Alert System Priorities**

<b>Priority Level</b>	<b>Priority</b>
First	National Level EAS Messages
Second	Local Area EAS Messages
Third	State EAS Messages
Fourth	Messages from the National Information Center (NIC)

# Activation Procedures for the Emergency Alert System

## ***National Activation Procedures***

All national activations will be issued from the White House and will be transmitted to the N.C. primary entry point, WQDR-FM in Raleigh. The message will be relayed to the state relay stations for retransmission throughout the NC EAS network. All EAS receivers are factory-programmed to handle a national Emergency Action Notification (EAN). EAS messages with the EAN event code must be transmitted immediately [11.52]. Automatic interruption of programming is required when facilities are unattended [11.52]. For additional information concerning national alert activation procedures see Appendix A.

All EAS participants specified in §11.11, are categorized as participating national sources unless authorized by the FCC to be non-participating national (NN) sources. An EAS participant may submit a written request to the FCC asking to be an NN Source. The FCC may then issue a non-participating national authorization letter. The NN sources must go off air during a national EAS activation after transmitting specified information [§11.41(a)(b)].

EAS participants must copy their official letter of request to the FCC to the North Carolina State Emergency Alert System Coordinator for record keeping purposes.

## ***State Activation Procedures***

The following sources are authorized to activate state or local EAS messages in North Carolina:

- Governor of North Carolina
- Secretary of N.C. Department of Crime Control and Public Safety
- Director of N.C. Division of Emergency Management
- State Emergency Response Team Leader
- N.C. Division of Emergency Management duty officer
- Senior N.C. Division of Emergency Management officer on duty
- National Weather Service representative
- N.C. Center for Missing Persons director or designated representative
- State Emergency Communication Committee members
- Local primary one and two radio stations

Once authorized to issue an EAS message, the Emergency Management officer will develop the appropriate message and format it into the EAS encoder/decoder for distribution statewide. All LP-1 and LP-2 stations will be alerted simultaneously through the EMnet System, and the message will then be relayed throughout the NC EAS network.

## ***Local Activation Procedures***

In the event that a state, county or city emergency management official deems it necessary to disseminate emergency information to the general public for a localized life-threatening event or incident, that official should directly contact:

- a) The National Weather Service (NWS) office serving that area and request that NWS issue an EAS message over NOAA weather radio, or
- b) The county Emergency Management coordinator will contact the State EOC and request the issuance of an EAS message, or
- c) The local area LP-1 or LP-2 and request that an EAS alert as civil emergency message be issued.

The emergency management official should provide text information about the hazard and the appropriate response to the NWS office for immediate transmission. Local and county emergency management officials should contact their local NWS office to set up procedures to clarify and facilitate the process.

Alternately, local and county emergency management officials may contact their or the North Carolina State Operations Center to request an EAS activation detailing the emergency and appropriate response of the public.

### ***North Carolina Child Abduction Activation Procedures***

The EAS also is used to transmit Child Abduction Emergency (CAE) alerts. Commonly known as AMBER Alerts, these messages must originate from local law enforcement and be channeled through the N.C. Center for Missing Persons. If the primary originator for such messages, the State Highway Patrol State Warning Point (SWP), is unable to originate transmission, the NCCMP will request assistance from NCEM to originate the AMBER alert. The NCCMP will provide detailed information to NCEM who will then activate the Emergency Alert System via EMnet. If NCEM is incapable of initiating the alert, the NWS will be notified to activate the AMBER alert.

The message may require statewide distribution and a three-hour duration unless the NCCMP designates a more specific broadcast area or a shorter or longer duration. Follow-up CAE messages may be issued via EAS when significant additional information becomes available. No termination of event notice will be issued via the EAS, but the NCCMP will post a message on the EMnet Message Manager for distribution to local primary broadcasters.

### ***Weather-Related Activation Procedures***

The vast majority of weather-related EAS messages are originated by the National Weather Service via the NOAA Weather Radio. These alerts are also disseminated via the NOAA Weather Wire Service and the Associated Press teletype network. An EAS weather alert received via one of these teletypes shall constitute valid authorization for a broadcaster or cable operator to originate an EAS weather alert warning if that is the level of alert that has been declared by the National Weather Service.

Local stations should carry or broadcast any information provided by the NWS concerning weather events. Each station's management makes the decision to activate for other weather warnings or watches. It should also be understood that nothing in this plan prohibits any station from initiating its own EAS announcement originating from observations of its own personnel. If a station decides to self originate, they accept full responsibility of any origination after effects.

## **Origins of Emergency Alert System Messages**

### ***National Level Alerts***

The President of the United States or other federal authorities may issue an EAS message in a national emergency. Notification of a national EAS alert comes in the form of an Emergency Action Notification (EAN) from the White House. This notification is distributed to the nation via one method; the network of primary entry point (PEP) broadcast stations. The PEP station for North

Carolina is WQDR-FM (94.7) in Raleigh. See Appendix A for an overview of the National Emergency Alert System.

### ***State Level Alerts***

The primary statewide EAS activation point is the North Carolina Division of Emergency Management (NCEM) in Raleigh, N.C.. NCEM has primary responsibility for statewide EAS activations through EMNet.

However, any one of the following four agencies can originate statewide or regional EAS messages:

1. N.C. Division of Emergency Management (NCEM),
2. N.C. State Highway Patrol (NCSHP),
3. N.C. Center for Missing Persons (NCCMP), and
4. National Weather Service (NWS).

In general, NCEM will generate Non-weather Emergency Messages, while the National Weather Service will issue weather-related EAS messages. Both the Highway Patrol and Center for Missing Persons may originate child abduction emergency messages. Each originator supports the other in the event one origination point is inoperable. NCSHP backs up NCCMP, while NWS backs up NCEM. Also, NWS uses the EAS messages to serve as a redundant notification system to their weather radio notification system. NWS also has the ability to originate non-weather related emergency alerts for NCEM and NCCMP.

The following sequence activates the state-level EAS:

1. **Local government requires activation of EAS.** A local government emergency management official may call NWS or their local LP1 or LP2 station.
2. **Local emergency management official provides necessary information to NCEM.** The requesting local official must provide: name, agency, contact phone number, nature of event, counties affected, instructions for general public, activation authentication codeword. This information can be phoned in but written documentation via email or fax must follow shortly after phone call.
3. **Message transmitted.** NCEM programs message into EMNET transmitter and disseminates message.

The Center for Missing Persons distributes child abduction emergency notifications via the North Carolina State Highway Patrol. NCEM serves as backup for the child abduction emergencies and all other emergency notification originators in times of need.

### ***Local Area Alerts***

Local primary stations have the capability to originate emergency notification messages for their listening area at the request of an authorized agency. The local primary stations have the right to defer any local emergency management request to activate EAS to NCEM. If a local primary station chooses to originate an EAS message, they are required to record the following information: person/agency requesting activation, time and date of request, reason for request, FIPS codes entered, activation timestamp and authentication code approved.

## ***National Weather Service Alerts***

In general, the Emergency Alert System distributes emergency notification messages to the general public through radio, and television broadcasters while the National Weather Service distributes emergency notifications messages through National Oceanic and Atmospheric Administration (NOAA) weather radios. However, the systems work together to announce all types of emergency notification messages.

Seven National Weather Service offices operate 28 NOAA weather radio transmitter systems that broadcast weather information that impacts North Carolina counties. This information includes weather warning and watches for adverse weather conditions, as well as other emergencies considered in an all-hazards approach.

NWS personnel issue weather and other EAS alerts via NOAA weather radio using the NOAA Specific Area Message Encoding (SAME) EAS codes. NWS procedures are followed concerning the transmission of the SAME/EAS codes, the NOAA weather radio 1050 Hz warning alarm, and reading of the weather or appropriate EAS script.

The National Weather Service also serves as backup for the emergency alert system if all emergency alert system capabilities are disabled. This process is originated by a phone call from the state operations center to the Raleigh NWS office with approval authentication code followed by a faxed message with the information needed to broadcast an emergency notification message.

Each National Weather Service Office is required to perform weekly tests of the radio broadcast system to ensure operations.

## ***HazCollect***

HazCollect is a nationwide emergency notification system that enables emergency response officials to create and send non weather-related emergency messages to the public using weather radios and the emergency alert system. HazCollect provides the capability for faster and wider distribution of emergency information in a secure manner and at a more localized level.

Unlike traditional EAS messages which are activated by select warning points, HazCollect gives local emergency response officials the authority to create and send EAS-type messages to alert the public of a disaster in a specific region. Operated and maintained by the National Weather Service, this internet and satellite-based notification system uses NOAA's weather radios, EAS and other emergency notification systems that are common alert protocol compliant.

Although, HazCollect is intended to give local emergency response officials the ability to create and send emergency notification messages, it is the State Emergency Communications Committee's position, in agreement with the N.C. Division of Emergency Management and the National Weather Service, to instruct local emergency management and emergency response officials to request all activations of the emergency alert system or HazCollect by calling the North Carolina State Emergency Operations Center at 919-733-3300 or their local National Weather Service office.

## Organization of the North Carolina Emergency Alert System

### ***Activation and Distribution Sequence***

The North Carolina EAS can be activated by a request from an authorized federal, state or local official to the state Emergency Operations Center (EOC). The Emergency Management Officer will program relevant alert data into the EMnet transmitter. The encoded alert data will be sent simultaneously via satellite to the LP-1, LP-2 and state relay three stations across the state. The EOC also can activate the EAS in a particular region or area by contacting only the LP stations in that area. EAS originators enter state or county federal information processing systems codes into EMNet that identifies which local primary stations receive the EAS message.

The routing of the over-the-air, "daisy chain" relay network using SP-1 (WQDR-FM 94.7 mhz) and SP-2 (WDCG-FM 105.1 mhz) is charted in Appendix F. The monitoring assignments for each county are listed on page 27.

If for any reason the state EOC is unable to transmit an alert message, the state Emergency Management officer on duty will contact the Raleigh office of the National Weather Service and request the transmission of that alert on NOAA weather radios.

### ***Emergency Alert System Designation***

Every broadcast station will be assigned an EAS designation status as shown below.

**EAS Designation Definitions**

<b>EAS Designation</b>	<b>Full Title</b>	<b>Definition</b>
NP	National Primary	A source of national EAS alerts
SP	State Primary	The state primary station is WQDR-FM 94.7 MHZ in Raleigh. It is the primary entry point and would receive and relay any national EAS alert.
LP	Local Primary	Broadcast stations which are primary sources of local area, national and state EAS alerts. State LP stations are identified in Appendix E.
PN	Participating National	Broadcast stations and cable systems that monitor primary sources of EAS programming and directly feed emergency alerts to the public.
NN	Non-participating National	Broadcasters which have elected not to participate in the national level EAS. These stations must have specific authorization from the FCC to sign off the air during a national emergency.

## ***Delivery Plan for EAS Messages***

The SECC is required by the FCC to develop an EAS message delivery plan that will provide a minimum of two sources for all levels of EAS alerts to each broadcast station and subject cable system. The primary delivery system to LP-1 and LP-2 stations is the EMnet (Appendix B). The alternate delivery system, with primary responsibility for weather alerts and local EAS messages (issued as a civil emergency message), is the National Weather Service. NOAA weather radio station locations and frequencies are listed in Appendix K. As a full participant in the NC EAS program, each broadcaster and cable system should monitor the LP-1 and LP-2 stations, and the closest NWS office.

Monitoring assignments for all broadcast stations and subject cable systems in North Carolina are included in the appendices of this plan.

## ***Local Emergency Alert System Structure and Plan***

The EAS system has at least one point of access for all authorized agencies within a local operational area. This point of access is the EAS encoder/decoder position at each of the local primary stations. An Ethernet and satellite based communication link is established, capable of sending EAS information to a local primary station.

Local primary stations are encouraged to set their encoders/decoders to auto-forward mode for codes according to Emergency Alert System codes (Appendix C). Automatic interruption of programming and transmission of EAS messages is required when facilities are unattended. Automatic transmission must include a permanent record that contains at a minimum the following information: originator, event, location and valid time period of the message.

## ***Message Authentication***

### **National**

The authentication list is no longer distributed by the FCC and is no longer required for national activations.

### **State and Local**

One statewide authentication list will be used for all local and state activations. This list will be furnished by the N.C. Division of Emergency Management to all local primary one and two stations, the seven National Weather Service offices with warning responsibilities in North Carolina, all local emergency management offices and others designated to validate EAS activation requests.

## **Emergency Alert System Protocol**

EAS activations (tests or alerts) will consist of up to four mandatory elements:

- Header code
- Attention signal
- Aural message
- End of message code

## ***Header Code***

All EAS activations will include a header code data burst. The header code will be sent three times, with a one-second pause after each transmission, to ensure proper reception by EAS decoders. EAS header codes consist of the following elements sent in the sequence shown in the chart below.

**Header Code Sequence**

<b>Header Code Sequence</b>	<b>Header Code</b>	<b>Name of Code</b>	<b>Definition</b>
First	Preamble	N/A	Clears the system. The preamble is automatically sent by the EAS encoder.
Second	ZCZC	Start Code	An identifier which indicates the start of the ASCII code. Automatically sent by the EAS encoder.
Third	ORG	Originator Code	The code describes the type of entity originating an EAS activation. See subsection 1 below.
Fourth	EEE	Event Code	This code describes the type of event that has occurred. See subsection 2 below.
Fifth	SSCCC	Location Code	This code identifies the states, counties, municipalities and unincorporated areas affected by the EAS alert. See subsection 3 below.
Sixth	TTTT	Duration Code	This code defines how long the alert is expected to be in effect. See subsection 4 below.
Seventh	JJHHMM	Date and Time of Day Code	Date and time of day the EAS was activated. See subsection 5 below.
Eighth	LLLLLLLL	Encoder Identifier Code	This code identifies the specific entity originating the EAS alert. See subsection 6 below.

### 1. Originator Code

The user programs their originator code (ORG) into the EAS encoder at initial setup. The valid originator codes are given in EAS Originator Codes chart [§11.31d]

**EAS Originator Codes**

<b>Originator Code</b>	<b>Definition</b>
PEP	Primary Entry Point System
WXR	National Weather Service
CIV	Civil Authorities
EAS	EAS participants

### 2. Event Code

The Event Code (EEE) must be programmed into the encoder by the originator for each activation. The Event Codes listed in Appendix C have been approved by the FCC for EAS use in North Carolina [§11.31e]. Only those codes approved by the FCC may be used. Any agency that desires to use a code not on the list of approved event codes must submit the proposed code to the SECC for approval. If the SECC agrees with the need for a new code, the request will be sent to the FCC for approval by a consortium of the FCC, FEMA and NWS officials. Once the code is approved it will be added to the master list of event codes. Eventually, the FCC will update the Part 11 rules to include the new code.

### 3. Location Code

The location code (SSCCC) must be programmed by the alert originator each time an alert is issued. EAS location codes are based on Federal Information Processing System, or FIPS codes [§11.31c]. Each state has been assigned a number and each county in each state has been assigned a number. The combination of the state number and the county number gives each county in the entire country a unique identification number. The FIPS code for the state of North Carolina is 37. The chart below gives some examples EAS location codes for North Carolina counties. FIPS codes for all counties in North Carolina are located in Appendix D. A map containing county FIPS codes can be found in Appendix?.

**Example Location Codes**

<b>County</b>	<b>Location Code</b>
Alamance	37001
Cherokee	37039
Halifax	37083
Madison	37115
Northampton	37131
Yadkin	37197

### 4. Duration Code

The duration code (TTTT) must be assigned by the alert originator any time an alert is sent. Valid durations can be entered in 15 minute segments for time periods of less than one hour, and in 30 minute segments for time periods exceeding an hour. Example duration codes are shown in Example Duration Codes chart below.

### Example Duration Codes

Duration Code	Duration
0015	15 minutes
0030	30 minutes
0045	45 minutes
0100	One hour
0230	Two hours, 30 minutes

#### 5. Date and Time of Day Code

The Date and Time of Day Code (JJJHHMM) is based on a Julian calendar and is sent automatically by the EAS encoder. The duration of the event is calculated as starting from this time. (Example: January 5, 2:15 p.m. would be stamped 0051415.)

#### 6. Encoder Identifier Code

The Encoder Identifier Code (LLLLLLLL) identifies the broadcaster, cable operator, Weather Service office, civil authority or industrial plant that operated the encoder that transmitted or retransmitted the activation. The information is programmed into the encoder at initial setup and is automatically added to the EAS header by the encoder. The table below lists the formats for the mandatory “L-Codes” for various organizations and agencies.

#### Encoder Identifier Code Formats

Activation Entity	Identifier Code	Example
Broadcasters	Station call letters. For two stations give both stations’ call letters in sequence (as shown in example). For three or more stations, the call letters of one station is sufficient.	Single Station: WXXX (FM) Two Stations: WXXXWYYY
Cable Television	Six-digit FCC Cable ID Number	123456
Weather Service Offices	Use the station call sign (PXXX) followed by /NWS	PXXX/NWS
Civil Authorities	L-Codes for civil authorities will be constructed using the initials of the civil agency.	North Carolina Division of Emergency Management: NCEM
Military Groups	As given in examples.	Army:           USARMY Navy:            USNAVY Air Force:       AIRFORCE Marine Corps:  USMC Coast Guard:   USCG

### *Attention Signal*

Following the header code, a two-tone attention signal may be used to alert listeners and viewers that an EAS activation has occurred and that an aural message will follow. The attention signal should be

used if an aural message will be included as part of the alert. All National Weather Service required weekly tests and designated warnings will use the 1050HZ-tone alarm.

The two-tone attention signal must consist of the fundamental frequencies of 853 and 960 Hz transmitted simultaneously [§11.31a2] and must be from 8 to 25 seconds in duration [§11.31c]. When used, the attention signal must follow the EAS header and must precede an aural message. Use of the two-tone attention signal and an aural message will be determined by the alert originator; they are not required, but if one is used the other must accompany it. It is not required for state and local alerts [§11.51b].

### ***Aural Message***

An EAS alert may also include an aural message. EAS decoders are required to have the capability to record and store at least two minutes of audio information [§11.33a3i]. The originator may supply an aural message of up to, but not more than, ninety seconds in length. The aural message will be transmitted following the attention signal. Transmission of the aural message is not required for state and local alerts [§11.51b].

### ***End of Message***

In addition, all EAS alerts will contain an end-of-message code burst to indicate the complete reception of the message [§11.31c]. The end-of-message code burst is sent three times, as with the header code, to ensure proper reception by EAS decoders. The end of message character string is comprised of four ASCII “N” characters.

### ***Reception and Re-Transmission***

All broadcast stations and subject cable systems should retransmit the required monthly test (RMT) exactly as received and must re-transmit this test within 60 minutes of receiving it [§11.61 (1.v)]. For daytime-only stations receiving a night time RMT, this test must be re-transmitted within 60 minutes of the station’s sign-on. Transmission of the RMT takes the place of the required weekly test (RWT). Times should be logged for both the receipt and re-transmission of the RMT. Broadcast and cable management should impress upon their staff that re-transmission of this test is mandatory. Failing to retransmit the RMT within 60 minutes of its reception is a violation of FCC regulations.

### ***Time Duration and County Location Codes***

The time duration used in the EAS header code for all EAS tests will be 120 minutes. County location codes used in the EAS header code for EAS tests shall conform to these guidelines:

- SRN Stations: All tests shall use the location code for the entire state (37000).
- PN Stations, NN Stations and Cable Operators: The RMT shall be re-transmitted unchanged, except for the “L-Code”. Thus, RMTs will include all counties present in the original message. For the RWT performed every week by each PN and NN station and each cable operator, the county-location code used shall be the county for the broadcaster or cable operator’s service area. Other counties in the station’s service area may be added at management discretion.

## Required Testing of the Emergency Alert System

All broadcasters, subject cable operators, and the National Weather Service are required to transmit required weekly tests (RWT) and required monthly tests (RMT). The sole exception applies to Low power television stations that do not originate local programming and TV translators are not required to have EAS equipment.

### ***Required Weekly Tests***

#### **Transmission**

All broadcasters, subject cable operators, and the National Weather Service must initiate a required weekly test (RWT) once a week at random days and times except for the week of the monthly test. The NCEOC and SHP will simultaneously transmit a RWT to each LP-1 and LP-2 on a staggered schedule each Wednesday. There are no time-of-day restrictions. This is a 10.5-second test, consisting only of the EAS header and end-of-message codes.

Broadcast stations are encouraged to vary the broadcast of the RWT in an effort to expose all station operators both full time and part time to the procedures of conducting an EAS test.

#### **Reception**

All broadcasters and subject cable operators receiving a RWT from one of their monitored sources must log receipt of this test. No further action is required. Daytime only stations receiving an overnight RWT must log the test received in the appropriate manner the following morning.

#### **Scripts and Formats**

Required weekly tests are initiated by the individual broadcast stations without any oversight by government agencies other than the FCC. There is no script used for the standard RWT. It is recommended that stations use an opening and closing script announcing the test.

An example of an optional script for RWT is:

*“This is a required weekly test of the emergency alert system. [Insert tones here] This concludes the required weekly test.”*

RWTs initiated by the National Weather Service follow a NWS script. The entire standard test takes 10 seconds and should be formatted as follows:

- One-second pause
- Send EAS header
- One-second pause
- 1050 hertz attention signal for 8 seconds (NWS only)
- NWS Script (NWS only)
- Send EAS end-of-message code
- One-second pause
- Resume normal programming

## ***Required Monthly Test***

### **Transmission**

Required monthly tests (RMTs) may be initiated by the N.C. Division of Emergency Management, the National Weather Service, the N.C. State Highway Patrol and any LP-1 or LP-2 according to the schedule distributed by the State EAS Coordinator. Upon receipt of the test message, broadcasters and cable operators should follow procedures outlined in the "Reception and Re-transmission" section below. These tests shall always use the Event Code "RMT".

After considering the programming needs of broadcast, TV and cable operations, the SECC, through the State EAS Coordinator, will publish a required monthly test (RMT) schedule in the fall of the preceding year. Per guidance contained in 11.61 of the Code of Federal Regulations, the North Carolina SECC has determined that on even numbered months, the required monthly tests will run between local sunset and 8:30 a.m., while on odd numbered months, the tests will run between 8:30 a.m. and local sunset. Exceptions may be made for RMTs conducted in conjunction with nuclear plant exercises or Severe Weather Awareness Week. In late February or March during Severe Weather Week, NWS or NCEM may conduct an annual statewide tornado drill. An RMT may be issued with the audio referring to the statewide tornado drill. In months when a nuclear exercise is being conducted, the State EOC may conduct the RMT in conjunction with the nuclear plant exercise.

### **Reception and Re-Transmission**

All broadcast stations and subject cable systems should retransmit the RMT exactly as received and must re-transmit this test within 60 minutes of receiving it [11.61]. For daytime-only stations receiving a night time RMT, this test must be re-transmitted within 60 minutes of the station's sign-on. Transmission of the RMT takes the place of the required weekly test (RWT). Times should be logged for both the receipt and re-transmission of the RMT. Broadcast and cable management should impress upon their staff that re-transmission of this test is mandatory. Failing to retransmit the RMT within 60 minutes of its reception is a violation of FCC regulations.

### **Scripts and Formats**

Originators of the required monthly tests shall use the format outlined below. All other broadcasters and subject cable operators will receive the test in this format and must retransmit it in the same format within 60 minutes of receipt.

#### RMT Format and Script

- Send the EAS header code. (Use the RMT event code; use 120-minute duration)
- One second pause
- Send the two-tone attention signal for 8 seconds
- Transmit the following test script:  
*"This is a test of the North Carolina Emergency Alert System. This is only a test. Broadcasters in cooperation with local, state and national authorities have developed this system to provide the public with important emergency information, should the need arise. This concludes the monthly test of the North Carolina Emergency Alert System."*
- One second pause; and
- Send EAS end-of-message code.

#### Optional Test Introduction and Wrap-ups

In addition to the required elements in the RMT format, broadcasters and cable systems may elect to add an optional introduction to the test and/or an optional test wrap-up. When a test is received, the station could run the optional introduction followed by a one-second pause, retransmit the RMT as outlined above, run the test wrap-up, and then return to regular programming. The content of the introduction and wrap-up is entirely up to the broadcasters and subject cable operators. An example of an optional test introduction is:

*“This station, in cooperation with national, state, and local officials, participates in the Emergency Alert System. The following is an EAS test.”*

An example of an optional test wrap-up is:

*“For information regarding the Emergency Alert System, contact this station or your local emergency management organization.”*

## North Carolina State Emergency Communications Committee

The responsibility for administering this plan rests with the members of the North Carolina State Emergency Communications Committee (SECC). The SECC is comprised of one chairman and five co-chairman with one representative each from radio, television, cable and other designated industries, as well as a representative from the National Weather Service and N.C. Emergency Management. The FCC recognizes the SECC chairman as selected by the broadcasters in the state. The chairman selects and approves the co-chairs for radio, television, cable and any other sectors. The co-chair seats for the National Weather Service and North Carolina Emergency Management are selected by their respective agencies with notice given to the chairman.

Committee seats are selected by majority consensus of the broadcasters in North Carolina with notice given to the Federal Communications Commission for appointment of chairperson and the co-chairpersons.

### **North Carolina State Emergency Communications Committee Chairpersons**

Chairperson	Radio Co-Chairperson	Cable Co-Chairperson
Mrs. Ardie Gregory WRAL-FM 3100 Highwood Blvd. Raleigh NC 27604 919-890-6104 agregory@wralfm.com	Mr. Keith Harrison WRAL-FM 3100 Highwood Blvd. Raleigh, NC 27604 919-890-6110 kharrison@wralfm.com	Mr. Mark Eagle Time Warner Cable – Carolina Region 924 Ellis Rd., Suite 101 Durham, NC 27703 919-573-7083 Mark.eagle@twcable.com

Television Co-Chairperson	Member at-large	Member at-large
<p>Mr. Jim Gamble  WRAZ-TV  P.O. Box 30050  Durham, NC 27702  919-595-5050  jgamble@fox50.com</p>	<p>Mr. Darin Figurskey  NOAA National Weather  Service – Raleigh Office  designee  105 Capability Drive, Suite  300  Raleigh, NC 27606  919-515-8210 ext 222  Darin.Figurskey@noaa.gov</p>	<p>North Carolina Division of  Emergency Management  designee - (EAS Coordinator)  116 West Jones St.  Raleigh, NC 27603  919-733-3300  nceoc@ncem.org</p>

## Appendix A: National Level Emergency Alert System Overview

This appendix provides an overview of the national level of the Emergency Alert System (EAS). Participants in the state and local EAS plan should be aware of this information to understand how their organization contributes to the nationwide system, and how their operations could be impacted by a nationwide activation.

### *System Requirements*

The President requires a reliable means for communicating with the American public on short notice during periods of national crisis or major emergency in order to provide reassurance and direction regarding response and recovery. The President must be able to address the nation on AM and FM radio, as well as television and cable television audio, within ten minutes of an activation notice. In addition, the President must be able to address the nation on live television, audio and video, upon arrival at a designated television studio. This capability must exist under a variety of conditions such as before, during and after the situation or attack.

### *System Description*

When activated, the national-level EAS consists of a nationwide network of voluntary communications entities. The system is designed to maintain communications with the public in the event of an attack, a threat of war, a state of public peril, disaster or other national emergency. Once activated, the national-level EAS remains available for the dissemination of high priority national programming. These capabilities must also be available to any Presidential successors.

Each EAS source assumes the responsibility for serving a specifically designated area known as a local area. Serving the local area involves disseminating local area instructions, news and information, Presidential messages, governors' messages, state information, national programming and news.

### *System Activation*

The President of the United States has the sole authority to activate the national-level EAS message. The following sequence activates the national-level EAS:

**Presidential Decision** - A Presidential decision is made to activate the EAS; it is then passed to the White House Communications Agency for implementation.

**White House Contacts FEMA** - The White House Communication Agency then contacts the Federal Emergency Management Agency (FEMA) with EAS implementation instructions.

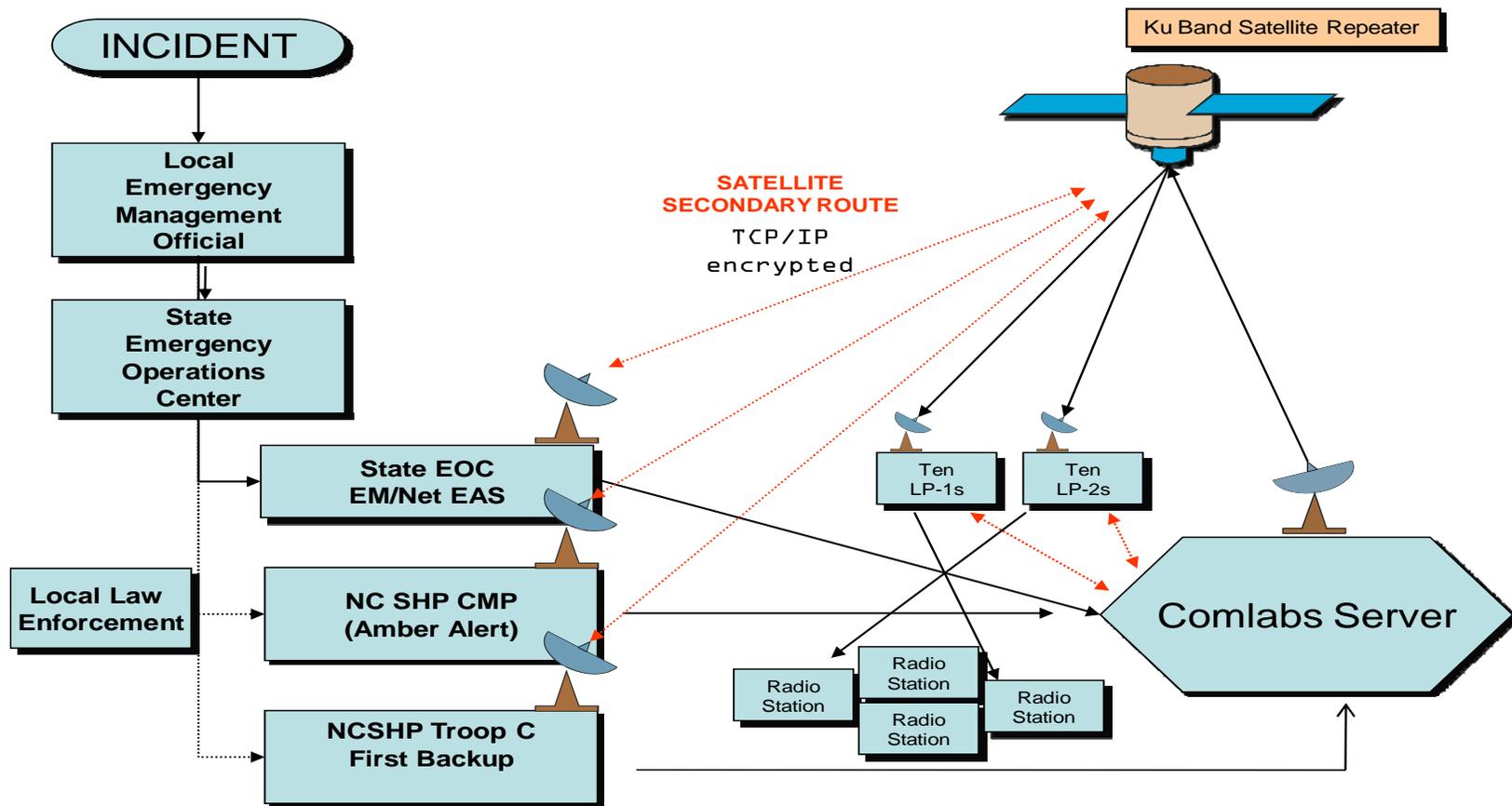
**FEMA Relays the Message Via EAS** – Using a network, FEMA relays the Emergency Action Notice (EAN) order information to the communications industry. FEMA transmits the EAN to the National Primary (NP) broadcast entities using the EAS system. (The NP in North Carolina is WQDR-FM (94.7) in Raleigh.)

NOTE: Voice circuits are in place for EAS programming at all times and can be originated at FEMA.

**North Carolina EAS Distributes Message** – The message will be relayed to the state relay stations for retransmission throughout the NC EAS network. All EAS receivers are factory-programmed to handle national EAN. EAS messages with the EAN event code must be transmitted immediately. Automatic interrupt of programming is required when facilities are unattended. A broadcast source that has elected to become a non-participating national must remove its signal from the air during a national activation. All other stations must carry the activation message.

**Message Terminated** – At the conclusion of an incident when the national-level EAS is no longer needed, a termination order is issued. At the conclusion of the EAS program, the White House Communication Agency Trip Officer issues a termination order over the program circuitry. FEMA then transmits an Emergency Action Termination message. The termination order is then relayed along the EAS network to all EAS participants.

## Appendix B: Emergency Alert System EMNet Message Distribution

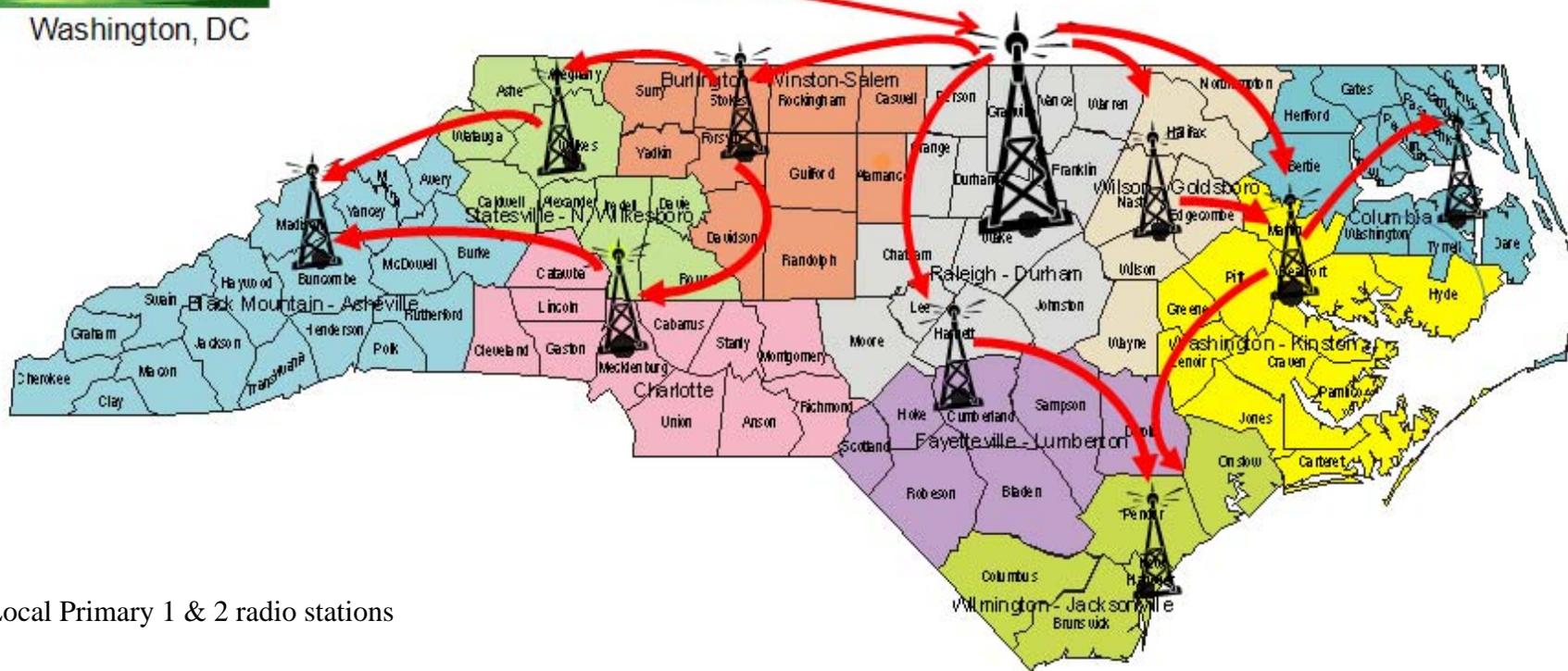


- 1) State EOC, NC State Highway Patrol & NC Center For Missing Persons can originate an EAS message.
- 2) Comlabs server verifies valid originator and then uplinks to Ku Band Satellite Repeater.
- 3) Satellite transmits message to all 20 LP-1 and LP-2 stations simultaneously. The message will be distributed and retransmitted according to relevant FIPS codes.
- 4) If the State EOC requests a receipt for a transmitted alert or test, the EMnet unit for the LP-1 and LP-2 stations will automatically report receipt of the message.
- 5) Every radio, TV station and cable system in the state must monitor an area LP-1 and LP-2 station.
- 6) In AMBER Alert situations, a local law enforcement official will report the incident to NCCMP who can originate an amber alert message.
- 7) Comlabs server receives message via TCP/IP internet connection. If internet connection is unavailable, message will be directed to satellite for relay to Comlabs Server.

## National Emergency Alert System “Daisy Chain” Message Distribution



Washington, DC



## Appendix C: Emergency Alert System Codes

National Event Codes	
Nature of Activation	Event Code
<b>*Emergency Action Notification (National Only)</b>	<b>EAN</b>
<b>*Emergency Action Termination (National Only)</b>	<b>EAT</b>
<b>*National Information Center</b>	<b>NIC</b>
<b>*National Periodic Test</b>	<b>NPT</b>
<b>*Required Monthly Test</b>	<b>RMT</b>
<b>*Required Weekly Test</b>	<b>RWT</b>
Local Event Codes	
Administrative Message	ADR
Blizzard Warning	BZW
<b>*Child Abduction Emergency</b>	<b>CAE</b>
<b>*Civil Emergency Message</b>	<b>CEM</b>
Coastal Flood Warning	CFW
<b>*Evacuation Immediate</b>	<b>EVI</b>
<b>*Flash Flood Warning</b>	<b>FFW</b>
Flash Flood Watch	FFA
Flood Warning	FLW
Flood Watch	FLA
<b>*Hazardous Material Warning</b>	<b>HMW</b>
<b>*High Wind Warning</b>	<b>HWW</b>
Hurricane Statement	HLS
Hurricane Warning	HUW
Hurricane Watch	HUA
<b>*Nuclear Power Plant Warning</b>	<b>NUW</b>
<b>*Practice/Demo Warning</b>	<b>DMO</b>
Severe Thunderstorm Warning	SVR
Severe Thunderstorm Watch	SVA
<b>*Shelter in Place Warning</b>	<b>SPW</b>
<b>*Tornado Warning</b>	<b>TOR</b>
<b>*Tornado Watch</b>	<b>TOA</b>
Tsunami Warning	TSW
Winter Storm Warning	WSW
<b>*911 Telephone Outage Emergency</b>	<b>TOE</b>
<b>NOTE: By NWS definition, CFW, HUW &amp; TSW codes apply to coastal and sound counties and should be programmed in endecs of stations serving the coast.</b>	<b>NOTE: Codes in BOLD with an * are required to be programmed into your EAS endec/decoder statewide.</b>

## Appendix D: Federal Information Processing System (FIPS) Codes

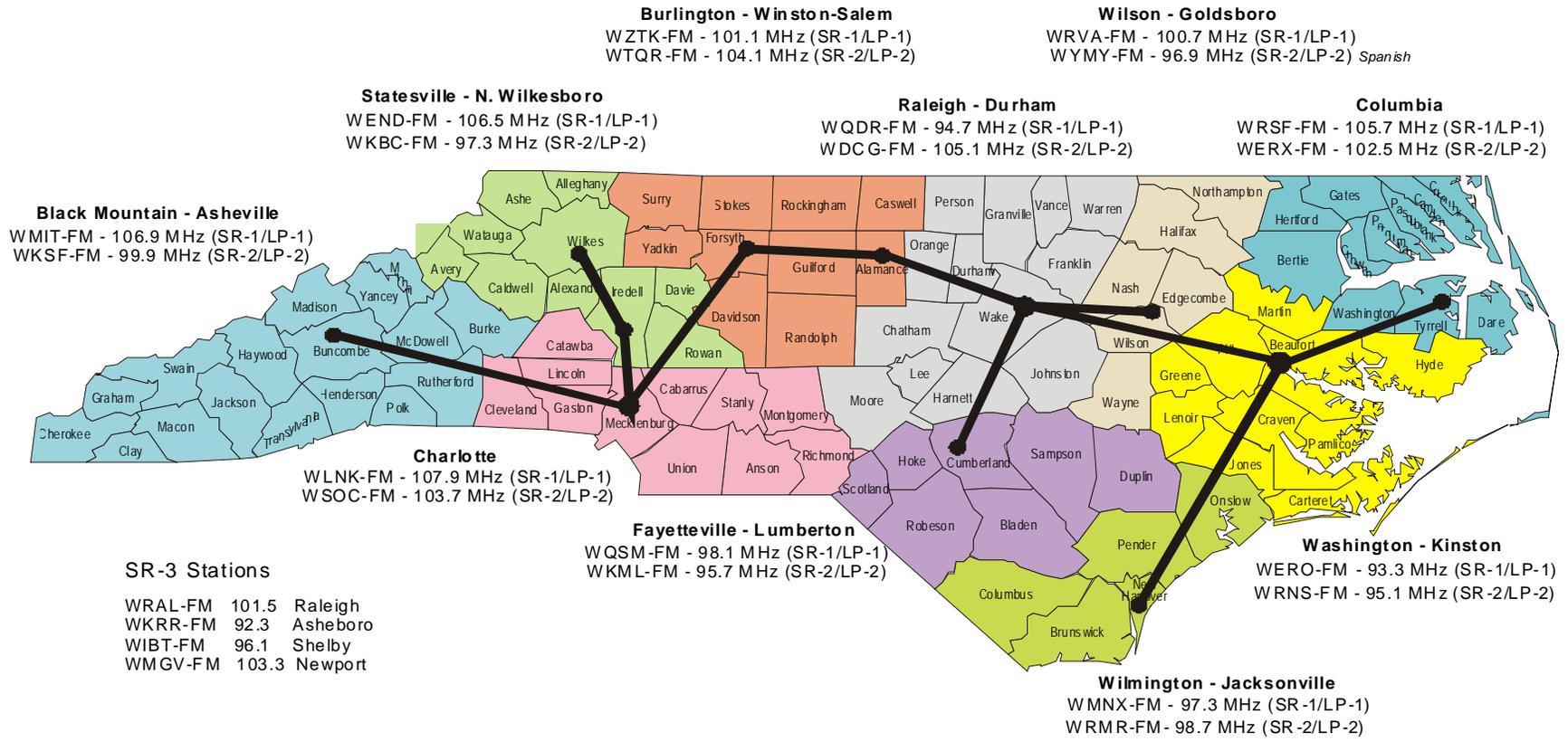
Statewide Code		
North Carolina		37000
County Specific Codes		
<u>Regionalized Area</u>	<u>County</u>	<u>Code</u>
<b>Black Mountain / Asheville</b>	Avery	37011
	Buncombe	37021
	Burke	37023
	Cherokee	37039
	Clay	37043
	Graham	37075
	Haywood	37087
	Henderson	37089
	Jackson	37099
	Macon	37113
	Madison	37115
	McDowell	37111
	Mitchell	37121
	Polk	37149
	Rutherford	37161
Swain	37173	
Transylvania	37175	
Yancey	37199	
<b>Burlington / Winston-Salem</b>	Alamance	37001
	Caswell	37033
	Davidson	37057
	Forsyth	37067
	Guilford	37081
	Randolph	37151
	Rockingham	37157
	Stokes	37169
	Surry	37171
	Yadkin	37197
<b>Columbia</b>	Bertie	37015
	Camden	37029
	Chowan	37041
	Currituck	37053
	Dare	37055
	Hertford	37091
	Gates	37073

	Pasquotank	37139
	Perquimans	37143
	Tyrrell	37177
	Washington	37187
<b>Charlotte</b>	Anson	37007
	Cabarrus	37025
	Catawba	37035
	Cleveland	37045
	Gaston	37071
	Lincoln	37109
	Mecklenburg	37119
	Montgomery	37123
	Richmond	37153
	Stanly	37167
	Union	37179
<b>Fayetteville / Lumberton</b>	Bladen	37017
	Cumberland	37051
	Duplin	37061
	Hoke	37093
	Robeson	37155
	Sampson	37163
	Scotland	37165
<b>Raleigh / Durham</b>	Chatman	37037
	Franklin	37069
	Granville	37077
	Harnett	37085
	Johnston	37101
	Lee	37105
	Moore	37125
	Orange	37135
	Person	37145
	Durham	37063
	Vance	37181
	Wake	37183
	Warren	37185
<b>Statesville / N. Wilkesboro</b>	Alexander	37003
	Alleghany	37005
	Ashe	37009
	Avery	37011
	Caldwell	37027

	Davie	37059
	Iredell	37097
	Rowan	37159
	Watauga	37189
	Wilkes	37193
<b>Washington / Kinston</b>	Beaufort	37013
	Carteret	37031
	Craven	37049
	Greene	37079
	Hyde	37095
	Jones	37103
	Lenoir	37107
	Martin	37117
	Pamlico	37137
	Pitt	37147
<b>Wilmington / Jacksonville</b>	Brunswick	37019
	Columbus	37047
	New Hanover	37129
	Onslow	37133
	Pender	37141
<b>Wilson / Goldsboro</b>	Edgecombe	37065
	Halifax	37083
	Nash	37127
	Northampton	37131
	Wayne	37191
	Wilson	37195

Appendix E: Map of LP-1 & LP-2 Radio Stations

# LP-1 & LP-2 Radio Stations



## Appendix F: EAS Daisy Chain Network

WQDR-FM (Raleigh) is the EAS State Primary (SP-1), and WDCG-FM (Durham) is the EAS State Primary-2 (SP-2). WQDR-FM (94.7) and WDCG-FM (105.1) serve as the LP-1 and LP-2 respectively for the Raleigh Local Area. State relay stations are FCC Class C-1 or better licensees. SR-3 stations were established to offer redundant relay points within the EAS distribution network.

In the over the air, "daisy chain" network, when WQDR-FM originates a statewide EAS message, the outbound pattern for the LP-1-Network is:

**WQDR-FM** alerts: WERO-FM (93.3), Washington Local Area  
WRVA-FM (100.7), Goldsboro Local Area  
WQSM-FM (98.1), Fayetteville Local Area  
WZTK-FM (101.1), Triad Local Area

In turn:

WERO-FM alerts WRSF-FM (105.7), Columbia Local Area  
WERO-FM alerts WMNX-FM (97.3), Wilmington Local Area  
WZTK-FM alerts WTQR-FM (104.1), Triad Local Area  
WTQR-FM alerts WLNK-FM (107.9), Charlotte Local Area  
WLNK-FM alerts WMIT-FM (106.9), Asheville Local Area  
WLNK-FM alerts WEND-FM (106.5), Statesville Local Area

When WDCG-FM *originates* a statewide EAS message, the outbound pattern for the LP-2 Network is:

**WDCG-FM** alerts: WYMY-FM (96.9), Goldsboro Local Area  
WKML-FM (95.7), Fayetteville Local Area  
WTQR-FM (104.1), Triad Local Area

In turn:

WYMY-FM alerts: WRNS-FM (95.1), Washington Local Area  
WRNS-FM alerts WERX-FM (102.5), Columbia Local Area  
WRNS-FM alerts WRMR-FM (98.7), Wilmington Local Area  
WTQR-FM alerts WSOC-FM (103.7), Charlotte Local Area  
WTQR-FM alerts WKBC-FM (97.3), Statesville Local Area  
WSOC-FM alerts WKSF-FM (99.9), Asheville Local Area

## **Appendix G: EAS Monitoring Assignments by Area**

This section specifies the required LP1 and LP2 monitor assignments in each local area and the counties in those areas. Additionally, the National Weather Service monitor assignments are listed with preferred and optional choices. The SR-3 stations form a voluntary network to support the existing LP-1s & LP-2s as additional relays. The LP-1s and LP-2s are requested to add a monitor to their system beyond the assignments detailed below. The additional monitor should be an SR-3, or an adjacent area LP in the absence of a useable SR signal. Choice of monitor is at the LP's discretion.

### **SR-3 stations in the network:**

WIBT-FM, (96.1) Shelby

WMGV-FM, (103.3) Newport

WKRR-FM, (92.3) Asheboro

WRAL-FM, (101.5) Raleigh

### **ASHEVILLE AREA**

**WMIT-FM 106.9** (SR-1/LP-1) monitors: WLNK-FM, WKSF-FM, EMnet, WXL-56 162.400 MHz (Asheville)

**WKSF-FM 99.9** (SR-2/LP-2) monitors: WMIT-FM, WSOC-FM, EMnet, WWG-82 162.525 MHz (Joanne Bald Mt.)

**National Weather Service:** WXL-56 162.400 MHz, WWG-82 162.525 MHz, (WNG-52 162.550 MHz)

All radio and television stations with city of license and cable operators with their franchise agreements in the counties of Buncombe, Burke, Cherokee, Clay, Graham, Haywood, Henderson, Jackson, Macon, Madison, McDowell, Mitchell, Polk, Rutherford, Swain, Transylvania and Yancey, which compose the Asheville Local Area, will monitor WMIT-FM, WKSF-FM and NOAA weather radio for this area.

### **CHARLOTTE AREA**

**WLNK-FM 107.9** (SR-1/LP-1) monitors: WTQR-FM, WSOC-FM, EMnet, WXL-70 162.475 MHz (Charlotte)

**WSOC-FM 103.7** (SR-2/LP-2) monitors: WLNK-FM, WTQR-FM, EMnet, WXL-70 162.475 MHz (Charlotte)

**National Weather Service:** WXL-70 162.475 MHz, (WWF-60 162.500 MHz, WNG-597 162.400 MHz)

All radio and television stations with city of license and cable operators with their franchise agreements in the counties of Anson, Cabarrus, Catawba, Cleveland, Gaston, Lincoln, Mecklenburg, Montgomery, Richmond, Stanly and Union, which compose the Charlotte Local Area, will monitor WLNK-FM, WSOC-FM and NOAA weather radio for this area.

### **COLUMBIA AREA**

**WRSF-FM 105.7** (SR-1/LP-1) monitors: WERO-FM, WERX-FM, EMnet, WWH-26 162.425 MHz (Mamie)

**WERX-FM 102.5** (SR-2/LP-2) monitors: WRSF-FM, WRNS-FM, EMnet, WNG-537 162.525 MHz (Windsor)

**National Weather Service:** WWH-26 162.425 MHz, WNG-537 162.525 MHz

All radio and television stations with city of license and cable operators with their franchise agreements in the counties of Bertie, Camden, Chowan, Currituck, Dare, Gates, Hertford, Pasquotank, Perquimans,

Tyrrell and Washington, which compose the Columbia Local Area, will monitor WRSF-FM, WERX-FM and NOAA weather radio for this area.

### **FAYETTEVILLE AREA**

**WQSM-FM 98.1** (SR-1/LP-1) monitors: WQDR-FM, WKML-FM, EMnet, WXL-50 162.475 MHz (Fayetteville)

**WKML-FM 95.7** (SR-2/LP-2) monitors: WQSM-FM, WDCG-FM, EMnet, WXL-50 162.475 MHz (Fayetteville)

**National Weather Service:** WXL-50 162.475 MHz, (WWF-89 162.525 MHz, KXI-95 162.425 MHz)

All radio and television stations with city of license and cable operators with their franchise agreements in the counties of Bladen, Cumberland, Duplin, Hoke, Robeson, Sampson and Scotland which compose the Fayetteville Local Area, will monitor WQSM-FM, WKML-FM and NOAA weather radio for this area.

### **GOLDSBORO AREA**

**WRVA-FM 100.7** (SR-1/LP-1) monitors: WQDR-FM, WYMY-FM, EMnet, WXL-59 162.475 MHz (Rocky Mount)

**WYMY-FM 96.9** (SR-2/LP-2) monitors: WRVA-FM, WDCG-FM, EMnet, WXL-72 162.450 MHz (Garner)

**National Weather Service:** WXL-72 162.450 MHz, (WXL-59 162.475 MHz)

All radio and television stations with city of license and cable operators with their franchise agreements in the counties of Edgecombe, Halifax, Nash, Northampton, Wayne and Wilson which compose the Goldsboro Local Area, will monitor WRVA-FM, WYMY-FM, and NOAA weather radio for this area.

### **RALEIGH AREA**

**WQDR-FM 94.7** (SP-1/LP-1) monitors: WDCG-FM, WZTK-FM, EMnet, WXL-58 162.550 MHz (Chapel Hill)

**WDCG-FM 105.1** (SP-2/LP-2) monitors: WQDR-FM, WTQR-FM, EMnet, WXL-58 162.550 MHz (Chapel Hill)

**National Weather Service:** WXL-58 162.550 MHz, (WNG-586 162.500 MHz, WXL-72 162.450)

All radio and television stations with city of license and cable operators with their franchise agreements in the counties of Chatham, Durham, Franklin, Granville, Harnett, Johnston, Lee, Moore, Orange, Person, Vance, Wake and Warren, which compose the Raleigh Local Area, will monitor WQDR-FM, WDCG-FM, and NOAA weather radio for this area.

### **STATESVILLE AREA**

**WEND-FM 106.5** (SR-1/LP-1) monitors: WLNK-FM, WKBC-FM, EMnet, WXL-42 162.400 MHz (Winston-Salem)

**WKBC-FM 97.3** (SR-2/LP-2) monitors: WEND-FM, WTQR-FM, EMnet, WNG-588 162.500 MHz (Mt. Jefferson)

**National Weather Service:** WXL-42 162.400 MHz, WNG-588 162.500 MHz

All radio and television stations with city of license and cable operators with their franchise agreements in the counties of Avery, Alexander, Alleghany, Ashe, Caldwell, Davie, Iredell, Rowan, Watauga, and Wilkes, which compose the Statesville Local Area, will monitor WEND-FM, WKBC-FM and NOAA weather radio for this area.

### **TRIAD AREA**

**WZTK-FM 101.1** (SR-1/LP-1) monitors: WQDR-FM, WTQR-FM, EMnet, WXL-42 162.400 MHz (Winston-Salem)

**WTQR-FM 104.1** (SR-2/LP-2) monitors: WZTK-FM, WEND-FM, EMnet, WXL-42 162.400 MHz (Winston-Salem)

**National Weather Service:** WXL-42 162.400 MHz

All radio and television stations with city of license and cable operators with their franchise agreements in the counties of Alamance, Caswell, Randolph, Guilford, Rockingham, Stokes, Forsyth, Davidson, Yadkin, and Surry, which compose the Triad Local Area, will monitor WZTK-FM, WTQR-FM, and NOAA weather radio for this area.

### **WASHINGTON AREA**

**WERO-FM 93.3** (SR-1/LP-1) monitors: WQDR-FM, WRNS-FM, EMnet, KEC-84 162.400 MHz (New Bern)

**WRNS-FM 95.1** (SR-2/LP-2) monitors: WERO-FM, WYMY-FM, EMnet, KEC-84 162.400 MHz (New Bern)

**National Weather Service:** KEC-84 162.400 MHz, (KEG-77 162.475)

All radio and television stations with city of license and cable operators with their franchise agreements in the counties of Beaufort, Carteret, Craven, Greene, Hyde, Jones, Lenoir, Martin, Pamlico and Pitt which compose the Washington Local Area, will monitor WERO-FM, WRNS-FM, and NOAA weather radio for this area.

### **WILMINGTON AREA**

**WMNX-FM 97.3** (SR-1/LP-1) monitors: WERO-FM, WLGD-FM, EMnet, KHB-31 162.550 MHz (Wilmington)

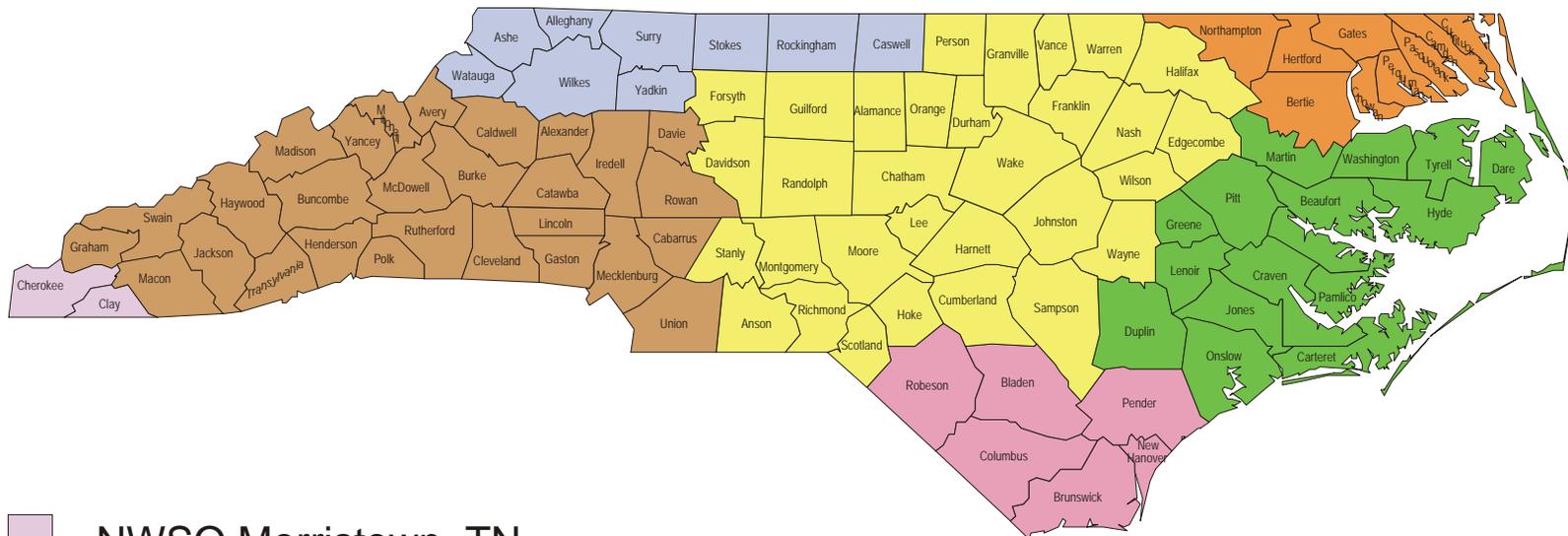
**WRMR-FM 98.7** (SR-2/LP-2) monitors: WMNX-FM, WRNS-FM, EMnet, KHB-31 162.550 MHz (Wilmington)

**National Weather Service:** KHB-31 162.550 MHz

All radio and television stations with city of license and cable operators with their franchise agreements in the counties of Brunswick, Columbus, New Hanover, Onslow and Pender and which compose the Wilmington Local Area, will monitor WMNX-FM, WRMR-FM and NOAA weather radio for this area.

The plan's monitor assignments are based on a station's City of License and attendant transmitter location within an Operational Area. When a station relocates its studios, the monitor assignments remain the same and the station is expected to continue to monitor these assignments. If the studios are moved into an Operational Area different than the Area of its City of License, the station may, additionally, monitor LPs for the new Operational Area. Similarly, cable companies must monitor the assigned stations for the respective counties of the viewers they serve. Detailed NOAA Weather coverage can be found in Appendices H and K and on the internet at <http://www.erh.noaa.gov/rah/ncnwr/>

## Appendix H: National Weather Service Forecast Territories

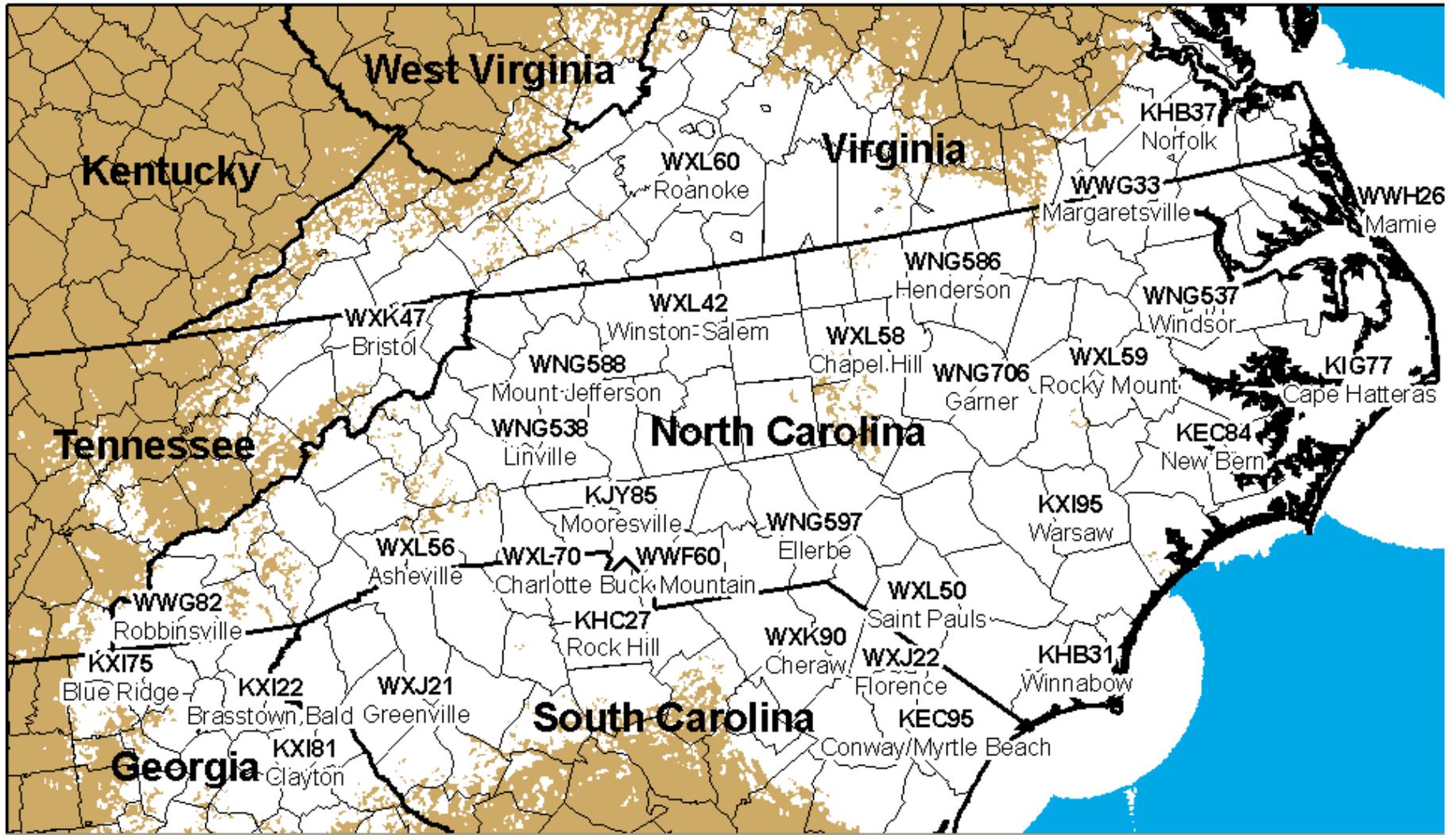


- |  |  |
|--|--|
| <span style="display: inline-block; width: 15px; height: 15px; background-color: #d8bfd8; border: 1px solid black; margin-right: 5px;"></span> NWSO Morristown, TN | <span style="display: inline-block; width: 15px; height: 15px; background-color: #f080f0; border: 1px solid black; margin-right: 5px;"></span> NWSO Wilmington, NC |
| <span style="display: inline-block; width: 15px; height: 15px; background-color: #a0522d; border: 1px solid black; margin-right: 5px;"></span> NWSO Greer, SC      | <span style="display: inline-block; width: 15px; height: 15px; background-color: #32cd32; border: 1px solid black; margin-right: 5px;"></span> NWSO Newport, NC    |
| <span style="display: inline-block; width: 15px; height: 15px; background-color: #add8e6; border: 1px solid black; margin-right: 5px;"></span> NWSO Blacksburg, VA | <span style="display: inline-block; width: 15px; height: 15px; background-color: #ffa500; border: 1px solid black; margin-right: 5px;"></span> NWSO Wakefield, VA  |
| <span style="display: inline-block; width: 15px; height: 15px; background-color: #ffff00; border: 1px solid black; margin-right: 5px;"></span> NWSO Raleigh, NC    |  |

**Appendix I: National Weather Service Frequency Assignments-  
Weather Forecast Office**

<b>Site Name</b>	<b>Transmitter Name</b>	<b>Call Sign</b>	<b>Frequency</b>	<b>Power</b>	<b>Weather Forecast Office</b>
Asheville	Mt. Pisgah	WXJ56	162.400	250	Greer, SC
Buck Mountain	Badin	WWF60	162.500	1000	Raleigh, NC
Cape Hatteras	Middletown	WIG77	162.475	1000	Newport, NC
Chapel Hill	Durham	WXL58	162.550	1000	Raleigh, NC
Charlotte	Spencer Mtn.	WXL70	162.475	1000	Greer, SC
Ellerbe	Richmond County	WNG597	162.400	300	Raleigh, NC
Garner	Garner	WNG706	162.450	110	Raleigh, NC
Henderson	Macon	WNG586	162.500	300	Raleigh, NC
Linville	Grandmother Mtn.	WNG538	162.450	300	Greer, SC
Mamie	Mamie	WWH26	162.425	300	Newport, NC
Margarettsville	Margarettsville	WWG33	162.450	300	Wakefield, VA
Mooreville	South Iredell County	KJY85	162.525	1000	Greer, SC
Mount Jefferson	Ashe County	WNG588	162.500	300	Blacksburg, VA
New Bern	Glenburnie Garden	KEC84	162.400	1000	Newport, NC
Robbinsville	Teyahalee Bald Mtn.	WWG82	162.525	300	Greer, SC
Rocky Mount	Rocky Mount	WXL59	162.475	1000	Raleigh, NC
Saint Pauls	Saint Pauls	WXL50	162.475	1000	Wilmington, NC
Warsaw	Duplin County	KXI95	162.425	300	Newport, NC
Windsor	Windsor	WNG537	162.525	300	Wakefield, VA
Winnabow	Winnabow	KHB31	162.550	1000	Wilmington, NC
Winston-Salem	Sauratown Mtn.	WXL42	162.400	1000	Raleigh, NC

## Appendix J: National Weather Service Frequency Assignments – Coverage Map



# Appendix K: NOAA Weather Radio Locations

<http://www.erh.noaa.gov/rah/ncnwr>

## Your Guide to NOAA Weather Radio

### Legend

Denotes NOAA Weather Radio location and broadcast frequency

- ◻ 162.400 MHz
- 162.425 MHz
- \* 162.450 MHz
- ▲ 162.475 MHz
- 162.500 MHz
- ◆ 162.525 MHz
- ✕ 162.550 MHz

### In North Carolina...

<b>Asheville</b>	<b>WXL-56</b>
Buncombe	Madison
Burke	Polk
Haywood	Rutherford
Henderson	Transylvania
Jackson	Yancey
Mcdowell	

<b>Buck Mtn.</b>	<b>WWF-60</b>
Anson	Richmond
Cabarrus	Rowan
Davidson	Stanly
Randolph	Union

<b>Cape Hatteras</b>	<b>KEG-77</b>
Dare	Tyrell
Hyde	Washington

<b>Chapel Hill</b>	<b>WXL-58</b>
Alamance	Lee
Chatham	Moore
Durham	Orange
Franklin	Person
Granville	Randolph
Johnston	Wake
Harnett	Warren
Vance	

<b>Charlotte</b>	<b>WXL-70</b>
Alexander	Lincoln
Anson	Mecklenburg
Cabrarrus	Montgomery
Catawba	Richmond
Cleveland	Rowan
Gaston	Stanly
Iredell	Union

<b>Ellerbe</b>	<b>WNG-597</b>
Anson	Randolph
Hoke	Richmond
Montgomery	Scotland
Moore	Stanly

<b>St. Pauls/Fayetteville</b>	<b>WXL-50</b>
Bladen	Hoke
Columbus	Moore
Cumberland	Robeson
Duplin	Sampson
Harnett	Scotland
Lee	

<b>Garner</b>	<b>WXI-72</b>
Franklin	Nash
Greene	Wake
Harnett	Wilson
Johnston	Wayne

<b>Henderson</b>	<b>WNG-586</b>
Franklin	Person
Granville	Warren
Halifax	Vance

<b>Joanna Bald Mtn.</b>	<b>WWG-82</b>
Cherokee	Jackson
Clay	Macon
Graham	Swain

<b>Linville</b>	<b>WNG-52</b>
Avery	Catawba
Alexander	Mcdowell
Burke	Mitchell
Caldwell	Yancey

<b>Mooresville</b>	<b>KYJ-85</b>
Alexander	Iredell
Catawba	Mecklenburg
Davidson	Davie
Lincoln	Rowan
Gaston	Cabarrus

<b>Mamie</b>	<b>WWH-26</b>
Camden	Pasquotank
Currituck	Tyrell
Dare	

<b>Mt. Jefferson</b>	<b>WNG-588</b>
Alleghany	Caldwell
Ashe	Davie
Alexander	Watauga
Avery	Wilkes

<b>New Bern</b>	<b>KEC-84</b>
Beaufort	Hyde
Carteret	Jones
Craven	Lenoir
Duplin	Martin
Greene	Onslow

<b>Rocky Mount</b>	<b>WXL-59</b>
Bertie	Nash
Edgecombe	Northampton
Greene	Pitt
Halifax	Wilson
Martin	

<b>Warsaw</b>	<b>KXI-95</b>
Duplin	Onslow
Jones	Sampson
Lenoir	Wayne

<b>Wilmington</b>	<b>KHB-31</b>
Bladen	Pender
Brunswick	New Hanover
Columbus	

<b>Windsor</b>	<b>WNG-537</b>
Beaufort	Hertford
Bertie	Martin
Chowan	Perquimans
Edgecombe	Pitt
Gates	Northampton
Halifax	Washington

<b>Winston-Salem</b>	<b>WXL42</b>
Alamance	Randolph
Alleghany	Rockingham
Caswell	Rowan
Davidson	Stokes
Davie	Surry
Forsyth	Wilkes
Guilford	Yadkin
Iredell	

### In Virginia...

<b>Margaretsville, VA</b>	<b>WNG-52</b>
Bertie	Hertford
Halifax	Northampton

<b>Norfolk, VA</b>	<b>KHB-37</b>
Camden	Gates
Currituck	Pasquotank

<b>South Boston</b>	<b>KJY-86</b>
Peron	Stokes
Granville	Vance

### In South Carolina...

<b>Aynor, SC</b>	<b>KEC-95</b>
Columbia	Brunswick

<b>Cheraw, SC</b>	<b>WXK-90</b>
Anson	Scotland
Richmond	

<b>Clayton, SC</b>	<b>KXI-81</b>
Macon	

<b>Rock Hill, SC</b>	<b>KNC-27</b>
Cleveland	Union
Mecklenburg	

## Appendix L: Glossary

**Activation** - The initiation of the Emergency Alert System by transmission of the Emergency Alert System codes.

**ASCII** - A standard set of text characters with numerical equivalents.

**AMBER Alert** - Common term for a Child Abduction Emergency.

**Attention Signal**- Eight seconds of two tones (853 and 960 Hz) used as an audio alert.

**Authenticator Word Lists**- A list of words used to substantiate authenticity of transmitter and receiver. The list is furnished by NCEM to all LP-1 and LP-2 stations, the seven National Weather Service offices with warning responsibilities in North Carolina, all local emergency management offices and others designated to request activation.

**Authorization Letter** - The official authorization letter, given by the FCC, for a broadcast station to go off the air during a national level activation of the Emergency Alert System.

**Automatic Interruption** - The automatic encoding and transmission of Emergency Alert System codes for pre-selected events.

**Certification** - An equipment authorization issued by the FCC based on representations and test data submitted by the applicant for equipment designated to be operated without individual license under Parts 15 and 18 of the rules.

**Decoder (Emergency Alert System)** - An electronic device used by Emergency Alert System participants to receive alerts and to translate the Emergency Alert System codes into a visual message.

**Emergency Action Notification (EAN)** - The message for national Emergency Alert System activation.

**Emergency Action Termination (EAT)** - The message for national Emergency Alert System termination.

**EMnet** - Communication system that serves as primary purveyor of NC EAS tests and alerts.

**Encoder (Emergency Alert System)** - An electronic device used by Emergency Alert System participants to originate Emergency Alert System alerts by creating the Emergency Alert System codes for transmission to other participants and the public.

**Encoder (Two-Tone)** - A electronic device that produces the two-tone signal.

**En/dec Box** - An electronic device capable of originating and receiving EAS alerts and translating EAS codes into a visual or audible message.

**EOM (end-of-message) Code**- In ASCII form 'NNNN', this burst of data, sent three times, signifies the end of an Emergency Alert System message and Emergency Alert System activation.

**Event Codes** - A three character ASCII code in the Emergency Alert System headers that denotes the type or cause of emergency event.

**Federal Emergency Management Agency (FEMA)** - One of the three federal agencies that administer the Emergency Alert System.

**Federal Information Processing System Number (FIPS)**- A five character ASCII code in the Emergency Alert System headers that represent those counties affected by an Emergency Alert System activation, as defined by the Federal Information Processing System that assigns each state and territory with their respective counties a five digit number.

**Header Signal** - A single string of intelligent digital Emergency Alert System ASCII data that includes the originator, event, location, time period, and other basic information concerning an emergency.

**Key Source** - A source which is central to the dissemination of emergency alerts and information, such as National Primary, State Primary, State Relay or Local Primary broadcast stations or cable systems.

**Local Primary (LP)** - A source within an Emergency Alert System Local Area that is the primary source of Emergency Alert System programming for that area.

**Location Code** - An ASCII code in an Emergency Alert System header that specifies the location of an emergency utilizing the five character Federal Information Processing System (FIPS) code of a state and county, and a sixth character to designate nine divisions of a county.

**Monitoring Assignment** - The off-air broadcast or cable sources of Emergency Alert System activations and programming as given in the FCC Mapbook and the state plan.

**National Information Center (NIC)** - A source of official federal government information.

**National Oceanic and Atmospheric Administration (NOAA)** - One of the three federal agencies that participate in Emergency Alert System.

**National Originator Codes** - Originator codes required by the FCC.

**National Periodic Test (NPT)** - A test of National Primary Emergency Alert System sources.

**National Primary (NP)** - A primary source of Presidential or other national Emergency Alert System activations and programming, including broadcast stations involved with the PEP system and EAN Networks.

**National Weather Service (NWS)** - An operation of the National Oceanic and Atmospheric Administration directly responsible for issuing local weather-related emergency alerts and warnings in addition to day-to-day forecasts and other weather activities. Upon request by a local authority, the NWS will disseminate civil emergency messages.

**NOAA Weather Radio (NWR)** - A service of the National Weather Service that provides to a local area continuous broadcasts of the latest weather information, weather-related emergency warnings and civil emergency EAS messages using one of seven VHF radio channels.

**Non-participating National (NPN)** - An Emergency Alert System source (usually a broadcast station) that has elected not to participate in the National-level Emergency Alert System and removes its carrier from the air if a national-level activation occurs.

**Operating Handbook** - A document issued by the FCC that instructs broadcast station and cable personnel of the actions they must take during an activation of Emergency Alert System.

**Participating National (PN)** - Broadcast stations, cable systems, or MDS stations which monitor primary sources of Emergency Alert System programming and directly feed emergency alerts to the public.

**Preselected Code** - Broadcast stations, cable systems, or MDS stations which monitor primary sources of Emergency Alert System programming and directly feed emergency alerts to the public.

**Primary Entry Point (PEP)** - Key broadcast stations throughout the U.S. that together can provide national emergency information.

**Protocol** - A standard set of guidelines by which digital information encoded and decoded, including the common code structure, character set used, the sequence and timing of codes, and modulation technique used for radio transmission.

**Program Priorities** - The precedence of the information that must be transmitted during an Emergency Alert System activation, namely national, local, and state activations in that order.

**Required Monthly Test (RMT)** - A coordinated monthly test of Emergency Alert System operations involving the full receiving and transmission of Emergency Alert System codes, Attention Signal, Emergency Alert System test programming, and Emergency Alert System end-of-message (EOM) codes.

**Required Weekly Test (RWT)** - An independent weekly test of Emergency Alert System equipment only involving the decoding and encoding of Emergency Alert System header codes and end-of-message (EOM) codes.

**State/Local Plan** - A document that details monitoring assignments and actions to be taken in emergency activations, and other guidance for broadcasters and cable personnel in use of the Emergency Alert System. Each locality is responsible for maintaining a current local plan.

**State Primary (SP)** - A primary source of Emergency Alert System state programming which can originate with a Governor or designated representative, such as a state's emergency operations officer.

**State Relay (SR)** - An entity which receives and retransmits Emergency Alert System activations in a State Relay Network to assist in bringing a state activation to all Emergency Alert System Local Area of a state.

**SR-3 Station** - Additional FM radio stations added to LP-1 and LP-2 distribution system to offer redundant relay points in daisy-chain.

**State Relay Network** - A system of facilities used to distribute State Emergency Alert System activations and programming across a state.

**Weather Radio Specific Area Message Encoder (WRSAME)** - A device used by National Weather Service to broadcast WRSAME data on the National Weather Radio for day-to-day forecasts and weather related emergency announcements.

## Appendix M: Acronyms

### C

CAE	--	Child Abduction Emergency
CFR	--	Code of Federal Regulations
CEM	--	Civil Emergency Message
CEMC	--	County Emergency Management Coordinator
CIV	--	Civil Authorities
CPG	--	Civil Preparedness Guides

### D

DMA	--	Designated Market Area
DMIS	--	Disaster Management Interoperability Service

### E

EAN	--	Emergency Action Notification.
EAS	--	Emergency Alert System
EAS-AP	--	EAS Activation Point
EMnet	--	Emergency Management Network
EAT	--	Emergency Action Termination.
ENDEC	--	Encoder/decoder
EOC	--	Emergency Operations Center
EOM	--	End-of-message

### F

FEMA	--	Federal Emergency Management Agency
FCC	--	Federal Communication Commission
FIPS	--	Federal Information Processing System Codes
FNF	--	Fixed Nuclear Facility

### L

LAECC	--	Local Area Emergency Communications Committees
LPTV	--	Low power TV
LP1	--	Local Primary 1 (lead station)
LP2	--	Local Primary 2 (back-up station)

### N

NCCMP	--	North Carolina Center for Missing Persons
NCEOC	--	North Carolina Emergency Operations Center
NC SECC	--	North Carolina State Emergency Communications Committee
NCEM	--	North Carolina Emergency Management
NCSHP	--	North Carolina State Highway Patrol
NIC	--	National Information Center
NN	--	Non-participating National
NOAA	--	National Oceanic & Atmospheric Administration

NP	--	National Primary
NPT	--	National Periodic Test
NWR	--	NOAA Weather Radio
NWS	--	National Weather Service

**P**

PEP	--	Primary Entry Point stations.
PN	--	Participating National

**R**

RMT	--	Required Monthly Test
RWT	--	Required Weekly Test

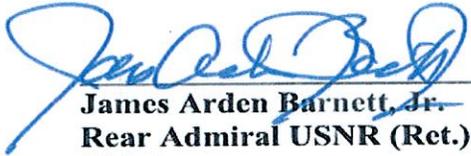
**S**

SAME	--	Specific Area Message Encoder
SECC	--	State Emergency Communications Committee
SP1	--	State Primary 1
SP2	--	State Primary 2. Backup to SP1.
SR	--	State Relay Station
SRN	--	State Relay Network
SWP	--	State Warning Point

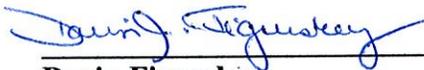
**W**

WHCA	--	White House Communication Agency
WRSAME	--	Weather Radio Specific Area Message Encoder

## North Carolina Emergency Alert System State Plan

 July 13, 2011  
**James Arden Barnett, Jr.**  
**Rear Admiral USNR (Ret.)**  
**Chief**  
**Public Safety and Homeland Security Bureau**  
**Federal Communications Committee**

 9/20/11  
**Ardie Gregory**  
**Chairwoman**  
**North Carolina State Emergency Communications Committee**

 23 September 2011  
**Darin Figurskey**  
**Meteorologist in Charge**  
**National Weather Service**

 9-14-11  
**H. Douglas Hoell**  
**Director**  
**North Carolina Division of Emergency Management**

 9/15/11  
**Reuben Young**  
**Secretary**  
**North Carolina Department of Crime Control and Public Safety**