

STATE OF CONNECTICUT

NOAA PUBLIC ALERT RADIO



GUIDANCE & RADIO PROGRAMMING MANUAL



AMERICA IS
SAFER WHEN
OUR
SCHOOLS
ARE SAFER



CONNECTICUT DEPARTMENT OF EMERGENCY MANAGEMENT AND HOMELAND SECURITY

&

CONNECTICUT STATE DEPARTMENT OF EDUCATION

IN COOPERATION WITH

THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

This document is available electronically at www.ct.gov/demhs and <http://www.state.ct.us/sde/> The electronic version of this document contains a useful radio programming tool and links to user's manuals for each type of radio being distributed in Connecticut.

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James M. Thomas
Commissioner

STATE OF CONNECTICUT
DEPARTMENT OF
EMERGENCY MANAGEMENT AND HOMELAND SECURITY



TO: Superintendents and Principals of Connecticut's Public Schools

FROM: James M. Thomas, Commissioner
Department of Emergency
Management and Homeland Security

George A. Coleman, Interim Commissioner
Connecticut State Department of Education

DATE: October 19, 2006

SUBJECT: NOAA Public Alert Radios

The Connecticut Department of Emergency Management and Homeland Security (DEMHS) and the Connecticut State Department of Education (SDE) in cooperation with the National Weather Service (NWS) and our federal agency partners are currently installing NOAA Public Alert Radios in every public school in Connecticut. These radios are part of the DEMHS and SDE continuing effort to provide the best possible warnings to Connecticut's schools in the event of severe weather or other emergencies.

Connecticut was one of the first states to install NOAA Weather Radios in Public Schools, State Parks and 911 Centers in 1992 and 1994. Over 300 radios were installed statewide as a result of a deadly series of tornadoes which occurred on July 10, 1989. The NWS used three existing NOAA Weather Radio Transmitters to provide targeted watches and warnings to specific areas when severe weather threatened Connecticut. In 1999 Connecticut installed a 4th NOAA Weather Radio transmitter in Litchfield County to provide improved warnings for schools, parks and 911 centers in the Northwest Hills.

Although many of the 300 original radios are still in service, these radios are now 15 years old. The newer radios are now known as NOAA Public Alert radios. These radios are being distributed this fall to all public schools and are now capable of providing civil emergency, hazardous materials, and missing children alerts in addition to their original weather alerting capabilities.

These radios are being sent directly to the principals of all public schools this fall. If you need assistance in programming your radio, DEMHS regional coordinators are available during regular business hours to assist in programming and testing your new radio (please see map and information on page 5). In addition, DEMHS and SDE have posted links on our websites to programming instructions for each type of radio being distributed. The DEMHS site is www.ct.gov/demhs and the SDE site is <http://www.state.ct.us/sde/>. Assistance is also available from NOAA at <http://public-alert-radio.nws.noaa.gov/proginfo-08.htm>.

The National Weather Service conducts weekly tests of the NOAA Public Alerting system each Wednesday between 11 a.m. and Noon. If your radio does not receive the test alert, please contact your DEMHS Regional Coordinator for assistance.

Funding for this initiative is being provided by the Federal Department of Homeland Security in cooperation with the Department of Commerce and the Department of Education.

The NOAA Public Alert Radio System

Owned by the U.S. Government and operated by a staff trained to address emergencies, the NOAA Public Alert Radio is a service of the National Oceanic and Atmospheric Administration (NOAA) of the U.S. Department of Commerce. NOAA personnel use information from Doppler radar, storm spotters, state and local officials, satellites and other sources to issue weather watches and warnings. These watches and warnings are broadcast over NOAA Public Alert Radio and also are retransmitted by many local radio and television stations. With this information, local emergency management and public safety officials can activate local warning systems to alert communities of an impending weather threat.

Description of the Specific Area Message Encoding (S.A.M.E.) technology

After receiving your NOAA Public Alert Radio S.A.M.E. receiver, you must program your county area(s) into the radio. Your NOAA Public Alert Radio will then alert you **only** of weather and other emergencies for the county(s) programmed into the radio. The S.A.M.E. system uses a series of 6-digit codes for each county in the United States and Canada. The S.A.M.E. codes are used by the National Weather Service to issue advisories, watches and warnings to specific counties within a state when severe weather is occurring or is about to occur. Older NOAA Weather Radios without the S.A.M.E. capability will sound an alert for emergencies anywhere within the coverage area of the NOAA Public Alert Transmitter, typically several counties, even though the emergency could be well away from the listener.

- When a National Weather Service (NWS) office broadcasts a warning, watch or non-weather emergency, it also broadcasts a digital S.A.M.E. code that may be heard as a very brief static burst, depending on the characteristics of the radio receiver. This S.A.M.E. code contains the type of message, county(s) affected, and message expiration time.
- A programmed NOAA Public Alert S.A.M.E. radio will turn on for that message, with the listener hearing the 1050 Hz warning alarm tone as an attention signal, followed by the broadcast message. Some NOAA Public Alert Radios will also scroll the text of the message on their radio LCD displays.
- At the end of the broadcast message, listeners will hear a brief digital end-of-message static burst followed by a resumption of the routine forecast broadcasts.

S.A.M.E. is also used in the Emergency Alert System (EAS). Using S.A.M.E., broadcasters may receive NWS warning messages for rebroadcast in accordance with EAS rules.

Connecticut's NOAA Public Alert Radio System

Shown on page 4 is a map of Connecticut's NOAA Public Alert Radio System. Connecticut's system consists of four NOAA Public Alert Transmitters which are capable of sending S.A.M.E. messages to each of Connecticut's eight Counties. Each County has its own 6-digit S.A.M.E. code which allows the National Weather Service Offices that serve Connecticut to target their advisories, watches or warnings to specific counties without un-necessarily alerting the rest of the state. In addition, the new radios being issued by the Departments of Homeland Security and Education are capable of receiving many different types of warnings including toxic spills, civil emergencies and abducted children.

Setting Up Your NOAA Public Alert Radio

When your NOAA Public Alert Radio is delivered, setup directions should be included with the radio. If the directions are missing, please see page 6 for links (**only available on the electronic version of this document**) to directions on the web. If your model of radio is not included on the list of approved NOAA Public Alert Radios, please contact your appropriate Department of Emergency Management and Homeland Security (DEMHS) Regional Coordinator listed on page 5. You should setup your radio in a location that allows the radio to have clear reception and where you can hear the alert tone.

Specific Instructions for Connecticut Users of the NOAA Public Alert Radios:

In order to ensure that each school or other emergency management agency receiving a NOAA Public Alert Radio has the proper Specific Area Message Encoding (S.A.M.E.) codes, a map of Connecticut's system showing counties and S.A.M.E. codes for Connecticut and surrounding states has been included on page 4. **In the electronic version of this document**, a special tool has been developed by DEMHS to aid in programming in the appropriate counties and/or S.A.M.E. codes into your radio.

Please refer to the map on page 4 (**electronic version only**). Simply click and drag the cross-hairs at the center of the pie shaped circle to the center of your town. You should then program in any counties (S.A.M.E. codes) that are covered by the bright red ¼ slice of the pie (including the county that your town is in). This includes out-of-state counties in New York, Massachusetts and Rhode Island, if necessary. You should also program in any counties that contact the red Hazmat Box at the center of the pie.

Programming your radio in this fashion should provide approximately 30-minutes of warning prior to the arrival of severe weather at your location without resulting in too many warnings (cry wolf effect) triggering your radio to activate. In addition, you will be notified of toxic chemical spills or other civil emergencies in your county or any adjoining county if you are within five miles of the county border. Missing children alerts (Amber Alerts) are automatically sent to all counties in Connecticut regardless of location and do not require special programming.

Once you have completed programming your S.A.M.E. codes or county names into your radio, please listen to the quality of the reception. Reception should be fairly clear with only a few seconds of static per minute at most. It is strongly recommended that you listen to your radio during the first several weekly tests conducted by the NWS every Wednesday between 11 am and Noon to ensure that your radio is receiving the weekly tests.

What to do if radio has poor reception on all channels

Make sure the NOAA Public Alert radio is away from obstructions such as metal cabinets or bookshelves. Higher frequencies are noticeably affected by obstructions. Do not place the NOAA Public Alert radio near any metal surface such as a refrigerator, a metal door or wall, or a water pipe hidden behind a wall. This reduces the radios ability to receive signals. Also keep the radio away from other electronic devices such as computers, motors, other radios and television sets. Plug the radio into a circuit that is free from other electronic devices, if possible. If you still cannot achieve a clear signal, you may need to connect an external antenna to the radio.

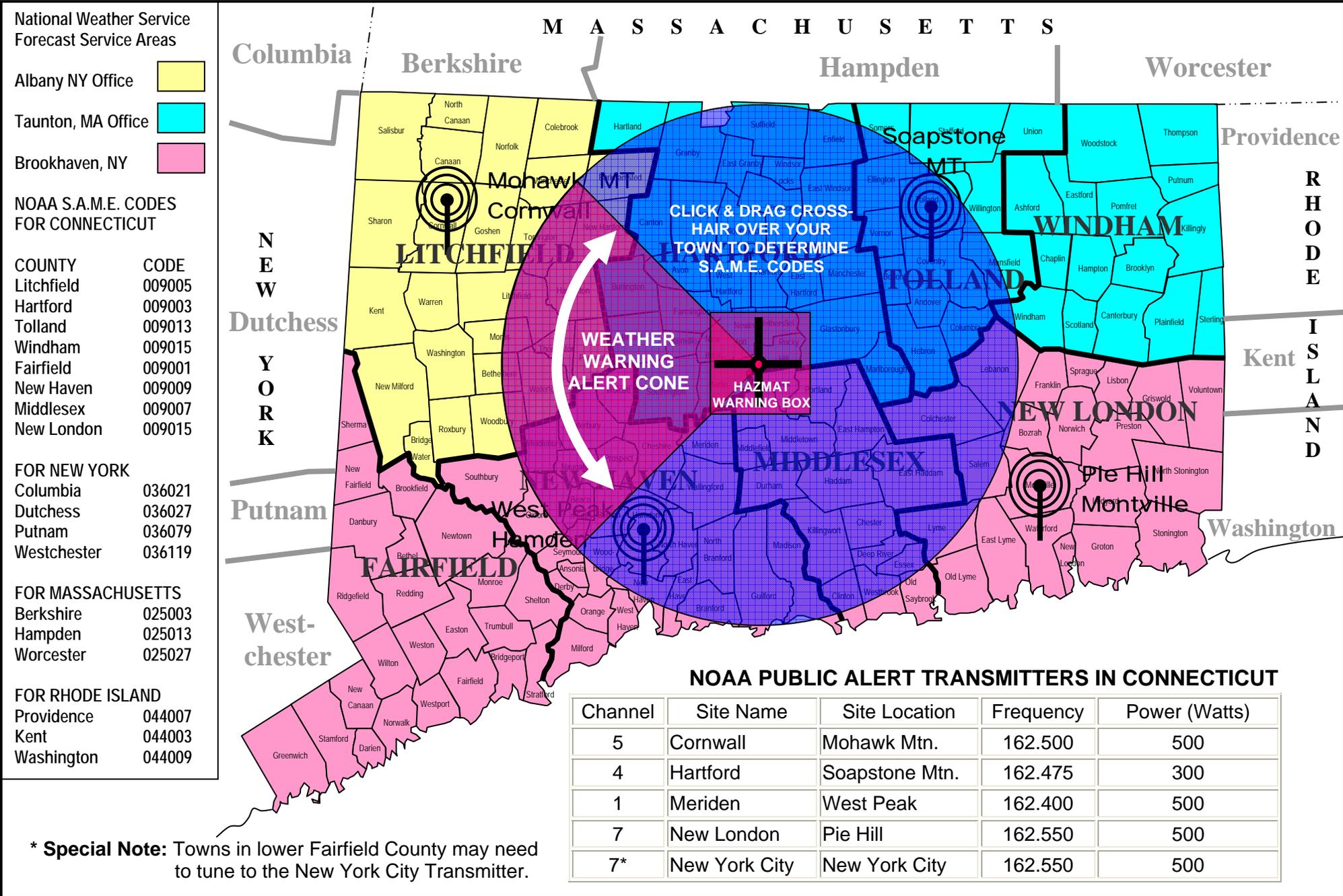
Connecting an External Antenna

To improve reception in remote areas, you can connect an external antenna using an adapter cable with a phono plug. Your local radio or electronics store should be able to provide a wide variety of antennas. To connect an external antenna, connect one end of the adapter cable to the radios external antenna jack. Connect the other end of the cable to the antenna. Place the antenna in a higher location or just outside a nearby window to improve reception. Please refer to the transmitter location map on page 4 and try to place the external antenna on the side of your building that faces the nearest NOAA Transmitter.

Technical Assistance

For assistance in setting up and programming your NOAA Public Alert Radio please call your DEMHS Regional Coordinator. A map of the five DEMHS Regions and Regional Coordinators is provided on page 5. Please note that the five DEMHS Regions are different from the eight counties that make up Connecticut. Regional Coordinator's are available during normal business hours Monday – Friday (except on holidays).

STATE OF CONNECTICUT NOAA PUBLIC ALERT RADIO SYSTEM MAP



National Weather Service
Forecast Service Areas

Albany NY Office

Taunton, MA Office

Brookhaven, NY

NOAA S.A.M.E. CODES
FOR CONNECTICUT

COUNTY	CODE
Litchfield	009005
Hartford	009003
Tolland	009013
Windham	009015
Fairfield	009001
New Haven	009009
Middlesex	009007
New London	009015

FOR NEW YORK

Columbia	036021
Dutchess	036027
Putnam	036079
Westchester	036119

FOR MASSACHUSETTS

Berkshire	025003
Hampden	025013
Worcester	025027

FOR RHODE ISLAND

Providence	044007
Kent	044003
Washington	044009

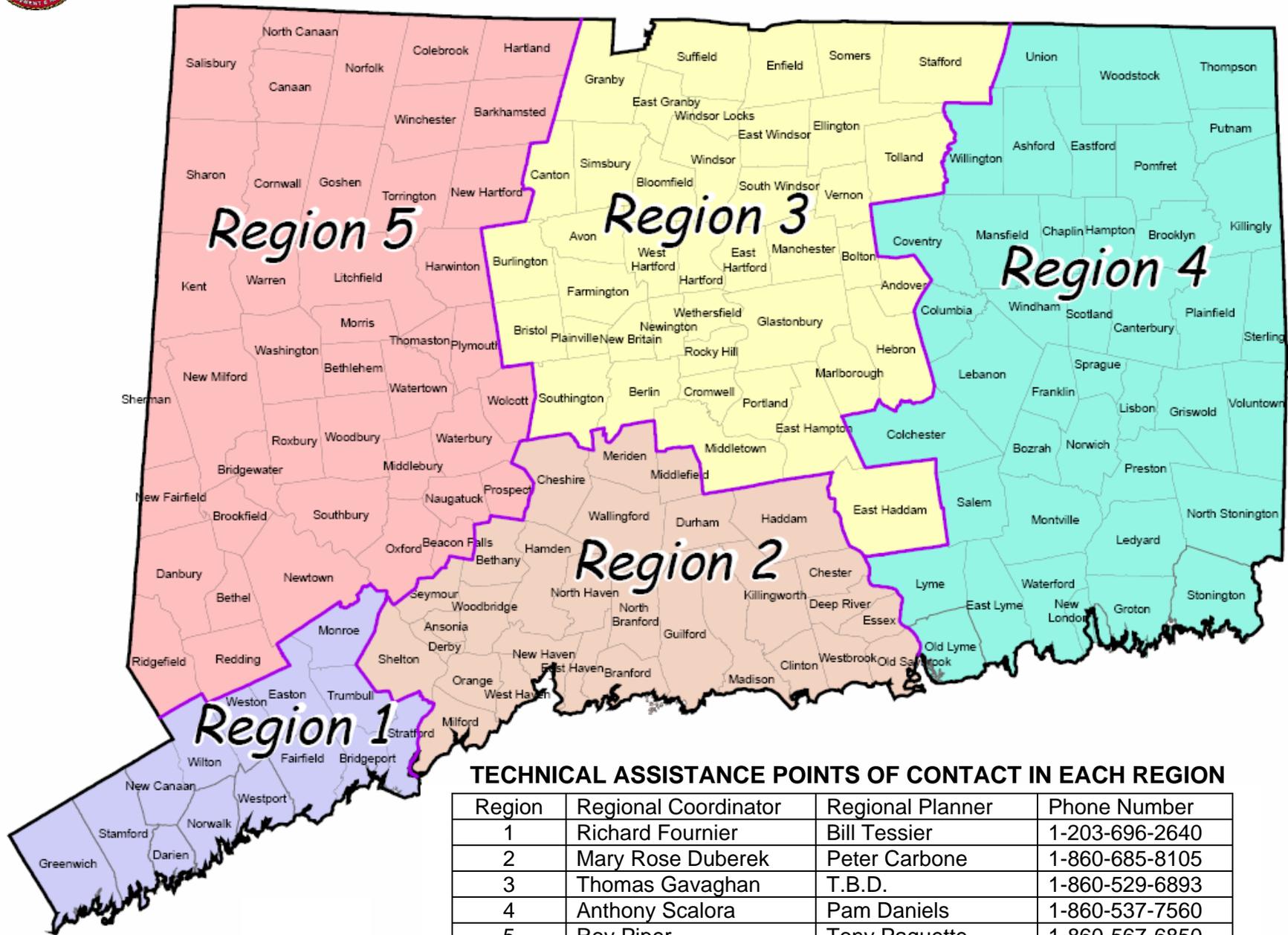
*** Special Note:** Towns in lower Fairfield County may need to tune to the New York City Transmitter.

NOAA PUBLIC ALERT TRANSMITTERS IN CONNECTICUT

Channel	Site Name	Site Location	Frequency	Power (Watts)
5	Cornwall	Mohawk Mtn.	162.500	500
4	Hartford	Soapstone Mtn.	162.475	300
1	Meriden	West Peak	162.400	500
7	New London	Pie Hill	162.550	500
7*	New York City	New York City	162.550	500



DEMHS Planning and Preparedness Regions in Connecticut



TECHNICAL ASSISTANCE POINTS OF CONTACT IN EACH REGION

Region	Regional Coordinator	Regional Planner	Phone Number
1	Richard Fournier	Bill Tessier	1-203-696-2640
2	Mary Rose Duberek	Peter Carbone	1-860-685-8105
3	Thomas Gavaghan	T.B.D.	1-860-529-6893
4	Anthony Scalora	Pam Daniels	1-860-537-7560
5	Roy Piper	Tony Paquette	1-860-567-6850

User's Manuals Available On-Line

To view or download a user's manual for your radio, please click on your radio type from the list below. If your radio type is not included on this list please contact your DEMHS Regional Coordinator.

RADIO SHACK MODEL 12-261



FIRST ALERT MODEL WX-167



MIDLAND MODEL WR-100



REECOM MODEL R-1630



REECOM MODEL R-1650

