



ZERO BEAT

<http://hcra.org>

January 2016

Special points of interest:

- Next Meeting Friday, Feb 5th
Jon from Ham Source,
Cool Gadgets for the Shack
- [Visit the HCRA facebook page.](#)
- Don't forget to check out hcra.org
- [Visit Summits on the Air](#)
- [Visit POTA413 facebook page](#)

January's Meeting

**Join us Friday January 8th at 7:30, in the Holyoke Medical Center
Auxiliary Conference Center .**

Due to a family emergency, Jeff NM1Y, will not be able to attend Friday nights meeting. We will instead show the DVD (Which Jeff was going to show.) of the Navassa Island DXpedition along with some special extra footage.



We will be taking questions, forwarding them to Jeff, and hope to be able to publish them in a future edition of Zero Beat.

We hope to get Jeff back for a future meeting

For directions to The Holyoke Medical Center Auxiliary Conference Center:

<http://www.hcra.org/meeting-location/>

Don't forget the

MTARA HAMFEST

Saturday March 5th, 2016
Elk's Lodge, Fuller Rd,
Chicopee, Ma
They still need
volunteers!

Inside this issue:

Winter Preparedness	2 & 3
From the Shack	4
PC Power Supply Mod	5
Dots & Dashes Contests & Hamfests	6
Local Happenings	7
Member Profile HR-1301 & S-1685	8
NOAA Weather Radio	9

HCRA's raffle this year is for a Kenwood TS-590SG!

It's that time for the Hampden County Radio Associations (HCRA) annual raffle. This year the board of directors wanted to raffle off a 100w base station transceiver. The Kenwood TS-590SG (\$1700 Retail) was the perfect choice because it's a very excellent radio packed with features that rival radios that cost much more. HCRA has printed 250 tickets. Due to the price of the item, HCRA has put a limit on the minimum amount of tickets that can be sold before the raffle is allowed to take place. If the minimum amount has been reached, the item will be raffled at the Mount Tom Amateur Repeater Association's Ham Fest in



2016. We're asking \$10 for each ticket.

Tickets will be available at HCRA meetings, VE Sessions at Holyoke Medical Center, Field Day, Selected area Hamfest/Fleamarkets and through the board of directors.

WINTER WEATHER BASICS

REPRINTED WITH PERMISSION FROM NOAA WINTER WEATHER PREPAREDNESS WEEK WEBPAGE

WINTER WEATHER ALERT BASICS

For those who live in New England, winter weather is a part of life from November through March. Snow, sleet, freezing rain, cold temperatures and cold wind chill temperatures will be common occurrences soon. While most of the time these weather elements are only a nuisance to our daily routines, at times they can produce hazardous or life-threatening situations for those who are not prepared.

To alert the public to potentially dangerous winter weather events or situations, The [National Weather Service](#) issues Outlooks, Watches, Warnings and Advisories. You should keep the following general definitions in mind.

Outlook: A Hazardous Weather Outlook is issued daily by National Weather Service Offices across the country to alert the public to the potential for any hazardous weather during the next 7 days...including significant winter storms...high wind...coastal flooding...and extreme temperatures. Due to the uncertainty in predicting the strength and path of a winter storm more than several days in advance...the exact impact on the area (if any) will not be known. In addition...National Weather Service Offices may issue Special Weather Statements highlighting the potential impact of a major winter storm.

NWS Product - Hazardous Weather Outlook.

Watch: Watches are issued to alert the public that dangerous winter conditions are possible...when forecaster confidence reaches 50 percent. Products include: Winter Storm Watches, High Wind Watches, and Coastal Flood Watches.

Warning: Warnings are issued to alert the public that dangerous winter conditions are likely to occur whenever forecaster confidence has reached 80 percent or higher. Products include, Winter Storm Warning, Ice Storm Warning, Blizzard Warning, High Wind Warning, Wind Chill Warning and Coastal Flood Warning.

Advisory: Advisories are issued to alert the public that winter conditions are expected to cause a significant inconvenience and may be hazardous. If caution is exercised, these situations should not be life-threatening. Products include, Winter Weather Advisory, Freezing Rain Advisory, Wind Advisory and Wind Chill Advisory. Specific thresholds for Advisories, Watches, and Warnings vary by State. They can be found at: www.weather.gov/box/warningcriteria.shtml



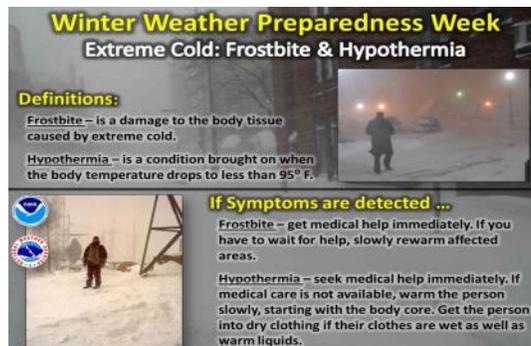
FROSTBITE AND HYPOTHERMIA

The National Weather Service issues Wind Chill Warnings when the combined effects of wind and temperature feel like 25 below zero in Southern New England.

Frostbite is a condition in which the body tissue actually freezes. The most susceptible areas for frostbite include the fingers, toes, nose and ear lobes. Hypothermia develops when the body loses heat faster than it can produce it. Warning signs start with shivering and then proceed to include memory loss, disorientation, incoherence, slurred speech, drowsiness and apparent exhaustion. At this point immediate attention is necessary, which includes warming the person properly.

Temperatures do not have to be below freezing for hypothermia to develop. It can develop in elderly people in a cool room with few, if any, warning signs.

In a hypothermic person, cold blood is concentrated in the extremities. If these extremities are warmed too quickly, the cold blood will be released into the central core of the body, possibly lowering the central core temperature to a fatal level. Use the following steps to raise the core temperature of a Hypothermic person.



Get the person into dry clothing if their clothes are wet. Put on additional clothing to warm the head and trunk such as a hat and vest. Wrap the person in a warm blanket and be sure their head and neck are covered. Do not cover their extremities. Give the person warm liquids to drink, but no alcohol, drugs or coffee. Seek immediate medical attention.

WINTER STORM PREPERATION

REPRINTED WITH PERMISSION FROM NOAA WINTER WEATHER PREPAREDNESS WEEK WEBPAGE

PREPARING FOR THE STORM AT HOME

At home and at work, the primary concerns from a powerful winter storm are loss of heat, power, and telephone service. Also a shortage of supplies can occur if storm conditions occur for more than a day. Here are some suggestions for safety preparations before and during a winter storm.

Have available...

- Flashlights with extra batteries on hand.
- Battery-powered NOAA Weather Radio and a portable radio to be able to receive emergency information. These may be your only links to the outside.
- Extra food and water. Have high-energy food, such as dried fruit, nuts, and granola bars, and food requiring no cooking or refrigeration.
- Extra medicine and baby items.
- First aid supplies.
- Heating fuel. Be sure to refuel before you are empty. Fuel carriers may not reach you for days after a winter storm.
- Emergency heat source such as a fireplace, wood stove or space heater. Proper ventilation is essential in order to avoid a deadly build-up of carbon monoxide. Fire is also a major risk when using such heating sources. Keep in mind that fire departments may not be able to reach your location during a winter storm.
- Fire extinguisher, Smoke Alarm, and Carbon Monoxide Detector tested regularly.
- Plenty of food, water and shelter for pets.

If you lose your heat, seal off unused rooms by stuffing towels in the cracks under the doors. At night, cover windows with extra blankets or sheets. Food provides your body with energy for producing its own heat. Keep your body replenished with fluids to prevent dehydration. Wear layers of loose-fitting, lightweight, warm clothing. Remove layers occasionally to avoid overheating, perspiration, and subsequent chill.

To keep pipes from freezing, wrap them in insulation or layers of newspapers, covering the newspapers with plastic to keep out moisture. Allow a trickle of warm water to run from a faucet that is farthest from your water meter or one that has frozen in the past. This will keep the water moving so that it cannot freeze. Learn how to shut off your water if a pipe bursts.

If pipes freeze, remove insulation, completely open all faucets and pour hot water over the pipes or wrap them with towels soaked in hot water, starting where they are most exposed to the cold. A hand-held hair dryer, used with caution, also works well.

Be a good neighbor. Check with the elderly or disabled relatives and friends to ensure their safety.

PREPARING YOUR VEHICLE FOR THE STORM

Ideally, you should plan your travel and check the latest weather reports in order to avoid the storm altogether. Since this is not always possible, here are some suggestions for safety preparations in motor vehicles.

First of all, you should check and fully winterize your vehicle before the winter season begins, including anti-freeze levels and tire tread.

You should carry a winter storm survival kit in your car.

This kit should include...

- Mobile phone with charger and batteries.
- Blankets and sleeping bags.
- Flashlight with extra batteries.
- First-aid kit.
- Knife.
- High-calorie, non-perishable food.
- Extra clothing to keep dry.
- Large empty can to use as emergency toilet. Tissues and paper towels for sanitary purposes.
- Small can and waterproof matches to melt snow for drinking water.
- Sack of sand or cat litter for traction.
- Shovel.
- Windshield scraper and brush.
- Tool kit.
- Tow rope.
- Battery jumper cables.
- Water container.
- Compass and road maps.

In addition, keep your gas tank near full to avoid ice in the tank and fuel lines. Avoid traveling alone. Let someone know your timetable and primary and alternate routes.

If you become caught in a fierce winter storm, it is important to stay in your vehicle. You will become quickly disoriented in wind-driven snow and cold. Run the motor for about 10 minutes each hour for heat, but make sure that the exhaust pipe is not blocked with snow or ice. Open the window a little for fresh air to avoid carbon monoxide poisoning.

Exercise from time to time, moving arms, legs, fingers, and toes vigorously to keep blood circulating and to keep warm. Avoid overexertion such as shoveling heavy snow, pushing a car, or walking in deep snow. The strain from the combination of cold and hard labor may cause a heart attack.

Be visible to rescuers. Turn on the dome light of your car at night when running the engine. Tie a colored cloth, preferably red, to your antenna or door. After snow stops falling, raise the hood to indicate that you need help.

FROM THE SHACK

JEFFERY BAIL NT1K



Hopefully everyone enjoyed their holidays. Welcome to a New Year and hopefully it serves you well. A lot of people use the New Year to set some goals or resolutions. This would be the perfect time to set some amateur radio goals. Both personally and as a club. Personally it could be something as simple as getting on the air more often or building more amateur radio related projects. As a club I feel that we could be doing more as a group. I would also like to attract some new faces to the club and hopefully spice things up and make it even more interesting.

Last year HCRA took advantage of the website Clublog.org. We've created a group where members can upload their logbooks periodically and the website would group and track our DXCC progress for 2015. It created some friendly competition which encouraged many people to get on the air. In 2014, Dan Vierno (KB1VWQ) came up with the "QSO a day" challenge for the club which also encouraged operation. Matt Wilhelm (W1MSW) and James Saccento (WD1S) created a 2M sprint which encouraged VHF operation. All turned out to be successful. We also have the active Summits On The Air (SOTA) and Parks On The Air (POTA) groups that are very active in the area. Maybe we could do something that would combine all these activities to allow for even more participation and more chances to win?

Thanks to Larry Krainson (W1AST), we have some excellent meetings coming up this year. Personally I am looking forward to this month's meeting with Jeff Jolie (NM1Y) speaking about Navassa. I am also excited about April's Show and Tell where members can show off the thing(s) they've built to other members. We will have prizes available to those current members with the most popular submission. Remember, this is your club. If you have any ideas for speakers or events that we could do as a club, please let us know. Helping us making it happen would even be better.

Let's make 2016 great for amateur radio in Hampden County.

EDITORIAL COMMENT

GARY FIELDS WA1MOW ZERO BEAT EDITOR

You may have noticed that this issue of Zero Beat has 3 pages of what I would call "FILLER". That is content that I use to fill space that I have nothing to put on the pages.

This is YOUR newsletter!

I don't do this every month because I have nothing else to occupy my time!

I need content!

If you have an idea for an article, or something you would like to see in the newsletter, write it, or let me know. I will work with you, or try my best to get it done. If you have a technical question, send it to me, or to Bob K1YO, (Our contact info is on page #7.) we will answer it in a following newsletter. If I send you a request to be the "Member Profile" for the month, PLEASE take the few minutes to answer the questions, it's not hard. Sometimes I have to ask 5-6 members.

I would like to thank Harold N1FTP, Gent WA1CQF, Larry W1AST, Frandy N1FJ (Pictures when I need them.) and Jeff NT1K, for the many articles they write! I am sure I left someone out, if I did I am sorry, but rest assured that all efforts were greatly appreciated! THANK YOU!

HELP WANTED: THE MTARA HAMFEST NEEDS OUR HELP!

Once again the MTARA will be holding it's Annual Hamfest on March 5, 2016 at the Moose Lodge in Chicopee, MA. The committee is in its initial stages of putting on another great event. We are looking for crews for all aspects of the show. If you have worked the show in the past or maybe a newbie just wanting to get started, then by all means contact us and get involved. We love to have you. This year we will have something for everybody, new equipment, used stuff, computers, tubes, parts, VE Exams and great food. If you are a bargain hunter this is the place to be. We will update you as news becomes available. If you were a vendor in the past, register early, first come first serve. Looking forward to seeing all!

If you have any questions, or would like to volunteer. **Please contact Brian Mullarney kc1bdf@aol.com**

MODIFYING A PC POWER SUPPLY FOR AMATEUR USE

HAROLD WOERING N1FTP

Articles about modifying PC Power Supplies have been around the internet for years. HCRA's Vice-President Harold Woering N1FTP has shared his experience.

PC-PS project

I've read some articles about using PC power supplies for everyday use. Most all come with 3.3, 5, and 12volt wiring. I needed a power supply capable of handling 10Amps at 12Volts to run my dual band vhf/uhf or D-Star transceiver. I found an old HP desktop pc whose power supply could put out 18Amps at 12Volts. I didn't want the fan running all the time so I found a fan control circuit. The fan starts slowly when the interior of the power supply reaches 80 degrees F° and as the temperature increases, so does the fan speed. Besides that, I wanted to build a box that I could swap out with other power supplies to measure voltage and current consumption as well as power the unit.

You can find many PC power supply wiring diagrams on the internet. One of the first things you want to do is connect the "power on" wire to a ground wire. This is how the motherboard tells the power supply to turn "ON". In my case, the green wire was the "power on" wire, the brown wires were 12Volts, and the black wires were ground. Below are some pictures of the power supply, fan control board, and voltage/amperage box. The last picture shows the current consumption of my D-star transceiver putting out 15watts and using 7.46Amps. I was able to bring the radio up to 50 watts and the amperage showed 10.9Amps. Quite a little work horse.

Note: PC power supplies can produce a large amount of RF noise. Switched mode power supplies (SMPS) employ high frequency switching and thus, are a source of radio interference. I usually don't have any HF receivers on while I am using my VHF/UHF transceivers so I really don't hear a lot of RF noise.



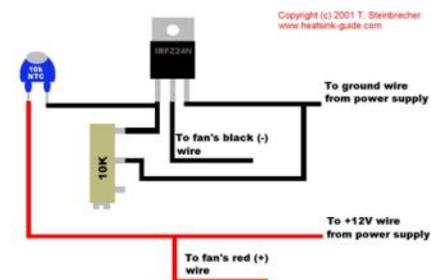
Unmodified
PC Power
Supply

Parts List:
A MOSFET Power transistor (N-Channel)
Must handle 12V, and amperes required by the fan (or fans)
IFR510 Power MOSFET (for the United States, others are different)
Radio Shack Part No. 276-2072a
A 10K spindle trimming potentiometer
Radio Shack Part No. 271-343 or 271-1715
A 10K NTC temperature sensor
Radio Shack Part No. 271-110A Thermistor
Other parts you may want to use:
Heat shrinkable tubing
Small PC Board for the circuitry
Heatsink for MOSFET (only recommended when driving more than 3 fans)
Assembly:
The original author made this wiring diagram that quite frankly, couldn't really get any more simple to understand.

The circuit is expanded, but will be pretty small once you assemble it. He has used the PC Board to keep it in a tight, compact unit, also making it easier to install and mount.



Mounting the
fan control
board



Finished power supply
monitor
box



Finished
modified PC
power supply
with
monitoring
box

DOTS & DASHES:

Things I can't think where to put, but are interesting.

BALUNS: WHAT ARE THEY, AND HOW DO THEY DO WHAT THEY DO?

Baluns can be a mystery. Did you ever wonder how they do what they do, and why? [Here is a great article that explains the basics](#)
You can read it here: <http://eznec.com/Amateur/Articles/Baluns.pdf>

SOFTWARE FOR DIGITAL MODES, A REVIEW

[QRZCQ](#) - The database for radio hams has a good [review of Digital Mode Software](#). Are you getting started in digital modes, or are not happy with the software you currently use, here is a guide to software.

You can read it here: <https://ssl.qrzcq.com/page/articles/showsingle/id/6>

NEWS RELEASE FROM THE NEW OWNER OF TEN-TEC.

As many of us know that own Ten-Tec equipment, Ten-Tec has a new owner. He has [release a letter](#) explaining how the new company will handle repairs, and technical support. While this will be a change for current owners, it will bring the company inline with most manufacturers.

You can read it here: <http://qrznow.com/ten-tec-announcement-january-4-2016/>

HEIL SOUND CELEBRATES 50 YEARS

Heil sound celebrates 50 years of service to professional sound, and amateur radio users. [It is a very interesting story.](#)

You can read it here; http://www.prosoundweb.com/article/heil_sound_celebrates_50_years/

INTERESTING HAM RADIO WEB SITES:

Do you build your own coils. Have you figured out a coil support, but are not totally happy with your design. Here is an easy to follow way to make good coil forms for all your multiband wire antennas.

<http://www.ad5x.com/images/Articles/CoilRevB.pdf>

AREA SWAPFESTS:

Feb 6	Connecticut Valley FM SwapFest	www.cvfma.org/	Springfield, Vt
Feb 13	Algonquin Am Radio Club Fleamkt	www.qsl.net/n1em/	Marlborough, Ma
Mar 5	MTARA HamFest	www.mtara.org	Chicopee, Ma
Mar 6	NEARC Swapmeet	www.nearc.net/swapmeetinfo.htm	Westford, Ma
Mar 12	ECARA HamFest	www.ecara.net/	Dayville, Ct
Apr 29/30	NEAR Fest XIX	www.near-fest.org	Deerfield, NH

CONTESTING:

JANUARY'S CONTESTS:

Jan 1	ARRL Straight Key Night	www.arrl.org/straight-key-night	CW
2	Original QRP Contest	www.qrpcc.de/contestrules	CW
	ARRL RTTY Roundup	www.arrl.org/rtty-roundup	Dig
3	ARRL Kids Day Contest	www.arrl.org/kids-day	Ph.
9	North America CW QSO Party	www.ncjweb.com/naqp-rules.pdf	CW
16	North America SSB QSO Party	www.ncjweb.com/naqp-rules.pdf	Ph
23	Montana QSO Party	www.fvarc.org	CW, Ph, Dig.
30	Winter Field Day	www.winterfieldday.com	CW, Ph, Dig
	ARRL January VHF Contest	www.arrl.org/january-vhf	CW, Ph, Dig

Hands-Only™ CPR
Call 911
Push hard and fast in the center of the chest.
Learn more at handsonlycpr.org
American Heart Association
Learn and Live

Local happenings

Sundays: 0845: Western Mass Emergency Net 146.94, PL 127.3 - W1TOM/R

First Monday: Southwick Regional RACES Drill, 1845, 146.49 Simplex

Mondays: 1930: HCRA 10m Net 28.375

Tuesdays: 1930-2000: 146.94, PL 127.3 - W1TOM/R - Hampshire County Emergency Net

Wednesdays: 1930: MTARA Info net 146.94, PL 127.3 - W1TOM/R - includes NTS Net

2000: MTARA Swap net: 146.94, PL 127.3 - W1TOM/R

2000: MTARA Simplex Net - starts on 146.94 - PL 127.3, then goes to 146.42 direct (simplex) Usually starts immediately following the swap net.

Thursdays: 2100: Weather Net (Roger, K1PAI Net Control), 1st Thursday of every month: 147.090 MHz, All other Thursdays: 147.000, PL 127.3 - W1TOM/R

Fridays: 1200: BB's (Brown Baggers Luncheon)
Munich House
13 Center Street
Chicopee, MA 01013

Join the ARRL or renew your membership!

ARRL members enjoy:

- QST Magazine
- Members-Only Web Services
- Technical Information Service
- Member Discounts
- Outgoing QSL Service
- Continuing Education
- ARRL as an Advocate
- Regulatory Information Branch
- Public Relations for Amateur Radio
- ARRL Field Organization
- ARRL-sponsored contests
- Operating Awards
- Local Clubs
- Amateur Radio Emergency Service
- Hamfests and Conventions
- Volunteer Examiner Coordinator Program



<http://www.arrl.org/membership>

Club meetings & VE sessions

1st Friday of the month 7:30 PM, HCRA Club Meeting, Holyoke Hospital Auxiliary Conference Center, 575 Beech St. Holyoke MA 01040 (no meetings held in July or August.)
<http://www.hcra.org/meeting-location/>

3rd Friday of the month 7:30 PM, MTARA Club meeting, Red Cross building, [150 Brookdale Dr. Springfield, Mass.](#) (no meetings held in July or August)

4th Friday of the month 6:00 PM, Technician, General, and Extra Class License Exams, Holyoke Hospital Auxiliary Conference Center, 575 Beech Street, Holyoke, Mass. Hosted by the Western Mass VE Team (WMVET). Contact: David Cote, w1fab@arrl.net

Third Monday of the month 7:00 PM, Franklin County Amateur Radio Club meeting, Greenfield High School (no meetings held in July or August) <http://www.fcarc.org/>

4th Monday of February, May, August, November 7:00 PM, FCARC VE Exams, Unitarian Church, Main Street, Northfield <http://www.fcarc.org/>

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HCRA MEMBER'S PROFILE

This month's Member Profile is Dave Scarpa N1MFL from Agawam.

Dave along with Dan KB1VWQ are the founder's of POTA*413. Their group has helped many Hams Experience the joys and the adventure of operating from area parks. (Myself included.)

For more information on POTA*413 visit their [facebook](#) page

- 1) **Name:** Dave Scarpa
- 2) **Town:** Agawam
- 3) **Callsign:** N1MFL
- 4) **Previous Callsign(s):** KB1VPM
- 5) **License Class:** General
- 6) **Main station equipment:** Yaesu FT-950
- 7) **Favorite Band(s):** 17, 40
- 8) **Favorite Mode(s):** SSB
- 9) **Year you were first licensed and license class:** 1991
- 10) **How did you become interested in amateur radio?** Magazines
- 11) **What are some of your favorite aspects of the hobby?** Operating in the field
- 12) **What is your most memorable experience in the hobby?** My First Pota 413 activation, myself and KB1VWQ have started our own group to do portable activations in state and municipal parks
- 13) **What do you feel ham radio operators must do to help ensure the future of the hobby?** Keep spreading the hobby to as many people as possible.



Dave N1MFL operating at W1AW

THE AMATEUR RADIO PARITY ACT OF 2015:

The ARRL has announced that currently they have 111 co-sponsors for US House Bill HR-1301. There is now 2 members of Congress from Massachusetts, District #2 James McGovern (D), and District #5 Katherine Clark (D), District #1 (Where most of the HCRA resides.) Richard Neil has yet to sign on. It is time for us to step up and get involved. [You can find more information on getting involved here.](#)

Senate Bill S-1685 currently has only 2 co-sponsors: Sen Roger Wicker of Mississippi , and Sen Richard Blumenthal of Connecticut.



Homeowners Associations across the country have been mobilizing against both bills. They have been using scare tactics to get their members to write opposing letters to members of Congress.

To separate fact from fiction, the ARRL produced a video. [Click here to watch.](#) (Look for a familiar face at 4:55)

NOAA WEATHER RADIO

Now that winter weather is here, one of the best resources to keep up with the latest weather information is to listen to NOAA Weather Radio. Below is some basic information about NOAA radio from noaa.com.



NOAA Weather Radio All Hazards (NWR) is a nationwide network of radio stations broadcasting continuous weather information directly from the nearest National Weather Service office. NWR broadcasts official Weather Service warnings, watches, forecasts and other hazard information 24 hours a day, 7 days a week.

Working with the Federal Communication Commission's (FCC) Emergency Alert System, NWR is an "All Hazards" radio network, making it your single source for comprehensive weather and emergency information. In conjunction with Federal, State, and Local Emergency Managers and other public officials, NWR also broadcasts warning and post-event information for all types of hazards – including natural (such as earthquakes or avalanches), environmental (such as chemical releases or oil spills), and public safety (such as AMBER alerts or 911 Telephone outages).

Known as the "Voice of NOAA's National Weather Service," NWR is provided as a public service by the National Oceanic and Atmospheric Administration (NOAA), part of the Department of Commerce. NWR includes 1025 transmitters, covering all 50 states, adjacent coastal waters, Puerto Rico, the U.S. Virgin Islands, and the U.S. Pacific Territories. NWR requires a special radio receiver or scanner capable of picking up the signal. Broadcasts are found in the VHF public service band at these seven frequencies (MHz):

- | | |
|----------------------------|----------------------------|
| NOAA Wx Channel #1—162.400 | NOAA Wx Channel #5—162.500 |
| NOAA Wx Channel #2—162.425 | NOAA Wx Channel #6—162.525 |
| NOAA Wx Channel #3—162.450 | NOAA Wx Channel #7—162.550 |
| NOAA Wx Channel #4—162.475 | |

Here are some of the local stations by State, Location, Call Sign, and Fre-

CONNECTICUT

New London	Uncasville	KHB47	162.550
Cornwall	Mohawk Mtn.	WWH33	162.500
Hartford	Soapstone Mtn	WXJ41	162.475
Meriden	West Peak	WXJ42	162.400

MASSACHUSETTS

Bourne/Hyannis	Camp Edwards	KEC73	162.550
Boston	Great Blue Mtn	KHB35	162.475
Gloucester Marine	Essex	WNG574	162.425
Mt Greylock(OTS)	Bascom Lodge	WWF48	162.525
Worcester	Paxton	WXL93	162.550
Egremont	Egremont	WXM82	162.450

VERMONT

Burlington	Mt Mansfield	KIG60	162.400
Castleton	Rutland	WNG671	162.500
St Johnsbury	Burke Mtn	WWG50	162.425
Windsor	Mt Ascutney	WXM44	162.475
Marlboro	Ames Hill	WXM68	162.425

NEW HAMPSHIRE

Deerfield	Saddleback Mtn	KZZ40	162.450
Mt Washington	Mt Washington	KZZ41	162.500
Clarksville	Ben Young Hill	WNG544	162.400
Holderness	Mt Prospect	WNG545	162.550
Hanover	Moose Mtn	WNG546	162.525
Monadnock	Peterborough	WNG475	162.525
Concord	Plausawa Hill	WXJ40	162.400

Rhode Island

Providence	Johnston	WXJ39	162.400
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You can find out more information, including how to program S.A.M.E. codes by visitng:

<http://www.nws.noaa.gov/nwr/index.php>

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**Here is your exciting copy
of Zero Beat!**

**Don't forget the MTARA
HamFest**

Saturday March 5th.

**Hampden County Radio Association
P.O. Box 562
Agawam, MA 01030-0562**