



OCTOBER 2009

Zero Beat

<http://www.hcra.org>

From the Shack...

October 2nd Meeting features Mike Raisbeck, K1TWF!

This month's program will feature a presentation by Mike Raisbeck, K1TWF. Mike is the ARRL's Vice Director for the New England Division (K1KI is the Director) and is really dialed into what is happening with our hobby. Although Mike's forte is the legal side of ham radio he is up to date on what's happening with the ARRL and the FCC as well as being the 'go-to' guy for NEARfest (the old Hosstraders) hamfest. Expect to learn a lot of new things going on inside our hobby by the end of tonight's presentation.

Last Chance to Renew and get in on the raffle!

As always the HCRA is offering an incentive for you to renew before the end of tonight's meeting. If you haven't yet renewed what are you waiting for? All renewals (and new members) on the rolls by the end of the October 2nd meeting will automatically be entered into a drawing for a free HCRA Jacket & Cap - a \$50 value! Don't delay and you could be the lucky winner.

If you received a Zero Beat this month saying "Last Chance" on the cover that means we don't have your renewal at the time of the mailing. Printed on page two is a handy application for you to fill out, return or better yet bring to the October meeting. You will get a chance to win the prize, chat with your friends and HCRA will be in a better position to plan our activities for the rest of the season. Thanks for your support!

Can you help with the Holiday Party?

The board has reserved December 4th for our Holiday Party this year. Once again it will be at a restaurant (instead of the church) but we found a new facility that is accommodating, convenient and has an excellent menu as well. This year's party will be at Alexander's Restaurant, just down the street from the church. You've probably noted already the date is the same as our regular meeting night too, how much simpler can it get? The meal this year will be buffet style with a choice of three entrees, salad and dessert. We're still finalizing the pricing but we expect it to land right around \$20/member.

Now that the difficult task of securing a location has been completed we need somebody to help put the finishing touches on it. If you, or someone you know, would be interested please contact

any board member and we can get you started. Never did anything like this before? That's OK, there's a first time for everyone and we will always be ready to lend a hand if you need any help. Isn't that the

HCRA way? Challenge our members to do more for the club but be there to lend a hand whenever necessary? Are you up for the challenge?

Changes in Zero Beat Publishing effective October 2009

Starting in October we will be mailing an 'abbreviated version' of Zero Beat to the few of our members who have requested a mailed copy. This version will consist of a single sheet, two pages, containing the upcoming meeting subject and most likely 'From the Shack' unless Larry thinks we have something more critical than my monthly ramblings! The reason for this change is to control expenses, fund activities and maintain our present dues rate. The cost of printing and mailing Zero Beat averages \$15.66/member requesting a mailed version and simply is getting out of reach for our club. We will also be dropping our printing provider and producing the new version 'in house' to save even more. Thanks to George, KC1V for volunteering to do the printing and mailing. If there are any members that would like to take a shot at helping with this task let us know, we can always use additional hands. The electronic version will continue to be emailed to every member with an email address and will be available on our web site as always.

We do realize this could be a disappointment to those few members without internet access and we are open to other suggestions on how best to handle the challenge with the least impact to our members. Ideas?

'73...and please don't forget to renew tonight - you could be this year's "best dresses" ham!

Jim, KK1W





Grand Raffle Prize
Yaesu VX-150R
w/battery & charger



AUCTION

November 6th !!!

Turn your old 'stuff' into cash!

- *Set-up at 6:00 PM*
- *Auction starts at 7:00 PM*
- *Win a Yaesu VX-150R HT*
- *Hot dogs, soda, coffee & donuts!*
- *Lots of bargains!*



Contact Jim, KK1W, for details - 413-245-3228 or kk1w@arr

Auction held at:

Feeding Hills Congregational Church
 21 North Westfield Street
 Feeding Hills, MA 01030

Just North of the Pride station at the
 intersection of routes 57 and 187



AUCTION RULES:

Amateur radio or computer related item
 Mark all items with name/call and minimum acceptable bid.
 Items without minimum will sell at any
 10% of selling price goes to the HC
 Maximum fee - \$25.00 per item

Board Meeting Minutes

Hampden County Radio Association

- 1 Board of Directors meeting minutes
- 2 Thursday September 8th, 2009

3

4 Attendees : Irv Slitzky W6IS, George Collins KC1V, Michael Lavery KB1PKJ, Jim Mullen KK1W, Larry Krainson WB1DBY, Jim Whitehouse K1JAW, Dave Cain AA1YW

5

6 Jim called the meeting to order at 7:23 p.m.

7

8 Officer Reports

9

10 Vice President - John (in absentia)

- 11 Tech classes - No sign-ups yet.

Treasurer - George Collins

- 1 Balance - \$2986.80
- 2 Dues handout which listed all members paid and unpaid
- 3 Paid member count as of the meeting. 39 regular, 2 life members.

Secretary - Michael Lavery

- 1 motion was made to accept August meeting minutes - motion was seconded , passed unanimously.
- 2 Action item - Renewal of the incorporated status with the Commonwealth of Massachusetts via the mass.gov website
- 3 Action item - check on SSC status with the league

Technical - Dave Cain AA1YW

- 1 10M contest
- 2 certificates were a hit
- 3 Mobile antenna clinic
- 4 Fox Hunt
- 5 Antenna Workshop
- 6 Show & Tell

Zero Beat Editor - Larry Krainson WB1DBY

- 1 Submit articles to Larry by Sept. 21st

Membership - Ed LaCombe KB1NWH (in absentia)

- 1 Jim (PHW not available) - Thanks Ed for ral-

lying and buying donuts

- 2 Auction Raffle VX-150. 6 tickets for \$5, \$1 each, no limit
- 3 October Sign-up raffle is an HCRA Jacket & Hat
- 4 Ed can decide what raffle for meeting

At Large - Irv Slitzky

- 1 Holiday Party

Program - Jim Whitehouse

February - Solar PV?

April - Larry will ask someone he knows

May - George could ask someone from the N.E.W.S. Group

Hot dogs at the auction and tailgate party

Old Business

Bylaws discussion - Irv & George have worked on the Bylaws. They have submitted a new version for review by Jim KK1W.

Raffles discussion - 50/50 raffle at the auction night.

Zero Beat will be sent out to all members who have not renewed yet since September meeting. Vote to discontinue mailing Zero Beat after October. Aye - 5, Nay - 2. Ayes have it.

New Business

Holiday Party discussions were undecided at the end of the BOD. Tabled for further discussion

Zero Beat discussions on continuing a paper US Postal zero beat prior to changing ruling in the Bylaws was undecided at the end of BOD. Although Zero Beat printing after October was passed the board subsequently decided to table the change for further discussion.

Respectfully submitted on this date - September 15th, 2009 - Michael S. Lavery

Community Service, Homeland Security, and fun
Ham Radio License Classes forming NOW
(New Condensed Format)

You are invited to attend
Amateur (Ham) Radio

Instructional Classes For the Technician (entry level) and General Class Amateur Licenses
Cost for these classes is FREE. Technician / General License Manual (\$25) strongly suggested
Books ordered prior to the first class date will be available for the first class
Class will meet on two Tuesdays (7 to 8:30) October 6th and 13th, then all day (9 to 4:30) October
17th

At the Moose Family Center #1849

The testing team will be present on Sunday, October 18th to administer license exams (cost \$15.00
per attempt)

There is no age requirement. Reservations requested, but not required.

The Technician course is a condensed class tailored for youth, but open to all interested parties.

The General Class will be in a study group format.

For questions, to sign-up, and/or order the book Please contact: John J. Pise, Jr., Kx1x at
kx1x@arrl.net or 413-262-5249

**Zero Beat Contributions: Anything of interest is welcome. This is YOUR Newsletter. It's
not interesting without YOUR ARTICLE SUBMISSIONS.**

**Please submit your ideas, articles and more to wb1dby@comcast.net. Thank you,
Larry, WB1DBY, Zero Beat Editor**

Radio Museum Ham Club has new Trustee

Bill Thompson, K1NNB, has been appointed the new trustee of W1VCM, call of the ham club of the Vintage Radio and Communications Museum of Connecticut. Bill replaces Gordon Horn, W2WTV, founder of the club and its trustee since 2004, who stepped down due to poor health. The museum is located in Windsor, CT, and is open Thursday through Sunday. Hams are invited to operate the club station which is representative of a typical ham shack of the 1970s-80s. For more information, go to www.vrcm.org

Tnx es 73

Bernie Michaels, W2LFV

JUST TALKING - HILLTOPPING

By Jim, K1JAW

Well it is the beginning of another HCRA season, kids are back in school, and the end of the summer is approaching quickly. Once again I was fortunate to have been able to operate for a week from a great portable location in Acadia National Park, over 600 feet above sea level, with a lot of trees. My neighbor was the local cell tower, which was about 500 feet away from where I set up most of the time with no difficulty or interference.

K1JAW / QRP
Acadia National Park - Jordan Pond



This year, I tried two new items. First was my multi-band portable loop which looked great when I tested it at home on the analyzer, but was too quiet in the field. It was so quiet that I was unable to make any contacts and I finally gave up. This will not discourage me from trying the loop again as I have seen what they can do. I just need to get better at building them. I also had my 40 meter dipole with me and that produced many hours of fun communications when mounted at a whopping 25 feet.

My other minimalist effort was to operate with a smaller 1.2 Ah Gel cell and 4 watts of solar

panel. With so many trees, and significant overcast for three days, this attempt just didn't make the grade so I will go back to my 7Ah gel cell for future multi-day excursions. Note that I usually never carry any secondary method for charging batteries; thankfully, I broke that rule this year. I would have been out of business the second day had I not planned for a problem.

I find that 40 meters is always a good band to travel with. Not being a DX chaser or contest operator, I can reliably make 100 to 1000 mile contacts with little trouble at QRP levels in portable locations. This year, operating with only 3 watts, I was able to reach Minnesota with a 479 signal report to another QRP op. 1700 miles! Our signals faded quickly but not until after the customary exchanges were made. This mini QSO is my personal best from a field location.

Now that I am back home, I have just built a new 30 meter portable dipole fed with TV twin lead. Hopefully, by the October meeting, I will have been out in the field testing this as a possible standard antenna for future trips. I have also reduced my case to a soft sided cooler just about big enough for a six pack, and yes, it has that big ugly 7Ah battery in it too. You need to go with whatever works for you. Anyway,

Gotta go so 73 and have fun!

Hi Friends:

The 18th Annual Nutmeg Hamfest and ARRL Connecticut State Convention will take place on Sunday, October 11th, 2009.

We have a great program lined up, including our new "Antenna University". Our panel of World Class experts will present four different topics covering practical aspects of Amateur Radio antennas. Whether you sit in for one or attend all four, you're sure to come away with information you can use .

Noted astronomer Jon Wallace will offer a talk on Radio Astronomy. He'll tell you how to get started in this fascinating aspect of the radio hobby.

The Yankee Clipper Contest Club -- Ham Radio's premiere contesting group -- will hold their fall meeting in conjunction with the Hamfest. Big Guns, Little Pistols, and anyone else with an interest will find an enthusiastic and knowledgeable group of experienced testers eager to help you.

And don't forget the ARRL forum with CT section manager Betsey Doane, K1EIC; New England Division Director Tom Frenaye, K1KI; and Vice Director Mike Raisbeck, K1TWF. They'll let you know what's going on, and what the ARRL is doing on your behalf. And they're eager to hear your thoughts on what else the League should be doing.

Of course, without vendors, there's no Hamfest, and we'll have plenty of them. New and Used equipment dealers, parts and accessories, batteries, books, computers and software, tools, antennas, rope, coax, connectors, and more. Our tailgating area gets bigger every year, and you never know what bargains await you!

If you're interested in becoming a vendor, we'd love to have you join us. Inside tables are filling up quickly, so if that's your preference don't delay.

Complete details, including our great prize list, can be found at www.nutmeghamfest.com

Come on out to the Nutfest and find out for yourself why it's the **Biggest and Best Hamfest in Southern New England and the Tri-State Area**. I'm looking forward to seeing you there!

Thanks and 73,
John Bee, N1GNV

Does Your Club Have an Elmers List?

By Dan Romanchik, KB6NU

Whilst looking up information for a recent ham-fest, I found the club's website and began surfing around. In doing so, I came across their Elmer page (<http://www.mcrca.org/elmers.htm>). On it, they list a variety of topics with the name, call, and phone number of someone who can answer questions on that topic.

My club something similar once, but it was less than successful. I think that one of the problems was that we asked people to fill out a form on our website if they needed any help. That information was e-mailed to one guy, who then forwarded it to the appropriate Elmer. There was just too much time lag between the time someone asked for help and when they got it. Or, it may have been that filling out the form was just too impersonal.

We are going to try it again, though, using the format that the Monroe club uses. I'm also going to give it more billing on our website, and push it more at meetings and other gatherings.

The topics the Monroe club lists on their website are:

- * Antennas
- * Buying Your First Radio
- * Code Practice
- * Computers
- * Packet
- * County Hunting
- * DXCC Awards
- * Rag Chewers Club
- * Worked All States
- * DX
- * FM
- * Homebrew
- * Testing
- * Public Service
- * Technical Q&A
- * Traffic
- * Tube Radios

We already have Elmers for several of these topics. I, for example, would be more than happy to volunteer to be the Morse Code/CW Practice Elmer. We have one member who is an avid County Hunter, another who restores vintage gear, and yet another who's been spearheading a statewide effort to set up a packet network throughout Michigan.

In addition, we are going to add or modify several of the categories. For example, Computers might become "Computers/Software" depending on who volunteers to be the Elmer. We have a couple of guys who are heavily into VHF/UHF operation and contesting, so we'll be adding those topics as well.

I really do hope that this will be an important resource for our club. In the past year, we've helped quite a few folks get their licenses, and now we need to help them take advantage of that license and get the most out of the hobby. Elmering is the way to do that.

Does your club have an Elmer list? If so, does it have topics that I haven't thought of yet? How do you get newcomers to take advantage of the knowledge and experience of your Elmers? And, finally, what topics have you volunteered to be Elmer for?

Let me know by e-mailing me at cwgeek@kb6nu.com.

Passing the Tech Test

By Dan Romanchik, KB6NU

I teach One-Day Tech classes. At the start of each class, I go over the following to help focus students on what to keep in mind when taking the test. It occurs to me that these are good tips no matter who is taking the test, so if you know someone who will be testing soon, please feel free to pass along this advice.

Technical Topics

The Tech test is not very technical, but there are three technical topics that you need to know:

- * Ohm's Law,
- * how to calculate power, and
- * the relationship between frequency and wavelength.

Ohm's Law

The basic formula for Ohm's Law is voltage (E) equals current (I) times resistance (R), or $E = I \times R$. On the test, there are several questions where they give you two of the values and ask you to calculate the third. If you're asked to calculate the current, you use the formula, $I = E / R$. If you need to calculate the resistance, use the formula $R = E / I$.

How to Calculate Power

The formula for calculating power is power (P) = voltage (E) times current (I), or $P = E \times I$. To calculate the current drawn, when given the power being consumed and the voltage applied to the circuit, use the formula $I = P / E$.

Relationship Between Frequency and Wavelength

There are several questions that require you to calculate the wavelength of a signal or some fraction of the wavelength. The reason for this is that antennas are often a fraction of a wavelength.

The formula that describes the relationship between frequency and wavelength is wavelength in meters = $300 / \text{frequency in MHz}$. One question asks for the approximate length of a quarter-wavelength vertical antenna for 146 MHz. To figure that out, you first calculate the wavelength:

$$\text{wavelength} = 300/146 = 2.05 \text{ m or about 80 inches}$$

One quarter of 80 inches is 20 inches, and the antenna will actually be a little bit shorter than that because radio travels more slowly in wire than it does in free space. The correct answer to this question is 19 inches.

That's all there is to the technical part of the test!

Safety

There are lots of questions on the test about operating safely and being safe when working on antennas. My advice when answering these questions is to always choose the most conservative answer. The two exceptions are when asked what is the lowest voltage and current that can hurt you. For these questions, the correct answer is the second lowest choices.

Emergencies

There are lots of questions about what to do in emergencies. There are two things to keep in mind when answering these questions:

- * You should do whatever you can to help someone who is in an emergency situation.
- * You can even break the rules to help someone in an emergency situation. This includes operating on frequencies you are normally not allowed to operate on and communicating with other stations in other radio services.

Miscellaneous Tips

Here are a couple of other miscellaneous tips:

- * The answer is 'D.' If one of the answers to a question is, "D. All of these answers are correct," chances are that is the correct answer. There are 18 questions with this option, and of those 18 questions, there are only two questions--T3B06 and T5B03--where that is not the correct answer.
- * Long-Answer Rule. Where one answer is a lot longer than the other options, chances are that this is the correct answer. I haven't done an exhaustive study of this, but when one answer is very long, take a good, hard look at it.

That's all I have. Good luck on the test!

When not helping people pass the Tech test and become good amateur radio operators, Dan likes to work CW on the HF bands and collect QSL cards from stations whose call-signs spell words. To see what else he's up to, go to www.kb6nu.com

Amateur Radio Quiz: What Kind of Tool Am I?

By H. Ward Silver, N0AX
ARRL Contributing Editor
n0ax@arrl.org

August 29, 2009

No, it's not a song about workshop inhabitants from the off-Broadway hit musical Little Shack of Horrors, but rather a quiz about some of the gadgets and doo-dads we use all the time in building our stations and keeping them on the air. Slip this quiz into the chuck and tighten up -- this is not a drill!

1) Which tool is used to trim wire leads flush with a circuit board?

- a. shear
- b. side cutters
- c. gas pliers
- d. compound snips

2) Which is most likely to have a "T handle"?

- a. soldering iron
- b. crimping tool
- c. reamer
- d. flat file

3) Which type of tool family has a "Double D" member?

- a. punches
- b. drills
- c. saws
- d. calipers

4) What type of holes does a "fly cutter" cut?

- a. circles
- b. squares
- c. rectangles
- d. irregular

5) True or False?

- T F A tap puts threads in a hole while a die puts threads on a rod.
- T F The second number in a screw size (i.e. 6-32) represents body size.
- T F The higher a drill's number, the smaller the hole it drills.
- T F It is desirable for a drill bit to walk.
- T F Chips and curls are created by rip saws.

6) Which solder alloy is the easiest to melt? (%Sn:%Pb)

- a. 60:40
- b. 50:50
- c. Silver-Solder
- d. 63:37

7) What does a bending brake do?

- a. Curves electrical conduit without crimping it.
- b. Removes material from the inside of square holes.
- c. Bends sheet metal precisely.
- d. Holds the workpiece for milling.

8) What does a nibbling tool nibble?

- a. wire insulation
- b. coax braid
- c. sheet metal
- d. finger stock

9) The material left around the edges of a hole after drilling is called a _____.

- a. frass
- b. burr
- c. kerf
- d. dross

10) Which of these is *supposed* to be used to poke holes in things?

- a. nail set
- b. thread chaser
- c. awl
- d. Phillips screwdriver

11) Which of the following is *not* a type of screwdriver bit?

- a. pan
- b. torx
- c. allen
- d. spline

12. Rank these measuring tools in order of most precise to least precise:

- a. calipers
- b. micrometer
- c. tape
- d. rule

Bonus: What tool is also the name of a popular antenna and why?

Answers

- 1) b -- These have cutting edges on the side of the jaws to slide along a surface as they cut.
- 2) c -- The T-handled reamer is used to enlarge holes by hand.
- 3) a -- A double-D punch creates a round hole with two flat sides.
- 4) a -- The fly cutter is used to cut large-diameter circular holes in sheet metal.
- 5) T; F (it represents threads per inch; T; F (walking means the bit is moving sideways; F (these are the material removed by drilling.)
- 6) d -- This mix of tin (Sn) and lead (Pb) melts at the lowest temperature.
- 7) c -- Built-in clamps hold the metal while forms shape the bend.
- 8) c -- A nibbling tool removes small bits of sheet metal to form a non-circular hole.
- 9) b -- The burr is then removed with a countersink, a de-burring tool, or by filing or scraping.
- 10) c -- Yes, all of them *can* be used to poke holes in things, but the awl is the *proper* tool to use.
- 11) a -- Pan (as in "pan-head" is a type of screw head, not the shape of the bit used to turn it.
- 12) -- micrometer, calipers, rule, tape (with few exceptions).

Bonus: The variable-length mobile "screwdriver antenna" is so named because the original prototypes used dc motors from electric screwdrivers to adjust the length of the antenna's whip.

Next Meeting:

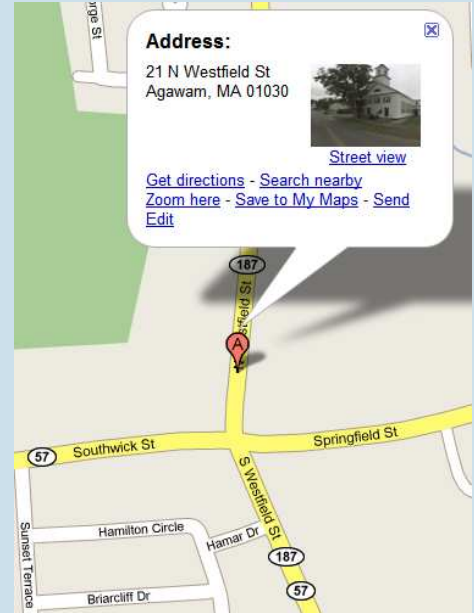
**Friday Night
October 2nd**

7:30 PM

**Guest Speaker:
Mike Raisbeck, K1TWF**

Meeting Location:

*Feeding Hills
Congregational Church
21 North Westfield St.
Feeding Hills, MA 01030*



The Hampden County Radio Association
P.O Box 562
Agawam, MA 01001



PLEASE HAND CANCEL