

# HAMATEUR CHATTER

The Milwaukee Radio Amateurs Club

November 2013 Volume 21, Issue 11

One of the World's Oldest Continuously Active Radio Amateur Clubs—since 1917

## Presidents' Letter

I have a few announcements for everyone. Please remember the club meeting is a week earlier this month. We are meeting on November 21<sup>st</sup>. Please make sure to pass this along to everyone. Tom N9UFJ has also asked us to remind everyone that we will not have a raffle this month. This month's program will be given by Dave WB9BWP about "A Home Built Telescoping Mast Tilt Over Mount and Antenna Installation".

Also remember we will not have a meeting in December. January 1<sup>st</sup> starts our new membership year, so please feel free to pay your dues at the next meeting. We will also have a club table at the West Allis Radio Amateur Club swapfest on January 4<sup>th</sup> 2014. Remember this swapfest is 3 days after new years. Club members can put items to sell on the table. All we ask is that you spend some time at the table to give others time to walk around. Again please pass this along to others. Our MRAC/MAARS swapfest will be held on February 15<sup>th</sup> 2014. We are looking for volunteers to help with our fest so mark it on the calendar.

I want to thank all of you for giving me input on the club antenna project. I will continue to work on the antenna and give updates at future meetings. Hopefully I can get it working before winter really sets in. Once I have it working I hope to check into a Friday night net with the antenna. Maybe I can use Dave's mast idea for putting up the antenna.



## Board of Directors' Meeting

Board of directors meeting called to order at 6:57 pm by Dave Shank, KA9WXN club president.

Director's present: Michael KC9CMT, Dave KA9WXN, Joe, N9UX, Hal, KB9OZN, Al, KC9IJJ, Dan, N9ASA.

Absent: None. There is one vacancy on the Board of Director's.

The Board of Director's minutes were accepted as published in the October Chatter by a motion forwarded by Michael, KC9CMT seconded by Al, KC9IJJ. The Treasurers report was given by Joe, N9UX. The September balance ended with \$18,290.64 in our Club accounts. The club received \$50 from the Milwaukee VEC group for the use of our phone system and Website. At&t continues to send notices to the club stating that they are going to change our service model,



### MRAC Officers:

#### Terms Expiring in 2014

- President – Dave, KA9WXN
- V-President– Dan, N9ASA
- Secretary – Mike, KC9CMT
- Treasurer – Joe, N9UX
- Director – Vacant

#### Terms Expiring in 2015

- Director – Al, KC9IJJ
- Director – Hal, KB9OZN

The Club Phone Number is: (414) 332-MRAC or

(414) 332- 6 7 2 2

Visit our website at:

[www.w9rh.org](http://www.w9rh.org)

Mail correspondence to:

**M. R. A. C.**

**PO Box 26233  
Milwaukee, WI**

**53226-0233**

yet nothing seems to be happening in that regard. The club is receiving DSL from At&t for a real bargain, in conjunction with MATC. All the donations voted on during our September membership meeting have been sent along. The Treasurers report was accepted as reported by a motion made by Hal, KB9OZN, and seconded by Michael, KC9CMT.

**Meeting programs:** Dan, N9ASA gave a review of September's membership meeting program for Dave, KA9WXN, since Dave could not attend. The Board felt that the meeting went well with the membership giving short reports on how they got interested in Ham Radio and what their first radio was. Many members have oscilloscopes and do not have the technical training to take measurements with these complicated devices. This subject will be covered in the very near future. The October meeting falls on Halloween this year and will be a program on the club antenna fix that Dave, KA9WXN will give in a power point presentation. The November membership meeting will be the 21st due to the thanksgiving holiday. The Board of Directors meeting will be the same week. There traditionally will not be a raffle after the November membership meeting due to Tom's absence.

There will be no meeting held in December due to the holidays. The January 2014 meeting topic is still open. Either Gary, or Jeff Annis, K9VS will give a presentation. N9GMT may do a presentation on mobile HF radio operation. Jeff Annis, K9BS would be happy to give his presentation on antenna modeling.

The February meeting will be a food gathering again in 2014, also a short talk regarding the April elections. March or April's meeting may be a presentation given by Cheryl, K9BIK on the Ham Nation podcast production. How to use a MFJ-269 antenna analyzer would also be a good topic for the future meeting. May will be the annual club auction. The Menominee Falls library needs to be kept appraised on our meeting schedule to solidify our room choice. Hal, KB9OZN, talked about upgrading the snacks available at membership meetings. Cakes, hot dogs, etc... The idea was forwarded to the board of going to a sporting event such as a Milwaukee admirals game this spring. The membership will be polled on these ideas. Area clubs will be getting together to buy tables at the WAARC swapfest in January. The clubs' will be in a row along the south wall like last year.

**Field Day:** The club would like to buy a rotator for use at field day. Dave, KA9WXN has a contact that is in the rotator rebuilding business that he can call, in an attempt to get a good deal on a unit. The farmers market will be at Konkel park in Greenfield again in 2014. Al, KC9IJJ reported that he once again received the wrong calendars from ARRL. He wanted that ones' that had the club represented in it, the 2013-2014 issue. He will try again to get this straightened out.

### Special Project Committees & Committee reports:

**Repeater Report:** Dave, WB9BWP is the repeater trustee. The club would like more than one repeater trustee. A club repeater trustee has to be an extra class operator to have the kind of privileges that are necessary to operate field day to its fullest extent.

**New Business:** Getting tables bought for the WAARC swapfest. Dave, KA9WXN was given all the information on the club website by Mark, AB9CD. Dave will be handling this function from now on. Dave, WB9BWP continues to work on the clubs' history. Joe, N9UX needs help with the FM Simplex contest advertising. The word needs to get out to all the Wisconsin and Northern Illinois clubs about this important event. Mark, AB9CD volunteered to score the submitted sheets. Dave will be talking about the newspaper article that featured him in our own Milwaukee Journal/Sentinel as an advertising tool.

**Hamfest Committee:** The club is looking at getting two of the Chinese VHF/UHF ham radios to use as door prizes during our Hamfest in February. Dave, KA9WXN is working on this. The club may move the table sales to a Google, Yahoo, cloud based spreadsheet. This would be available at all times to the Board of Directors'. Tickets will be done in house so that we can send out some as advertising for our event. Dan, N9ASA printed up two thousand fliers for the swapfest during the spring of 2013. Dave, WB9BWP is storing the fliers at his residence.

**Special Projects:** The club needs someone to take over the FM simplex contest for February of 2014.

A motion was made to adjourn the meeting at 8:06 pm by Dave, KA9WXN seconded by Al, KC9IJJ. Meeting adjourned at 8:10 pm. The room was returned to an organized condition as it was when the room was opened.

## Membership Meeting Minutes

The MRAC membership meeting was called to order at 7:06 pm by Dave, KA9WXM club president. The Mic was passed around for introductions. A sign-in sheet was circulated for the recording of membership information and attendance.

Preliminary discussion; Dave DeFebo, WB9BWP gave a short presentation on the CQ September 2011 magazine in which our club's June Field day effort was documented. The club made a \$200 donation to the ARRL spectrum defense fund and received a very nice certificate for our historical records. Dave asked the membership for suggestions as to what programs we should present during 2014. SK report: WI9MA Gary passed away two weeks ago very suddenly.

### Tonight's Program:

Tonight's program is a discussion by Dave, KA9WXN about the Cushcraft MA5B Yagi antenna system that needed repair before being used by the MRAC during field day this year of 2013 at Konkel park in Greenfield. The MA5B is a five band dipole that's longest element is 17.1 feet long. We used to use a Cushcraft A3 at field day for many years. The MA5B is a big improvement over the prior one. The Balun of the MA5B needed to be repaired before it could be used. The program tonight is about the fix for this antenna & balun. The 20M portion of the antenna looked awful, 10M and 15M were useable without the fix. The balun was taken apart and found to be just coax all the way through, it was found to be shorted out. Purchasing baluns from manufacturers is quite expensive. The A3S coax balun was just a RF choke.

## Membership Meeting Minutes

Dave did some research and build a "ugly balun" from 9918 coax and PVC tubing. As the coax is wound the impedance will change. Then Dave decided to build a RG58 coaxial balun on a PVC base. With the new balun many contacts were made at field day in the 10M band. The Yagi did not work well in the 20M band and few contacts were made. Typically, the higher that you mount a Yagi the better it performs. The magic height has been noted to be 30ft in many Yagi antenna systems. The most expensive part of the balun project was the PVC piece.

Dave, KA9WXN then discussed the Journal/Sentinel article that he was featured during October. The journalist that wrote the article talked to a number of people in the Ham radio community in the Milwaukee Metro area. The article was picked up off the news wire by a New Hampshire newspaper. The club and Dave made the front page of the paper. Pictures were taken in Dave's shack.

Joe, N9UX then gave his September treasurers report of the clubs' finances. The club is doing very well at this time financially. Picnic and field day expenses were paid out in August to the tune of \$200. Postage to mail out the club HamChatter is now being recovered by the newsletter editor. \$100 was paid out to the Ozaukee County Historical society in the form of a donation to Pioneer Village. Septembers balance ended at \$19,442 in accounts and CD's. Joe asked for a volunteer to help promote the February FM Simplex contest. Joe will be busy with personal issues and must scale down his activities. Dave asked the membership if they wanted a change in the type of food offered during the club meetings. There is interest building among the Board of Directors' about coordinating an outing to a Milwaukee Admirals game.

Our club VEC member Tom Fuzzard gave a short talk about the VEC tests that will be given in the near future and where the test will be held along with how to find out information on testing dates. VEC testing will take place in the warehouse of the AES complex on Good Hope Road. Information can be found at [www.W9RH.org](http://www.W9RH.org). A testing session will be given at the same time as the WAARC hamfest in January at the Bowling center across the street. During this Saturdays' MRC91 swapfest, AES across the street will be selling off junk radios and testing and repair equipment. AES will no longer have a repair department at their Milwaukee Facility. AES did not go to Dayton in 2013 and is no longer willing to shoulder the expense of holding this very popular manufacturing exposition. There will not be a raffle in November due to commitments that Tom has.

The club membership drive will begin in November of this year as always. Joe's treasurers report was accepted by a motion made by Al, KC9IJJ and seconded by Michael, KC9CMT. Dave reports that the MRAC field day will be held again at Konkell park in Greenfield as it has been for the last couple of years. This location has proven to be popular due to its central city location.

There will be no AES superfest in 2014 due to the retirement of the organizer. There has been talk of the clubs in the Milwaukee Metro area subsidizing the mostly manufacturing expo. The idea has been forwarded that this event will become a Hamfest not only a manufacturing event.

This event will not replace any of the regular club swapfest events that usually occur in the area over a years time. Future meeting topics: An oscilloscope intro course, How to work and program a particular radio. There will be no meeting in December of 2013 due to the holidays. The November meeting will be moved up a week due to the Thanksgiving holiday.

Pancho is still looking for someone to help out during the club nets on Friday evening. We have a 10 meter and 2 meter net. At 8 and 9 pm respectively.

There will be a food & coffee gathering at Denny's with Pancho & Jerry after the club meeting.

Dave accepted motions to adjourn the shortened business meeting at 8:12pm. Motion made by Al, KC9IJJ seconded by Pancho, N9OFA. Meeting adjourned at 8:16 pm. The room was then policed of trash and returned to an acceptable condition as found before the meeting commenced. A parts raffle will start immediately after the meeting.





## A few pointers from your friendly neighborhood CN locomotive engineer

### Let's start with some DON'Ts.

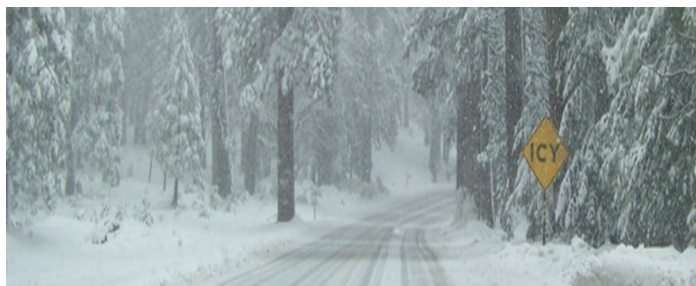
- 1) A train is really, really big. Can we all accept that? Not even your Ram/F350/Hummer/douche-mobile is a match for a locomotive. You say you have a Cummins diesel? Caterpillar? Detroit? Oooooooh. Well I have an EMD 567 on a bad day, and even its pathetic eighteen-hundred horsepower will pound you and your gleaming pickup into the fourth dimension, so please, stay behind the white line!
- 2) I hate blocking crossings. Seriously, I feel like a complete as\*\*\*le when I stop a train in the middle of the road and leave two dozen motorists to ponder their lattes and ask what the hell I'm doing. The truth is, sometimes it has to be done, so don't honk at me, flip me off, or scream at me from the window of your Dodge Caravan as you're shooting a U. Instead, be patient and try to believe that there's a point to what I'm doing. It's called switching, and my conductor is depending on me to work slowly and not run his ass over. If you don't believe me, Wiki that s\*\*t.
- 3) Don't climb on the equipment. I hate to sound like your mother, but you're saving me a lot of paperwork and horrifying flashbacks by staying off the equipment. To you it might look like an abandoned train or a free ride, but when that bastard starts to move with you on it, there's a damn good chance you won't be able to hold on. As long as you're on Wikipedia, punch in "slack action" and see what comes up. Also, the romance of riding freight trains is total bullshit. They're really dark, really cold, really windy, and hobos are f\*@king SCARY.
- 4) Don't put s\*\*t on the tracks. It's dangerous to me and my conductor, and it's ten times more dangerous for you and everyone else on the ground. If you're wondering "can a train go over a rock?" the answer is YES. There's only one problem. You probably haven't wondered where the million shards of rock are going to go at four times the speed of sound, have you?
- 5) Stop whining about the horn. Countless accidents have been avoided because drivers missed the flashing lights but heard the horn. You'd have to blast Miley Cyrus and Lil' Bow Wow pretty f\*^cking loud to drown out a five-chime, and often that's the only thing that saves people. Still, that's no reason to keep your stereo at eighty decibels as you're rolling through a crossing at sixty without looking both ways.
- 6) By and large, railroad cops are major douche bags, so when you're trespassing on railroad property, keep your head out of you're a\*s.

These guys didn't make it into the real police force, and they will ream your as\* inside and out to make up for it. Also, walking on bridges and in tunnels is extremely dangerous. Ask yourself: If a train comes, where will I go? Trains are much wider than the rails they run on, so don't be fooled.

### Now for some of the DO'S.

- 1) If you see a large object (like a garbage can or an F350) that's about to get love-tapped by a hotshot freight train, get in the clear. If the sh\*t's about to fly at a railroad crossing, Run to the side of the street that the train is coming from. That way you'll be behind the point of impact and you won't have to worry about catching that beautiful pickup and its over-confident driver square on your f\*\*king shoulders. If you run away from the train you're just putting yourself in the line of fire, and the death toll could very possibly be two.
- 2) If the gates stay down and the lights stay flashing, stay where you are. I guaran-damn-tee there's another train coming, and speeding onto the tracks the moment the first train clears is a lot like celebrating a touchdown too early. WHAM.
- 3) When you're waiting for a train to pass, it's a good idea to stay back thirty or forty feet. Trains are operated by professionals, but often they're loaded by total a\*\*clowns. I've heard some real nasty stories about payloads falling off flatcars and crushing people in their vehicles, or doors sliding off boxcars and ripping through everything in their path. It's rare, but sh\*t happens!
- 4) Always report problems or suspicious activity. If you see a photographer with a radio scanner and a big-ass notebook, ignore him. We know that guy. But if there's a dude in street clothes working a crowbar through a signal box, hit us up and tell us what the deal is. Railroad crossings usually have signs with emergency numbers, or you can call the non-emergency number for your local fuzz. If an accident has already occurred or a life is at risk, call 911 instead. Pretty sure they have our number.
- 5) Last but not least, when you're inconvenienced by a train, remember that we're pulling for you! Trains are a great way to conserve fuel, reduce greenhouse gas emissions, and keep American jobs alive and green. Rail technology is the best solution to our energy crisis, and as the rail network grows in the years to come, it's important for everyone to stay safe. Look, listen, LIVE.

## Winter Weather Preparedness



While the danger from winter weather varies across the country, nearly all Americans, regardless of where they live, are likely to face some type of severe winter weather at some point in their lives. Winter storms can range from a moderate snow over a few hours to a blizzard with blinding, wind-driven snow that lasts for several days. Many winter storms are accompanied by dangerously low temperatures and sometimes by strong winds, icing, sleet and freezing rain.

One of the primary concerns is the winter weather's ability to knock out heat, power and communications services to your home or office, sometimes for days at a time. Heavy snowfall and extreme cold can immobilize an entire region.

The National Weather Service refers to winter storms as the "Deceptive Killers" because most deaths are indirectly related to the storm. Instead, people die in traffic accidents on icy roads and of hypothermia from prolonged exposure to cold. It is important to be prepared for winter weather before it strikes.

### Winter Storms Home Preparedness Checklist

#### To prepare for a winter storm you should do the following:

- Before winter approaches, add the following supplies to your emergency kit:
  - Rock salt or more environmentally safe products to melt ice on walkways
  - Sand to improve traction
  - Snow shovels and other snow removal equipment
  - Sufficient heating fuel, like dry, seasoned wood for your fireplace or wood-burning stove
  - Adequate clothing and blankets to keep you warm
  - Make a [Family Emergency Plan](#)—Your family may not be together when disaster strikes, so it is important to know how you will contact one another, how you will get back together and what you will do in case of an emergency
  - Listen to a [NOAA Weather Radio](#) or other local news channels for critical information from the National Weather Service (NWS). Be alert to changing weather conditions

- Minimize travel, but keep a disaster supplies kit in your vehicle
- Bring pets/companion animals inside during winter weather
- Move other animals or livestock to sheltered areas with non-frozen drinking water

#### During the Winter Storm

- Stay indoors during the storm
- Walk carefully on snowy, icy, walkways
- Avoid overexertion when shoveling snow; overexertion can bring on a heart attack—a major cause of death in the winter
- If you must shovel snow, stretch before going outside
- Keep dry, and change wet clothing frequently to prevent a loss of body heat (wet clothing loses all of its insulating value and transmits heat rapidly)
- Watch for signs of frostbite: loss of feeling and white or pale appearance in extremities such as fingers, toes, ear lobes, and the tip of the nose. If symptoms are detected, get medical help immediately

Watch for signs of hypothermia: uncontrollable shivering, memory loss, disorientation, incoherence, slurred speech, drowsiness, and apparent exhaustion.

If symptoms of hypothermia are detected, get the victim to a warm location,

- remove wet clothing, warm the center of the body first and give warm, non-alcoholic beverages if the victim is conscious. Get medical help as soon as possible
  - Drive only if it is absolutely necessary. If you must drive: travel in the day; don't travel alone; keep others informed of your schedule; stay on main roads and avoid back road shortcuts
  - Let someone know your destination, your route, and when you expect to arrive. If your car gets stuck along the way, help can be sent along your pre-determined route
  - If the pipes freeze, remove any insulation or layers of newspapers and wrap pipes in rags. Completely open all faucets and pour hot water over the pipes, starting where they were most exposed to the cold (or where the cold was most likely to penetrate)
  - Maintain ventilation when using kerosene heaters to avoid build-up of toxic fumes
  - Refuel kerosene heaters outside and keep them at least three feet from flammable objects
  - Conserve fuel, if necessary, by keeping your residence cooler than normal. Temporarily close off heat to some rooms
- If you will be going away during cold weather, leave the heat on in your home, set to a temperature no lower than 55 °F

Source: NOAA.gov

#### Prepare For the Extreme

By the time severe weather hits, it's already too late. Disaster preparedness is about having an established safety plan. Whether it's preparedness for floods, earthquakes, hurricanes, or fires, the key to survival in disasters is planning. Use our preparedness section to stay informed, make a plan, and most importantly—remain safe in an emergency.

## Winter Driving Preparedness

Information to help you and your family stay safe

**The first step to driving carefully during the winter season is to always be aware of changing weather conditions from your starting location to your destination. We offer a variety of weather tools and products to make sure your winter road travel is safe.**

Planning a drive during winter weather conditions? Check out our [Road Trip Planner](#), a helpful tool that provides helpful weather information for your drive, including forecasted conditions and severe alerts along the road. Whether you are using Road Trip Planner or any other Weather Underground product, there are some important winter weather terms that you should get yourself familiar with.

#### Watches and Warnings

**Winter Storm WATCH:** This product is issued by the National Weather Service when there is a potential for heavy snow or significant ice accumulations, usually at least 24 to 36 hours in advance. The criteria for this watch can vary from place to place.

**Winter Storm WARNING:** This product is issued by the National Weather Service when a winter storm is producing or is forecast to produce heavy snow or significant ice accumulations. The criteria for this warning can vary from place to place.

**Blizzard WARNING:** Issued for winter storms with sustained or frequent winds of 35 mph or higher with considerable falling and/or blowing snow that frequently reduces visibility to 1/4 of a mile or less. These conditions are expected to prevail for a minimum of 3 hours.

Winter weather driving can be a challenge for even the most experienced drivers. Use these tips to help you drive safely during the winter season.

## Weather Hazard Awareness

### Car Maintenance

Make sure to prepare your vehicle before the winter season begins. The following handy steps will help you ensure that your vehicle is safe to drive during winter weather.

- Check your brakes, transmission, and tires.
- Check the condition of your battery and ignition system.
- Check radiator coolant, hoses, and belts.
- Check your anti-freeze and thermostat to avoid freezing.
- Check your windshield wiper blades and de-icing washer fluid.
- Check your headlights, tail and brake lights, blinkers and emergency flasher.
- Check your exhaust system, heater and defroster.
- Check fuel and air filters.
- Check your oil and power steering fluids.

Properly lubricate door locks that may be prone to freezing.

### Driving Safety

- Before beginning your trip, check the current road conditions and weather forecast. For statewide highway information 24 hours a day checkout your state's Department of Transportation. For the best weather information all day everyday, check out wunderground.com
  - Keep your car's windows, mirrors and lights clear of snow and ice.
  - Buckle up.
  - Allow plenty of time to make it your destination.
  - Be aware of sleet, freezing rain, and potentially icy areas.
  - Brake early and slowly. Avoid slamming on the brakes.
  - Keep a safe distance of at least five seconds behind other vehicles and trucks that are plowing the road.
  - When driving on ice and snow, **do not use cruise control and avoid abrupt steering maneuvers.**
  - Keep an emergency winter driving kit in your car. See our *Preparedness Kit* page for more information.
- Maintain at least a half tank of gas during the winter season. This is good for emergency preparedness and it keeps the fuel line from freezing.
- Source: Department of Transportation

### Are You Ready for Winter?

"Get an emergency kit in your car. It could save your life"



## Advice to Avoid DXpedition Confusion



[The Daily DX](#) Editor Bernie McClenny, W3UR, offers some basic recommendations to avoid problems when trying to work the "many juicy DXpeditions" that are active (see [The Daily DX Calendar](#)) this month.

"DXers do not depend on the cluster spots to tell you who is on what frequency," McClenny says. He notes that it's fine to use DX spots as a reference point, but to make sure you know for certain which station you are hearing/calling, so that you log the correct call sign. Don't assume.

Also, DXpeditions all work split and typically listen a few kilohertz up. Pay attention to your VFOs, and don't transmit on top of the DX station. "If someone *does* transmit (calls) on top of a DXpedition, you are better off not getting involved and making things worse," McClenny advises. "Don't be a DX pileup policeman!"

He also has some advice for DXpedition operators. "DXpeditioners, before firing up on a frequency make sure your transmit frequency is clear. Listen around to make sure some other DXpedition is not too close to your transmit or receiving frequencies." And, he adds, "Please send your call sign often!"

McClenny says that ultimately the DXpedition operator is responsible for the pileup. "Remember it takes two to make a QSO, and we DXers at home and those on DXpeditions have certain responsibilities to keep the confusion at a minimum, especially with all the DXpeditions that will be QRV [on the air] during this month."

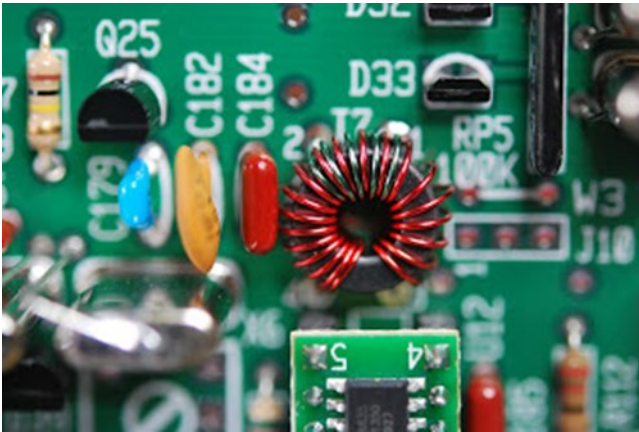




## The Experimenters Bench

### Toroid winding can be fun.....well almost.

10 August 2013 | by [Mike VE3WDM](#) |



When I first started kit building some years ago it was the dreaded toroid winding that I never looked forward too. After winding and rewinding over time it has not become a dark task, it has taken some time to get the hang of it but I can say that I no longer get uptight about the process. I have learned some tricks and some never ever skip steps when it comes to toroids.

I am in the process of building my second K2 rig from Elecraft and there are lots of toroids to be wound. Now having said that if you want you can order per-wound toroids from the toroid guy. If you do order toroids that are per-wound I would encourage you to try to wind your own as well. What I have found is it's only practice that is needed to get the hang of the winding thing. In the past I have built many Elecraft kits where toroids have been involved, I have learned as I said some tricks, some must do stuff and things to stay away from when it comes to this art.

My advice when winding single conductor toroid....

1. Most if not all the time you have more wire than you need so when told to cut a conductor to lets say 12 inches I give myself around 13-14 inches. A wise person told me "it's better to have and not need than to need and not have"

2. If you are winding a toroid that has lets say 20 turns when you hit 19 I stop and count the turns just to make sure I am not at 20 or that I lost count and am only at 18! I have had both happen.... it's better to check rather than cutting the excess wire and finding out you need to somehow add 2 more turns.

3. Once the toroid is wound check the turns to see if they are more or less equally spaced. Take your time and move the windings around the core. Use a plastic tool or wooden tool for this a metal tool (screw driver) may remove the paint on the wire and cause a potential short.

4. Take the new toroid and see how it fits on the board. Sometimes you may have to squeeze the turns or open them up a bit for the toroid to fit properly.

5. Once the turns are good and the fit is good you can trim off the extra wire. When I do this I always make one leg shorter than the other. I find you can place the toroid on the board with less effort by having the lead staggered in length. This is very evident when you have a toroid with more than one winding..

6. Now that the toroid has the right amount of turns, it is spaced correctly, fits nicely and the leads are cut one longer than the other....its time to remove the enamel coating off the wire. There are some various ways to to this.....



Getting ready for solder blob

- Use a lighter to burn off the coating
- Use sand paper.
- The solder blob method.
- Use a razor knife to scrape the coating off.
- I have heard some dipping the wire in var-sol....would not recommend it.

I use the solder blob method and I have tried the sandpaper (find it just to rough for the delicate work that is needed) I have tried the lighter method but found on the smaller toroids I am not able to control the heat and end up burning off too much insulation. The razor blade scraping I have not tried and really don't want a razor knife that close to my fingers. SO....it's the solder blob for me!! I find if I put the toroid in an alligator clip to hold it I can in a very controlled fashion remove the right amount of enamel from the toroid.

I change the tip on my Weller soldering iron to a larger tip and use a .030 diameter solder. Most of my board work is done with a .020 diameter solder.

DO NOT SKIP STEP 7.....

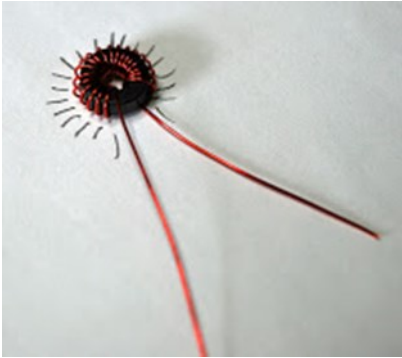
7. Once the toroid wire has been stripped I use my DMM to check to make sure the coating has been removed and there is good continuity. Oh and for toroids that have more than one winding I check to make sure there is not shorts between the windings as well.



8. It's now time to solder the toroid in place and I find once the toroid is soldered in place before the leads are trimmed you can heat each solder blob up again and give each lead a LIGHT pull with a pair of pliers. This will allow the toroid to sit firmly on the board.

Some tips

1. Practice practice practice.....it's like CW it's an art and over time you will get the idea and look forward to it.
2. Some toroids have nice rounded edges but be aware of those with sharp 90 degrees edges. These toroids can if your not careful remove the insulating coating from your wire and potentiality cause a short.



Using a paper and pencil to count

3. When you have a toroid with 20 turns or more you can go buggly trying to check the turn count. What I do is lay the toroid on a sheet of paper and pencil make on the paper each turn. I then count the pencil marks and sometimes ticking them off as being counted.

4. Use two sizes of soldering tip's one (I use the Weller [ETC](#) 1/8 tip) for the solder blob used to melt the insulation off the wire. Then a thinner tip (I use the Weller [ETR](#) 1/16 tip) for soldering the toroid to the board.

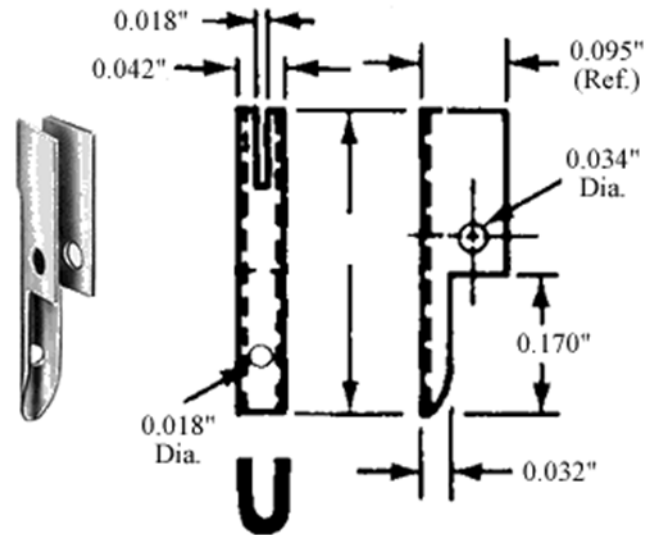
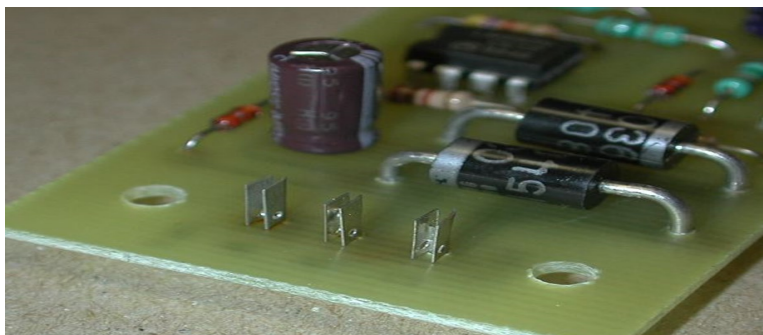
## T42-1 Push-In Terminals For Circuit Boards

These pins are a less expensive alternative to screw type terminal blocks for use on printed circuit boards. They are described as "Push-In Terminals for 0.042" Diameter Holes" and require soldering of external connections.

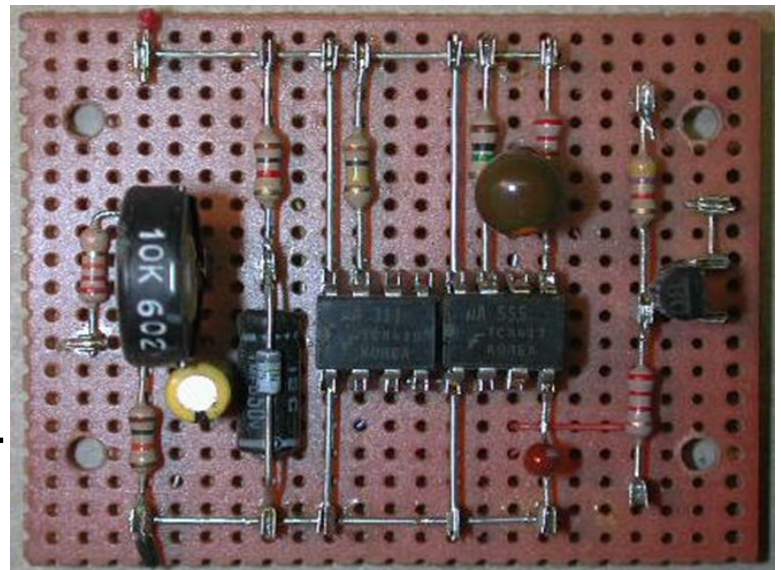
While not as convenient as regular terminal blocks they are considerably less expensive and would be easy use where access is not restricted and if a terminal on a board is not to be used the Push-In Terminal could simply be left off the board.

Many holes for PCB terminal blocks are slightly larger than 0.042" Diameter but the pins can usually be splayed open for a good fit.

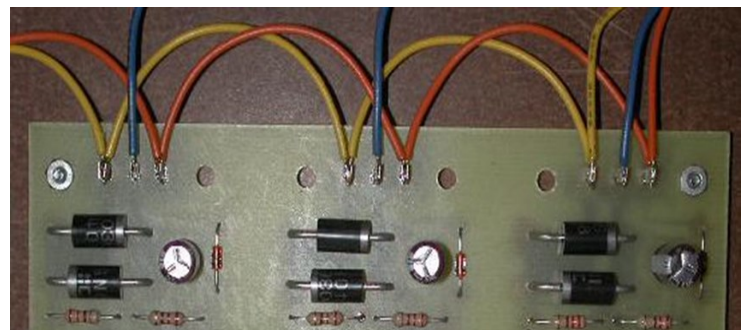
When installing these pins, do not apply too much solder as the wire insertion area of the pin will fill with the excess solder.



T42-1 Pin diagram



Circuit Board Using T42-1 Terminal Pins



T42-1 PCB Terminal Pins Used On A Detector Group PCB





## Viet Cong Good-Byes

24 October 2005

Kregg Jorgenson

22nd October 1968 - Sergeant Don Van Hook turned with a start in the darkness and brought up his rifle. There was very little light filtering through the cloudy windswept pre-dawn sky, and the surrounding I Corps mountainous countryside was a puzzle of shadows and contrasts. It made it difficult for Van Hook to clearly identify even the trees no more than a couple of meters away, let alone make them out to be Viet Cong.

He couldn't be certain if the rustling sound in the elephant grass he was hearing was a Viet Cong fighter sneaking up on his six-man long range patrol team, but he strained his ears and eyes against the darkness in an attempt to locate his target – that is, if it really was a target.

Van Hook was the team's ATL, assistant team leader, and with only three weeks left in country the 1<sup>st</sup> Cav. LRRP wasn't about to take any unnecessary chances. Well, any more unnecessary chances that is. He had already come to the conclusion that going out on this latest mission was unnecessary enough since he was an under 30 short timer. But his team leader, Sergeant Bill Hand, needed an "experienced ATL for the mission, and Van Hook was the obvious choice. He was an experienced ATL, and since Sergeant Richard Turbitt the only remaining veteran ATL in the unit, was back in the States on extended leave, the hammer fell on Van Hook. Turbitt needed him on this patrol, but the short-timer was less than enthusiastic about the idea.

Van Hook went to great lengths to point out to Hand that the only way for an "inexperienced" ATL to become an "experienced" ATK was to go out on another patrol, especially one just off Highway One. Because of the probability of enemy contact along this north / south roadway, the French had named it the "Street Without Joy" nearly a decade earlier.

Van Hook was arguing his case, only Hand wasn't buying it.

"Trust me," said Van Hook. "Making experienced ATLs out of inexperienced ATLs is a good system. It works, so take someone else, Bill. I'm short," Van Hook argued in vain to the grinning Georgian who only stood there slowly shaking his head.

"Sorry," Hand replied, "I need you, and besides, with all of the incoming we get here at the base camp, it'll be safer for you out in the bush."

Van Hook had not come back. He knew Hand was right. The NVA and Viet Cong were getting very proficient at targeting Camp Evans with rockets and mortars, yet they had a difficult time even tracking the small long range patrols in the outlying jungles.

Hand gave Van Hook a reassuring pat on the shoulder and in his Pelham, Georgian drawl added, "Besides, it'll be your [last](#) chance to properly say good-bye to Charlie before you leave."

Van Hook's eyes narrowed. "I don't want to say good-bye, let alone get [close](#) enough for them to hear me, even if I'm screaming. No goodbyes, right? I mean if I go out with you they'll be no initiating contact. Okay?"

The LRRP team leader nodded. "No contact, if we can help it," he said. The LRRP teams were supposed to be used for long range reconnaissance, not long range behind the lines ambush and run like hell patrols, but more and more it seemed to be the way the job was heading.

"No ambushes, prisoner snatches, or anything else stupid, right?"

"Right," said Hand. "Just reconnaissance."

"Promise me?"

"What?"

Van Hook was adamant. "I want you to promise me," he demanded.

"Okay, okay, I promise," the team leader gave in, holding up one hand while Van Hook stood leering at the smiling southerner.

Hand's promise was a small comfort to Van Hook, even less when he learned that the team was going to be inserted near a jungle trail intersection along the My Chanh river in the same AO where another LRRP company's patrol had gotten in to a firefight a month ago, and PFC Felix Leon, Jr. had been killed.

The comfort had eroded even more so when the supporting gunships rolled in hot on the landing zone, prepping it with rocket and mini-gun fire, just as the team's insertion helicopter began its short final run.

Hand was screaming at the pilot to get the gunships to stop, only it was already too late. The damage had been done.

"Might as well ring the doorbell and pass the enemy a calling card saying 'Yankee dog American LRRP team Silent Avenger three Foxtrot is landing right here, right now'," muttered Van Hook.

Their luck dwindled even further late that afternoon when the team's point man, Specialist Fourth Class 'Little John' Hardesty, found five sets of Ho Chi Minh sandal prints on a secondary trail at a stream crossing. The muddied water caught in the depressions was still seeping in to the soil, telling both Hand and Van Hook that the Viet Cong who had used the trail weren't very far away.

"We'll set up and monitor the trail," whispered Hand to his shaken ATL. He motioned the patrol to move back into the dense underbrush to take up positions.

As the team set up their claymore mines, Van Hook became even more disgusted when Hand pointed out that one of the new men had faced his anti-personnel mine directly back at the team.

"Claymores face out, son!" whispered Hand ominously, as he edged up next to the cherry and turned the mine around himself. Van Hook rolled his eyes and quickly moved up to check out the other to make sure they hadn't made the same mistake. When he was done he rejoined the team leader.

"It's always the little things, isn't it? Aren't you going to miss all this when you leave?" chided Hand. "Sure you don't want to extend?"

Van Hook swore at him under his breath as Hand called in the team's defensive artillery coordinates. Suspicious of the map supplied to him at the pre-mission briefing, Hand called in a few marking rounds to find out if his suspicions were correct. They were.

The maps were always a problem. The American maps were modified from the French maps, which had been further modified from Japanese maps, and since the subtropical jungle had a way of quickly reclaiming everything in its path, the patrols could never be certain they were exactly where they thought they were. Once Hand made his corrections and adjusted fire, he was satisfied with their situation and their position.

As the day turned to dusk, and then quickly to total darkness Silent Avenger Three Foxtrot continued to monitor the trail. By the next morning when no enemy soldiers appeared, Hand decided that after breakfast they would move out to the northwest towards a known trail junction a couple of clicks away. This small trail they were watching was likely a feeder path, which meant the trail junction was a good place to focus their attention.

However, their breakfast was suddenly interrupted as three heavily armed NVA soldiers appeared from nowhere out on the trail. Cautiously, the three men crossed the stream in front of the hidden LRRP team, then disappeared from further down the trail where it snaked out of sight into the jungle.

The NVA had been unaware that their every move had been tracked through the gun sights of six American weapons. "We're use arty," Hand whispered to Van Hook, who nodded quickly in agreement. Both men knew that the VC and the NVA often moved about in three man elements, but this could just as well be the point element for a larger enemy force. Ambushing the three men would give their position away, but calling in artillery on them would reveal nothing – at least nothing that would immediately pinpoint the patrol's position to a larger enemy force following behind them. Harassment and interdiction fire was a ploy still used by U.S. forces to keep the enemy on their toes.

After several artillery rounds slammed into the area where Hand estimated the three men to have reached, the team leader summoned a scout helicopter from the 1<sup>st</sup> of the 9<sup>th</sup> to fly over and check out the damage. When the pilot of the H-13 discovered no bodies and drew no fire, he flew off on another mission. This tactic wouldn't draw undue attention to the six man patrol, since the 1<sup>st</sup> of the 9<sup>th</sup> often employed scout helicopters to monitor enemy traffic in the area.

"Nothing," the RTO whispered, after the pilot reported his findings.

"Well, maybe not yet," Hand replied, deciding it was time to move the team to the trail junction two clicks away.

Hardesty took the point again, moving out on Hand's compass heading. Less than two hours later, they reached the trail intersection. Along the way, the team had discovered an abandoned anti-aircraft position. Although it was well maintained. Before moving on, Hand made a notation on his map to call it in as an artillery target.

They found that the main north / south trail was almost three meters across, and consisted of hard packed soil, capable of supporting vehicular traffic since it attracted too much attention, but the smaller trails were their lifeblood. One close look confirmed this.

Of the two trails, the smallest showed the heaviest use. Scanning the area, Hand soon spotted what he was looking for, so he motioned for Hardesty to lead the team up a small hill 100 meters away. The hill overlooked the trail junction and the surrounding area.

Once on top, Hand took a long look around before he was satisfied that the spot offered cover, was defensible, and the patrol could effectively monitor its target from there.

"We'll set up here," he whispered to his teammates, dropping his rucksack and retrieving his map. As Van Hook set about securing the team's perimeter, Hand once again surveyed the immediate area. With their claymores finally in place and the artillery coordinates called in on the trail junction, a hilltop on the E & E route to their rear, and the anti-aircraft position they had found earlier, the team settled in to wait out the enemy.

By late afternoon their patience was rewarded. A heavily armed NVA soldier suddenly stepped out of the underbrush and on to the smaller of the two trails. The man cautiously

studied the trail junction, and after several moments, turned and waved to three more enemy soldiers hidden behind him. 'The four man NVA patrol moved like LRRPs,' thought Hand, as he watched them edge along the trail, well spaced and covering their surroundings 360 degrees. Unknowingly, they walked past the hidden Americans, carefully skirting the hill before disappearing back into the jungle. As they passed from view, Hand admired their patrolling technique – even as he called in the artillery coordinates on their location.

Within minutes the sound of a rumbling freight train filled the sky as the 155mm rounds pounded into the jungle beyond where the NVA soldiers had disappeared.

If there was any doubt that an American long range patrol was working in the area before, it was surly shattered when the first well placed salvo impacted. The NVA weren't stupid, and it wouldn't take them long before they realized that these U.S. fire missions were anything but random. It was only a matter of time before the enemy came looking for whoever was calling in the accurate fire. Hand knew it, he also knew that Van Hook knew it. This was the reason that the veteran short-timer was now frowning.

"Technically, it's not initiating contact," Hand offered to his scowling ATL.

As the patrol settled in for the evening, Bill Hand elected to stay on guard until 2400 hours. He knew that if they were going to get hit, it was likely to be during this time frame. By 0100 hours, he felt it was safe enough to get some sleep, so he instructed the regular watch to wake him by 0400 hours for the next period of likely danger.

There was a quarter moon with cloud cover overhead, and any illumination that managed to filter through to the jungle below was lost in the mixture of grey and black shadows. The surrounding jungle remained quiet...maybe too quiet for Van Hook.

The ATL was on guard duty and considering everything that had happened on the mission so far, he wasn't about to go to sleep – not yet, anyway. At least not until he was absolutely certain it was safe. Easing back against his rucksack and cradling his rifle in his arms, across the perimeter, Bill Hand drifted off to sleep.

Less than an hour later, the team leader was startled awake by the pressure of someone's hand clamped firmly over his mouth. Van Hook's voice whispered in his ear, "Gooks....talking!"

"Where?" Hand muttered quietly.

Van Hook didn't really know for sure and quickly said so. "Out there somewhere. All I know is that I heard it."

The TL cupped his hands behind his ears and listened for several minutes. When he heard nothing in that period of time, he retrieved his Starlight scope, switched it on and did a slow, visual "360" around the team.

The jungle was washed in the feint [green aura](#) of the night vision device. There was nothing but the wind rustling through surrounding trees and the blades of near by elephant grass. Hand waited and watched, and when he was sure there was nothing out there, he wrote it off as short-timer's nerves. Why not? At the end of his own tour of duty, Bill Hand expected to be in the biggest and most well protected bunker he could find back at camp Evans – at least until the outbound helicopter left to take him back to the "freedom bird" that was waiting to take him back to the States.

"I'm going back to sleep. Wake me if you hear it again," he whispered, putting away the Starlight scope and leaning back against his rucksack. Within minutes, Hand was sleeping peacefully once again.

Twenty minutes later, Van Hook's left hand was again clamped tightly over the team leader's mouth. This time when Hand sat up, Van Hook already had the rest of the team up and in defensive positions.

"Gooks talking, and they're real close!" he breathed.

Hand turned and saw that the team's RTO, Sergeant Glenn Lambert, was nodding in agreement. He had heard it too.

"It was most definitely Vietnamese...something about surrender or die."

Hand found the Starlight scope again, switched it on and studied the surrounding area. Nothing! Hell, even the crickets were still chirping...a certain sign that all was still quiet around them.

"So where are they?" Hand asked handing the scope to Van Hook. The ATL took it and began to study the surroundings. Like Hand, he too, met without success.

"I...I duno," Van Hook finally announced.

"Damn it! Don't wake me up again. I've got guard in a little while and I need to get some sleep," Hand complained, perhaps a little too loudly. "There is absolutely nothing out there. NOTHING! Now, let me sleep!"



Hand pushed back against his rucksack and pulled his boonie cap over his eyes. "No one! Not a damn thing!" he grumbled. Fifteen minutes later Van Hook was shaking Hand back awake, while he and Lambert hovered over him just inches from his face.

"It's you, damn it! You're talking Vietnamese in your sleep!"

"Me?" Lambert nodded. "Vietnamese?"

"That shit we were taught in training...surrender or die, or something like that!"

Hand sat upright. "Some last mission huh?" he grinned. But before van Hook could answer he added, "I'll...I'll take guard now."

"It doesn't matter to me," Van Hook complained. "I couldn't sleep now if I tried. I'll probably stay awake until I DEROS!"

"I'm sorry man," Hand muttered. "I'm really am."

"Yeah, well I should have known it was you when I heard it the first time." "Why's that?" asked Hand.

"Because the Viet Cong don't ask, "Surrender or die....ya'all""

## Next Regular Meeting

The next meeting will be on Thursday, November 21st at 7:00PM. We meet in the Fellowship Hall of Redemption Lutheran Church, 4057 N Mayfair Road. Use the south entrance. Access the MRAC Yahoo group for important details about the February Meeting.

### Meeting Schedule:

**January 30th, 7 pm**

**Please do not call the church for information!**

## Club Nets

Please check in to our nets on Friday evenings.

Our ten meter SSB net is at **8:00 p.m.** at **28.490 MHz USB** Our two meter FM net follows at **9:00 p.m.** on our repeater at **145.390 MHz** with a minus offset and a **PL of 127.3 Hz.**

Visit our website at: [www.w9rh.org](http://www.w9rh.org)

Or phone **(414)-459-9741**



## Chatter Deadline

The **DEADLINE** for items to be published in the **Chatter** is the **15th of each month**. If you have anything (announcements, stories, articles, photos, projects) for the 'Chatter, please get it to me before then.

You may contact me or Submit articles and materials by e-mail at: [Kc9cmt@earthlink.net](mailto:Kc9cmt@earthlink.net)

or by Post to:

Michael B. Harris

807 Nicholson RD

South Milwaukee, WI 53172-1447

Name of Net, Frequency, Local Time	Net Manager
<b><u>Badger Weather Net (BWN)</u></b> 3984 kHz, 0500	<a href="#">W9IXG</a>
<b><u>Badger Emergency Net (BEN)</u></b> 3985 kHz, 1200	<a href="#">NX9K</a>
<b><u>Wisconsin Side Band Net (WSBN)</u></b> 3985 or 3982.5 kHz, 1700	<a href="#">KB9KEG</a>
<b><u>Wisconsin Novice Net (WNN)</u></b> 3555 kHz, 1800	<a href="#">KB9ROB</a>
<b><u>Wisconsin Slow Speed Net (WSSN)</u></b> 3555 kHz, Sn, T, Th, F, 1830	<a href="#">N1KSN</a>
<b><u>Wisconsin Intrastate Net - Early (WIN-E)</u></b> 3555 kHz, 1900	<a href="#">WB9ICH</a>
<b><u>Wisconsin Intrastate Net - Late (WIN-L)</u></b> 3555 kHz, 2200	<a href="#">W9RTP</a>
<b><u>ARES/RACES Net</u></b> 3967.0 kHz, 0800 Sunday	<a href="#">WB9WKO</a>
* Net Control Operator needed. Contact Net Manager for information.	

## VE Testing:

**November 30th, 2013**

**January 25, 2014**

**Location: Amateur Electronic Supply Time: 9:30 AM (Walk-ins allowed)**

**ALL testing takes place at: Amateur Electronic Supply 5720 W. Good Hope Rd. Milwaukee, WI 53223**

## Area Swapfests

**Jan. 4th, 2014 [WARAC's 42nd Annual Midwinter Swapfest](#) Location: Waukesha, WI Sponsor: West Allis Radio Amateur Club Website: <http://www.warac.org>**

**January 19th, 2014 [47th Annual Mid-Winter Hamfest](#) Location: St. Charles, IL Sponsor: Wheaton Community Radio Amateurs Website: <http://wheatonhamfest.org>**

## MRAC Working Committees 100th Anniversary:

- Dave—KA9WXN
- Dan—N9ASA

### Net Committee:

- Open

### Field Day

Dave—KA9WXN, Al—KC9IJJ

### FM Simplex Contest

- Joe – N9UX
- Jeff – K9VS

### Ticket drum and drawing

- Tom – N9UFJ

### Newsletter Editor

- Michael-KC9CMT

### Webmaster

- Mark Tellier—AB9CD

### Refreshments

- Hal—KB9OZN



## Membership Information

The Hamateur Chatter is the newsletter of MRAC (Milwaukee Radio Amateurs' Club), a not for profit organization for the advancement of amateur radio and the maintenance of fraternalism and a high standard of conduct. MRAC Membership dues are \$17.00 per year and run on a calendar year starting January 1st. MRAC general membership meetings are normally held at 7:00PM the last Thursday of the month except for November when Thanksgiving falls on the last Thursday when the meeting moves forward 1 week to the 3rd Thursday and December, when the Christmas dinner takes the place of a regular meeting. Club Contact Information

Our website address <http://www.w9rh.org>

Telephone **(414)-459-9741**

Address correspondence to:

**MRAC, PO Box 26233, Milwaukee, WI 53226-0233**

Email may be sent to: [w9rh@arri.net](mailto:w9rh@arri.net) . Our YAHOO newsgroup:

<http://groups.yahoo.com/group/MRAC-W9RH/>

## CLUB NETS:

- The Six Meter SSB net is Thursday at 8:00PM on 50.160 MHz USB
- Our Ten Meter SSB net is Friday at 8:00PM on 28.490 MHz  $\pm$  5 KHz USB.
- Our Two Meter FM net follows the Ten meter net at 9:00PM on our repeater at 145.390MHz - offset (PL 127.3)



The MRAC HamChatter is a monthly publication of the Milwaukee Radio Amateurs' Club. Serving Amateur Radio in Southeastern Wisconsin & all of Milwaukee County

**Club Call sign – W9RH**

**MRAC Website: <http://www.W9RH.org>**

**Editor: Michael B. Harris, Kc9cmt, [kc9cmt@Earthlink.net](mailto:kc9cmt@Earthlink.net)**

## Milwaukee Area Nets

Mon.8:00 PM 3.994 Tech Net

Mon.8:00 PM 146.865- ARRL Newsline

Mon.8:00 PM 146.445+ Emergency Net

Mon.8:00 PM 146.865- Walworth County ARES net

Mon.8:45 PM 147.165- ARRL Audio News

Mon. 8:00 PM 442.100+ Railroad net, also on EchoLink

Mon. 8:30 PM 442.975+ WARC W9CQ net also on EchoLink 576754

Mon. 8:30 PM 442.150+ Waukesha ARES Net on the 1st, 3rd, and 5th Monday of each month.

Mon. 9:00 PM 147.165- Milwaukee County ARES Net

Tue.9:00 AM 50.160 6. Mtr 2nd Shifter's Net

Tue. 9:00 PM 145.130+ MAARS Hand Shakers Net

Tue. 8:00 PM 7.035 A.F.A.R. (CW)

Wed. 8:00 PM 145.130+MAARS Amateur Radio Newsline

Wed. 8:00 PM 147.045+ West Allis ARC net

Wed. 8:00 PM 147.270+ Racine County ARES net

Wed. 9:00 PM 145.130+MAARS SwapNet, link to FM-38

Thur. 8:00 PM 50.160, 6 Mtr SSB Net

Thur. 9:00 PM 146.910+ Computer Net

Fri. 8:00 PM 28.490 MRAC W9RH 10 Mtr SSB Net

Fri. 9:00 PM 145.390+ W9RH 2 MTR. FM Net

Sat. 8:00 PM 146.910+ YL's Pink HAMsters Net

Sat. 9:00 PM 146.910+ Saturday Night Fun Net

Sun 8:30 AM 3.985 QCWA (Chapter 55) SSB net

Sun 9:00 AM 145.565+ X-Country Simplex Group

Sun 8:00 PM 146.910+ Information Net

Sun 8:00 PM 28.365 10/10 International Net (SSB)

Sun 9:00 PM 146.910+ Swap Net

**Thursday's 8:00 PM 448.300+ Tech Net**

**2meter repeaters are offset by 600KHz - - 70 centimeter repeaters are offset by 5 MHz**

