

MRAC Hamateur Chatter

The Milwaukee Radio Amateurs Club

July 2014 Volume 22, Issue 7

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

Presidents' Letter

2014 ARRL National Convention Recap

This year marks the 100th anniversary of the ARRL. To celebrate, I attended the ARRL's National Centennial Convention in Hartford, Connecticut, in July of 2014. It was nice to meet up with Tom KF9PU and Mark NX1K at the convention along with other members from the Central Division, especially those from Wisconsin.

ARRL provided seven, day-long training tracks in different topics for the first day. I signed up for the leadership training track, which included many suggestions and ideas for how to make a better organization. There was a presentation from a club in Kent, Ohio, which has only been around for 10 years. They started with 25 people, and now have a membership of 250, as well as a viable club bank balance. What is their secret? They focus on having fun with the hobby. Membership meetings are for programs and socializing, while club business is handled at the board meetings.

Additionally, they recommended having different activities for club members during a given month both on air and in person. One recommendation was to work on a club project as an activity. They also suggested publishing a club calendar that included both the monthly meeting topics and all activities for the year.

Another piece of advice was if you see a new person at the meeting, welcome them and invite them to join a conversation or activity. The bottom line from this presentation was to do stuff and have fun.

The ARRL Atlantic Division did a ham radio survey of its members. The members choose education and training as their number one interest. It was reassuring to see that we have seen the same trend in our local area. Patrick KA1RB has been teaching upgrade classes for the last year. The MRAC VEC has reported about the steady upgrade of local hams. MRAC has always been a leader in education, and I think we should continue to move in that direction.

The group was asked "What is the hardest thing for a club?". I responded, "Finding my replacement as President". After a great amount of laughing in the room from my response, the conclusion was that it was finding newsletter articles posed the greatest challenge. It was suggested that members should write a review about the new equipment they have purchased as a potential source of newsletter content.

There was also a presentation on using project management skills/tools for ham radio. This makes sense, since it forces organization and accountability of club functions. It was suggested to use these tools and skills in coordination of Field Day and Swapfest events.



MRAC Officers:

Terms Expiring in 2016

- President – Dave, KA9WXN
- V-President– Dan, N9ASA
- Secretary – MiBH, KC9CMT
- Treasurer – MBH,,KC9CMT
- Director – Vacant

Terms Expiring in 2015

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

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(414) 332- 6 7 2 2

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However, you could also apply it to an education committee or in developing a club's programming calendar.

Finally, the session on using social media for promoting a club presented some good ideas.

Social media outlets allows people to see what an organization is all about. Plus, if they see members having fun, then they might want to check it out.

After the initial day of leadership training, the following days were filled with sessions about a variety of ham radio topics including handling personal safety online, the history (and success) of Field Day, insights into antenna zoning laws, a historical look at ham radio bands, how to present ham radio to the media, and blending the maker and ham radio cultures. All of the sessions I attended were both informative and entertaining in a way that makes the information memorable and useful for the future.

We were also offered a tour of the ARRL HQ. They allowed us to visit each department and meet the staff, as well as see the testing laboratory and the QSL card mailroom.

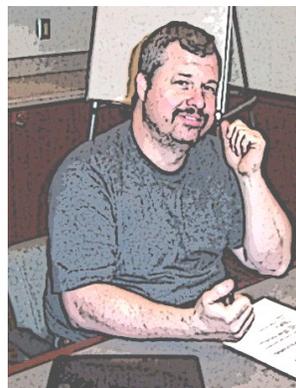
We also met the staff from QST magazine, and got to see what they are working on for the September 2014 issue. A heads up that on pages 49 & 50, they will review the Yaesu Fusion mobile.

The highlight for me was to guest operate W100AW. I was working a pileup on 10 meters for my short shift. It is amazing how well their station works. I will bring some pictures to our September meeting for show, or you can find them on the MRAC Facebook album about the convention.

Finally, there was plenty of discussion throughout the convention about finding the next generation of ham radio operators. I think it is important for all of us to do our part to promote ham radio. This might be the club project that we are looking for. We need to find ways to promote ham radio to future generations, and to connect them with learning and leadership opportunities as well. This is something we should discuss at the upcoming September meeting.

In all, it was a successful, informative, and enjoyable trip to Hartford for the National Centennial Convention for ARRL. They did a great job finding speakers and topics for all interests in ham radio. For me, there were plenty of takeaways that I am willing to share in person, and ideas to hopefully implement in the future to continue to grow our club as the second century of ham radio begins.

The MRAC/MAARS annual picnic is on August 9th, at Noon, in Picnic area #2 of Greenfield park in West Allis.



'73

Dave, KA9WXN

Arrl Newline Article

W1AW Centennial Operations Are Now in Alaska and Montana

The ARRL Centennial [W1AW WAS](#) operations taking place throughout 2014 from each of the 50 states are now in Alaska and Montana. They will relocate at 0000 UTC on Wednesday, June 25 (the evening of June 24 in US time zones), to Illinois (W1AW/9) and Maryland (W1AW/3). During 2014 W1AW will be on the air from every state (at least twice) and most US territories, and it will be easy to work all states solely by contacting W1AW portable operations. Some schedule changes have been made, and the W1AW WAS list has been updated to reflect these.

To celebrate the 100th anniversary of the ARRL, the [ARRL Centennial QSO Party](#) kicked off January 1 for a year-long operating event in which participants can accumulate points and win awards. The event is open to all, although only ARRL members and appointees, elected officials, HQ staff and W1AW are worth ARRL Centennial QSO Party [points](#).

Working W1AW/x from each state is worth 5 points per mode/contact, even when working the same state during its second week of activity.

To earn the "Worked all States with W1AW Award," work W1AW operating portable from all 50 states. (Working W1AW or W100AW in Connecticut does *not* count for Connecticut, however. For award credit, participants must work W1AW/1 in Connecticut.) A W1AW WAS certificate and plaque will be available.

The ARRL has posted an ARRL Centennial QSO Party [leader board](#) that participants can use to determine how many points they have accumulated in the Centennial QSO Party and in the W1AW WAS operations. Log in using your Logbook of The World ([LoTW](#)) user name and password, and your position will appear at the top of the leader boards. Results are updated daily, based on contacts entered into LoTW.

Tornado Safety on the Road

Vehicles can also be deadly in a tornado. The more surface they present to the wind, the more easily they are blown from the road. Vans and school buses are particularly vulnerable. Cars have been lifted and moved as much as a quarter of a mile by a tornado. They have sometimes been hurled into buildings.



Many people have asked why it is wiser to seek shelter where you are, rather than trying to escape from a tornado in a car. When you are considering what to do if you find yourself in the path of an oncoming tornado, you need to imagine the worst-case scenario, not the ideal situation. Driving away might seem to be the obvious thing to do, but...

Just imagine yourself in these situations:

1. The road you are taking to escape the tornado becomes impassable because of mud.
2. Not all roads are fully paved--they sometimes start paved and turn to dirt. In some states, the quality of the soil is such that rain makes it very slippery and gummy. Storm chasers uniformly avoid dirt roads during a chase. Sure, you could go on a dirt road, but what if it turned to a goeey, mushy mess, and you got stuck out in the open with no protection.
3. The road you are taking to escape the tornado becomes impassable because of flooding and wash-outs.
4. Just because it is not raining where you started doesn't mean that you won't encounter flooding as you attempt to flee the tornado.

Flooding on a road may conceal areas where the road surface has washed away, leaving deep holes that your car may not be able to negotiate. Your car would be stuck, perhaps in the direct path of the tornado.

5. If the water was deep, you might even have to abandon your car to be safe from flash flooding and potential drowning. Then, even if you saw that the tornado was not going in your direction, you wouldn't have the shelter of a car to protect you from the rain, hail, and lightning.

6. The road you are taking to escape the tornado is blocked by construction or fallen trees, and deep ditches on either side prevent you from going around to the other side.

7. Tornadoes may be accompanied by strong straight-line winds, which can fell trees, and unless you work for the road department, you may not know what streets are being repaired. You might have to retrace your steps, perhaps directly into the path of the tornado.

8. The road becomes difficult to drive on because of heavy rain, hail fog, and large hail. Driving on a hail covered road is similar to driving on ball bearings. And the faster you drive, the harder the hail hits your car and windshield. Hail the size of a hen's egg can crack or break your windshield. If your windshield is smashed out, hail will hit you instead of the windshield. Wind-driven hail hurts! Hail floating on a flooded road may conceal the fact that a road is flooded, and you may drive into water deep enough to stall the car. If you are getting hailed on, you are in the core of the storm, the most dangerous part, not a place you want your car to stall.

9. You choose a road that you don't know well, and find that it is a dead end...and the only way to get off it is to backtrack, directly toward the tornado.

1. You choose a road that you don't know well and it turns in a direction you don't want to go. You have no option but to continue on it, or turn back towards the tornado.

10. You get a flat tire, run out of gas, or have other car problems, and find yourself in peril.

You encounter a lot of other cars that are trying to do the same thing, and they have blocked the streets, highways and exits, causing one huge traffic jam, with no one moving. It is easy to say that you can drive faster than the tornado is going, but it may not be a possibility.

11. You encounter a car accident that blocks the road. People desperately trying to outrun a tornado may not be giving their full attention to the highway and traffic, and may even cause a single or multiple car accident, further complicating matters.

It is a tornado family and the one you are escaping is disintegrating, but another is forming, maybe right over your head.

The road system doesn't allow you to move perpendicular to the tornado, and you are constantly trying to outrun it in the same direction that it is moving.

The video, [Secrets of the Tornado](#), includes a piece of video footage in which two men see a tornado while they are driving along the highway. At the beginning, they are jovial and joking, but by the end they are literally praying as they watch the tornado in the rear view mirror. They had the accelerator to the floor, with the engine roaring, but it couldn't counteract the inflow to the storm, and their vehicle was just crawling along the highway.

An underpass may seem like a safe place, but may not be. While videos show people surviving under an underpass, those tornadoes have been weak. No one knows how survivable an underpass is in a strong or violent tornado. The debris flying under the underpass could be very deadly... head for a ditch.

If caught in the open, when on foot or riding a bike or motorcycle, it is doubly important that you seek a safe place immediately. Remember that the chances of encountering falling trees, power lines, and lightning is greater than encountering the tornado itself. The basement of a sturdy building would be best, but lying flat in a ditch or low-lying area may be the only thing available. A culvert in a ditch *MAY* be a good choice if there is no rain, but if there *IS* rain, flash flooding may be more dangerous and likely than the tornado.

If you are in a car, and you can see a tornado forming or approaching, you should leave the car and take shelter as above. You may think you can escape from the tornado by driving away from it, but you **can't know** what you may be driving into! A tornado can blow a car off a road, pick a car up and hurl it, or tumble a car over and over. Many people have been killed in cars while they were trying to outrun the tornado, and although it is sometimes possible to escape, it is generally not a good idea. The photo to the left shows you what can happen to a car that encounters a tornado.



A few years ago a fellow contacted us and tell us his experiences with the Wichita Falls tornado of 1979. When he was a young man, he outran the Wichita Falls, Texas tornado in a car. He survived, but many people that day tried the same thing and were killed.

The “rules” were developed on the basis of experiences like these...unanticipated problems that people did not foresee. If there was ever a time for Murphy’s Law to be true, it is in a tornadic situation.



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Welcome

Next Club Event.

The MRAC/MAARS annual picnic is on August 9th, at Noon, in Picnic area #2 of Greenfield park in West Allis.

Shot Down

By Greg Bucy

"Where did the fire come from", asked the Lt. Col., commanding the armor column, as we straggled out of the four-foot tall elephant grass and approached a tank. I opened my mouth to tell him from the base of the mountain but couldn't say a word - I realized I had cottonmouth so bad I couldn't speak. "Where did the fire come from", he asked again. Once again I tried to mouth the words, but no sound would come. At that moment any further conversation was drowned out by the approach of the Cobra less than ten feet over our heads. Although expended, my wingman, Dave Watson, was making another low level pass over us just as he had when we began running from our burning helicopter. In an effort to answer the colonel's question, I turned and looked back toward the "Black Virgin", Nui Ba Den, pointed at her, and whispered, "from the base".

As I turned, I saw my crew huddled together, Ed Schenk, my pilot clearly exhausted but still running on adrenaline, with our wounded crew chief Del Herne on his back, and our gunner Floyd Jackson who had carried Herne most of the way, now supporting our wounded passenger, a grunt, his arm still in the sling it was in when we had picked him up. Their faces wore the mask of those who meet death face to face, the frenzied long and knowing look of wide eyes in emotionless pain. The colonel seemed satisfied with the answer and motioned for us to follow him. Behind the column of tanks and APC's I could see a Little Bear landing, a resupply ship no doubt, since these troops had been in heavy contact all day. As we approached the ship I could see the crew hurriedly tossing things to those on the ground, but as soon as we got there they stopped, helped the five of us aboard and took off for Tay Ninh. As we climbed aboard, they still had ice bags on the deck, and as the effects of our adrenaline wore off I could tell Herne who had been shot in the hip was in obvious pain from his as yet untreated wound. So he sat on the ice as we flew to the field hospital in Tay Ninh.

The day had begun like so many others in Cu Chi; first, the crews assembled, discussed any planned missions, then while one pilot did the pre-flight the other read the log and discussed the ship's condition with the crew chief. The pilots would then man the 'scramble shack' on the flight line while the crew performed any last minute maintenance. When finished the crew would join the pilots (it was common for the crew to spend an extraordinary amount of time on their ships). As members of B Co. 25th Avn Bn, the Diamondheads, it was our primary job (although we had many missions) to provide attack support for elements of the 25th Infantry Division when they were "in contact" with the enemy. Toward this end we maintained two Light Fire Teams (two armed helicopters which fought as a unit) on alert status 24/7.

These teams would be dispatched on a moments notice to provide rocket, minigun, and M60 machine gun fire, in support of the ground troops engaged with the enemy. Simply put, our job was to provide immediate overwhelming fire power at the precise location on the battle field which would inflict maximum damage on the enemy and force the withdrawal of any who might survive our onslaught.

Our teams consisted of various helicopters, usually either two Cobras, or two 'Charlie' Model gun ships, each armed with rockets and/or miniguns or some combination of the two. The Cobras were faster, more maneuverable, and more heavily armed, but the 'Charlies' had four extra eyes and two M60 machine guns, which in the hands of experienced crew compensated for the 'apparent' weapon load advantage of the Cobra. So we occasionally flew as a 'Charlie' and Cobra team, with the lead being the 'Charlie'. Such was the case this day the 8th of January 1970. Heavy fighting often required both fire teams, this call was usually made by the ground commander. If in his judgment the situation on the ground required constant intervening fire -i.e. the enemy would not disengage - he would call for both. So while one team was rearming another would be supporting the troops. Again, this was the case this day. The primary team lead by George Conger (a Cobra team) was scrambled, followed shortly by my team (the Diamondhead 50 team). When the phone rang in the 'scramble shack' the crew ran to the ships - with the exception of Ed, pilot of the lead ship, who got the phone and took the mission particulars. When he came running out with our destination and radio contact we took off on our second mission of the day.

We were to return where we had been earlier that day, the northern slopes of Nui Ba Den and Nui Cau, mountains with a saddle between them, which rose very steeply from the surrounding flat land. All of us were familiar with this area; I had been in Vietnam nearly eighteen months, and had seen battle after battle fought in this area. It's proximity to the Cambodian border allowed the enemy to get large numbers of troops into this area. We controlled the bottom and top, and the enemy had the area between, an area honeycombed with caves and fortified fighting positions. The mountain top positions had to be resupplied by air, because no one could make it up the slopes, and the enemy on the slopes could not take the top though there were times when they tried in great numbers and with great ferocity. As we arrived on station I was briefed by George and then by the ground commander.

A ground unit of the 3/22 Inf., was conducting a ground sweep of the earlier area of contact and had made it to an area about 200 meters from the base of the slope, where they had become pinned down by heavy fire. As they had attempted to withdraw, the enemy positioned some of their forces to their rear (between the grunts and the armor column about 1000 meters behind them that was supporting them); other infantry elements moving in to support them had in fact become engaged. When we arrived they were in effect surrounded, at very close range, and taking heavy fire from the slopes. The armor could no longer support them with fire to their rear since it would have involved shooting toward those trapped. We began placing suppressive fire between the element trapped and the armor column, to allow them a way out. On our first pass, we took very heavy machine gun fire from the slope (we were flying parallel to it) as we broke. As we lined up for our next pass, we could see the muzzle flashes of machine guns on the slope as they fired (at us I suppose). Since we were firing very close to friendly troops I was flying at about 500 feet. The machine guns appeared to be up slope at about 200 feet elevation. After several passes on the machine guns, they were silenced, and I believe disabled because I was shooting at muzzle flashes I could see through my cross hairs,

and by that time I'd gotten to be a pretty good shot. The ground fire had gotten less intense and we turned to other targets. The ground element called numerous times for critical Dust Off. Dust Off made several attempts to get in to them, but was turned away by ground fire. Dust Off would get to within 100 meters of them at an altitude of 50 feet or less and then have to turn back. The friendlies were so close and virtually invisible in the elephant grass that there was little we could do to suppress for Dust Off. When Dust Off left, we expended our heavy ordinance in the area to the rear (North) of the friendlies and on the slope.

As I advised the ground commander we were expended except for door gun in the Charlie (Dave's Cobra was totally expended) and nearly out of fuel, the ground element once again requested critical Dust Off. I advised the ground element that we would make an attempt to pick up his wounded, to have them and smoke ready, and that I would approach from his Northeast (Dust Off had approached from the Northwest). I then briefed the crew and started the approach. As we approached I told ground to pop smoke, both gunners were firing at the slope some 300 to 400 meters to our front, as we neared touch down both gunners stopped firing and I turned our tail toward the mountain and landed. As I looked over my left shoulder the wounded got up out of the grass, one walking with his arm in a sling and one stretcher borne, carried by four others, no more than 30 feet away.

Both gunners resumed firing to our rear, and within seconds the walking wounded climbed aboard; then, almost simultaneously, Del Herne, crouched over his M60, jumped up and started to slap at his hip, the guys with the stretcher now less than 10 feet away dropped back into the grass. As Jackson (behind me on the right side of the ship) continued firing at the slope behind us, Herne made his way up to the console between Ed and myself, still slapping his hip where he had obviously been hit. I turned to the front and initiated takeoff in an extremely nose low attitude.

The 'Charlie' had plenty of power since it was empty. As I started to pull the nose up to a more normal attitude, I heard my wingman say, "You're on fire, 50 you're on fire." At that point, and believe it or not, as my life flashed before my eyes, my "Army Training" as an aviator took over, because without thinking I lowered the collective, and flared the ship. The ship hit the ground, I have no idea how hard, and slid along until it nosed over into a bomb crater. I remember almost standing on the tail rotor pedals and pulling back on the cyclic. Apparently we had sufficient rotor speed to back out of the crater, because the ship came to rest almost level.

Stunned, I tried to move and couldn't, and after briefly thinking myself paralyzed, I realized my shoulder harness had locked. So I undid my seatbelt and harness then reached up with my left hand and turned off the switches (haven't a clue why, Army Training I guess); I looked around the ship and was amazed that no one was on board. It was then I noticed the battery compartment to my front was burning. I threw my 'Chicken Board' (body armor) which was setting on my lap, secured by the

shoulder harness, to the side, and tried to slide the armor plate beside my right arm back to get out - it wouldn't budge. I climbed over the radio console, headed for Ed's door, which I noticed, was open. Just as I was about to dive out, I saw Ed lying on the ground, and about at the same time, realized we were still taking fire. I could hear bullets hitting the ship, hitting in the grass, and in general 'popping' as they went by. Ed, who was facing me, raised his head, and said, "I came back to tell you not to get out on this side there are briars everywhere." To this day I can't help but chuckle when I think about that. Bullets or briars, for me it was an easy decision; I'll take briars every time.

So I dove out, briars an all. Ed and I crawled a few meters (he was right about the briars, we both got cut up) from the ship, which seemed to be taking the worst of it although it was nearly consumed in fire. I asked, "Where's the crew?" After saying he didn't know we both began to call out. Seconds later, our gunner Jackson jumped up and shouted, "We're over here." (On the other side of the bomb crater) Immediately they started to draw fire, and I could tell Jackson had them moving, and in the right direction, north, because I could see the grass moving although I couldn't see them. I called out for them to join us at the north end of the crater, the way they were headed. When we joined up with the crew and our passenger, we took stock of our situation.

We were still taking fire, although it was sporadic unless someone stood up, we had one gun, Ed's 38 with 5 rounds, either Jackson or our passenger may have had an M16 but no ammo, and we had two wounded. One who could walk and one who couldn't, although Herne tried valiantly, he was shot in the hip and it was just not possible for him to get far. We weren't sure how far we'd flown, but it couldn't have been very far (100 to 200 meters at best). We knew there were enemy troops in the area, probably small groups, but we had not taken any fire from beneath us as we made our approach, and if we egressed via the same route maybe we'd get lucky. Just after we set off, Dave flew over us, not ten feet above our heads, moving at a high rate of speed and justifiably so, because he was being shot at from what appeared several directions, but mainly from our rear. While he was in the area it became apparent we needn't worry about them shooting at us, they were going to shoot at him.

As we left, I knew the armor column was in front of us, deployed in line, so I didn't have to navigate precisely. At times we could see a few feet at best, but the mountain behind us loomed large and the occasional tree made for good bearings, with luck we could make it out. Hopefully, Dave would let them know we were coming out. The grass was tall enough that at times you could almost stand erect, and even though we continued to take fire for sometime, Dave got the brunt of it. Jackson and Ed took turns carrying Herne piggyback, though Jackson, a big guy, carried most of the load. We moved very quickly. Amazingly Jackson kept up carrying Herne. When he could hardly stand, Ed took Herne. Though it was only around 800 meters to the armor column, which as walks go is not that far, at times that day the column seemed a lifetime away.

What is a Thermistor and How Does it Work?

Thermistors are a variable resistance type of transducer. Let us see what they are and how they working.

What are Thermistors?

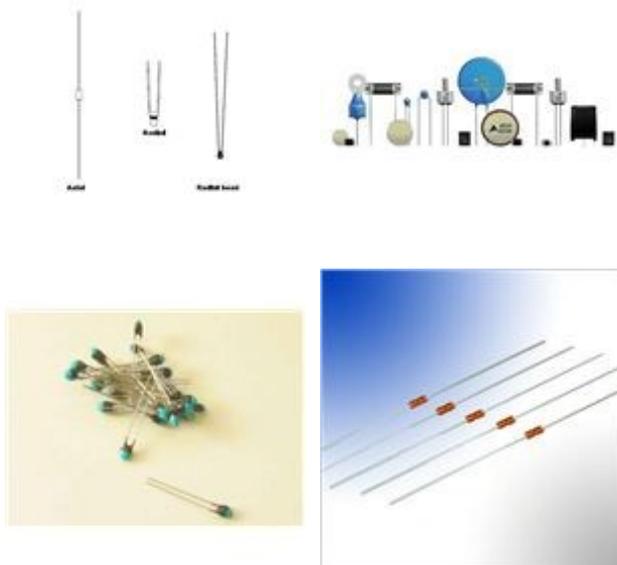
Thermistors are one of the most commonly used devices for the measurement of temperature. The thermistors are resistors whose resistance changes with the temperature. While for most of the metals the resistance increases with temperature, the thermistors respond negatively to the temperature and their resistance decreases with the increase in temperature. Since the resistance of thermistors is dependent on the temperature, they can be connected in the electrical circuit to measure the temperature of the body.

Materials used for Thermistors and their Forms

Thermistors are made up of ceramic like semiconducting materials. They are mostly composed of oxides of manganese, nickel and cobalt having the resistivity if about 100 to 450,000 ohm-cm. Since the resistivity of the thermistors is very high, the resistance of the circuit in which they are connected for measurement of temperature can be measured easily. This resistance is calibrated against, the input quantity, which is the temperature, and its value can be obtained easily.

Thermistors are available in various shapes like disc, rod, washer, bead etc. They are of small size and they all can be fitted easily to the body whose temperature has to be measured and also can be connected to the circuit easily. Most thermistors are quite cheap.

Thermistor Shapes



Principle of Working of Thermistors

As mentioned earlier the resistance of the thermistors decreases with an increase in its temperature. The resistance of a thermistor is given by:

$$R = R_0 e^k$$

$$K = \beta(1/T - 1/T_0)$$

Where R is the resistance of the thermistor at any temperature T in °K (degree Kelvin)

R₀ is the resistance of the thermistors at particular reference temperature T₀ in °K

e is the base of the Naperian logarithms

β is a constant whose value ranges from 3400 to 3900 depending on the material used for the thermistors and its composition.

The thermistor acts as the temperature sensor and it is placed on the body whose temperature is to be measured. It is also connected in the electric circuit. When the temperature of the body changes, the resistance of the thermistor also changes, which is indicated by the circuit directly as the temperature since resistance is calibrated against the temperature. The thermistor can also be used for some control which is dependent on the temperature.

Advantages of Thermistors

Here are some of the advantages of the thermistors

- 1) When the resistors are connected in the electrical circuit, heat is dissipated in the circuit due to flow of current. This heat tends to increase the temperature of the resistor to which their resistance changes. For the thermistor the definite value of the resistance is reached at the given ambient conditions due to which the effect of this heat is reduced.
- 2) In certain cases even the ambient conditions keep on changing, this is compensated by the negative temperature characteristics of the thermistor. This is quite convenient against the materials that have positive resistance characteristics for the temperature.
- 3) The thermistors are used not only for the measurement of temperature, but also for the measurement of pressure, liquid level, power etc.
- 4) They are also used as the controls, overload protectors, giving warnings etc.
- 5) The size of the thermistors is very small and they are very low in cost. However, since their size is small they have to be operated at lower current levels.

A Nuclear EMP Burst Protection Measure

A Faraday Cage is mighty cheap insurance to make sure your radio stays in operating condition.

FARADAY CAGES are virtually mandatory for the radio Hamshack. Why? Because these radios are meant to be used in an emergency, and unless they are protected against electromagnetic pulse bursts (EMP), the electronics can be fried, and then they are useless.

Old tube type radios such as the Zenith TransOceanic are not susceptible to EMP to any great degree, but do have distinct disadvantages.

While designed to operate from a battery pack, the batteries are simply not available now. Also, the tubes are getting very rare and expensive. I have a 1953 Zenith TransOceanic and love it, but the darn thing is huge, heavy, and it requires 110 volt input to operate.

WHEN ALL ELSE FAILS it is still possible to have a neighborhood communication "alert" system just like the old days, using a loud bell and a known code for the number of chimes (1 chime = alert; 2 = major alert; 3 = immediate danger, etc). Large brass bells are a thing of the past or extremely expensive, cast iron bells are fragile and mostly for "atmosphere" and looks, but you can build a good bell yourself.

The steel used in 5 or 7 gallon propane tanks is of high quality, and the older tanks which are often available for free are very thick and strong. Removing the valves and flooding the tank with water removes any danger of residual propane gas exploding. Then the top of the tank may be cut off and the tank hung upside down by the base. Struck with a wooden mallet, these "bells" have a remarkably loud sound which carries for a considerable distance.

Next Regular Meeting

The next meeting will be on Thursday, September 25th, 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:



Annual Picnic: August 9th at Noon

October 30th, 2014 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

Or phone (414)-459-9741



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

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

or by Post to:

Michael B. Harris
807 Nicholson RD
South Milwaukee, WI 53172-1447

VE Testing:

No testing: June, July or December

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

August 3rd, Hamfesters Radio Club's 80th Hamfest

Location: **Peotone, IL** Type: ARRL Hamfest

Sponsor: Hamfesters **Radio** Club

Website: <http://hamfesters.org>

Racine Megacycle Club Free fest is scheduled for **August 9, 2014.**

Time is 6am setup 7 to 1 free fest.

At Fireman's Park on Charles Street
Village of Sturtevant, Wisconsin 53177

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

- Dave, KA9WXN

Refreshments

- Hal—KB9OZN



Annual MRAC/MAARS picnic on August 9th at Noon, Greenfield Park area #2.

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@arrl.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 ± 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@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

Daily: Milwaukee – Florida Net 7 am, 14.290 mhz.

[Thursday's 8:00 PM 448.300+ Tech Net](#)

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

