

# WISCONSIN ASSOCIATION OF REPEATERS



October 2010

## Newsletter

Member: Mid-America Coordination Council

Founding Member: National Frequency Coordination Council

### From the Chairman

Greetings! As the recently elected Chairman, I want to make my first order of business the expression of my sincere gratitude to the previous Chairman, Gary, N9UUR. Gary has devoted significant time and resources over many years to W.A.R. and many other Amateur Radio organizations. I've always admired the extent to which Gary has given back to our hobby through his service. Thank you for all you've done and continue to do Gary.

I'm also very grateful that Dave Karr, KA9FUR (Frequency Coordinator) and Milt Klingsporn, N9WSZ (Asst. Frequency Coordinator) have accepted their appointments for another term. I can't think of two more detail-oriented and capable people for their respective posts. W.A.R. exists to support their efforts!

Although I didn't expect to leave the last meeting in April as a board member (let alone Chairman), I'm hoping that my 26 years as a full-time I.T. Professional and the last 18 years as a business owner will positively contribute to the group. As co-owner and Trustee of a six-repeater linked network in Wisconsin over the last 23 years, I believe I've gained some insight to the issues we all face as repeater owners, Trustees and users.

There are some things that have concerned me over the years that I hope to address while Chairman. Here are just some of them, in no particular order:

1. Attendance at meetings. I've been attending W.A.R. meetings off and on for about 20 years. Over that time, attendance has dropped to as low as six non-board member/appointees.

2. Policy and procedure should equal actual practice

3. There needs to be a means to allow more people to have a voice in the matters that concern our group. Perhaps a proxy voting system and/or absentee ballot system should be implemented?

**Next W.A.R. Meeting:  
Saturday Oct. 30th, 2010  
1:00 PM**

**Greenfield Fire House #2  
4333 S 92nd St  
Greenfield, WI 53228**

4. Re-work policy and the Bylaws so they are streamlined, un-ambiguous and make sense. Start over if we have to.

5. We live in the information age, where the Internet is on our phones and multiple home computers. Should W.A.R. consider using our website as the primary distribution method for our newsletter and other communications? A printed version could still be made available for those who need it. Printing and postage costs time and money.

Whether you are a coordination holder or just a repeater user, it is fundamentally important to all of us that we have clean, non-interfering frequencies to operate on. Imagine the chaos that could result if we didn't have a strong coordination system in Wisconsin. One would think that we would all be highly motivated to make this work and to insure the long-term health of W.A.R. as an organization. We need ideas, energy and participation. Can you help?

I look forward to seeing you at the upcoming meeting. Please contact me or any other officer with your suggestions or concerns. We truly value your input.

Best regards,

Bob Schmidt, N9GMT  
W.A.R Chairman

### From the Coordinator

I want to thank Gary, N9UUR, for his contributions for over a decade as Chairman, as well as for retaining his other two hats as the newsletter editor and as webmaster. Gary welcomed me into the organization in 1999 when Dan Bolander, WB9TYT, resigned as Coordinator, and a few years later identified Milt, N9WSZ, to help shoulder the burden for a role that required more time than I could reasonably accommodate.

Having only seen a decline in interest, support and involvement in coordination within the repeater community, by this past spring's meeting I had reached a point where I was ready to resign. I apologize here to Gary and anyone else who I may have offended as that frustration was vented. My rant wasn't intended to be a personal attack on anyone.

The adoption rate of D-Star within the state is technically higher than that of P25, but the numbers are too small to make any sort of comparative conclusion as to whether one will displace the

### List of Officers & Appointments

#### Chairman - Bob Schmidt, N9GMT

4075 S Wilshire Dr. New Berlin, WI 53151  
(414) 439-2961 chairman@wi-repeaters.org

#### Vice-Chairman - Dan Bolander WB9TYT

N16909 Love Lane, Pembine, WI 54156  
(715) 324-6701 vice-chair@wi-repeaters.org

#### Secretary - Mark Heimmermann, KF9CS

1523 E. Moonbeam Tr. Appleton, WI 54915  
(920) 749-9024 secretary@wi-repeaters.org

#### Treasurer - Jim Sheetz, K9OQO

N974 Joey's Place. Greenville, WI 54942  
(920) 757-9457 treasurer@wi-repeaters.org

#### Frequency Coordinator - Dave Karr, KA9FUR

S64 W24740 Susan St., Waukesha, WI 53189  
(262) 513-0150 ka9fur@wi-repeaters.org

#### Asst. Coordinator - Milt Klingsporn, N9WSZ

1540 Forest Court, St Germain, WI 54558  
(715) 479-2028 assistcoord@wi-repeaters.org

<http://www.wi-repeaters.org>

other. They both have their place, along side other repeater technologies. Our role is to make recommendations which support the requests we receive and not to act as a cheerleader or give bias to any one technology.

The coordinated P25 repeaters all support both analog and digital operation and are operating on analog channel centers. For the narrower D-Star emission, we are placing two 6 kHz channels inside of an existing 20 kHz channel on 2m and a 25 kHz channel on 70cm. Prior to adopting the bandplan, testing was performed with two higher profile 70cm repeaters in Illinois operating 12.5 kHz apart and no user complaints regarding near-far desensitization issues were received.

The recent coordination's in Baraboo and Madison for two 2m D-Star repeaters has resulted in some near-far type of interference. Though this was not intended as an experiment, I do hope to work with the affected groups to gain better real-world field data to help establish what the minimum technical protection limit should be for 10 kHz adjacent D-Star stations.

I am also reaching out to the local (to me) Milwaukee D-Star community for some help in obtaining similar field measurements. If this is an area where you feel you could lend some help, drop me a line.

I rely upon computer modeling to look at any new channel selections as well as in considering proposed changes. Any specific information pertaining to protection requirements we are able to obtain will be helpful in improving the quality of future coordination's. The Utah VHF Society has the only published analysis of findings with regard to adjacent channel protection that I have been able to find. From their analysis, it does appear that 10 kHz adjacent D-Star repeaters will need to maintain a greater degree of protection than I afforded the Baraboo and Madison repeater owners. Sorry about that.

I have recently seen some e-mail circulating regarding the use of a third party D-Star modem along with an analog repeater. In my cursory reading of the various postings, I have yet to see any discussion on narrowing the receiver I.F. bandwidth to match the narrower D-Star signal. I fully appreciate innovation and experimentation, but from a coordination standpoint I anticipate trouble when the repeater owner is coordinated on a 6 kHz channel and then receives interference because the analog repeater's I.F. bandwidth is too wide.

In as much as I'm not going to accept any complaints about interference from

an analog repeater owner running a 1950's era receiver with a 60 kHz I.F., I don't expect to hear complaints about interference related to a D-Star repeater with a 12.5 kHz, or greater, I.F. bandwidth. I'm not telling you not to do it, by all means experiment away, just be aware of the increased potential for adjacent channel interference which you will have to accept.

Historically I have offered my time, test equipment, and services to those that need it, and I know a handful of repeater owners who do the same for others. For those of you who have both experience and equipment, if you don't mind lending the occasional hand to help to another amateur, drop me an e-mail that I can tuck away somewhere for those few times per year when something like this comes up.

As the overall repeater density increases, so does the importance of being a good neighbor. Frequency stability and accurate deviation limiting are important, yet I've found repeaters operating several kilo-Hertz off frequency, or deviation set way to high. If you know you have a problem, please address it, if you need help, ask, if you notice a problem with a transmitter and its owner isn't responsive, just send me a brief e-mail with the details and I'll address the matter.

Occasionally I receive an e-mail or phone call offering input, these have ranged from helpful input to angry criticism. I welcome this input, always try to respond in a productive manner, and always encourage these people to become more involved. I presume that if you care enough to complain, that you might also bring solutions as well.

I also receive inquiries about repeaters which continue to appear in our directory yet are not on the air. Some of these inquiries are specific, others contain no details and just ask why. If there are no details, and if we have no knowledge of the situation, what can we reasonably be expected to do? There is one situation involving paper repeaters that I have allowed to continue for a number of years to see if the situation would resolve itself, and it has not, and I do plan to resolve the situation by the end of this year. This parallel's an effort Milt has made to remove from active coordination a number of stations which we had been extending the courtesy of time to allow for construction or repair. At some point, we need to let these things go or they clutter the path for others who may be interested in operating a coordinated station.

The bottom line is that we are more than willing to work with you and extend deadlines, especially when doing so doesn't negatively impact another

amateur which may be on a waiting list, but if you are renewing coordination's and no such equipment is operational, let it go.

We are here to help you, we are you, and I welcome your involvement in your organization.

73,

Dave Karr, KA9FUR  
W.A.R. Frequency Coordinator

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#### From the Assistant Coordinator

So far in 2010 we have handled 26 coordination requests. These requests added 15 new repeaters, 2 new links and 9 repeaters/links that moved to a different location. There are 3 coordination requests that are being processed.

On May 14th 187 renewal forms for 2010 were mailed, with only 75% being returned by the due date of August 15th. On August 25th 46 second notice renewals were mailed with a due date of November 15. These second notice renewals affect 68 repeaters and 1 link, and 22 of them received second notices last year as well. Note that failure to return the renewal form will result in automatic de-coordination. Requests for re-coordination must be made in person, or by proxy, at the next (spring) W.A.R. meeting.

To those of you who returned your renewal form promptly, thank you. To the rest, we have tried making renewals a simple process. In years past you had to complete the two-page coordination form for the annual renewal. Now we're generating the renewal form with the pertinent data about your repeater from our database. All you need to do is review it, correct it if needed, sign and return the form.

Renewal forms are mailed to the Primary Contact person for each coordinated, on-line repeater and link. When the second notice renewals are mailed, a copy is also sent to the Holder of Coordination, if different than the Primary Contact. Second notice renewals were mailed to 7 Holder of Coordination. If you are the Holder of Coordination and received a second notice renewal form addressed to your Primary Contact, you may want to discuss with your Primary Contact as to why they are not returning the renewal form for your repeater. Your coordination is at risk.

Every year there have been instances where the primary contact person is no longer associated with the repeater. If you are the Holder of Coordination for a repeater, you need to stay in touch with

the person who is your Primary Contact. Please notify WAR whenever there is a change in your or your Primary Contact person's, address, phone number, e-mail address, etc.

So you have a FM analog repeater, and want to change it to digital? That is a major change in the technical characteristics of the repeater and requires a new coordination form to be submitted. In selecting a frequency for a repeater (or link) we try to make the best use of our portion of the spectrum. The ICOM/JARL D-Star format occupies about 6 kHz bandwidth, and a FM analog repeater typically occupies more than 16 kHz bandwidth. Priority one is to use the spectrum available as efficiently as possible, and for 6.25 kHz bandwidth stations, the best option on 2-meters is in the 145.xxx region where a single 20 kHz channel can be split for use by two narrower bandwidth emitters. The 20 kHz channels accommodate two narrow digital stations within the same emission mask that an analog repeater would otherwise occupy. Coordination for an analog repeater doesn't automatically mean you have a coordination for a digital repeater on the same frequency.

The coordination application form requires the latitude and longitude of the antenna's location. There is also an entry for how that was determined. On occasion we've received forms with latitude and longitude and GPS as the method it was determined, along with an ASR (FCC Antenna Structure Registration) number on the form. If the tower has an ASR number then we use the latitude/longitude as registered with the FCC. This can be found at the FCC's web site:

<http://wireless2.fcc.gov/UIsApp/AsrSearch/asrRegistrationSearch.jsp>

When you contact W.A.R. regarding a repeater's coordination, please identify the repeater by callsign, output frequency and city. That ensures we're both talking about the same repeater, and lets us quickly find the repeater in the database (which has 362 repeaters and 204 links). Identifying your repeater by a club name or a portion of the frequency (e.g., 67) is insufficient. Also, there is no way to search the database based on a club name. I've received emails/letters that talk about "my UHF" or "my D-Star" repeater, or just a frequency and no city or callsign. The emails/letters were signed with a first name only and no callsign. Please help me to help you. Remember that we're all volunteers trying our best to help you.

Remember that coordinations are to be requested BEFORE any changes are done on a repeater system.

Milt Klingsporn, N9WSZ  
Assistant Frequency Coordinator

## Wisconsin Association of Repeaters October 17, 2009 Meeting Minutes

WAR minutes for April 10, 2010

The meeting was called to order at 1:02 p.m. by the Chairman, Gary Bargholz. It was held at the Outagamie County Red Cross in Appleton, Wisconsin.

Introduction of members and guests:

KF9CS	Mark Heimermann
N9VSV	Jeananne Bargholz
N9UUR	Gary Bargholz
K9OQO	Jim Sheetz
W9RIC	Richard Kosiorek
KB9GKC	Dou Cohen
N9BDR	Ralph Pellegrini
N9GMT	Bob Schmidt
N9RJZ	John Ensley
N9WSZ	Milt Klingsporn
WB9TYT	Dan Bolander
KA9FUR	Dave Karr
KC9HYC	Justin Kurscheidt

KA8QMD
K9ST
N9LZW
KB9TLV
N9QWH
K9SI
WB8PUF
N9BQM
N9ESE

### Secretary's Report:

Milt Klingsporn, N9WSZ, made a motion to accept the minutes as printed in the April 2010 newsletter. The motion was seconded by Dan Bolander, WB9TYT, and approved by unanimous consent.

### Treasurer's Report:

As of 3/31/2010 WAR's balance is \$4,402.83. WAR received \$320.00 from the 2010-2011 ARRL Repeater Directory. Jim reported that bank account balance has been decreasing over the last couple years. This has been attributed to the board member reimbursement for mileage. The travel expense for the 4/2009 meeting was \$395.10 and the 10/2009 meeting was \$1,003.20.

Dan Bolander, WB9TYT, made a motion to accept the Treasurer's report. The motion was seconded by Jeananne Bargholz, N9VSV, and approved by unanimous consent.

We began a general discussion on what is a more appropriate amount for mileage reimbursement. The general consensus was to reduce the reimbursement to cover out-of-pocket expenses. Based on a gas price of \$3.00 per gallon and an average mileage of 20 mpg yields an expense of \$0.15 per mile. This is 35% of the current rate.

Gary Bargholz, N9UUR, made a motion to change the by-laws for mileage reimbursement. The reimbursement for mileage will be 35% of the published IRS Standard Rate for Vehicle Operation. The reimbursement will be provided for all WAR board members and include all appointed coordinators. The motion was seconded by Dan Bolander, WB9TYT,

and approved by unanimous consent.

The by-law change will be published in the October 2010 newsletter and voted on by the members at the October meeting in Milwaukee.

### Communications:

Newsletter

Nine envelopes were returned with no forwarding address. The following will be dropped from the newsletter mailing:

Raymond Staiduhar	KA8QMD
Kenneth Steltner	K9ST
Thomas Waldschmidt	N9LZW
John McDonald	KB9TLV
John Lindberg	N9QWH
Michael Musiel	K9SI
John Birmingham	WB8PUF
Joel Papke	N9BQM
Steve Sundquist	N9ESE

Data Storage Site for Coordinators:  
Bob, N9GMT, volunteered to investigate solutions for data storage and will provide recommendations to the board.

### Frequency Coordinator:

Only 39 second notices had to be sent for the last renewal cycle. The new renewal process appears to be a success. The complaints about the short renewal time have been eliminated. Of course, for a few there will never be enough time.

There have been reports that the W9BCY repeaters 146.610 and 147.315 in Bayfield and Ashland are off the air. The owner has continued to renew the machines. Dave will be contacting the owner to resolve the status of the machines versus the conflicting reports.

Bob Shepard, KA9FLX, has resigned from the IRA citing lack of support for the organization. Dave and Milt expressed similar concerns with WAR. It's not a reflection on the board members, but the whole WAR membership base. A commitment is needed from the whole amateur community. WAR is not just the keeper of a repeater directory but an instrument with wider responsibilities. The problem happens when so much time is burned up handling the little issues and the larger issues of interference and new coordination takes a back seat. The lack of support and involvement is demonstrated by the small turn out for today's meeting. The forms on WAR's web site have been updated. There are two significant changes. If you open the form in Adobe Reader the information entered can be saved to a file. The other change is to the ERP worksheet and the coordination form. These forms will automatically calculate the ERP for you based on amplifier wattage, antenna gain and line loss.

Minnesota previously coordinated sites strictly on a mileage radius. Now they are using a modeling program for coordinations. This is requiring more exact coordinates for the repeaters.

There has been some grumblings from the WAR membership about favoritism from the coordinators to certain amateurs. Coordinations are solely based on the data provided. No reference to dues paid, the name on the form, or personal knowledge. The grumblings come from just a few groups.

#### **Other/New Business:**

The ARRL Repeater Directory will accept coordinates for repeater locations. Currently the Repeater Directory is based on city/state. Should WAR submit long/lat coordinates for repeaters? There was some concerns about people outside WAR getting the site specific data. There is a directive to protect certain aspects of the site data. No firm conclusion at this time.

**Nomination and Election of Officers:**  
Dan, WB9TYT, nominated Mark Heimmermann, KF9CS, for the position of Secretary. Jeananne, N9VSV, seconded the nomination. The nominations were closed. Mark received a unanimous vote.

Dan, WB9TYT, nominated Jim Sheetz, K9OQO, for the position of Treasurer. Jeananne, N9VSV, seconded the nomination. The nominations were closed. Jim received a unanimous vote.

Dan, WB9TYT, nominated Gary, N9UUR, for the position of Chairman. Gary declined the nomination. Dave, KA9FUR, nominated Bob Schmidt, N9GMT, for the position of Chairman. Dan, WB9TYT, seconded the nomination. The nominations were closed. Bob received a unanimous vote.

Gary, N9UUR, nominated Dan Bolander, WB9TYT, for the position of Vice Chairman. Jeananne, N9VSV, seconded the nomination. The nominations were closed. Dan received a unanimous vote.

#### **Appointments:**

Bob will make appointments for the positions of Coordinator, Assistant Coordinator and Newsletter Editor.

The next WAR meeting will be in the Milwaukee area on October 9 or 23.

Mark, KF9CS made a motion to the close the meeting.

Gary, N9UUR, closed the meeting. We adjourned at 2:33 p.m.

Respectfully submitted,  
Mark Heimmermann (KF9CS)  
W.A.R. Secretary

#### **Here is the list of repeaters that have received second renewal notices, sorted alphabetically by city.**

Second notice renewals were mailed to this list on August 25th, and are due back by November 15th, they will be de-coordinated on that date if the renewal is not returned.

N9GMT	442.35000	Allenton
KC9JZY	147.25500	Antigo
N9TEV	147.31500	Antigo
N9RJZ	147.19500	Appleton
N9BDR	443.57500	Baraboo
K0VSC	443.72500	Baraboo
N9GMT	444.50000	Baraboo
N9GMT	444.95000	Berlin
N9JCX	443.60000	Black River Falls
N9RNA	442.85000	Burlington
W9AIQ	146.73000	Egg Harbor
N9GMT	444.60000	Fond du Lac
N9DTT	224.42000	Fort Atkinson
AC9AR	147.03000	Friendship
K9GB	147.12000	Green Bay
K9EAM	147.36000	Green Bay
W9OSL	444.20000	Green Bay
K9EAM	444.77500	Green Bay
W9JOL	443.42500	Hales Corners
N9NGH	444.92500	Hudson
KC9KUM	443.22500	Janesville
N9NLU	146.79000	Kewaskum
N9NLU	444.27500	Kewaskum
WB9RJB	146.80500	Kewaunee
N9KAN	53.07000	Madison
N9KAN	443.40000	Madison
N3IVK	444.37500	Madison
KB9DRZ	444.57500	Madison
W9DK	145.11000	Manitowoc
W9DK	146.61000	Manitowoc
WB9RBC	146.95500	Markesan
N9RJZ	442.97500	Menasha
W9HHX	145.27000	Milwaukee
WI9MRC	146.91000	Milwaukee
WB0AFB	147.04500	Milwaukee
N9UUR	442.42500	Milwaukee
KC9LKZ	442.46880	Milwaukee
W9HHX	443.02500	Milwaukee
N9GMT	443.80000	Milwaukee
KC9LKZ	1290.05000	Milwaukee
KD9UU	443.67500	North Freedom
KB9IME	147.24000	Oshkosh
N9GMT	443.62500	Oshkosh
W9RCG	443.12500	Pewaukee
KC9AMX	443.02500	Presque Isle
N9WWR	223.80000	Racine
K9EC	224.80000	Racine
KA9LOK	444.05000	Racine
W9GDH	146.71500	Rice Lake
W9GDH	443.65000	Rice Lake
WD0HWT	link	Roberts
WB9KPG	145.35000	Rubicon
KA9NWY	145.35000	Shawno
N9FZH	147.22500	Shawno
AC9A	442.90000	Sheboygan
W9AIQ	147.18000	Sister Bay
WB9QFW	146.67000	Stevens Point

WB9QFW	146.98500	Stevens Point
W9AIQ	147.12000	Sturgeon Bay
K9KJM	444.00000	Sturgeon Bay
K8KJM	920.00000	Sturgeon Bay
K9KJM	1282.10000	Sturgeon Bay
N9OIG	146.74500	Union Grove
N9OIG	442.25000	Union Grove
N9TUU	145.17000	Viroqua
AA9NV	444.67500	Waupaca
KA9HQE	443.32500	Wausau
N9ROY	223.86000	Wisconsin Dells
N9ROY	443.85000	Wisconsin Dells

#### **Motions for consideration at the October 30, 2010 WAR Meeting:**

That the last paragraph of ARTICLE III Officers, Section D. Duties in the WAR By-Laws be changed from:

W.A.R. officers shall be reimbursed for fuel to travel to meetings that are more than 60 miles from home. The per mile amount shall be based on the published IRS standard rates to calculate the costs of operating an automobile.

To:

W.A.R. officers and coordinators shall be reimbursed for fuel to travel to meetings that are more than 60 miles from home. The per mile amount shall be 35% of the published IRS standard rates to calculate the costs of operating an automobile.

That paragraph XIV. Definitions, H. SIGNIFICANT CHANGE in the WAR Policy be changed from:

**H. SIGNIFICANT CHANGE**  
A significant change is defined as moving the station location, a change of Holder of Coordination or tone access, or increasing antenna height and/or ERP power.

To:

**H. SIGNIFICANT CHANGE**  
A significant change is defined as moving the station location, a change in bandwidth or tone access or increasing antenna height and/or ERP power.

WAR has forms available on the web site to effect a change of Holder of Coordination and in practice, if there are no technical changes (i.e., significant changes) to a repeater, a change in Holder of Coordination is merely an administrative change.

The "change in bandwidth" of course is referring to analog versus digital.