

# WISCONSIN ASSOCIATION OF REPEATERS



*July 2006*  
*Newsletter*

*Member: Mid-America Coordination Council*

*Founding Member: National Frequency Coordination Council*

## From The Chairman

Well the election "Choo Choo" ran through Appleton pretty quickly at the last meeting... and the 2005 officers were all re-elected to their respective posts for 2006. It would be nice to see some new blood sometime, there IS room for some new folk to step up and take an office. On the other hand, I sure do appreciate the current guys who have been volunteering and taking the same positions for the last many years, they sure do know their jobs, and I have no issues whatsoever with Mark and Jim and Dan. Thanks very much guys for your support of W.A.R. over the years.

So, my first official act as Chairman for 2006 was to continue with "if it ain't broke, don't fix it" and re-appointed Dave Knaus N9QA as our Webmaster, Dave Karr KA9FUR as Frequency Coordinator, and Milt Klingstorn N9WSZ as Assistant Frequency Coordinator.

I really do feel that W.A.R. is, and has been for the last 5 or 6 years, a smooth functioning well oiled machine. W.A.R. has two halves, and the officers I mentioned above know their jobs well, and get all the little things done quickly, and mostly without asking. Our Treasurer Jim Sheetz, K9OQO watches the accounts like a hawk. I think over the years, the

***Next W.A.R. Meeting:***  
**Saturday July 15th, 2006**  
**1:00 PM**

**Connell's II Restaurant**  
**at the Eau Claire Airport**

3800 Starr Ave.  
Eau Claire, WI

bank has made more mistakes than Jim. Mark Helmmerrmann, KF9CS has the minutes done a week or two after each meeting, and the detail is right, and often more than we need. I enjoy reading the first drafts, trying to remember if I really said that. Our Vice-Chairman Dan Bolander, WB9TYT is an asset that would be very hard to replace, and I honestly need to exploit him more. Dan is a past W.A.R. Frequency Coordinator, and I appreciate the history and experience he brings to the table. And on that same note, I also appreciate and respect the experience, and rely on the counsel of past W.A.R. Chairman Nels Harvey, WA9JOB. Nels continues to be involved as our representative to the National Board, and is currently the Secretary of the N.F.C.C.

## **Wisconsin Association of Repeaters E-mail Reflector**

W.A.R. has an e-mail list serve for Wisconsin Coordination issues, and Repeater Building. Please sign up at:

<http://mailman.qth.net/mailman/listinfo/war>

So that's how the Board functions, documents policy, counts the pennies, and gets the business side of W.A.R. done.

The "real" work of W.A.R., Frequency Coordination, is done by Dave and Milt. And if I may express my opinion, done very well. Dave has taken W.A.R. into the computer database age, and written software specifically for Amateur Frequency Coordination that we all not only use here, but many other States now use as well. It makes it easy to communicate with Illinois and Minnesota when we're all literally on the same page.

Sure we have an issue with other Coordinators from time to time, but nothing we can't all work out in the light of day.

I just thought you should know that it takes a whole bunch of people to run W.A.R. And once a year I need to recognize them and say thanks. Next time I'll take the ugly stick back out and start beating your heads about getting renewal forms back in, reporting your data correctly, and reminding trustees that changing your repeater location, or ERP, or "well we only replaced the antenna" means you just de-coordinated yourself. But we'll deal with all that latter.

See you in Eau Claire July 15th.

Gary, N9UUR

**Wisconsin Association  
of Repeaters  
March 4, 2006  
Meeting Minutes**

The meeting was called to order at 1:11 p.m. by the Chairman, Gary Bargholz. It was held at the Outagamie County American Red Cross in Appleton, Wisconsin.

Introduction of members and guests:

KF9CS	Mark Heimmermann
KB9ENO	Bill Niemuth
N9UUR	Gary Bargholz
KC0LDE	Tracy Ray
AB9PS	Peter Johnson Sr.
N9BDR	Ralph Pellegrini
WA9JOB	Nels Harvey
KA9FUR	Dave Karr
KB9LRD	Brian Long
W9RIC	Richard Kosiorek
N9YMC	Bernie Hengles
KB9GKC	Douglas Cohen
N9RJZ	John Eusley
K9OQO	Jim Sheetz
N9WSZ	Milt Klingsporn

**Secretary's Report:**

There were no additions or corrections to the minutes as printed in the newsletter. Milt, N9WSZ, moved that the minutes be approved as printed in the newsletter and Jim, K9OQO, seconded. The minutes were approved by unanimous consent.

**Treasurer's Report:**

With no outstanding expenses, the bank reports a balance of \$3737.71 on March 3, 2006. Bill, KB9ENO, made a motion to accept the treasurer's report as presented. The motion was seconded by Nels, WA9JOB. The treasurer's report was approved by unanimous consent.

Jim suggested WAR place \$2000 into a CD for a higher interest rate. Those present discussed the idea. There may be extra expenses this year in support of the NFCC reorganization. It was decided not to place any money into a CD.

**Communications:**

The last newsletter was a little thin and could use some new articles. If you have an article for the newsletter, please submit it to n9uur@wi-repeaters.org. Remember to submit the article 30 days before the next meeting date. Gary thanked the WAR board for allowing him to place an announcement for the Central States VHF Society's Annual Conference in the newsletter.

WAR maintains a reflector at war@mailman.qth.net. The reflector allows for general discussions among the membership. There has been little activity on the reflector except for newsletter and meeting announcements.

WAR has received some requests to provide its database in different formats including the coordinates. To maintain repeater security, WAR only provides this information to neighboring Frequency Coordinators. The general repeater information is published on the web site. This information is column delimited and can be imported into a spreadsheet or database.

**Frequency Coordinator:**

In December the N9NLU 444.275 repeater was de-coordinated. WAR has not received any response to renewal requests since 2002. Certified letters were sent and received before de-coordination. Recently, a renewal was received as if nothing has happened. The trustee could have appealed the de-coordination at today's WAR meeting.

Dave has received correspondence from the MARC coordinator. They want to establish a hard and fast rule that a minimum separation of 100 miles is required adjacent repeaters. WAR has adopted a proactive response and bases its coordinations on ERP, HAAT and terrain. This allows a better utilization of the available spectrum. There were a series of other issues between WAR and

MARC because of differences in MARC's bandplan.

**2005 Coordination Requests:**

- 41 new coordination requests for links and repeaters
- 36 coordination changes  
A total of 77 coordination letters were mailed out. Only 54 responded that the link/repeater is operational.

**2005 Coordination Renewals:**

- 117 renewals received from initial mailing
- 40 2nd notices were issued with 26 returned
- 27 de-coordination letters sent by certified mail
- 16 repeaters were de-coordinated

Wisconsin has 283 coordinated repeaters that are operational

When entering a repeater's latitude / longitude, please ensure the coordinates are in degrees, minutes and seconds. Some of the GPS units display the minutes with a decimal point. These are not seconds but a fractional representation of the seconds. Please correct your coordinates.

New coordination letters require construction to be completed in 6 months and that WAR be notified of the completion. If this confirmation is not received, the frequency will be released for another amateur to use the frequency. If after 6 months the repeater is not operational contact WAR and inform us of the situation and your plans. To check the status of a repeater, view the repeater list on the web site or in the newsletter.

Renewals are mailed to the Primary Contact person for each repeater. If you hold the coordination for a repeater and anyone else is the Primary Contact, you need to let us know if/when that

person is no longer involved with the repeater and who the new contact person is.

Renewal forms are not for updating WAR with key information on a repeater (i.e. changes in location, height, power). Those are all things that must be coordinated prior to making those changes. Indicating a change of contact address, phone or e-mail on the renewal form is acceptable. Even those should be sent in as they occur and not delayed until the next renewal.

#### Chairman's Report:

ARES designation, to be reported to Milt as they come in from the state ARES designee. There have been some issues with communications but they are being worked on. This is a Work-In-Progress.

#### NFCC:

Nels, had resigned from his NFCC position. He was dismayed that the succeeding officers had dropped the ball. The next election cycle was missed and the elected officers had dwindled down to one person. Nels and Doug Sharp, K2AD, began the reorganization of the NFCC. Last fall the membership had a new election and rebuilt the board. Nels will be the NFCC secretary until the next election. The relationship between the NFCC and the ARRL has been weakened by the lack of movement. Nels hopes the restructuring of the group and its business plan will bring the NFCC back stronger.

#### New Business:

Bill, KB9ENO, provided an update on the ARES state-wide linked repeater system. The group was incorporated as WiComm Limited in December. They will be filing a 501(c)(3) application. Their first goal is the design, installation and maintenance of a state-wide repeater system. The second goal is the design, installation and maintenance of a state-wide digital system. The linking will not use RF. Instead the links will be provided by the infrastructure such as the Badger Net. They hope to install three repeaters this year and the whole project will require 4 years to complete.

Old Business:  
None.

Nominations and Election of Officers (choo-choo):

Mark Heimmermann, KF9CS, was nominated for Secretary. The nominations were closed and Mark was elected by unanimous consent.

Jim Sheetz, K9OQO, was nominated for the position of Treasurer. The nominations were closed and Jim was elected by unanimous consent.

Dan Bolander, WB9TYT, was nominated for the position of Vice Chairman. The nominations were closed and Dan was elected by unanimous consent.

Nels, WA9JOB, nominated Gary Bargholz, N9UUR, for the position of Chairman. The nominations were closed and Gary was elected by unanimous consent.

Appointments:

Gary appointed Dave Knaus, N9QA, as the web master.

Gary appointed Dave Karr, KA9FUR, as the Frequency Coordinator. Dave accepted and gives his blood for WAR.

Gary appointed Milt Klingsporn, N9WSZ, as the Assistant Frequency Coordinator. Milt accepted.

Gary asked Nels, WA9JOB, if he would be WAR's representative to the NFCC. Nels accepted.

The next meeting is Saturday, July 15th at Connell's II Airport Restaurant in Eau Claire, WI.

Gary, N9UUR closed the meeting. We adjourned at 2:43 p.m.

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

#### From the Assistant Coordinator

Well, 2006 is off to a busy start for Dave and me. I've received 50 coordination requests. That includes new repeaters, new links, and changes in frequency or power. Five of these requests were dropped at the request of the submitter. Sixteen coordination letters have been sent out, and another twenty-four are pending (waiting for feedback from the adjacent states' frequency coordinators). The other five requests are currently being worked on.

Since radio waves don't stop at the state line, we always send a "Notice Of Pending Coordination" to the frequency coordinators in the adjacent states. This provides a crosscheck with their database, in case we missed something in our analysis. They have 30 days to reply, however in most cases I receive a reply within a week or two, and send out your coordination letter.

The coordination letter states that you have six months to place this system on the air, and that you must contact me when construction is complete. Please follow through on this and let me know when you've completed the construction of your repeater. Don't assume that we're aware of your progress.

There are a number of repeaters that are tagged as being under construction for the past two years, way beyond the six-month period. There are also some repeaters that are tagged as being 'temporarily off-the-air' for the past two to four years. W.A.R. policy states that repeaters are expected to be operational for at least 305 days a year. The owners of these repeaters will be getting letters in the near future requesting a status update.

If you're concerned about your coordination, please view the listings on the WAR web site. I update the online listings periodically (note the date at the top of the page) as coordinations are added or dropped.

Milt N9WSZ

## Latitude and Longitude Format

The W.A.R. forms require you to enter your repeater's location (latitude and longitude) in degrees ( ° ), minutes ( ' ) and seconds ( " ). Some forms have been submitted with an excessively large number entered for the seconds, such as 648. Since there are 60 minutes (0-59) per degree, and 60 seconds (0-59) per minute, this is an impossibility.

I suspect the GPS unit being used is displaying degrees and decimal minutes, rather than degrees minutes seconds. Either program the GPS to display degrees minutes seconds or do the math conversion yourself.

The math is relatively easy once you understand the process. If the GPS is displaying degrees and decimal minutes enter the degrees and the whole number portion of the minutes. Then multiply the decimal portion of the minutes by 60; the resulting number is the seconds.

Here are two examples, which should make this a little clearer:

1. If the GPS is displaying N 43° 4.467' and W 89° 23.050' the latitude degrees are 43° and the longitude degrees are 89°. That was easy, right? The latitude minutes are 4' and the longitude minutes are 23'.

Now to calculate the seconds. The latitude seconds will be  $0.467 \times 60 = 28.02$ , but we can round that to 28". The longitude seconds will be  $0.050 \times 60 = 3.0$ , no rounding needed here as it's 3".

2. If the GPS is displaying decimal degrees we apply the same procedure, but twice. Once to obtain the minutes and then again to obtain the seconds. For example, if the latitude is shown as 43.07445°, the degrees are 43°. The minutes are  $0.07445 \times 60 = 4.467'$ . You can see in example #1, above, how to obtain the minutes and seconds from this number.

As you can see, changing from decimal minutes to minutes and seconds is an easy process. Also, this will allow us to process your coordination request without having to request additional information from you as to the exact location.

### List of Officers & Appointments

#### Chairman - Gary Bargholz, N9UUR

8273 N. 53rd Street, Brown Deer, WI 53223  
(414) 355-6922 n9uur@wi-repeaters.org

#### Vice-Chairman - Dan Bolander WB9TYT

N16909 Love Lane, Pembine, WI 54156  
(715) 324-6701 wb9tyt@arrl.net

#### Secretary - Mark Helmmerrmann, KF9CS

1523 E. Moonbeam Tr. Appleton, WI 54915  
(920) 749-9024 kf9cs@arrl.net

#### Treasurer - Jim Sheetz, K9OQO

N974 Joey's Place. Greenville, WI 54942  
(920) 757-9457 jsheetz@new.rr.com

#### Frequency Coordinator - Dave Karr, KA9FUR

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

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

8834 W. Palmetto Ave. Milwaukee, WI 53225  
(414) 463-3223 n9wsz@wi-repeaters.org

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

## 2006 Central States VHF Society Annual Conference

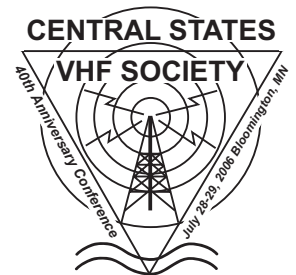
July 28 and 29, 2006

Thunderbird Hotel Bloomington, Minnesota

(Across from the Mall of America)

Technical Conference Presentations  
VHF & UHF Propagation  
Weak signal modes  
Construction

Flea Market & Vendors  
Outdoor Antenna Range  
Noise Figure Measurement  
Family Program



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