



## WISCONSIN SECTION NEWSLETTER

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Issue Date: May 2024

WI Section Manager, Jason Spetz, KC9FXE

### From the Section Manager

Greetings all! I'd like to start out by addressing the computer systems outage at the ARRL. We were briefed on this situation last night and there are a few things you should know. First, the official word from ARRL is on the website and can be accessed from the link below. This is the official word and will be updated as information becomes available. Second, there are a lot of rumors floating around about the situation. Consider the source of what you are hearing as the truth may not be included. The ARRL will keep us informed.

<https://www.arrl.org/news/arrl-systems-service-disruption>

Speaking of rumors, if you are seeing this newsletter, the rumor that it is available for viewing is true and hopefully moving around as good as any false rumors. The system that allows me to email our section is part of the computer outage referenced above.

In other news, I had the pleasure of attending the Ozaukee Radio Club's swapfest in Cedarburg on April 27<sup>th</sup>. Aside from the usual fun that a fest has to offer I was able to deliver a plaque to **Ray Totzke, W9KHH**, celebrating his 70 years as a member of the ARRL. Thank you, Ray, for your years of support and it was very nice to meet you!





I will be visiting Green Bay on June 1<sup>st</sup>. Hope to see many of you there!

**Until next time... 73!**

## **General Announcements, Events and Reminders**

### EAA Airventure 2024 Special Event Station

The sign-up for this year's EAA Special Event Station is now open to all ARRL members. Sign up will be drawing to a close on May 20 2024. This has to be done so the EAA can finalize their planning to accommodate us during the event.

This year we will operate on 7 days -- Monday through Sunday, during the show (July 22 thru July 28,2024). This operating event is open to all license classes. We will operate 2 HF stations, one on 20m, one on 40m, 6-meter SSB, plus local communications on 2-meters. The club call, W9ZL, will be used throughout the event.

We are looking for both "AM" and "PM" operators covering each of the 7 days (please note- some shifts are already filled and are no longer available) You can sign up for one shift or more if you so desire. The event is open to all of the amateur community. If operators sign up for a 4 hour shift, they will be given a daily wristband that will allow them

to go and wonder around the Fly-in.

For further information and to sign up to operate the event go to:

<http://fcarc.club>

The sign up form is available at the Event Sign-ups tab on the W9ZL website home page.

Or you may contact Jon Oldenburg AB9AH at: [AB9AH@arrl.net](mailto:AB9AH@arrl.net)

Hope to see you all soon!

Jon Oldenburg AB9AH  
W9ZL Special Event Coordinator  
EAA AirVenture 2024



### **ARES Group Registration**

Much like the club listing, the ARRL has a place for ARES groups to register their organizations. I encourage each of your ARES organizations to register and remember to keep the information up to date. This will provide a good place for people to find ARES organizations in their area with accurate contact information. Registration only takes a couple minutes.

Register at: <https://www.arrl.org/ares-group-registration>



### **Club Grant Program**

It has been announced that the club grant program will be returning this year. If your club or ARES organization has a project in mind, consider this opportunity for funding. More information is coming, but here is where you should be checking: <https://www.arrl.org/club-grant-program>



The **Central Division Convention** will be held in Elkhart, Indiana on August 3<sup>rd</sup>. For more information, visit: <https://elkharteamfest.com/convention.html>



**\*\* UPDATED INFO \*\*** If you're having issues renewing your **FCC Amateur Radio license**, check out these helpful resources:

- Easy to follow website with instructions and screenshots by W0IS: <https://w0is.com/LicenseRenewal/FCCRenewalInstructions.htm>

- ARRL Website: <https://www.arrl.org/cores-uls-registration>
- Video featuring ARRL VEC Department Manager Maria Somma, AB1FM. You'll also hear from ARRL VEC "expert" Josh Nance on a few common issues he tends to help folks out with over the phone: <https://www.youtube.com/watch?v=DI8nmjRJg4>

## News From Around the Section

### Section Emergency Coordinator / ARES Report

**Kyle Schaefer, KC9SDK, Wisconsin SEC:**

The ARES/RACES Leadership team has been working on updates to the Standard Operations Guides (SOGs) and those updates should be ready for publication in the coming month.

Thank you all for your responsiveness and dedication to public safety with all the recent severe weather recently in our state. I know our emergency managers and NWS appreciate all your efforts and reports!

SimCom is right around the corner and Registration is still available if you wish to participate, keep in mind that you do not necessarily have to be on -site to participate as there are several exercise injects that will require contacts elsewhere in the state on many different communications pathways. (HF, VHF, Mesh etc.) We can always use people remotely who are willing to send responses to these messages from outside the exercise site. If you are willing and able to participate in this manner, please let Either me or Dan Lenz, KB9IME know so we can add you to the exercise roster as a destination for traffic.

#### **WECOMM, Ltd. Update:**

WECOMM has a new treasurer and is in the process of reconciling all our accounts. The system connections are currently not fully functional until we resolve all of our account balances. Your continued donations to the WECOMM will ensure that we can keep the repeater system connected and functional. You can make a donation by via paypal or by sending a check to the WECOMM business address. Thank you for your continued support as we reorganize! We also have several board position vacancies that need to be filled, so if you are interested in serving on the WECOMM board of directors please contact us at [directors@wecomm.org](mailto:directors@wecomm.org) , thank you.

### Public Information Coordinator Report

From Myron Oestreich, KB9STB, Section Public Information Coordinator:

Happy May! Spring has sprung. The grass is "riz." Now it's time to see where the spring and summer radio activities "is!" There are two sizable radio events coming up in June, and both of them are a good opportunity to show off what your local group brings to the table to promote amateur radio. One of the events is Simcom coming up in Milwaukee June 4 and 5, and the

other is Field Day June 22 and 23. Both events have their own respective pages on social media (@SimcomWisconsinARA and @arrlfd on the book of faces), so there's really no need to hash over all of them. If you'd like to learn more about the events and don't have social media, please reach out and information will be provided. It would be a safe bet that the local media will be at Simcom, so we'll focus on Field Day first and then talk about some overall points after that.

Field Day is arguably the largest thing that some local amateur radio organizations will do for outreach throughout the course of the year. That said, if your local organization plans on being public with your event and trying to get media coverage and the public to visit at your site, it's very important to start getting your ducks in a row sooner than later. Before I go any further (cue up soapbox music) – and this may ruffle a few feathers – but we need to remember that Field Day is *not* a contest. It is a *preparedness exercise* that was originally founded to help amateur operators test their equipment in locations that were not their home shack. Anyway, I digress and return you to the arts. Bonus points are available for the overall group score for sending out media releases, having elected and appointed representatives of served agencies make appearances and having an information table set up for your organization and amateur radio. If you're looking to take advantage of those bonus points, there are a few steps that have to happen. The ARRL has an excellent PR kit that can help guide you through a lot of the ins and outs of promoting Field Day if you've either never taken on promoting it or need a little guidance or extra tips to bring your event up a notch or two. Press releases and invitation letters are huge deals. Invitation letters need to be sent out very soon here so any dignitaries have the chance to get the event on their calendar or let you know they aren't able to attend for one reason or another. Full disclosure – this is an election year with major seats up for grabs. Politicians are more apt to visit on election years, although some are very good about coming annually if they're able. Once the finer details are worked out about your event, remember that you can register it on the map at [www.arrl.org/field-day-locator](http://www.arrl.org/field-day-locator) so anyone in your area knows you're open for business. Once you get the word out, remember to promote, promote, promote!

Although we talked quite a bit about promoting your event last month, a quick refresher never hurts. Prior to any releases getting sent out, remember to start word of mouth, email, podcast (if your group offers one) and social media advertising about your event. When you're looking to promote your event, remember to cast a wide net with respect to who may receive a press release if you choose to send one. For instance, if your organization is between two media markets (Wausau, LaCrosse, Eau Claire, Madison, Milwaukee, Green Bay, Superior/Duluth, Minneapolis/St. Paul), you may want to think about sending releases in multiple directions to help effectively get your message out. If your organization doesn't have a Public Information Officer, it may be time to think about appointing one to be the point of contact for all things public relations. Aside from ARRL's PR-101 training which is excellent, there are FEMA trainings which can help get newcomers get used to the ebb and flow of public information, how to effectively handle interviews and work on press releases.

After any event you do, remember your group deserves well-earned kudos. These kudos may come from your local group or the local media that might drop by for your event, provided they're invited. If your group has a social media outlet, share your success on there so we can celebrate with you. If you don't have a social media outlet, it's all right. Anything you'd like to share from your organization can be written up and sent to KC9FXE for the newsletter. If writing simply isn't your bag of donuts, that's all right too. Please reach out if you need a helping hand



with drafting a press release, an article for submission after an event, or if you need an independent ear to bounce ideas off.

Have a fun great late May and early June! Hopefully we'll cross paths at one of the events coming up between hamfests, POTA outings or Simcom. Wishes for a successful Field Day will be fully dealt next month; however, if we don't cross paths before then, please do have the best Field Day you can!

We'll see everyone next month when we'll be enjoying Dairy Month to its full potential, and I'll be sitting at my desk writing another article with a mouth full of tasty cheese curds. In other words, it'll be Thursday.

## Section Traffic Manager Report

### STM REPORT

### WISCONSIN SECTION

APRIL 2024

*Pros for the Amateurs*

FAQ #273 What's with all those prosigns? All After. All before. Addressee. Stand by. More. Break. Check. Confirm. Go ahead. (reply expected) Negative. Preamble. Out. (no reply expected) Word after. Word before. I say again - what's with all those prosigns?

We use prosigns or procedural words because they make it easier to get a message exactly right. When we all use the *same* set of prosigns *in the same ways*, we hear them and respond to them more easily, more quickly, more accurately. We train ourselves so that they are automatic responses even under pressure.

Examples: When using "I spell," the sender says the word in the text first, then says "I spell" and then spells the group phonetically. When using "I say again," the sender says the word or group first, pauses, says "I say again" and repeats the group. "Roger" means received and understood. "Affirmative" means yes.

Similarly, a net control station will use some standard phrases to direct a net – "Act as relay between. . ." (QNB) "This is a directed net." (QND) "Can you relay. . ." (QSP) "The net has traffic for you. Please stand by." (QNU) "Send your message for . . . to. . ." (QNK). Of course, the "Q" signals are for CW use only.

And what about punctuation? It's true that punctuation, such as a comma or the word "query" following a question is spelled out as a word group in the text and counted that way in the check, too. If the only punctuation allowed in the text of an NTS message is the x-ray as a period, why do we hear the "slant" or "slash" in groups? The answer is (no fanfare necessary) that the "/" – otherwise known as the "slant," "slash," diagonal," or "slant-bar" isn't being used as stand-alone punctuation. It's used as a character within a group. It might also be called a "stroke," but – as an elderly Ham – I tend to avoid that term.

So when the text includes a group such as "N9VC/9RN/CAN," it is voiced as "NOVEMBER NINE VICTOR CHARLIE SLANT NINE ROMEO NOVEMBER SLANT CHARLIE ALPHA

NOVEMBER” or “NOVEMBER NINE VICTOR CHARLIE SLANT 9 R N SLANT C A N” and it’s counted as one group. In practice, a sender of the additional identifier added to a call sign often skips the slant and simply pauses briefly. On CW, the slant is always DN. It’s a handy *character* within a group, and I guess, on our nets, there are a lot of those.

Knowing and using the procedural words and phrases makes traffic handling more efficient. Good use of pro’s is – well, poetic. It might be a good time to review those signals. Check out the famous pink card or FSD-218 (<https://www.arrl.org/files/file/Public%20Service/fsd218.pdf>)  
73. K9LGU/ STM-WI

...and don't forget about our nets:

WISCONSIN TRAFFIC NETS

Name Of Net, Frequency, Local Time	Net Manager	Net Control Stations						
		Sun	Mon	Tue	Wed	Thur	Fri	Sat
Badger Weather Net (BWN) 3984 KHz, 0600	<a href="#">K9LUK</a>	KB9GO	K9LUK	N9NBC	W9CPY	W9IHW	AG9G	WB9WKO
Badger Emergency Net (BEN) 3985 KHz, 1200 ALT 7270 KHz	<a href="#">NX9K</a>	WJ9L	WJ9L NX9K	W9RTP	KB9IME	WD9FLJ	NX9K	N9VC
Wisconsin Side Band Net (WSBN) 3985 or 3982.5 KHz, 1700	<a href="#">AG9G</a>	NX9K KA9BAE	N9VC	KC9FXE	KB9GO	WB9WKO	AG9G	AC9F
Wisconsin Slow Speed Net (WSSN) 3555 KHz, Daily 1800	<a href="#">KB9ROB</a>	KB9ROB	N9VC	*	*	*	AG9G	*
Wisconsin Intrastate Net - Early (WIN-E) 3555 KHz, 1900	<a href="#">WB9ICH</a>	WB9ICH	K9LGU	KC9UC	N9CK	N9VC	AG9G	WB9ICH
Wisconsin Intrastate Net - Late (WIN-L) 3555 KHz, 2200	<a href="#">W9RTP</a>	AG9G	K9LGU	KC9UC	N9VC	N9VC	W9RTP	W9RTP
ARES/RACES Net 3967 KHz, 0800 Sunday ALT 3977.5 or 7250	<a href="#">WB9WKO</a>	*						
WI ARES/RACES Digital Net Tuesday on WINLink 7PM Mon - 7PM Tues	<a href="#">KB9MMC</a>		KB9MMC					
WI ARES/RACES VHF Net on WECOMM Frequencies Last Thursday of the month 7PM	<a href="#">KA9KJE</a>					KA9KJE		

\* Net Control Operator needed. Contact Net Manager for information.

2/22/2024

## Section Youth Coordinator Report

From Etienne Robitaille, K9ZN, Section Youth Coordinator:

**No report.**

**Contact Me:**

Please email me at [et.k9zn@icloud.com](mailto:et.k9zn@icloud.com) if you have any questions or issues about my Section Youth Coordinator work. Response times can range from an hour to a day.

## Member Contributions

### QAM

## Why Deviation Is So Important

by

Richard E. Polivka, N6NKO

ARRL WI Technical Specialist / Official Emergency Station

In my last article covering the reason why setting FM deviation is so important, I started to discuss the advanced modes present in VARA FM. I will now continue on here with a brief discussion on why and how these levels now become so important.

Regular FM Packet Radio uses just two tones, 1200 Hz and 2200 Hz. Data is transmitted by timed shifting between the two frequencies. Both tones are at the same level as transmitted and received. So, if you erred in your setup of transmit levels, the limiter inside the transmitter will clean it up unless you are overdriving the limiter and adding distortion products to your transmitted signal. Well, these days are now long gone, brought to you by the advanced modulation methods used in VARA. These advanced modulation methods are used by both the FM and HF versions of VARA.

I am just going to get into the simple parts of Quadrature Amplitude Modulation (QAM) as it relates to why proper setup has to be done. This is the mode that VARA FM uses when it has a clean path and wants to get cooking with gas. If you want to really get down and dirty with the intricate designs of QAM modulation, there are many websites out there, including the VARA website, that explains it all.

If you look at Figure 1 below, this is a simplified layout of a QAM signal inside a two cycle transmission window:



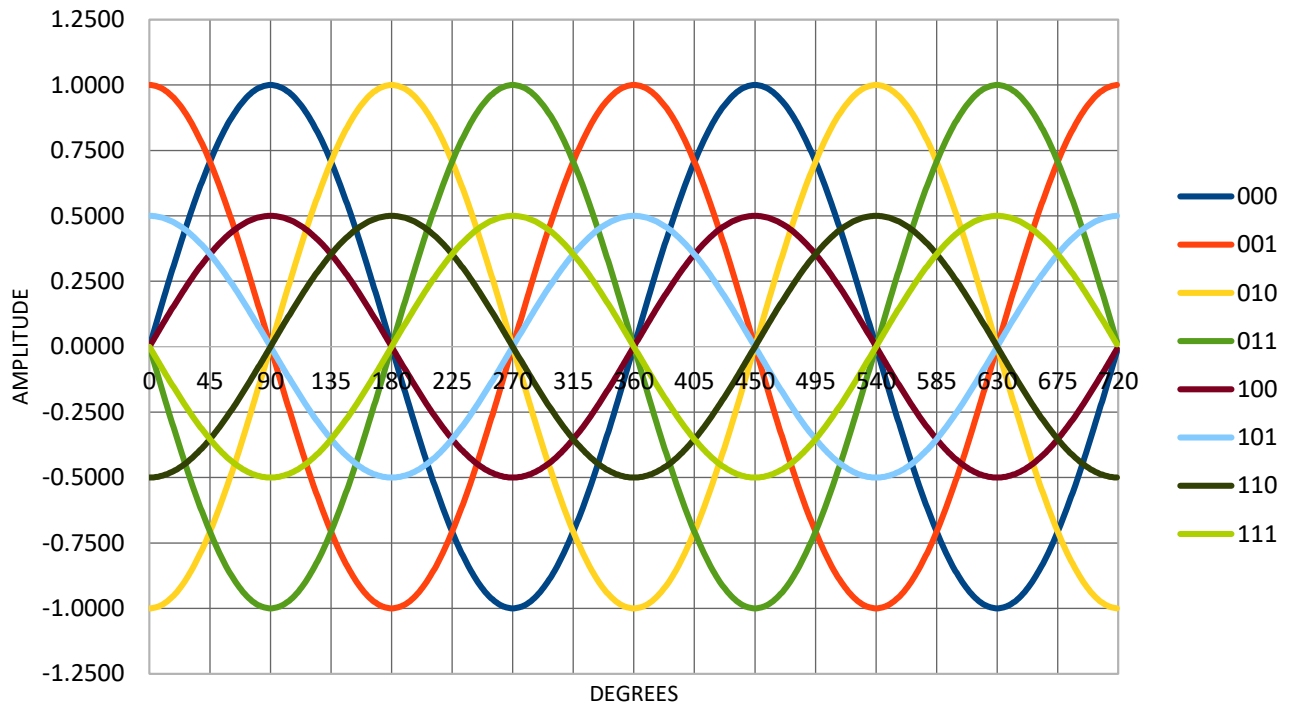


Figure 1

Now to break this all down. The term “quadrature” refers to two waveforms that vary in phase by 90 degrees. Your digital encoder for the knobs on your HF radio, especially the VFO knob, are quadrature encoders. Two pulse trains, separated by 90 degrees. By minding which pulse train goes positive first indicated the direction. Each pulse determines the count. Looking at Figure 1, you will notice that each peak is separated by 90 degrees. So, in this time slice of two cycles, we can represent two bits, 00, 01, 10, and 11, based on how the tone is sent out. Our four numbers are represented by the same tone but shifted by 90 degrees. So, the receiver knows what the data is by the FFT decoder spitting out phase, frequency, and amplitude. Frequency here is meaningless for this discussion. We then have signals at 0 degrees, 90 degrees, 180 degrees and 270 degrees with an amplitude of 1. Zero degrees represents bit pattern 00, 90 degrees represents bit pattern 10, 180 degrees represents bit pattern 11 and 270 degrees represents bit pattern 01. This is quadrature modulation, simply explained. If we used only one level, like in Packet, then we can stay here. And as they say in TV infomercials – “But wait, there’s more.....”

What was covered above was only a two-bit value. Now we get to the Amplitude component of QAM. If you look at the legend in Figure 1, there are eight traces shown and each trace has a three-digit binary value associated with it. The new most significant digit now represents the amplitude component. If the MSD is a zero, then the corresponding signal is at level 1.0000. If the MSD is a one, then the corresponding signal is at level 0.5000. Now, instead of four combinations representing two bits, we have eight combinations representing three bits. So, we have gone from two to three bits in the same time period and transferring 50% more data per time slice.

Here is where you level setting now becomes important. The receiver expects the signal levels to be within a certain range. If the data receiver can’t properly sense the different levels, it will tell the sender not to send the level based signals and your data transfer slows down. For example, if the deviation is set too high, the 50% level in the above example may come in at 65% and not be accepted as the receiver is looking for a signal in the 45-55% range.

When you get your signals at the proper levels and the software has free reign, here is what you get for HF operation in Figure 2:

Figure 2

The HF signals pretty much set themselves up since you are using SSB communications. There is now an added mode "VARA HF 2750 (Tactical)" that has faster speeds.

Now for VHF/UHF operation the options open up widely and are shown in Figure 3:

Figure 3

You can tell the mode that you are in when it comes to receiving by looking at what is the window. If you have a grid of four squares, the system is in 4PSK. If your system switches over to any of the higher speed modes, the box counts open up accordingly. This is why I can't stress enough to get your adjustments right. The major difference here between WIDE and NARROW is that WIDE uses a 9600 baud (FSK) modulation connection as were NARROW uses the 1200 baud (AFSK) connection.

That is QAM in a nutshell and why deviation has become far more important now to allow the system to function at its best transfer speed. If you need help on testing your levels setup, contact your area Technical Specialist or your Amateur Radio Club as someone should have the necessary equipment to get your system in top shape.

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*Richard Polivka, N6NKO, is a retired Principal Engineer at ABB, Inc. His primary duties were to provide advanced engineering and project management services to the Variable Speed Drives, Renewables (Wind/Solar) power generation, Custom Systems support, and other high powered power generation and controls markets. His hobbies include Amateur Radio, CAD/CAM Design and Machining, and Soaping. He has held the call N6NKO since being licensed in 1986 and holds an Amateur Extra license.*

## In Memoriam

We have been made aware of the following members who have become silent keys since the last publication.

- Nolene Harlson, N9MNA, of Altoona, WI – [view obituary](#)

On behalf of the Wisconsin Section, our condolences go out to the family and friends of our fellow hams who have passed. May they all rest in peace.

If you become aware of a silent key, from our section, please contact the [Section Manager](#) or Assistant Section Manager, [Tom Czaja, KG9EE](#) with the details.

## Upcoming Fests and Conventions

### **June 1, 2024 – Green Bay Mike and Key Club Hamfest**

Location: Green Bay, WI  
Sponsor: Green Bay Mike & Key Club  
Website: [www.k9eam.org](http://www.k9eam.org)

### **June 8, 2024 – Lyons WI Annual Free Fest**

Location: Lyons, WI  
Sponsor: Lakeshore ARC & Lakeshore Repeater Association  
Website: <https://www.facebook.com/groups/752141054863802/>

### **June 15, 2024 – Riverland ARC Swapfest**

Location: Stoddard, WI  
Sponsor: Riverland Amateur Radio Club  
Website: [www.rarc.qth.com](http://www.rarc.qth.com)

### **June 15, 2024 – Sunshine Swapfest**

Location: Neenah, WI  
Sponsor: Fox Cities Amateur Radio Club  
Website: <https://www.fcarc.club/sunshineswap.php>

### **July 6, 2024 – South Milwaukee ARC Hamfest**

Location: South Milwaukee, WI  
Sponsor: South Milwaukee ARC WI9SM  
Website: [www.wi9sm.org](http://www.wi9sm.org)

### **August 3, 2024 – Central Division Convention**

Location: Elkhart, IN  
Sponsor: Central Division  
Website: <https://elkharteasthamfest.com/convention.html>

### **August 10, 2024 – CVARC 2024 Hamfest**

Location: Chippewa Falls, WI  
Sponsor: Chippewa Valley Amateur Radio Club  
Website: <https://w9cva.org/hamfest>

### **August 10, 2024 – Racine Megacycle Club Freefest**

Location: Racine, WI  
Sponsor: W9UDU  
Website: <http://w9udu.org/>

### **August 24, 2024 – Circus City Swapfest**

Location: Baraboo, WI  
Sponsor: Yello Thunder Amateur Radio Club  
Website: <http://yellowthunder.org>

### **September 7, 2024 – ORC Annual Regional Fall Swapfest**

Location: Cedarburg, WI  
Sponsor: Ozaukee Radio Club

Website: <http://www.OzaukeeRadioClub.org>

**September 20-21, 2024 – HRO Superfest**

Location: Milwaukee, WI

Sponsor: Ham Radio Outlet

Website: Not Provided

**October 19, 2024 – Hidden Valley ARC 1<sup>st</sup> Annual Hamfest**

Location: Lancaster, WI

Sponsor: Hidden Valley Amateur Radion Club

Website: Not Provided

**November 2, 2024 – ARES Conference / State Convention**

Location: Wisconsin Rapids, WI

Sponsor: Numerous

Website: <https://wi-arri.org/events/>

**March 16, 2025 – Tri County WI Hamfest**

Location: Fort Atkinson, WI

Sponsor: Tri-County Amateur Radio Club

Website: <https://www.W9MQB.org>

\*\*\* See these items and additional Section information on the [ARRL WI Section website](#). \*\*\*

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**ARRL Wisconsin Section**

**Section Manager: Jason Spetz, KC9FXE**

**[kc9fxe@arri.org](mailto:kc9fxe@arri.org)**  
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**WISCONSIN SECTION**

**STATION ACTIVITY SUMMARY April 2024**

STATION	ORIG	RCVD	SENT	DLVD	ATT	TOTAL
NX9K	724	176	1135	1	0	2036 - BPL
WB9WKO	0	506	408	7	0	921 - BPL
N9CK	0	402	399	0	0	801 - BPL
AG9G	0	279	187	0	0	466
KB9GO	0	233	116	3	0	352
N9VC	0	309	39	0	0	348
KC9UC	0	143	146	0	0	289
WJ9L	1	86	69	16	0	172
K9LGU	0	71	81	0	0	152
KB9ROB	0	53	18	18	0	89
KC9FXE	0	13	44	10	2	69
KA9BAE	0	24	20	0	0	40
W9RTP	0	20	5	1	1	27
WB9ICH	0	22	2	0	0	24
W9RNA	0	8	1	4	0	13
KA9KJE	1	6	1	0	0	8

**WISCONSIN SECTION P S H R SUMMARY APR 2024**

POSSIBLE POINTS >	40 nets	40 tfc	30 appt	5 /hr. sked events	5 /hr. emrg events	10ea bbs/web pg	
	1	2	3	4	5	6	T
N9VC	40	40	30	285	0	20	415
AG9G	40	40	30	75	0	0	185
KC9FXE	40	40	20	35	0	10	145
K9LGU	40	40	30	5	25	0	140
WB9WKO	40	40	30	20	0	0	130
NX9K	40	40	20	0	0	0	100
KB9GO	40	40	10	0	0	0	90
KC9UC	40	40	10	0	0	0	90



## WISCONSIN SECTION

### MONTHLY NET ACTIVITY APRIL 2024

NET	QNI CHECK- INS	QTC TRAFFIC	QTR TIME	SSNS SESSIONS	NM NET MANAGER
<b>BEN</b>	322	365	519	30	NX9K
<b>WSBN</b>	484	320	704	30	AG9G
<b>WSSN</b>	167	51	381	30	KB9ROB
<b>WIN/E</b>	162	287	286	30	WB9ICH
<b>WIN/L</b>	181	111	299	30	W9RTP
<b>WI ARES/RACES HF</b>	61	24	130	4	WB9WKO
<b>WI ARES/RACES VHF</b>	24	0	44	1	KA9KJE
<b>WI ARES/RACES DIGITAL</b>	264	2236	5760	4	KB9MMC
<b>totals</b>	<b>2820</b>	<b>5075</b>	<b>11218</b>	<b>189</b>	