Rochester DX Association

March 2025

Deadline for Next Issue:

May 31, 2025

President's Letter

Well, the bulk of the contests have passed but wow, a plethora of outstanding DXpeditions have been on!

Taking advantage of the generally favorable propagation at this time in the cycle, stuff we won't hear for years has been workable, even by the 100w and wire guys. The time of the year is helpful as well, no thunderstorms in Chicago to deal with.

W2CCC for CQWW 160 SSB
-22 Friday night, over 4' of snow

Opening the front door

Winter has made it's return after a 3 year hiatus. Last few days have been very nice with temps in the 40's and I see that will continue in a few days. Would love to think I could get outside again, that list never seems to get any smaller. For some unknown reason, my 144/440 ground plane's SWR is infinite, tough to get on the roof though to find out why.

As many of you already know, we had to "postpone" the March general membership meeting as our location may not be open for obvious reasons (Irish Pub day after St. Patrick's Day). Guess what, next year our March meeting date IS St. Patrick's Day so we'll have to figure that one out. Granted, Zoom is always available but some members do not have that capability.

In February, we met and began discussions on this years FD. Much will remain the same but being so close to #1 again, it'd be nice to find those additional QSO's. As in past years, we'll be in Webster Park once again. There will be upcoming discussions on particulars and we'd hope as many of you as possible will participate. Great strides have been made to make the event as enjoyable as possible, minimizing setup and take-down and providing as comfortable as possible operating experience. The club also hopes to actively invite other organizations that may not have a FD to join us this year.

Once again, there will be a RARA Hamfest which in years past has always been a great place to get together in the early summer. ROC City will once again be held in the late summer so several "local" based opportunities to see everyone.

Speaking of hamfests, Gayle and I went to Orlando for the first time a few weeks ago, beautiful wx, 86 and no humidity. Saw many of our local friends, some who went specifically for the event and others that have either relocated or stay for the winter. Big show and more "laid back" than Dayton I'd say. Flying, really doesn't allow for a lot of purchases though our good friends down there would have shipped anything to us we wanted. I'd once again like to thank Dave, K2DH for the idea and looks like this may become a yearly trek for us, we had an excellent time. I'd highly suggest it to any club member.

The Annual Combined Awards Banquet is Sunday 13 April at Johnny's – same lineup as in the past. See a flyer about the event elsewhere in this bulletin. Along with a great afternoon with your ham radio friends, both clubs generally hand out their top awards and acknowledge achievements from the past year. We held the line price wise ($25 per person), the facility is closed to the general public so all ours throughout the event. Cash bar

Gathering at Orlando Hamcation
8 February 2025 at Grills Lakeside
(l to r) Gary W2TR, Don K2DV, Chris K2CS, Gayle N2TWI, Bruce WA2TMC, Jeff W2FU, Dave K2DH, Dave N2OA, Frank K2OS, (N2OA's dad) Knute N2DRX, John W2JTR, Faith (K4??? A friend of Gary)

Seen at Hamcation
Gayle N2TWI holding up Andrea K2EZ's super rover

and for those that do not know, our lovely host Kristen was honored as Business Person of the Year by the Rochester St. Patrick's Day Parade (wonder how that happened?).

As has been mentioned, we're going to be moving our email reflector to groups.io soon so watch for your invitation (sent by email to your existing email address on record).

In closing, I've mentioned it before but keep up the email spots – if you hear em and can work em, many in the area should be able to as well. The cluster is nice but just because a "2" spots it, he may be in California but an email from a club member given our general footprint, much better chance that someone on the other side of the USA.

Best DX es 73,
Chris, K2CS

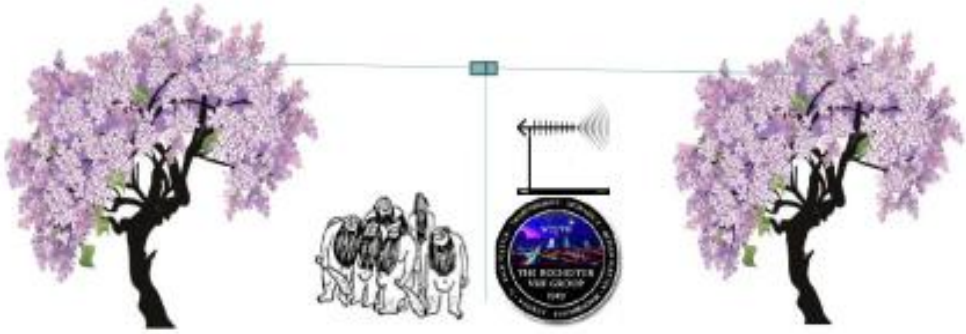
June VHF Contest (and VHF FM Activity Day)

The June VHF Contest is set for June 14 and 15. It is a good time in the solar cycle to pad the log with DX on 6 meters!

To add even more fun, that Sunday, June 15 is "VHF FM (Simplex) Activity Day" in Western NY and Southern Ontario! POTA and SOTA operations are encouraged to take place throughout the day on 2 meters (146.52, .55, and .58), 1.25 meters (223.5), and 70 cm (446.0).

More information will be shared as we get closer to mid-June, but for now simply mark June 14 and 15 on your calendar with an asterisk on the 15th for "VHF FM Activity Day" and be sure that you have the simplex frequencies mentioned above programmed and ready.

Let's Ignite the Airwaves, together!



RDXA/RVHFG 2025 AWARDS BANQUET

Sunday - 13 April 2025

COCKTAILS - 1:00PM

DINNER - 2:00PM

AWARDS TO FOLLOW

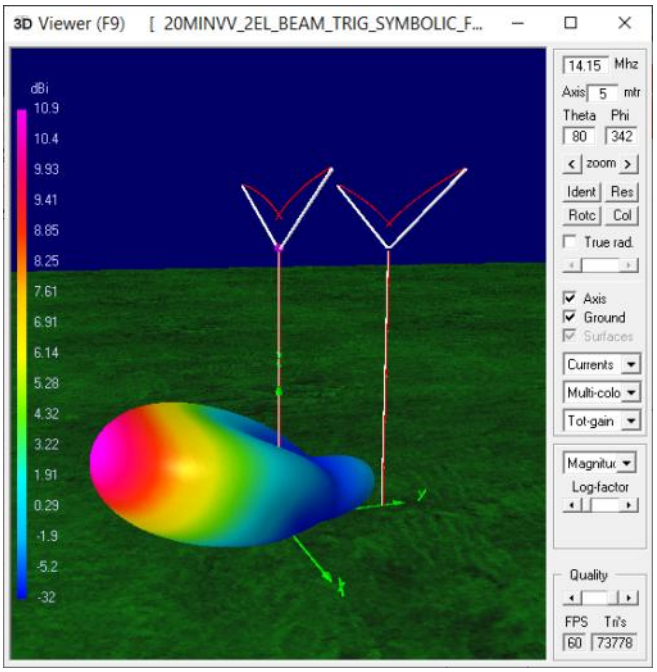
JOHNNY'S - 1382 CULVER ROAD

Cost per person $25 (payable at dinner)

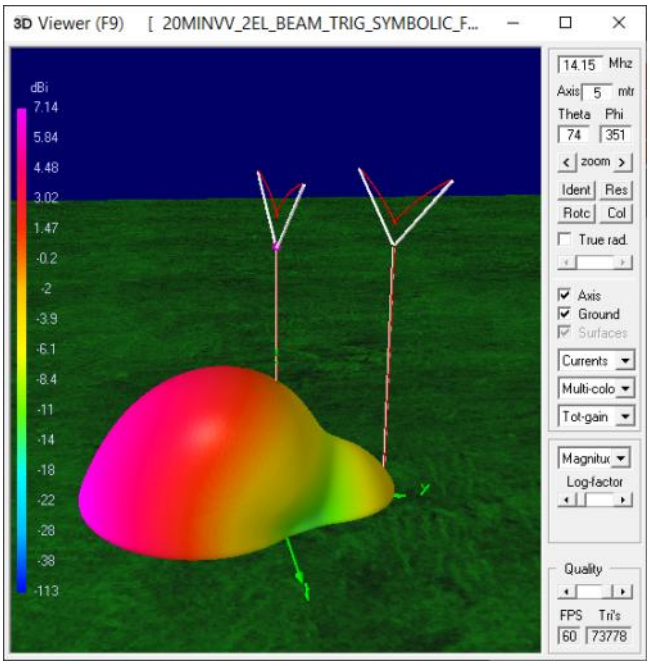
Please RSVP to rdxabanquet@rdxa.com by 4/9/2025
Please include number attending
Gayle – N2TWI

Effects of Snow on Antenna Performance.

Mike Sanchez KM2B



NO SNOW



SNOW

I was looking out the window yesterday with all of the snow and wondered: "How would the snow affect my antenna patterns?".

After some thinking and research it is fairly easy to model an antenna over pure snow if you have the dielectric constant and electrical conductivity of snow. Coming up with those numbers was a bit obscure and took more time than the modeling itself. However, the data does exist for some snow packs where the USA has gathered data.

In NY the electrical conductivity of common NY soil is around 0.5 milliSiemens/m. (Reference 1) The electrical conductivity of snow is around 12 microSiemens/m. (Reference 2) Converting the above two numbers to a common set of units:

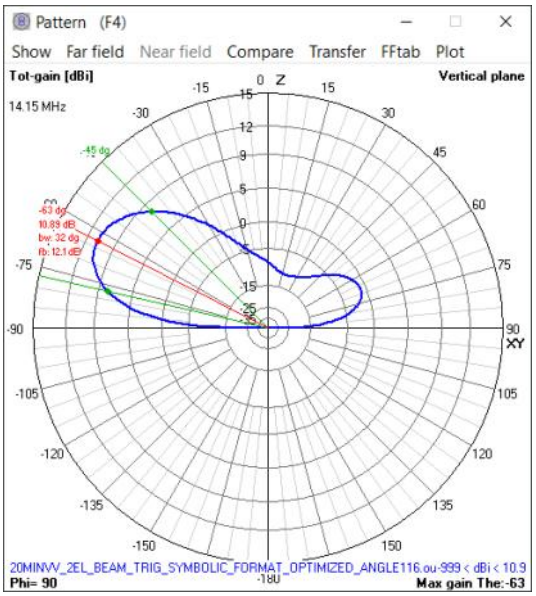
NY Soil conductivity --> 0.005 Siemens/m
Snow conductivity --> 0.000012 Siemens/m

We also need the dielectric constant for NY soil and snow.

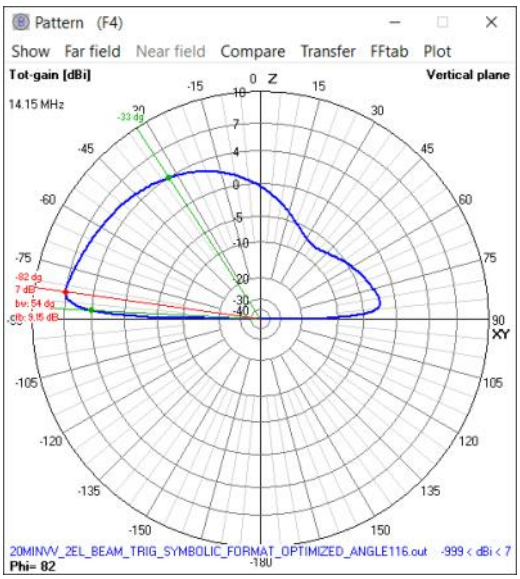
NY Soil Dielectric Constant --> 13 Reference 3
Snow Dielectric Constant --> 1 Reference 4

In summary: Snow reduces the maximum gain substantially and lowers the launch angle at which that maximum occurs.

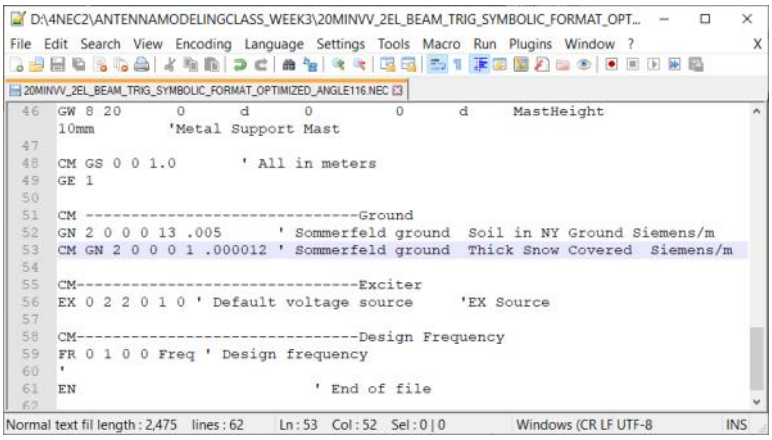
Editor's note: The "NO SNOW" and "SNOW" images on this and the next page have different scales so the reduction in gain caused by snow is not as evident as it truly is. Inspection of the takeoff angle plots on the next page show the actual gain is 11.89 dB with no snow vs. 7 dB with snow — a loss of 4.90db, most of an S unit



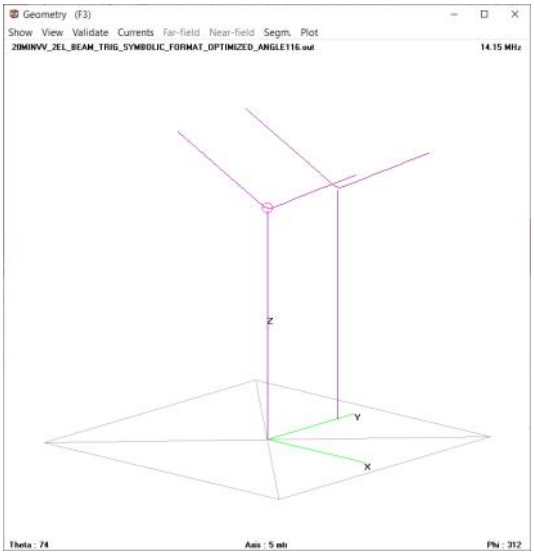
NO SNOW



SNOW



Model Changes to Enable Soil vs Snow Antenna Pattern Changes



Antenna Used: Optimized Two Elements UpVerted V Dipole 14.15 MHz

References

1. "M3 Map of Effective Ground Conductivity in the United States for AM Broadcast Stations".
2. "Measured Electrical Properties of Snow and Glacial Ice". Watt and Maxwell, 1960.
3. "Dielectric Measurements of Five Different Soil Textural Types as Functions of Frequency and Moisture Content". National Bureau of Standards. 1978
4. "Dielectric permittivity of snow measured along the route traversed in the Japanese-Swedish Antarctic Expedition 2007/2008. 2017

Winter Blues

N2BEG

Well, I noticed after the recent unprecedented February thaw, that there are daffodils poking through the ground in my front flower bed, so it would appear on the surface at least, that this God forsaken winter is truly approaching its end. (though I'm sure that will be called into question a few more times…) Never mind I still have 3" of ice in parts of my driveway at the moment. While others have had time for much DXing, contesting and project work, I have been bogged down with numerous other obligations that have prevented me from getting much air time this winter. That, along with my myriad of antenna and hardware issues, just made playing radio less than fun almost all winter. I will try not to mention my neighbor either…

My one reprieve is when I'm in my truck, usually on the way to or from work. If road, weather and band conditions permit, I can often find someone to work on the commute. Of course, that radio needs some TLC as well, but it works for the most part.

My one success story at home was my vertical repair. One day I looked out from my deck and noticed my butternut was lying on the ground. Odd, I thought. I went to have a look and found this.

Since this installation has been there for going on 4 years with no issues, was guyed at three points and we didn't have any high wind events prior to this being found, I was a little perplexed as to what had happened. Its in an odd place to be bent. The tubing didn't have any cracks or signs of failing, just bent. After noticing the tracks from deer, I surmised that one of my frequent visitors must have gotten tangled in a guy rope and freaked out, pulling the thing to the ground? Honestly that's all I can come up with. Since there are A LOT of deer in my yard constantly, I'm thinking that's probably what happened. Of course, the base of this Butternut is 1 1/8", so its not too common. My stash didn't produce any suitable piece the correct length, so I asked the group. Many of you responded, thanks to all who did. I had made plans to go look at some candidates when Redd (AI2N) replied saying he had the exact piece I needed! Since his place is a bit of a hike from me, I was going to plan a trip the following weekend, however Redd indicated he was going to be in Rochester that week and would bring it along. Perfect! He was staying the night at a hotel, so we met at the bar, had a good eyeball and I made off with my tubing. Thanks Redd! The following Sunday was a balmy day around freezing so I drilled the holes I needed and put it all back together. Success! All bands back with good SWR. One small project down, too many to go. Spring is coming.

I other news, when I have been able to get on and chase an occasional new one, I've had moderate success with just 100w and the low C3S or HF9V. Since I'm still resisting getting on FT8, its all been SSB and CW. Just this week I've managed to confirm a few new ones bringing my mixed total to 266. I'll keep plugging away as the bands wax and wane. The sun has been very unloving recently. That's pretty much it here at N2BEG. Now to bang out the NYQP plaques and prepare for Field Day!

Sharing PTT out from a Radio

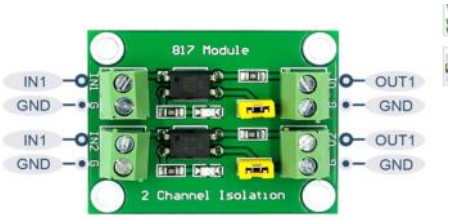
Raj Dewan, N2RD

It is common to share PTT out from a radio with more than one device. Connecting them in parallel is dangerous if the PTT voltages of the devices are different. One solution is to put diodes in series with each device's PTT, but it is even better to isolate them. More on this below.

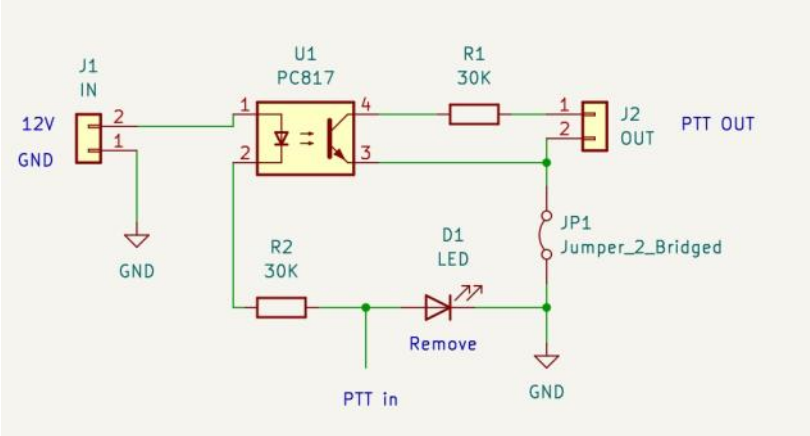
I have an Elecraft K4 that is connected to an amp RFK-2S. The PTT output from the radio is attached to the PTT input of the amp. I wanted to add a 2m transverter to the radio and connect the PTT out from the radio to it. Before connecting them, I measured the voltage at the PTT connector on the transverter. It was 12V. I do not know how well the amp is protected from overvoltage at is PTT in terminal, but I do not want to find out the wrong way. There are recent accounts on the Hermes Lite 2 SDR reflector of people blowing out the FPGA on their SDR by connecting to a PTT terminal of a device with a higher voltage.

One solution is to put a diode, preferably a Schottky diode with low forward voltage drop in series. This is shown below.

A better solution is to use an optoisolator that provides much better electrical isolation. A cheap device that works well is a PC217 that is available for a few pennies. If you are lazy like I am, you can use a board with all the devices and connectors, such as the one shown below, purchased from Amazon for $8.50 for two.



The schematic below shows one channel and the connection to the radio and the device. You have to remove LED D1 and connect the PTT in from the radio to the anode side as shown in the schematic. The draws very little current (0.4mA) and so you can easily parallel many of these isolators. You can remove jumper JP1 for even more isolation.



RDXA Results: 2024 New York QSO Party

Bold lines represent category winners.

Highlighted lines represent new records

Congratulations to all who participated! Together we logged 7671 QSOs and more than 1 miillion points!

Call	Category	Place	Operators	QSOs	Counties	States/ Provinces	Total Mults	Phone QSOs	CW QSOs	Score	Location(s)
W2FU	**Fixed Multi-Multi Low Power**	**1**	**KE2AIZ KE2AJA KE2AIY KE2EDK K2AXX WA2BCK W2FU**	**1313**	**66**	**67**	**112**	**737**	**576**	**211,668**	**MON**
N2PA	Fixed Multi-Multi Low Power	2	K2MTH W3OAB N2YB N2BSS	510	49	43	92	232	278	72,496	STE
WJ2O	Fixed Single-Op CW High Power	26		21	12	0	12	0	21	504	TN
W2TZ	Fixed Single-Op CW Low Power	5		332	32	46	78	0	332	51,792	STE
N2ZN	Fixed Single-Op Mixed High Power	5		647	50	55	105	392	255	94,710	MON
KV2X	Fixed Single-Op Mixed Low Power	10		205	35	29	64	44	161	23,424	MON
W2LB	Fixed Single-Op Mixed Low Power	16		138	46	9	55	43	95	12,815	ONT
WA2CHV	Fixed Single-Op Mixed Low Power	22		40	25	4	29	1	39	2,291	LIV
WA2QAU	Fixed Single-Op Mixed Low Power	6		478	48	33	81	181	297	62,775	GEN
KD2EFR	**Fixed Single-Op Phone High Power**	**1**		**928**	**60**	**64**	**104**	**928**	**0**	**98,612**	**NIA**
KM2B	Fixed Single-Op Phone High Power	8		112	35	18	53	112	0	5,936	MON
NG2P	Fixed Single-Op Phone High Power	11		55	30	5	35	55	0	1,925	MON
WB2HJV	Fixed Single-Op Phone High Power	13		9	5	3	8	9	0	72	MON
AC2VE	Fixed Single-Op Phone Low Power	28		57	28	4	32	57	0	1,824	MON
KD2CTZ	Fixed Single-Op Phone QRP	2		82	30	14	44	82	0	3,608	COR
W2RTY	**Fixed Single-Op Phone QRP**	**1**		**366**	**64**	**26**	**80**	**366**	**0**	**29,280**	**WAY**
K2UA/M	**Mobile Multi-One Mixed High Power**	**1**	**K2UA KW9A**	**1383**	**40**	**49**	**89**	**60**	**1323**	**240,834**	**ALB BRM CHE COL COR DEL DUT GRE HER MAD ONE ONO ORA OTS PUT ROC SCH SCO SCU SUL TIO TOM WES**
N2BEG/M	Mobile Single-Op Mixed Low Power	3		507	39	43	82	186	321	67,896	CLI ESS FRA HAM
K2GC	Portable Single-Op Phone Low Power	2		440	17	40	57	440	0	25,080	JEF LEW
W2OLI	Portable Single-Op Phone Low Power	5		48	9	20	29	48	0	1,392	WAY
										1,006,734	**Total**

RDXA 2024-25 Calendar

September 2024

~~3~~	~~BOD~~
~~14-16~~	~~**ARRL September VHF**~~
~~17~~	~~Meeting – Show Us Your Shack~~
~~**28-29**~~	~~**CQWW RTTY**~~

October 2024

~~1~~	~~BOD~~
~~15~~	~~Meeting – NYQP~~
~~**19-20**~~	~~**NYQP**~~
~~**26-27**~~	~~**CQWW SSB**~~

November 2024

~~**2-4**~~	~~**ARRL SS CW**~~
~~5~~	~~BOD~~
~~19~~	~~Meeting – K2UA – NYQP~~
~~**16-18**~~	~~**ARRL SS SSB**~~
~~**23-24**~~	~~**CQWW CW**~~
~~**30**~~	~~**BULLETIN DEADLINE**~~

December 2024

~~3~~	~~BOD~~
~~**6-8**~~	~~**ARRL 160m CW**~~
~~**14-15**~~	~~**ARRL 10m**~~
~~17~~	~~RDXA Holiday Dinner~~
~~**21-22**~~	~~**Stew Perry 160m CW**~~

January 2025

~~**4-5**~~	~~**ARRL RTTY Roundup**~~
~~7~~	~~BOD~~
~~**18-20**~~	~~**ARRL January VHF**~~
~~21~~	~~Meeting – N2RD – LoRa~~
~~**24-26**~~	~~**CQWW 160m CW**~~

** Tentative

February 2025

~~4~~	~~BOD~~
~~**8-9**~~	~~**CQWW WPX RTTY**~~
~~**15-16**~~	~~**ARRL DX CW**~~
~~18~~	~~Meeting FD~~
~~**21-23**~~	~~**CQWW 160m SSB**~~
~~**29**~~	~~**BULLETIN DEADLINE**~~

March 2025

~~**1-2**~~	~~**ARRL DX SSB**~~
~~4~~	~~BOD~~
18	Postphoned
29-30	**CQWW WPX SSB**

April 2025

1	BOD
13	RDXA/RVHFG Banquet
15	Meeting

May 2025

6	BOD
16-18	Dayton Hamvention |
20	Meeting
24-25	**CQWW WPX CW**
31	**BULLETIN DEADLINE**

June 2025

3	BOD
14-16	**ARRL June VHF**
17	Meeting – FD
21	RARA Hamfest
28-29	**ARRL Field Day**

July 2025

12-13	**IARU**
19-20	**CQWW VHF**

August 2025

19	**IRVfest**
23	ROC City Hamfest
31	Contest season concludes Membership year concludes
31	**BULLETIN DEADLINE**

Rochester DX Association

Club Station — W2RDX

Club Website —http://www.rdxa.com

Facebook group —RDXA QTH

This bulletin is the official publication of the Rochester DX Association and is published quarterly.

All those with an interest in amateur radio, DXing and contesting are cordially invited to any meeting and to join RDXA.

Meetings are held at 19:00 Local time on the 3rd Tuesday of each month, September through June. Meetings are located at Johnny's Irish Pub located at 1382 Culver Rd. Rochester, NY. Consult the club website for up to date info.

President Chris Shalvoy – K2CS
president@rdxa.com

Vice-President Mark Hazel — K2MTH
vicepresident@rdxa.com

Treasurer Mike Sanchez –KM2B
treasurer@rdxa.com

Secretary Bill Rogers – K2TER
secretary@rdxa.com

Please send all newsletter submissions, comments, and complaints to the editor:
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Appointed Positions

Webmaster	Chris Shalvoy – K2CS
Calendar Chairman	<vacant>
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Membership Dues can be sent via:
Paypal: treasurer@rdxa.com
US Mail: Mike Sanchez KM2B
8 Piccadilly Square
Rochester, NY 14625

Regular Membership: $25.00

Family, Full time Student or Out of State member: $10.00