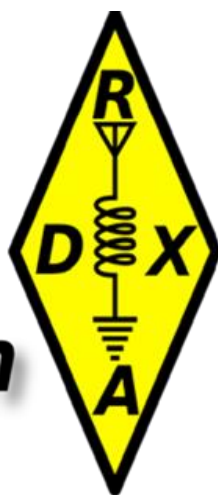


Rochester DX Association



**FIELD DAY
PLANNING ISSUE!**

CONTENTS

President's Letter	1
Submission Guidelines.....	2
2022 Field Day Thinking	3
RDXA Scores over 32 Years.....	4
New Rules Going into Effect this Year for ARRL Field Day	6
A Craigslist Winter Project.....	7
Morse Code Bracelet	8
2022 CQWW WPX RTTY.....	9
On My Workbench	10
Buyer Beware!	10
Calendar	11

Deadline for Next Issue:

MAY 21

President's Letter

As "contest season" winds down, I hope you were able to capitalize on far better band conditions and add a few more countries to your totals.

I had the chance to dust off the K2CS station and operate CQWW WPX RTTY and ARRL DX CW from home.

Nowhere near the station that W2CCC is, but a major advantage is consistent heat in the winter!

A few contests ago, went to W2CCC for CQWW 160m CW to (hopefully) finish off DXCC on 160m, being "stuck" at #99 for about a year.

When there, even listened on FT8 thru the years for a "new one" but that produced no luck.

Well, just a few weekends before K2QO and myself ran ARRL Jan VHF and saw minus 35.4 and minus 27 on Friday and Saturday nites. This year up north there hasn't been a lot of snow but the cold has been almost record setting.



During the 160m CW contest, I arrived Friday nite to 24 deg in the house. Granted, I can get the "air" temperature up to 50 or so fairly quickly but those of you that know heating, the chair, spoon, table, plate, everything the house still is 24...



That warmup takes a while.

Once I got on, the band seemed real good but (to me at least), not a lot of DX.

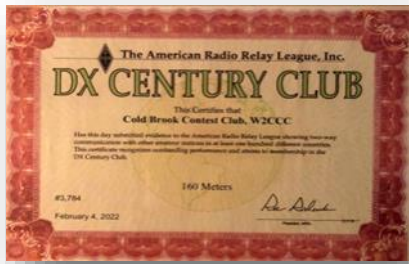
As a contester, I'm S&P all the way, turning the dial very slowly, looking for the stations others pass by. If you look at many of my scores, I generally have more mults than stations that are around me score wise – they have

more Q's but I have more mults.

So about 5pm local Saturday heard a Guernsey station calling CQ w/ no one answering. One call, in the log, and I hoped that would be #100.

Stayed on till about 4am having worked the band out.

After the log upload a few days later, that was it ,#100!



Now to focus on 30m up there as that would complete the “sweep” on HF, it’s gonna take a few more years to get to 100 on 6m but Ill keep trying.

Overall, things are settling down a bit and the club “buzz” is the return of FD. There have been several very productive meetings on the 2022 version already.

Sadly, over the last few years, several members who were FD stalwarts are no longer with us or unavailable for other reasons. It’s not just RDXA, the landscape of the entire country has changed and every group I am in-

involved with is vastly different than March of 2020.

With that, a reconsideration of FD overall is being discussed.

I am very pleased with initial responses on participation and availability. The county seems to have no problem with the use of Webster Park again but that may be one of a few similarities.

My hope, along with the board, is to have a FD that is enjoyable to those who can attend, competitive yes but focus on a little less labor intensive outing as well.

This may well be one of the first times that the group has met “in person” in years, I’m sure there will be a lot of catching up to do...

Looking forward to promoting as much normality as we are allowed.

The club is also looking at resurrecting the awards banquet in April and once again, holding IRVfest in August.

Thank you all for continuing to support the RDXA, hopefully we’re on the road back to what we’ve enjoyed (and honestly, took for granted) for so many years.

Best DX es 73,

Chris

Submission Guidelines

Microsoft Word is the preferred format for newsletter article and item submissions. If that is not possible, a plain text file, such as that produced by Notepad, is second best.

Please end each paragraph with a single return (Enter key), I have to remove excess returns by hand. And don't use returns for line breaks in a paragraph. I may be flowing the text into a different column width.

The standard body font is 11 point Calibri. If you can't do that, don't worry, it's easy for me to change.

It's okay to, use tables and bulleted or numbered lists in Word. Bold, italic, colored, and underscored text is also fine.

Images, photos and diagrams are best in .jpg format and may be supplied separately or embedded in a Word document. If you have Excel or Powerpoint stuff to be included, send them in that form.

Following these guidelines will make my job easier but, if you need to do something else, let me know and I can probably accommodate you

Thanks,
Your Humble Editor



2022 Field Day Thinking

Vic Gauvin K1PY

Recent BoD meetings have focused quite a bit on the possibilities for a club Field Day this year – an actual “in the field” event! Here is a summary of the current thinking. Note that *thinking* is the key term at this point in time. An upcoming detailed FD meeting on Feb 24 will delve into the nitty-gritty, which may modify some ideas.

General consensus

- We won't know COVID's status until we get closer to June FD (Fri 6/24 to Sun 6/26)
- It's been a while since we've had a traditional club 3A effort in Webster Park. With time away from a real FD setup and the details involved, we may be somewhat rusty and not up to the previous level of effort (age, physical challenges, etc.)
- Per above, what we can actually do will be contingent on turnout (which is difficult to determine this early)

This resulted in an overall initial “just in case” **GOAL: “A more laid back, more-catching-up-with-everyone Field Day.”**

How could we achieve this goal and offset the above challenges? The deep thinkers in the club came up with a straight-forward approach: **Make things easier.** (I know, radical thinking!).

Simplification and consolidation became the effective goals. But an underlying thread was that simplification need not necessarily reduce our effectiveness.

Planning as of 2/15

1. Since turnout is the ultimate determining factor, we generated a **Participation Survey**. Granted, this is awfully early – we've previously started something like this around April. Still, a fair number of initial replies might indicate our future potential. And it's nice to report that we've gotten a good number of sign-ups for all areas (setup at all levels, operating, etc.) (More details on this as plans develop.)
2. Per above, turnout will determine “how much of a FD” we could plan on, from a single 1A to our (regular) 3A (including GOTA and VHF). This is where you can make all the difference.

3. With Webster Park being our Field Day “home” since 1993 (wow, 28 years!), returning there would vastly simplify our setup, etc., because of our familiarity with where everything would go. Per Chris K2CS’s efforts with the park commission, it’s “looking good.” In fact, *the people he’s spoken with indicated that they’re glad to see us returning!*

Making it easier

1. The two AB-621 Mil-masts, graciously and freely provided to us for a number of years by the **Antique Wireless Association**, with special thanks to Lynn **W2BSN** and Ed **K2MP**, have been both the coolest thing to see and admire, as well as being the most difficult and physically challenging task for our Field Days in recent years. The loading at AWA, transport to Webster Park, unloading, assembly, Yagi attachment, elevating, and guying (especially ground screws), and then the same in reverse on Sunday, is a huge effort. Headed up by Lynn **W2BSN** and Doug **N2BEG**, along with a dedicated crew, is what made it happen. But it made for an exhausting wrap-up. *As great as it all was up to now, is there a simpler solution?*

PROPOSAL: In early discussions, a few members suggested push-up masts and lighter antennas. Bill K2TER has a 30’ mast with a Hex Beam next to his back deck, and is pleased with its performance, so something along these lines is the focus of attention at the moment. Spider-beam has also entered the discussion. The bottom line is that some version of this approach would be a **much** easier, simpler solution, and is under consideration. (And guess what AWA has? Yep. 40’ masts. We just need to tell them how many! What an awesome relationship.)

2. Up to now, we’ve always had two complete HF phone stations – one for Phone and one for GOTA. Nice to have such riches, but one way or the other, we generally had interference issues of some sort between GOTA and both phone and cw. How could we eliminate that, while at the same time making things simpler? How about *reducing the number of antennas?*

PROPOSAL: Before the 2020 Field Day, Bill K2TER obtained a *Dunestar Field Day HF Triplexer*. It converts a tri-band antenna to three separate, isolated antennas that can each be used simultaneously by different stations. Now with “individual” antennas for 10, 15, and 20, along with traditional 40 and 80 dipoles, we have independent antennas for all bands. Along with band pass filters (3 of which already come with the triplexer), all could be shared between the two stations! We’ve

RDXA Scores over 32 years

Elsewhere in the newsletter, I mentioned “Webster Park being our Field Day “home” since 1993 (wow, 28 years!).” That prompted me to view our results over that time period.

We were predominantly 3A. Exceptions were

- **2A Kilowatt** in ‘02, just for the fun of it after our first year as #1 in ‘01
- **All wires** in ‘11 and ‘12 after our run with 4 #2’s and our **2nd #1**

From 1989 to 2019, excepting the above kW and Wires efforts, we were never lower than Top 10 in 3A.

Breaking it down

- **Top 10:** 27 times
- **Top 5:** 22 times
- **Top 3:** 17 times
- **Top 2:** 14 times
- **#1:** 6 times (‘01, ‘08, ‘13, ‘14, ‘17, and ‘18)

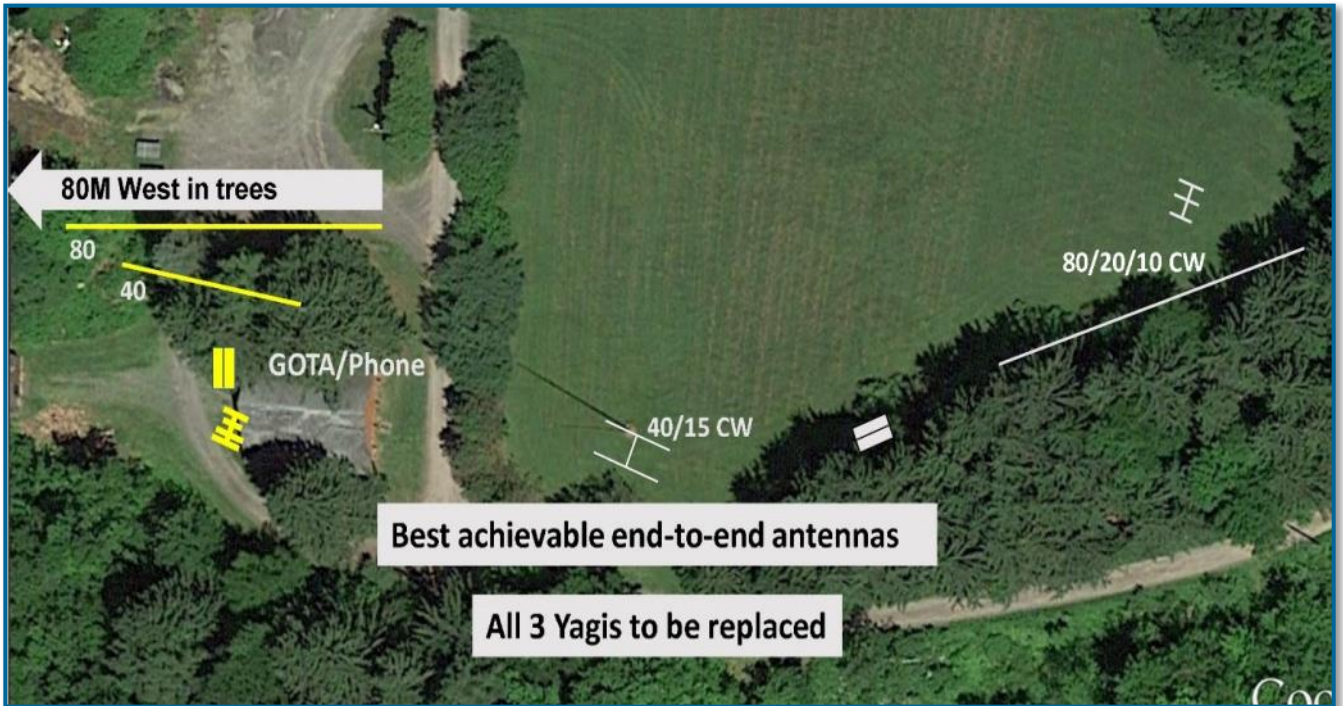
Whew!



eliminated putting up two antennas!

To make this happen, the Phone station 80 and 40 antennas along the north tree line would be eliminated. The regular A4S Yagi would tentatively be replaced by a Hex beam or Spiderbeam, and moved to the commissary and the triplexer connected. The Phone operating tent would now be along the south side or rear of the commissary. A centrally located antenna switching panel for both stations would enable easy band changes, and eliminates the two stations from being on the same band

- 3. **BONUS:** And how about the best solution we've ever had for an all time challenge? The location change would finally enable *ALL antennas to be end-to-end*. (The 80 CW dipole would move from its previous northern tree line location to the southern tree line, finalizing achieving the end-to-end goal.)



New Rules Going into Effect this Year for ARRL Field Day

Vic Gauvin K1PY

After taking a few detours over the past couple of years due to the COVID-19 pandemic, [ARRL Field Day rules are being updated on a permanent basis](#) starting this summer. ARRL conducted a Field Day community survey with invitations propagated far and wide, and direct emails sent to more than 15,000 individuals and ARRL-affiliated clubs. After sorting through, reviewing, and discussing the survey results, the ARRL Programs and Services Committee recommended a number of rule changes for ARRL Field Day, which will take place this year over the June 25 – 26 weekend.

Starting this year, the maximum PEP output for a transmitter used by anyone submitting a Field Day log will be 100 W. The power multiplier of 2 will remain in place, and the [high-power category will be removed from the rules](#). Until this year, the maximum low-power limit had been 150 W for most ARRL-sponsored operating events. The power multiplier will remain at 5 for QRP participants running a maximum of 5 W or less. As previously announced, 100 W is now the low-power category limit for all ARRL and IARU HF Contests, effective January 1, 2022.

A couple of changes instituted initially as accommodations for the COVID-19 pandemic will remain. [Class D \(Home\) stations will continue to be able to earn points for contacts with other Class D stations](#). The club aggregate scoring change initiated in 2020 as a temporary measure will become part of the permanent rules. In the aggregate scoring plan, the [scores of individual stations are combined under the score of a single club](#).

Another change, involving [Rule 7.3.2 Media Publicity](#), has been modified. Rules to date have offered 100 bonus points for attempting to obtain publicity and demonstrating same. With the ease of posting via Facebook, Twitter, Instagram, and various other media websites, Field Day participants will now be [required to obtain publicity, not just try to do so](#). Any combination of bona fide media hits would qualify for the bonus points. [For example, posting the details of your upcoming or ongoing Field Day activity, or your Field Day results, on a club or news media site](#), on Facebook, or via Twitter and Instagram would meet the bonus criteria. Photos and videos are encouraged as part of media posts.

Field Day Clarifications

Questions from Vic Gauvin K1PY, answered by Paul Bourque, N1SFE ARRL Contest Program Manager

- *The recent Covid-19 rules allowed any combination of FD categories, such as classes A, B, C, and D/E (home), to be entered under a club's name for an aggregate score. Does the 2022 rule only allow Class D?*

[Any individual operator, regardless of operating class, can contribute to the club aggregate score. The Club Aggregate will be the same as the last 2 years.](#)

- *Is it correct that stations entered in one of the above classes, and not directly participating in a club's primary "in the field" FD event, cannot consider their scores as contributing to the primary "in the field" station's score? (Their scores are limited to the aggregate score only.)*

[You are correct, the individual scores will be separate from the club's primary operation, and limited to the aggregate score only.](#)

- *I believe that a person contributing in any active way to a club's primary field event cannot additionally contact the club station from their home station. However, can they contribute a separate home score to the club aggregate score?*

[Per rule 6.1 under "Miscellaneous Rules:", 6.1. A person may not contact for QSO credit any station from which they also participate. Which in this case, "participate" means that they in any way contributed to the operation of the Field Day \(set up, breakdown, actually operating, coaching, etc\) at the main location. They still can contribute to the aggregate score, however.](#)

A Craigslist Winter Project

Chuck Lempke—NN2L

During one of our recent snowy Rochester evenings, I found myself idly browsing Craigslist to pass some time. Almost immediately, a posting caught my attention! It was a photo of a early 60's era homebrew 2 tube transmitter.. complete with a crystal. The price? Only 5 bucks! Cool! That could be just the ticket for my winter doldrums. I contacted the seller immediately to let him know I was interested only to learn that he lived a scant three miles down the road and was willing to drop it off himself. This deal kept getting sweeter!



True to his word, the seller pulled into my driveway the following day at the appointed time. We chatted for a bit outside. His name was Lee and was a novice many years ago but chose not to upgrade his license due to college and other interests. He couldn't recall where he obtained it but felt that it was of a 'classic design'. It had a 6146 for the osc/amp and a 5U4G for the rectifier. The construction was far from pretty but none the less I decided to give it a try that night after it warmed up from wherever Lee had stored it for many years.

A few hours later I plugged it in, held my breath, and was rewarded to see the filaments of both tubes starting to glow. Of course, the next thing I saw was a gush of smoke from one of the 450V filter capacitors which promptly ended the test! Age can be particularly unkind to electrolytic capacitors. With a capacitance meter I tested the remaining non-electrolytic caps and fortunately, they appeared fine. An order to Amazon was placed with a projected delivery of at least 4-5 days.

After the package was eventually tossed on my front porch, the filter caps were quickly reinstalled. As it turned out, my vintage 1964 ARRL Handbook actually contained a basic novice transmitter design who's power supply was nearly identical to my layout. I tested key voltage points

and things seemed ok yet when I connected a dummy load and keyed it, there was no output. Hmm. A careful check of the wiring eventually located a ceramic capacitor that had been disconnected for whatever reason. With a bit of resoldering, it magically started generating RF. There is an interesting little 6V bulb that dims out when the transmitter is properly tuned. An unusual design, to me at least, considering it came equipped with a 300ma. meter that clearly showed the desired grid current dip at resonance.

On Saturday I decided to attempt pushing some RF into an antenna but the first order of business was to rummage through the basement to find a T/R switch. A few minutes later I had an old MFJ 1702 switch in hand. It had been a few years since I bought it at a local ham-fest. However once I installed it, I noticed my receiver sensitivity seemed to fluctuate depending on how I rotated switches knob. Now what? Returning to the basement to disassemble it, I observed that it's internal contact reed was making a poor mechanical connections. With a bit of tweaking and some contact cleaner, the issue was solved and back to the rig it went for the RF test. Yay! My Daiwa power meter indicated a respectable output of 22W into my dummy load. The next question I had was about the quality of it's CW tone. Tuning

the transmitter seemed very touchy and depending on how you adjusted the coupling and loading capacitors, the tone was affected. A few minutes later Hal, W3PVG, down in Somerset Pa. graciously answered my CQ and addressed the concern. He assured me the tone was perfectly acceptable.. to his ear at least. He should know. He is 91 yrs old and has been mostly on CW since 1950.

That evening, I rummaged through my old parts box looking for some extra crystals. Sure enough, a couple were still there. Regretably, they were cut for 7071kc and 7074kc, a band segment awash in digital & FT8 activity. I remembered a technique from an old 'Hints and Kinks' article where a FT-243 crystal frequency could be dropped a bit. If its tiny quartz wafer was carefully removed and rubbed with a 'soft' pencil it might still oscillate but at a lower frequency. I had nothing to lose with those two frequencies so I tried it. The 7071kc rock was gently coated and it ended up on 7069kc. On the the other I added a couple of thicker graphite layers on both sides of the crystal and surprisingly, it still oscillated when reassembled. The new freq. was 7068, down a whole 6 kc. Both landed on a fairly quiet part of the band for me to use.



I'm really looking forward to some more QSO's this winter with this new addition to my shack. The heavy snap of a on/off toggle switch and warm glow of tubes bring back a flood of fond memories as a novice so many years ago.



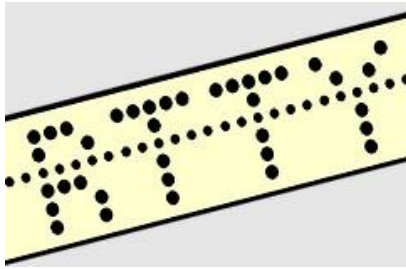
Morse Code Bracelet
 Instructor: Alice Rudolph

YOUTH ACTIVITIES // BOYS & GIRLS GRADES 3 TO 6
 The Lodge at Ginegaw Park

Join the ever growing trend of Morse code bracelets and jewelry! Create your own Morse code bracelet using colored beads and spacers to share your own personal message, unique story, or something that speaks to you (or to someone else if giving as a gift). Choose from a variety of colors and sizes to create your coded message! All students receive a Morse code translator card and assistance tying off bracelets and closures from the instructor.

DAY(S)	DATE(S)	TIME(S)	FEE
Monday	4/11	10:30am-11:30am	\$16

From the Walworth Spring Newsletter
 Submitted by Rick Minz—W1TY



2022 CQWW WPX RTTY

Chris—K2CS

After several years away from that particular mode, I decided to dust off the home station (K2CS) and put a few hours into CQWW WPX RTTY.

A while back, I setup MMTTY to use my Signalink USB and FT-1000D, think it was during a RTTY Roundup a few years ago. Made several contacts, entered them in manually (once the contact was completed) into N1MM, having no interface between the two programs.

Since I was going to be home for the weekend (a rarity) and had no plans other than our annual Superbowl Party, looked to resurrect the setup and even interface MMTTY to N1MM.

I went out to the web and found a tutorial on MMTTY setup and integration to N1MM, dated but well done.

Did I mention for some reason, the configuration that had worked several years ago seemed to have changed as I was unable to get MMTTY to function properly when last tried.

So, I uninstalled and totally removed MMTTY from windows, starting fresh with a new download and install like it had never been there (yes, even clearing out the registry as we all know, windows really never “uninstalls” anything fully).

After following the setup instructions, all seemed to go as planned. When trying out the setup, rig would key but no “diddle” - saw output power but no audio.

I use the exact same setup for FT8 so know the Signalink and windows “talk” and can produce audio. The CAT hookup obviously works too.

Whenever I clicked the TX button on MMTTY, same thing – key down, no audio.

We haven’t even gotten to interfacing MMTTY to N1MM yet, this is just the MMTTY setup.

So what is up? Followed all instructions to the letter, all seemed as it should be.

Now, I start down the AFSK and FSK road, Signalink does not support FSK and as I mentioned, it did work before.

After further investigation, I noted that when attempting to transmit w/ MMTTY, it threw the FT-1000D into LSB (as it should) but also enabled the RTTY button.

Turning off RTTY allowed LSB to function as it should and guess what, “diddles”!

So for whatever reason, the CAT interface and MMTTY put the rig into what it considered “RTTY” mode (and I suspect, that is for FSK).

Now we’re getting somewhere.

I integrated MMTTY into N1MM (old version), figured out all the correct settings and made my first QSO (with D4L), guess I’m getting out...

It was tough though as I need to look into my filters, unable to use anything but 2.0 khz so got clobbered a lot during the exchange.

All in all, fun and something I hadn’t participated in since the heyday of RTTY activity in the area generated by the “RTTY Rangers” and Mr. RTTY himself Rick, W1TY.

A far cry from the Packard Bell (with the orange phosphorus monitor) and the trusty KAM of years ago.

Made over 100 contacts during a few hours “in the chair”.

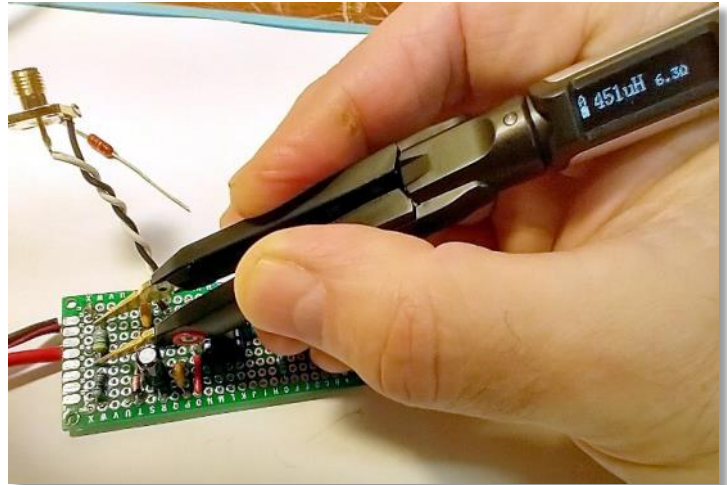
So, since propagation is looking up, maybe try another mode or band, all part of the overall Amateur Radio experience.

On My Workbench

John—AC2RL

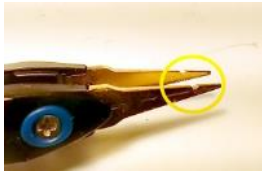
The DT-71 Mini Digital Tweezers is one of the most versatile tools on my workbench.

It will measure resistance, capacitance, inductance, frequency and diode voltage drop. For unknown components, its “Identify” function will automatically determine the type of a component, as well as its value (s). In the photo, you can see it is identifying a nominal 470 uH inductor as 451 uH plus 6.3 ohms resistance. It will also act as a signal injector, producing 3v p-p sine, pulse, and noise signals up to 100 KHz.



It charges from a USB port in two hours and the manual states it will run up to ten hours on a charge in continuous use. It goes to sleep to preserve power after 60 seconds of no motion and wakes up in a couple of seconds when you pick it up.

The display is small but very readable, even to my 72 year old eyes (tho I usually wear a headband magnifier at the bench) and the display automatically flips when inverted—great for lefties. Instead of a spring, the tweezers open with the force of two opposing magnets, which gives a very precise feel.



It’s great at identifying and measuring tiny SMD components, and I filed a couple of notches in the side of the points to make it easier to pin down and measure thru-hole components.

I got it from Amazon for \$89.

Buyer Beware!

John—AC2RL

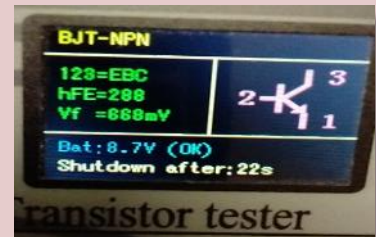
I’ve been working on a project that needed a high impedance tap to pick a signal off of a delay line chain. I found a likely circuit that used a J310 JFET. Mouser had J310s for \$4.20 each plus shipping. Ouch! Amazon, however had a package of 20 for only \$10.95 with free shipping. A bargain, right?

They arrived in short order. They looked right, but I just could not make them work in the circuit!



Well, eventually I put one of them in my transistor tester and hey, it’s not a JFET at all! It’s an NPN junction transistor, just marked as a J310.

So then I got some real J310s and everything worked fine.



Live and learn. If a deal looks too good to be true, it probably is.

RDXA 2020-21 Calendar

September 2021

7 — BOD
11-13 — ARRL September VHF
21 — Meeting
~~25-26 — CQWW RTTY~~

October 2021

5 — BOD
19 — Meeting
~~16-17 — NYQP~~
~~30-31 — CQWW SSB~~

November 2021

2 — BOD
~~6-8 — ARRL SS CW~~
16 — Meeting
~~20-22 — ARRL SS SSB~~
~~27-28 — CQWW CW~~
30 — BULLETIN DEADLINE

December 2021

7 — BOD
~~3-5 — ARRL 160m CW~~
~~11-12 — ARRL 10m~~
21 — RDXA Holiday Dinner
~~27-29 — RMSC Event~~
~~25-26 — Stew Perry 160m CW~~

January 2022

~~1-2 — ARRL RTTY Roundup~~
4 — BOD
15-17 — ARRL January VHF
18 — Meeting
~~28-30 — CQWW 160m CW~~

February 2022

1 — BOD

~~12-13 — CQWW WPX RTTY~~

15 — Meeting

~~19-20 — ARRL DX CW~~

~~24-27 — CQWW 160m SSB~~

28 — BULLETIN DEADLINE

March 2022

1 — BOD

5-6 — ARRL DX SSB

15 — Meeting

26-27 — CQWW WPX SSB

April 2022

5 — BOD

19 — Meeting

May 2022

3 — BOD

17 — Meeting

20-22 — Dayton Hamvention

28-29 — CQWW WPX CW

31 — BULLETIN DEADLINE

June 2022

7 — BOD

18-19 — ARRL June VHF

21 — Meeting

25-26 — ARRL Field Day

July 2022

9-10 — IARU

17-18 — CQWW VHF

August 2022

16 — IRVfest

27 — 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.

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

Board of Directors

Chris Shalvoy – K2CS
Mark Hazel – K2MTH
Bill Rogers-K2TER
Mike Sanchez – KM2B
Lynn Bisha – W2BSN
Dave Hallidy - K2DH
Doug Stewart-N2BEG

Appointed Positions

Webmaster	Carey Magee K2RNY
Calendar Chairman	<vacant>
DX Chairman	Chris Shalvoy –K2CS
Contest Chairman	Charles Kurfuss- WB2HJV
Banquet Coordinator	Gayle Shalvoy - N2TWI
Media Coordinator	<vacant>
Election Committee Chair	Bill Rogers – K2TER
Membership Chairman	Mike Sanchez – KM2B
Field Day Chairs	Vic Gauvin - K1PY Doug Stewart – N2BEG Bill Rogers - K2TER
Newsletter Editor	John Hall - AC2RL
Board Support	Vic Gauvin – K1PY John Gilly – W3OAB Gene Fuller – W2LU

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: \$6.25

Please send all newsletter submissions, comments, and complaints to the editor: John Hall AC2RL -- newsletter@rdxa.com

