



The *ORC* Newsletter

Official publication of the Ozaukee Radio Club, Inc. Email all contributions to the editor, Bill Shadid, W9MXQ (newsletter@ozaukeeradioclub.org). Permission to reprint articles published in any issue is granted provided the Author (as shown in the article) and the Ozaukee Radio Club Newsletter are fully credited in any publication.



ORC Repeaters on 146.97 (-127.3PL), 224.18 (-127.3PL), 443.75 MHz (+127.3PL) - Callsign W9CQO
Web site: www.ozaukeeradioclub.org Facebook: facebook.com/orcwi

Volume XLII

March 2024

Number 3

From the President

de: Bill Greaves, K9GN



Last month I described the ORC STEM Committee's efforts, chaired by Pat W9JI Volkmann, to support the West Bend Library's efforts for middle and high school students. The current opportunity for ORC members is volunteering to participate in a hands-on radio demonstration this summer to be held in the park adjacent to the library. Please do contact either Pat or me with any questions and your willingness to participate.

When was the ORC started? This is an excellent question for our next "Trivia Night" contest, and the answer is 1964. **This makes 2024 our 60th Anniversary Year. Hooray!** Some ideas on how to celebrate have been offered; one idea is to combine a celebration with the STEM summer library demonstration noted above. There could be several celebrations of ORC's 60th Anniversary. You can send any ideas and thoughts to me or any Board member. We appreciate the effort.

Speaking of efforts, our Technical Committee Chair, Gregg W9DHI Lengling, and our Repeater Vice President, Tom KC9ONY Trethewey, have been busy. The Club Repeaters W9CQO now include three frequencies at 146.970 (-) 127.3 PL, 224.180 (-) 127.3 PL, and 443.750 (+) 127.3 PL and Fusion. Excellent! Give them a try. Thank you, Gregg, and Tom.

There has been much positive feedback about Jeananne N9VSV Bargholz's presentation last month on amateur radio stamps and collecting, and Stan WB9RQR Kaplan's two volumes of stamps passed around at the meeting. Each in-person attendee received a gift from Jeananne: an Amateur Radio 5 Cent stamp from 1964. Thank you, Jeananne!

(Did the USPO put out that stamp in 1964 to commemorate the start of ORC?)

We do have a slight change in format for the March Club Meeting. Our presenter via Zoom, Dave W7UUU Ellison, is also the Program Chair for his local club and they have a meeting the same night as ours. We will move directly to Dave's presentation right after opening the meeting at 7:30 pm. Introductions around the room and on zoom will occur after Dave's presentation.

The Club membership will gather on Wednesday, March 13th both in-person and on zoom at 7:30pm, with Meet-and-Greet at 7:00pm, at the Grafton Senior Center or on zoom. The program for the meeting will be **"Rebuilding the Shack After It Burned Down"** by Dave W7UUU Ellison via Zoom. I look forward to seeing you at the meeting.

P.S. A final thought comes from Nate KC9TSO Seidler, "Have you talked with a non-ham about radio this month?"

73,
Bill K9GN



A Message from the Editor

Newsletter Table of Contents

de: **Bill Shadid, W9MXQ, Newsletter Editor**

Please note Club President, Bill Greaves, K9GN, on Page 1 for his monthly message. I want to add that it is nice to have Bill back to top billing this month!! Bill points out a lot going on.

Look for a first person experience article by Pat Volkmann, W9JI, on a favorite Vintage Special Event Station. That is followed by a short, well timed article on Volunteering, from Tom Trethewey, KC9ONY. Tom sets an example for volunteering, I might add!

It is that time of year. Ken Boston, W9GA, Awards Chairperson, presents us to Awards explanations as well as Turkey of the Year and Ham of the Year Ballots.

Tom Ruhlmann, W9IPR, is back with us this month, presenting us with a continuation of his Projects, Tools, and Tips article series. This month, Tom talks about Swapmeets, Surplus, and Parts.

Don Zank, AA9WP, and Stan Kaplan, WB9RQR, present us with their columns on Ozaukee County ARES and Computer Corner Columns, respectively. Learn about the Transcontinental Olivia NBMS Net and Auto Fill for Passwords in their popular columns. This is Stan's 312th consecutive column.

Gary Sutcliffe, W9XT, moves us into Spring with his On the Air Activities column. Check quoted fellow members and the usual, very helpful "Pull-Out" Page showing handy information about activity specifics.

Your Editor, Bill Shadid, W9MXQ, returns with a full length article after asking for readers to suggest new topics. Comments back have now passed 250!! This month's subject really seemed interesting to me – because I had never thought of this application in Vintage Radio Time. (In spite of having the appropriate gear.)

Tom Trethewey advises us of regional Upcoming Events. Take a look!

Check the minutes of the February Ozaukee Radio Club meeting as provided by our Secretary, Ken Boston, W9GA.

Jeananne Bargholz, N9VSV, our Program Committee Chair, with information on this month's program and what's ahead.

Check pages on the Wisconsin QSO Party – happening this coming weekend. And look for the Ozaukee Radio Club Spring Swapfest Flyer as the very last page.

Need help to get your thoughts on paper for an article? That is what the Editor does!! Let me know how I can help you. newsletter@ozaukeeclub.org

What's inside???

Ozaukee Radio Club Newsletter March 2024 – Table of Contents	
PAGE	DESCRIPTION
1	Bill Greaves, K9GN: From the President Monthly Update
3	Bill Shadid, W9MXQ: A Message from the Editor This Month's Table of Contents & Comments
5	Pat Volkmann, W9JI: A Vintage Station for Special Events
6	Tom Trethewey. KC9ONY: Volunteering
7	Ken Boston, W9GA: Awards Chairperson Ham of the Year, Turkey of the Year, and Other Awards for 2024
11	Tom Ruhlmann, W9IPR: Projects, Tools, and Tips Swapmeets, Surplus, and Parts
14	Don Zank, AA9WP: OZARES – Ozaukee County ARES Transcontinental Olivia NBEMS Net
17	Stan Kaplan, WB9RQR: Computer Corner No. 312: Auto Fill Those Passwords?
18	Gary Sutcliffe, W9XT: On the Air Activities! February wrap up, Solar Activity, Online Contest Scoreboard, Ham-SCI Workshop 2024, DX, Contests
27	Bill Shadid, W9MXQ: Vintage Amateur Radio Vintage Radios using Dual Receive
34	Tom Trethewey, KC9ONY Upcoming Events
35	Ken Boston, W9GA Secretary's Report – 14 February 2024 Meeting
37	Jeananne Bargholz, N9VSV: Upcoming Meeting Programs This Month's Program, Making a Presentation, & Meeting Agenda
39	Bill Shadid, W9MXQ: Wisconsin QSO Party Reminder – This Weekend!!
40	The Back Page – Quick Notes about Meeting Programs
41	Ozaukee Spring Swapfest Flyer

Onward To the Newsletter

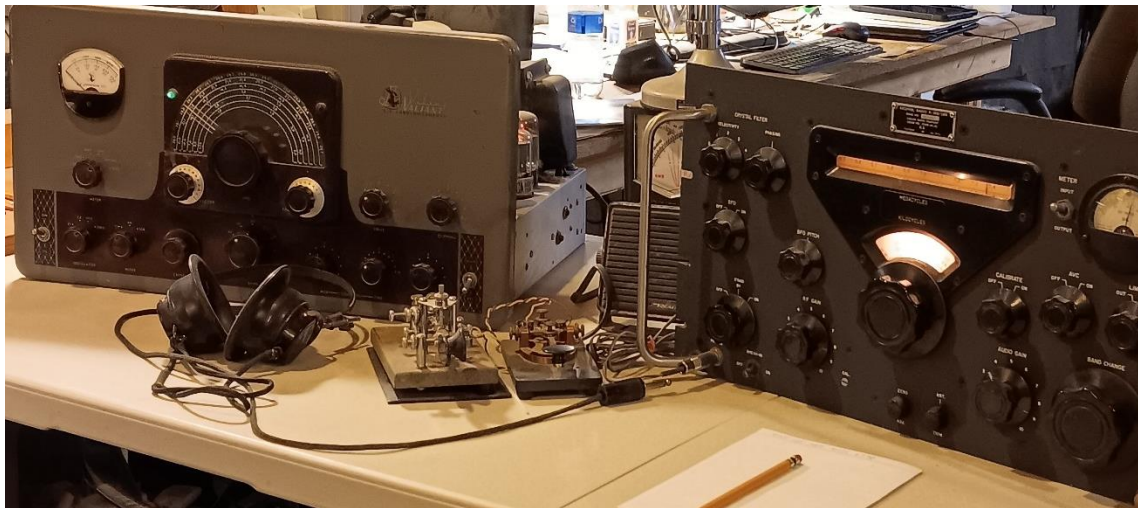
A Vintage Station for Special Events

de: Pat Volkman W9JI



I often use one of my vintage stations for working special event stations such as Twelve Days of Christmas, POTA, 13 Colonies and the Straight Key Century Club (SKCC) events. I operate mostly CW and the vintage gear lends itself to these types of activities when the band isn't too crowded. The station shown in the picture was most recently used for the SKCC Weekend Sprintathon, an event where SKCC members work other CW stations using straight keys, bugs or "sideswipers."

The transmitter is a Johnson Viking Valiant. The Valiant was made by the E.F Johnson company from the mid-1950s through the early 1960s. It is a powerful transmitter, using three 6146 tubes to produce about 200 watts output on CW and about 150 watts of AM output. I've paired it with a Collins R388 receiver, a military version of the Collins 51J series receivers. The receiver shown was made in 1962, in one of the last production runs.



**Left: Johnson Viking Valiant Transmitter, Right: Collins R388 Receiver
Foreground: "Trimm Dependable" Headphones, Vibroplex "Bug," and
Bunnel style Straight Key**

Photo: W9JI

Contrary to what you might hear on the Internet, vintage gear is quite usable in a modern setting. When properly repaired and returned to original condition, these radios work very well. The Valiant is very stable after a brief warm up and produces a clean CW note. Collins receivers are well known for their stability and the R388 is no exception. The R388 has a very good crystal filter that allows single signal reception and provides reasonable selectivity. This type of receiver would be tough

to use in a busy contest (such as November Sweepstakes) but is fine for casual operating with special event stations.

This combination of radios has been fun to use and produced many QSOs. As we enter into the new year, it's time to retire this pair and put some of the other vintage gear to work. At this point I'm not sure what is going to replace them, but if you're interested in a follow up article contact me at w9ji@arrl.net .

Volunteering

de: Tom Trethewey, KC9ONY

The Ozaukee Radio Club, Inc. 44th Annual Spring Indoor Swapfest will be in full swing on Saturday, April 27, 2024, which is less than two months away. Flyers have been printed and distributed to HRO and upcoming Swapfests.

Both the Spring and Fall Swapfests are ways for our club to raise money for the budgeted items such as the repeater maintenance and repair, as well as Field Day expenditures and upkeep of the club trailers, to name a few. As such, we endeavor to make the Swapfests as successful as we can to add to the club treasury.

As Chairperson of the Swapfest, I will be needing some volunteers to help with various duties, so that we can ensure another smooth and successful event. Look for a list of volunteer positions needed, which will be coming out shortly on the club remailer. Think about how you can help out.

You know the entire club is run by volunteers. None of the positions are paid. Consider how much work Bill Shadid W9MXQ puts in to putting out a great newsletter. It takes time and dedication, which is sometimes taken for granted.

All the officers have an interest in making the club successful and meetings enjoyable. Think about the fantastic programs that are presented during the meetings. This can't happen without volunteers coordinating getting the various presenters, setting up the Zoom equipment, auction items, and cleaning up after the meeting.

This club wouldn't have lasted for 60 years if we didn't have volunteers who made the club fun and engaging. Perhaps there is something you can add to make it even better.

Please consider volunteering.

Ham of the Year, Turkey of the Year, and Other Awards for 2024 de: Ken Boston, W9GA

Many of you, especially newer members who have joined our fair club in recent years may not be aware of our annual club awards program. These were initiated in the 1980s and were issued in conjunction with a yearly club banquet in late winter, known as the *Post Everything Party*. While that activity gradually dwindled in attendance and popularity, the gathering of nominations for, and subsequent issuance of a number of club related awards has endured. These have been described in the club bylaws, which are located under a tab at the bottom of our club webpage. I will strive to give the reader here a description of these awards, and how they are selected and given out.

The primary awards are given to club members who have been 'stand outs' over the prior year. [so, for the 2024 award, consider the calendar year 2023] There are two; Ham of the year and Turkey of the year, and both come with a travelling Brass 'cup' and a travelling plaque.

Ham of the Year is an award to be given to the club member who has contributed significantly over the prior year to the success of the ORC and the various initiatives going forward with and for the club over that year. It can be awarded to the any member, even if they have won in a previous year. Nominations are collected in the late winter and the award, a brass award cup and certificate, are given out in spring; at the April meeting.

Turkey of the Year is an award to be given to the club member who has kept the members 'entertained,' spread good will, and made the hobby 'fun' for the members over the prior year. It is awarded to any particular club member only once; and any who have won are not 'in the running' for subsequent award. Nominations are collected in the late winter and the award, a nice plaque, and a certificate, are given out in spring; at the April meeting.

There are several other awards that potential recipients can 'win' which are listed in the bylaws. These awards sow merit for contributions to Amateur radio in general, and for contributions within specific club related activities. They include Program OTY, Contester OTY, Operator OTY, Committee OTY, the Presidents stand-out selection OTY; International Goodwill OTY; and quite a few others. Further details of these awards are contained within the bylaws [policy and procedure #8] I encourage our members to check out the bylaws and the appropriate section and consider nominating any of our members who deserve recognition.

Specific ballots for the Ham and Turkey awards are published, and also will be emailed over the remainder for all to inspect. Do keep in mind the other awards and feel free to make nominations. When doing so, a few brief words noting why you feel the nominated individual deserves the recognition would also be appreciated.

Please email your nomination to the awards chairperson:

kboston6@wi.rr.com

Nominations will be closed on March 31, 2023



Remember those who stand out among us.
See Ballots on the following two pages . . .

Turkey of the Year Award Ballot: 2024

BACKGROUND: The **Turkey of the Year** award can be awarded only once to an individual. (However, the Awards Committee erred a few years back when they failed to notice that the top vote getter had previously won under a different call sign). The criterion for this distinguished award is a club member who has helped keep the hobby fun. This person has generally promoted friendship and good will throughout the year. Past recipients and year awarded (years not indicated contain hams who are SK; those deceased members: WI9M, N9CCJ, K9CAN, KA9DDN, WJ9O, W9BCK, W9VQD, K9GCF, W9LO, KA9WRL, KA9RFM, WA9JOB, N9UNR):

1981 W9NHE Ted Willett
1984 WA9OHY John Strachota now W9FAD
1985 WD9FQW Mike Behlen
1986 W9DHI Gregg Lengling
1990 KA9QLP Jim Albrinck now K9QLP
1991 W9BTN Sandy Wirth
1996 (no award given)
1997 N9QQA Gabe Chido now WI9GC
1998 KB9PZL John Maybee
2000 WB9RQR Stan Kaplan
2001 W9IPR Tom Ruhlmann
2003 WI9GC Gabe Chido was N9QQA
2004 KA4UPW Jim Hilins
2005 AA9W Ed Rate
2006 KC9GDV Mike Yugas now AB9ON
2007 KB9UKE Vic Shier now WT9Q
2008 KC9FZK Nancy Stecker
2010 AB9CD Mark Tellier
2011 N9LOO Brian Skrentny
2012 W9GA Ken Boston
2014 KC9ONY Tom Trethewey
2015 W9KR Chuck Curran
2016 K9DJT Gary Drasch
2017 KC9ZNR Zack Yatso
2018 KD9DRQ Bill Church
2019 W9MXQ Bill Shadid
2020 W9KEY Fred Schwierske
2021 K9MOI Don Lesch
2022 KC9YEP Chuck Meyer
2023 K9GN Bill Greaves

My vote for 2024 Turkey of the Year (may **NOT** be in the Turkey of the Year list from previous years):

Please email your nomination to the awards chairperson; kboston6@wi.rr.com

Nominations will be closed on March 31, 2024

Ham of the Year Awards Ballot: 2024

BACKGROUND: The **Ham-of-the-Year** award is a traveling trophy given to an amateur radio operator who has made significant contributions to the success of the club. The person **may** receive the award on more than one occasion, and to date several members have received it more than once (noted with an asterisk). Past recipients and year awarded (years not indicated contain hams who are SK; those deceased members; W9VLL, KA9DDN, W9WQ, W9LNL, WA9UVK, K9CAN, K9GCF, WI9M, KA9WRL, WA9JOB, N9UNR):

1986 *WB9RQR Stan Kaplan
1988 W9DHI Gregg Lengling
1990 WA9JMS Mark Seburn
1992 *AA9W Ed Rate
1993 *WB9RQR Stan Kaplan
1994 N9PBY Ray Meyer
1996 N9LLT Ted Heilmann
1997 AA9HR Joe Holly
1998 AA9OS Bill Raymond
2000 KG9NH Matt Singer
2001 *AA9W Ed Rate
2002 KB9SYI Jane Rediske
2005 KB9WBQ Julia Nawrot
2006 *W9IPR Tom Ruhlmann
2007 AB9CD Mark Tellier
2008 *W9IPR Tom Ruhlmann
2010 *WB9RQR Stan Kaplan
2012 K9QLP – Jim Albrinck
2014 W9GA Ken Boston
2015 *K9DJT Gary Drasch
2016 W9KR Chuck Curran
2017 N9ENR Loren Jentz
2018 *K9DJT Gary Drasch
2019 *KC9ONY Tom Trethewey
2020 K9VIN Kevin Steers
2021 W9JI Pat Volkmann
2022 N9UUR Gary Bargholz
2023 *KC9ONY Tom Trethewey

My vote for the 2024 Ham of the Year (**may** be in the Ham of the Year list from previous years):

Please email your nomination to the awards chairperson; kboston6@wi.rr.com

Nominations will be closed on March 31, 2024

SWAPMEETS, SURPLUS and PARTS

de: Tom Ruhlmann, W9IPR

A memorable project I completed was at Sun-N-Fun where we use to volunteer, and I worked on exhibits in the Florida Air Museum which was part of the facility. The most memorable project was when I had an idea to create a replica of WWII B-17 radio compartment and navigator's station. The next year when we arrived



ment. I mention it was the Boeing version since the radio operators table and shelving were plywood as was used by Boeing to save weight, aluminum, and cost. You will note that on the shelf are two ARC/Command transmitters and three command receivers. On the shelf above them was a modulator for the two command transmitters. While all the airborne equipment operated using 28 VDC dynamotors you could refer to publications from the CQ magazine for conversion sche-



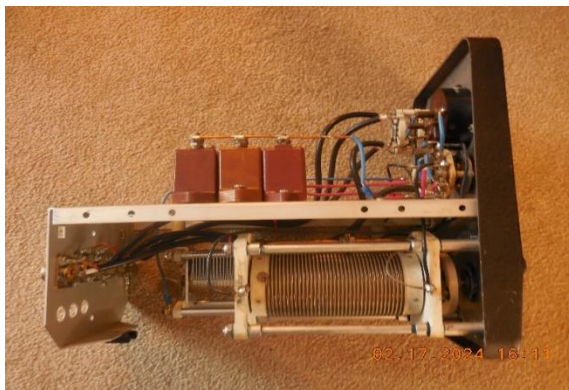
there was a section of an MD -80 in the hanger that was donated to for the project. The interior was stripped clean except for a row of seats along the Port side. I left those in place so kids could sit and imagine they were on a flight. Then we made an entrance and exit on the opposite ends. Along the Starboard side we created a B-17 navigators station complete with an astrodome and at the opposite end a replica of the Boeing made B-29 radio compart-



matics etc. These Command sets were the first transmitters receivers many of us had as Surplus in the 1950' and 1960's. On the desk were the main air to ground transmitter (ARC-13) and receiver (BC348). Why is this important? The ARC-13 was a most sophisticated transmitter made by Collins Radio for the B-29 and actually too complex for typical conversion for "HAM" use. The point is that all these items were available at aviation and "HAM" Swap-fests and flea markets.

To the right you can see how the rotary inductor and variable loading capacitor were mounted below the chassis. Since the loading capacitor is limited in maximum capacity other high voltage capacitors shown below are switched in parallel as needed.

These auxiliary loading capacitors are 3000VDC surplus capacitors and the high voltage is required due to loading long wire antennas. These 3 are shown in the chassis top and side views. Also shown is the rear of the RF current meter and the ceramic RF switch allowing use with 4 different antennas.



The point of all this? If you have a certain need, and even if you don't, it's fun and satisfying to make some of your equipment. So, keep your eyes open at the next SwapFest and auction. If you see a good deal, buy it, and build your "good stuff" box. You may have fun using it in the future.

OZARES: Ozaukee Amateur Radio Emergency Services

de: Don Zank AA9WP, OZARES Emergency Coordinator, aa9wp@arrl.net

Transcontinental Olivia NBEMS Net



Thursday morning, February 22, started like most mornings except my wife's phone had failure to register messages. She would only be able to make emergency phone calls. My phone worked just fine. Calls went out, texts went out and calls came in and texts came in. We have identical phones and use the same service, Consumer Cellular riding on AT&T. Therefore, the problem must be with her phone.

Well, of course, the first thing is to reboot. Nope. Okay, how about a hard reboot. Powered the phone down and wait for a few minutes. The result was the same...not registered. Now it was time to get serious. To the Google! Search for Samsung phone not registering. Wow, that got many hits, and many of the sites commented that this was a common problem with cell phones. Really?

Anyhow, the results provided the same suggestions that I had already tried except for removing and reinstalling the SIM card. Normally that would be a rather quick procedure, but the phone is a very secure case. Secure means it is difficult to get the phone out of the case and making the SIM card removal not an easy procedure. I didn't have time to work on removing the phone that morning, so it was put on the back burner for the afternoon.

Later in the morning I came across the news that AT&T was having serious network issues. But my phone was working fine, so it must be a coincidence. I returned to my wife's phone in the afternoon only to find that everything was working. It was not a coincidence. Technology is great when it works.

The cause was "user error" on the part of AT&T although there was speculation of other causes including a cyberattack or solar flares. There had been some severe flares just before the outage, but they were not responsible for the outage.

The AT&T outage had the potential to disrupt communications on the FirstNet network. The FirstNet system is the network established to prioritize communications for first responders. Fortunately, AT&T was able to keep FirstNet up and running.

All of this makes an "experimental" exercise I recently began working with much more relevant. There is group of amateur radio operators across the United States who have been testing sending and receiving messages by using the Olivia digital mode on the HF bands.

The Transcontinental NBEMS, Narrow Band Emergency Systems, Net sends messages across the United States using the Olivia digital mode. For more details about the mode, Check out the website:

<https://www.oliviadigitalmode.org/>

The Transcontinental NBEMS net:

- Tuesdays @ 9 PM ET/6 PM PT
- Present Frequency (subject to change based on propagation):
7068 kHz dial/backup 7108 kHz dial
- center frequency: 1500 Hz (center on NCS)
- mode: Olivia 8/500

We typically have three net control stations:

- East NCS
- Center NCS
- West NCS

Check-ins are by region(s).

Using Olivia, as the transmission mode, together with Flamp, or FI Amateur Multicast Protocol, and Flmsg, a simple forms editor, we have been testing the robustness of this system to send messages across the United States. They have tested sending pictures, files, and simple text messages and have had very good success. I have only participated in two nets as of this writing. In the first, my tuning was slightly off, by 40 Hz, but the second exercise was much better. The net is assisted by a Zoom meeting which is a great way to learn and ask questions. The last net had 24 operators checking in.

Olivia is a digital mode that is available in the FLDIGI software package. For HF narrow band digital transmissions Olivia and Thor are the preferred modes.

This complete package is available for downloading at:

<https://sourceforge.net/projects/FLDIGI/>

The FLDIGI package also encompasses a wide variety of digital modes including CW, PSK, RTTY, MT63, and WEFAX. The Flmsg package provides useful forms from ICS, the ARRL radiogram, the Red Cross, and MARS and can upload and download CSV files. Flamp then can be used to send the files to a wide range of stations. In Flamp, the message is broken into blocks with each block having a checksum. Blocks that were missed during the first transmission can be requested and only that block is transmitted, not the whole message. The blocks and checksums verify reception and make getting fills much quicker.

There are some great capabilities in the FLDIGI packages, and we are just starting to learn and use them. Next month I will have a few more trials and tests to give you a better feel of how the project is working.



OZARES Repeaters:

- **147.330 MHz (+ Shift) (127.3 PL)**
- **443.525 MHz (+ Shift) (114.8 PL)**

ORC Repeaters are On the Air Awaiting Your Call:

- **146.97 MHz (- Shift) (127.3 PL)**
 - **224.18 MHz (- Shift) (127.3 PL)**
 - **443.75 MHz (+ Shift) (127.3 PL)**
-

THE COMPUTER CORNER

No. 312: Auto Fill Those Passwords?

de: Stan Kaplan, WB9RQR, 715 N. Dries Street, Saukville, WI 53080-1664
wb9rqr@gmail.com



We all like convenience and dislike having to type passwords every time we want to enter a website such as our bank or favorite shopping site. Browsers such as Firefox, Edge and Chrome all make it easy to store those passwords locally on our machine and even offer to type the password whenever called for during a visit to the site. Very nice, indeed, and convenient as heck not to have to look up that password on a list and type it in. But, if you are like me, there is a small devil or angel sitting on my shoulder that whispers in my ear: “What if someone hacks your machine from afar

and has access to all those passwords and goes playing with your bank accounts?.” Yep, that angel or devil is correct!

So here is what I did. Being a Firefox user, I clicked this triple dash icon ≡ found in the upper right corner of the screen and then clicked the word Passwords in the menu that popped up. In Microsoft Edge, click the 3 dots in the upper right corner, then click Settings and select Passwords from the list. The three dot (⋮) icon should present a similar pathway to the password screen in Chrome.

The final result in any case will give you a list of website address, username, and passwords (blacked out thus: ●●●●●●●●) for which a password has been saved. To remove a blackout and reveal the password, click the eye icon 👁. There you have a way to list of all the passwords you have stored and even a way to copy them. It is all revealed to you, but how about to others?

All the browsers have a way to edit (click the 3 dots in Firefox Password screen), remove, or even remove all saved passwords. Think about it. You might want the convenience of having the ORC login password saved, but maybe it might be prudent for you to remove your bank login password. Realize, of course, that if you remove it, you will have to type it in each time you use your on-line bank. It is up to you, but now you at least have the tools to make the choice. Happy (and Safe) Computing!

On The Air Activities!

de Gary Sutcliffe, W9XT



Two events finished off February and early March. These were the ARRL DX Contests. The CW weekend was February 24-25, and CW was March 2-3. We are at or near the top of the sunspot cycle, so conditions were expected to be excellent.

Many long time contesters think this ARRL CW weekend was the best ever for a DX contest. Several things played into it. While we were at or near the top of the solar cycle, the solar flux was at a more moderate level of 170. The geomagnetic field was quiet.

That means the higher bands, 10 and 15 meters, were good, but the absorption on the lower bands was still low. The conditions on all bands were excellent. Many stations using wire antennas reported 1000 QSOs or more and personal bests. Some stations with mediocre antennas on 160 meters reported working their first DX on the band.

Vic, **WT9Q**, took advantage of the conditions. Here is what he had to say about the CW weekend.

“I have often heard of how amazing 10 meters can be and now I have experienced. The ARRL DX CW contest started on the evening of February 16 and ran for 48 hours. The conditions were good, and I was pleased with my contacts. Then I got an email on Saturday morning claiming that 10 meters was open. That didn't sound right because 8:00 in the morning was too early but it was open, and it stayed open for most of the contest. Of my 999 contacts 298 were on 10 meters that included 84 different countries. I made contacts from the bottom to near the top of the CW portion of the 10 meter band (28.001 to 28.161 MHz). It was great fun.”

I suffered antenna damage from that February storm that dumped so many inches of wet snow in a few days. I got on the air only to find the SWR of my Tribander was 10:1. It was too cold to climb the tower. I was pretty bummed and was not going to operate much. About a half hour before the contest, I was chatting online with a few contesting friends. They were telling me what their plans for the CW weekend contest were. It got my competitive juices flowing. At the last minute, I decided to try 40 meter, low power assisted class.

It was amazing. I was able to knock off European stations from the start. Usually, the first night is very tough from Wisconsin. Low power and 40 meters is even more challenging. I started at the top of the band and tuned down, working most stations on the first call. Later, I had great CQ runs, better than I ever had on the band, even when running high power.

My initial goal was to hit 500 contacts. I thought the chances of that were pretty slim. It turned out that I was near 500 contacts when the band closed after sunrise on Saturday

morning. I got to wondering what the W9 record for my class was. It turned out I was just below the all-time W/VE record for my class. Ultimately, I had 693 contacts with 93 countries and a final score over twice the old record. Forty meter, low power, unlimited is not a really competitive class, but the East Coast has such an advantage that winning from the Midwest is an accomplishment.

A lot of records fell during the CW weekend. It will be talked about for years. The phone weekend was two weeks later. Conditions were not as good as during the CW weekend, but overall, they were good.

I heard Fred, **W9KEY**, in many 10M pile ups. Here are Fred's comments.

"As part of a written pre-contest check list, I always review my previous year results, hoping to better them. That's not an especially difficult goal during these improving years of Cycle 25 sunspot activity. Approaching the sunspot peak, we must enjoy conditions while we can. It's a great time to be a ham!! A few years from now, we will be lamenting "the good old days" of excellent propagation.

However, being busy both Thursday & Friday, I wasn't ready for the start of ARRL's International DX SSB contest on Friday evening. I got on air an hour late, then quit at 9:00 as it was my turn to be Net Control for MRAC's Friday evening 2 meter net. At that point I planned to only operate a few fun hours during the weekend. That plan changed Sunday morning with great 10 Meter band conditions into Europe. Both 10 & 15 Meters were active into the afternoon. Only did Search & Pounce but noted a few rates approaching 90 contacts per hour. Great fun in spite of an annoying number of DX stations making many continuous contacts without ever announcing their call signs - insulting behavior!! For all new hams out there, get in the habit of saying your call sign after every Contest contact.

Anyway, I wrapped up a successful Saturday and vowed to get an earlier 10 Meter start Sunday morning. In spite of not being a "morning person," I was on-air at 7:20 AM, only to experience a problem. K0PJ is about 4 miles east of me and already had a nice run going on 10 Meters. After noticing him high on the band, I reduced power and only chased 10 meter Multipliers to minimize interference. It didn't have much impact on my score, as 15 meters was pretty good, too. Checking the HamDash page (for N3FJP computer log users). <https://hamdash.affirmatech.com/>

K0PJ eventually finished far, far ahead of me with over 1.5 million points (1622 Q's). While Sunday morning was OK, things really slowed down in the afternoon. The bands just seemed to fizzle out, or perhaps I'd already worked all the easy ones. Rates fell dramatically, and I eventually quit an hour before the contest ended – but not before beating my 2023 score!

Finished with 807 Contacts and 225 Band Countries (Multipliers) for a Score of 544,725. 10 Meters was my most active band with 349 Contacts in 68 Countries, followed by 15 Meters with 243 Contacts in 59 Countries. As I've mentioned to many new hams, if you

enjoy chasing HF DX, you absolutely must participate in a few contests each year – even if just for a few hours. With favorable band conditions, it's easy to attain a good chunk of DXCC requirements in just ONE weekend!! And you don't need huge towers with impressive antenna arrays. While that would certainly be nice, my single end-fed wire antenna hanging in the backyard trees provides quite a bit of enjoyment.

March is a wonderful ham radio month, beginning with the ARRL International DX Contest, followed by our excellent Wisconsin QSO Party on Sunday, March 10 (ORC has been a Club winner), and finally the CQ Worldwide WPX SSB Contest starting March 30. For those interested, "WPX" means "Work all call sign Prefixes" – so there are no limitations on who you contact. You work everyone!"

Gary, **K9DJT**, has not been active in too many contests the last couple of years but got on all bands running high power. He made a lot of contacts, around 950, I think, with an all band high power effort.

I found the problem with my Tribander during some nice days at the end of February. Remember that big snowstorm that left a pile of heavy, wet snow? I have big branches, and even a few trees come down in my woods. Apparently, the snow clung to the coax running up the tower. The tape holding the coax up the tower was several years old, and it looked like the extra weight pulled down the coax. That caused the balun to slide back, and the wire to the Yagi matching system broke.

That beam had been up for about 30 years, and the bolts connecting the wires were severely rusted. I didn't even try to get them off, but I just drilled new holes and used stainless steel bolts this time. It worked fine after that.

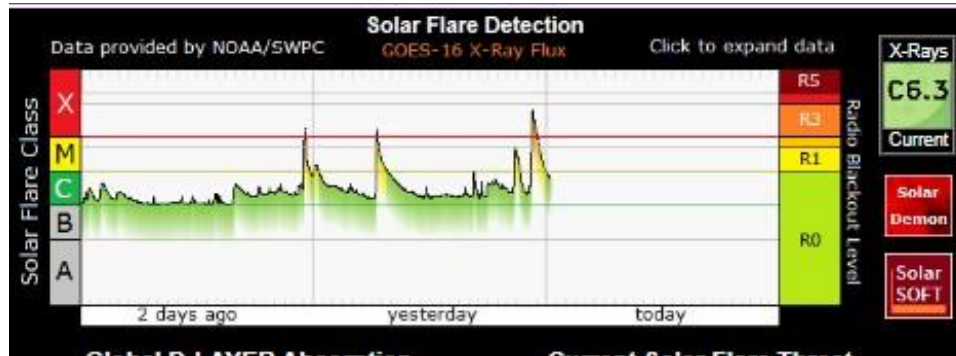
Ten meters is my favorite band, so I decided to go single band low power unlimited. My voice can't handle an entire phone contest well, so getting the nights off helped. Also, I happen to have a discontinued voice keyer that was manufactured by some ham radio company located in Slinger. That helped while calling CQ.

My goal was to beat the old US record. Conditions were good enough to do that. I had some competition with WF7T in Tennessee. There is a site for reporting scores in real time. More on that later. His location is further south and east, which gives him a significant advantage in working Europe. By Saturday night, he had over 200 more contacts than I did. Conditions to Europe were much better on Sunday, and I had some great runs. Ten meters opened up over an hour earlier on Sunday than on Saturday. I closed the gap on contacts to about 60 but had more countries, and by late Sunday morning, I caught up in the score column. The lead changed back and forth several times over the next hour or so.

There is nothing like being in a close race to keep you concentrated. He pulled out ahead and, at the finish, had a score less than 2% ahead of mine. A couple more multipliers or 15-20 more contacts would have flipped the order. Great competition! Both scores beat the old records. Again, many records appear to have fallen in the SSB weekend.

Solar Activity

Solar flares are more common during sunspot peaks. February had its share of big flares. One particularly big streak happened on February 20 and 21. We had three X-class flares and one M-class flare. These could have caused some deplorable HF band conditions, but the charged particles from the Coronal Mass Ejections (CME) were directed away from the Earth. They did cause RF blackouts in daylight areas for a few hours afterward as the X-rays emitted caused D layer absorption.



Solar flares February 20-21. Solarham.net

Online Contest Scoreboard

Ham radio contesting has been a solitary sport. You operated, and you really didn't know how you stood against the competition. Some contests have a serial number, which might give you some idea, but you don't know their multiplier status and thus the score.

In other sports, you know where you stand. There might be a scoreboard or leaderboard. In others, like racing, you see who is ahead and behind you. Not so in radio contests.

There is a site that lets your logging program send your current score to a server where you can watch. Programs like N1MM+ allow you to send your score to the server. You set how often you update it. The results are visible to everyone. The scores are sorted by class, and you can select which class(es) you want to view and which continents to display.

SO-ALL HP PHONE	Score	QSO	States/Prov/Countries	Last
1 N5DX	8,372,472	5,337	524	19:10
2 CR6K (CT4ILT)	7,217,010	7,565	318	19:06
3 ND7K (N6MJ)	5,400,861	4,196	431	19:07
4 E7DX	4,585,869	5,254	291	19:06
5 OM2VL	3,766,692	4,421	284	19:16
6 KH7M (NA2U)	3,539,454	4,486	263	19:07
7 OM7M	3,067,416	3,873	264	19:08
8 VE9AA	2,756,508	2,582	356	19:51
9 KL7SB (K16RRN)	2,497,836	3,278	254	19:08
10 N9RV	2,444,790	2,270	359	19:20
11 ZM4T (ZL3IO)	2,416,332	3,316	244	19:09
12 NR3X (N4YDU)	2,318,760	2,280	339	19:19
13 K3PA	2,043,288	2,183	312	19:17
14 KD9MS	1,228,500	1,300	315	19:07

Partial listing for the ARRL DX SSB Contest, All band, high power class. Contestonlinescore.com

You need to create an account to post scores. Anyone can watch without logging in. The people who run the site say there are many more stations lurking than submitting scores. Some testers don't show their scores because they feel they might be giving some information away. That is possible. If you see your competition's score going up, maybe they found a better band to be on and are making a lot of contacts. But, if you are unwilling to show your score, watching others is unethical.

Psychology is a big part of many sports. You sometimes see people trying to play mind games with you with live contest scores. One way is if you are close to another station. They stop sending in score updates, and you think maybe they quit or are taking a break. Maybe you relax a bit. Then, two hours later, you see an update with a huge increase in score, jumping way past you.

You need to be aware of those things. If you have a big lead, don't back off. Many stations don't use the system, and you might not know they were way ahead until the official results come out.

Seeing you are way behind can be demoralizing. But it can also fire you up. Even if you are way down the list, just the motivation to move up a few slots keeps your attention. And, of course, trying to catch up with someone close or seeing someone behind you closing in really keeps you focused.

I use the online scoreboard for most contests. It adds another dimension to contesting.
<https://contestonlinescore.com/>

HamSCI Workshop 2024

If you want to learn some deep scientific stuff regarding propagation and space weather, you don't want to miss the HamSCI Workshop 2024. Now, you don't have to jump on a plane or take a long road trip to attend. It is a hybrid event. You can participate in person or watch for free on Zoom from home. The dates are March 22-23.

Like many events, this was in-person until the COVID shutdown when it went to an online virtual venue. I started attending then, and I attended via the Internet each year.

For those that don't know about HamSCI, it is a collaboration of hams and scientists working together to better understand the ionosphere, what affects it, and how it affects radio propagation. For the most part, ham participation provides data for the scientists to use. Every time you make a digital QSO, you contribute to the database. Other HamSCI hams are more active, constructing personal space weather stations and other activities.

The conference has a collection of speakers ranging from hams to scientific talks that are, for the most part, over my head. There are student presentations as well.

This year's main focus will be the upcoming total solar eclipse on April 8. When the moon covers the sun, UV light is blocked, and the ionization of the upper atmosphere ceases during totality. This provides an opportunity to collect data that helps understand the

ionosphere's dynamics. They are asking hams to be active that day and are sponsoring a QSO party. There is more on that in the contest section.

Two well-known speakers have been announced. The first is Dr. Scott McIntosh. He is frequently seen giving talks on solar cycles for ham organizations. The other is Phil Karn, KA9Q. Phil was a leader in Internet networking and also ham radio networking.

The entire list of presentations has not been announced as of this writing. Virtual registration is also not open as of the time of this writing. Check their website as the date approaches. <https://hamsci.org/hamsci2024>

DX

March will be a bit slower than the last few months with big DXpeditions.

Benin should be on the air from West Africa when you read this. It will be in two groups. F5NVF will start the operation and stay until March 14. Three other hams will take over and stay until March 29. Expect most of the activity to be done by the second group.

A group of German hams will activate East Kiribati in the Pacific. They will be using MSHV when on FT8 with up to six streams. Do not set your WSJT for Fox/Hounds mode. They will also be on RTTY. There seems to be a resurgence in RTTY. Most DXpeditions have abandoned RTTY in favor of FT8. FT8 is easier, and good operators can run as many as three FT8 stations simultaneously.

Lesotho is a landlocked homeland inside of South Africa. Operation from there used to be common but has been seen less frequently in the last decade or so. A large group of primarily Irish hams will put it on the air this month.

Look for Vanuatu in the Pacific starting on March 12 and lasting two weeks. They will concentrate on SSB and CW the first week with maybe a little FT8. The second week will focus on CW and FT8.

There are several other operations worldwide by a single operator. I don't usually list them because many are holiday style, operating in between other vacation activities, and on the air time is often limited, and at times we don't have propagation.

Contests

Three contests highlight March. The first is the Wisconsin QSO Party. Get on and hand out your county. You can operate all bands from 160 up through VHF. If you get on, make sure you enter "Ozaukee Radio Club" on the entry form so the club can compete in the club competition.

The WIQP starts at 1800Z (1:00 PM local time) on March 10 and runs for seven hours. Note that we change to Daylight Saving Time at 2:00 AM that day, so adjust your clocks.

The WIQP is your best chance to be the hunted station where the rest of the world is out looking for you. Calling CQ is very effective for us. You can work a station on each band in each mode: CW, SSB/FM, RTTY. Note that FT8 is not permitted for this contest. Check out their website www.warac.org

HamSCI will have its Solar Eclipse QSO Party during the April 8 eclipse. It runs from 14:00 to 24:00 UTC. The main point is to increase activity to collect propagation data during the eclipse. It starts well before the start and ends after it is over to get before, during, and after data.

The eclipse will start at about 12:50 local time and end at about 3:21 PM here in southern Wisconsin. Maximum will occur about 2:06 PM. Unfortunately, it will not be a total eclipse here. We will get about 90% of totality at about 2:09 PM local. But just be patient. There will be a total eclipse in this area in 2099. I already have my lawn chair set up out there in preparation.

Activities will occur on the non-WARC HF bands. CW, SSB, or digital QSOs are allowed. You can work each station again on a different band or mode. After ten minutes, you can rework the same station again on the same mode and band. The N1MM+ logging program will support the SE QSO Party and allow duplicate QSOs when the minimum time has elapsed.

If you operate CW or SSB, give out actual signal reports, not the usual 59(9) contest reports. Set the reporting options to send data on all stations heard to PSKREPORTER if you are using the digital modes.

Despite being a hard core contester, I am not really considering this a contest. I will be on to provide data. I hope others will also get on to help science. Even if you will not spend some time operating, leaving the rig on FT8 with PSKREPORTER enabled will help provide data.

There is a lot of information on the SEQP website. Rather than repeat it here, go to the rules page. <https://hamsci.org/seqp-rules>

The CQ WW WPX (phone) contest is the last weekend of the month. You can work any station, but points depend on country, continent, and band. Check out the rules for an explanation of that, or just let your logging program figure it out. Contact with other continents and countries on low bands is worth more than working the US on the higher bands.

Multipliers are the worked station's call sign prefix (W9, K9, N9, AB9, etc.). So, multipliers are cheap. Don't waste a lot of time in a pile up working a rare one like you might in a DX contest.

That wraps up February. HF conditions should be excellent throughout March as we approach the vernal equinox and the start of spring.

The “Pull Out,” W9XT's DXpeditions, Contests and Events for March and early April 2024 Worksheet follows on the next page.



Jackson was not too thrilled with the March "in like a lion" thing.
AI Generated

W9XT's DXpeditions, Contests, and Events for March and early April 2024

W9XT's DXpedition picks for March and early April 2024					
QTH	Dates	Call	Bands	Mode	Link/notes
Benin	Mar 3-29	TY5C		CSD	Also, satellite
East Kiribati	Mar 12-27	T32EU	160-6	CSD	T32EU - Callsign page on QRZ.com
Lesotho	Mar 20-29	7P8EI	160-10	CSD	8 stations planned
Vanuatu	Mar 29-Apr 11	YJ0VK	40-6	CSD	

Modes: C = CW, S = SSB, D = Digital (may include RTTY)

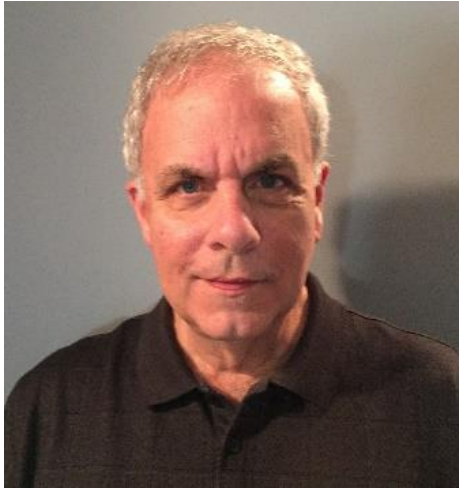
W9XT's contest picks for March and early April 2024					
Name	Start	Length	Bands	Mode	Link
Wisconsin QSO Party	Mar 10 1800Z	7 hours	160 & up	CW/Voice/RTTY	www.wrac.org
CQ WW WPX SSB	Mar 30 0000Z	40, work 36 max	HF	SSB	www.cqwpw.com
Solar Eclipse QSO Party	April 6 1400Z	10	HF	CW/SSB/Digital	https://ham-sci.org/seqp-rules

Dates/Times in UTC. Subtract 6 hours from UTC to get local (CST). 5 hours for CDT HF = 80, 40, 20, 15, 10 Meters.

W9XT's operating & event picks for March and early April 2024			
Event	Dates	Details	Link/notes
Jefferson Ham-fest	March 17		http://www.w9mqb.org
HamSCI conference	March 22-23	Virtual and In person	
Solar Eclipse	April 8	Partial totality in WI	

Vintage Amateur Radio

de: Bill Shadid, W9MXQ



In today's world, the top line transceivers available to ham radio operators include a second complete receiver. In the case of some of the SDR designs, there can actually be more than two operating receivers. Sometimes many more!!

So, what is that all about? Virtually all of today's digital based radios have a selectable Receiver A and Receiver B – with potentially a different frequency on A than on B. Most of those allow one to have those two frequencies anywhere on the same band. Some allow the two frequencies to be anywhere in the coverage spectrum of the radio. BUT what is different about the dual receiver radios is that they can listen to two different

frequencies at the SAME TIME. From the perspective of the vintage radio operator, this would seem to be nirvana. However, did you know that dual receiver (effectively, if not actually) is not all that new? In the collection of vintage radios at W9MXQ, the concept goes back to 1965? Would you further believe that, at least in the collection here, the feature exists in at least three boatanchor radios. Yet, until today's offerings, it was rarely discussed as a feature. If you are an avid DX'er operating stations running SPLIT, then you can see the advantages that are not offered by using the A-B Split offered on virtually all radios of today.

This is perhaps the very first “Dual Receiver” package offered by a commercial amateur radio equipment manufacturer. This is the Hallicrafters Cyclone HF Transceiver package. The HA-20 “DX Adapter” Remote VFO was an integral part of the dual receive operation of the radio.



**Hallicrafters SR-400 Cyclone II HF Transceiver
with HA-20 “DX Adapter” (Remote VFO)**

W9MXQ

The pictured radio is actually the Cyclone II version of the SR-400. It was introduced about a year after the original SR-400 Cyclone. It differed only in some critical circuit upgrades that experience had taught Hallicrafters. There were three versions of this radio that you can find today (if you are lucky – they are quite rare) in the form of the SR-400 Cyclone, the SR-400 Cyclone II, and the SR-400A Cyclone III. The Cyclone II is considered the most desirable. The first two used a pair of 6HF5 sweep tube finals while the final Cyclone III used a pair of 6KD6 sweep tube finals. That said, any of the three that you can find are worthwhile owning!!

This was remarkable – but it had limits . . .

1. The level in the headphones was a 50-50 split between the two frequencies. Being monaural, there was no way to split the signal (one to the left ear and one to the other). Without a significant level of concentration, it could be difficult to separate the signals and understand which was which.
2. Hallicrafters engineers were not able to prevent (or perhaps could not do within cost parameters of the radio) the radio transmitting on both frequencies at once when in dual receive mode. So, to listen to both frequencies at once, the “Dual R” position had to be selected, on the OPERATION switch, then returned to “T” (for Transmit) position when making a transmission.

These were certainly inconveniences. But it was also a revolutionary concept, to be sure.

Perhaps obvious – but the dual receive capability of the SR-400 and SR-400A was not possible without the addition of the HA-20 DX Adapter to the station setup.

Hallicrafters had other models with the capability to use the HA-20 DX Adapter Remote VFO to effectively get Dual Receive capability. This included the SR-2000 Transceiver...



Hallicrafters SR-2000 HF Transceiver

KE9PQ

The Hallicrafters SR-2000 was a 2,000-watt PEP Input (SSB) Transceiver (1,000-watts input on CW) that allowed for full amateur radio power levels in a single cabinet. (There was a matching PS-2000 Power Supply / Speaker Console.) The radio used a pair of RCA 8122 Ceramic Tetrode tubes in the final amplifier. The SR-2000 was somewhat larger than the more popular SR-400. Hallicrafters also had two other similar transceivers with the same size cabinet as the SR-400 – the SR-540 (without the “Cyclone” name) and the SR-750 Cyclone that had more output and a larger power supply than the SR-400A. The SR-540 and SR-750 are very rare, virtually impossible to find.

A side note here is that this arrangement, like another one later in this article, is effectively a dual receiver setup – but you will note that there is only one actual receiver that is receiving on two frequencies at once (via a mixer scheme). The result is the similar but there are some limitations. For the Cyclone Transceivers, the two frequencies must be on the same band and the same mode and can only be separated by a limited number of kHz – that is, the peaking of the Preselector control for the transmit frequency will determine sensitivity of the receiver section when receiving. The critical issue here is that most vacuum tube radios are not broadband and require re-peaking every few kHz for maximum performance.

The documentation included with the SR-400 and the HA-20 was lacking in describing the features of the Transceiver and the Remote VFO working together. Much is left to the imagination and user creativity. To some degree, this is typical of the times. Features were implied in advertising while details were left to the user’s imagination. Right or wrong, it is a different world, technically, now than in 1964 when the Cyclones were roaming the amateur radio world.

Some twelve years after the introduction of the first SR-400 Cyclone, R. L. Drake, in 1977, produced the first true dual receiver setup in the form of the Drake TR7 HF Transceiver with its matching R7 HF Receiver. While not highly touted, this pair, together, produced what is still a very effective dual receive setup.



**Drake TR7 HF Transceiver (Left) with Drake R7 HF Receiver
Shown with SP7 Speaker Console (Right)**

W9MXQ

Unlike the setup with the Hallicrafters SR-400, the TR7 / R7 solution involves two independent receivers – the receiver portion of the TR7 Transceiver and the separate R7 Receiver. These two radios are connected via audio, RF, and control voltage lines that includes several phono connector cables plus a proprietary Molex 15-Pin connector

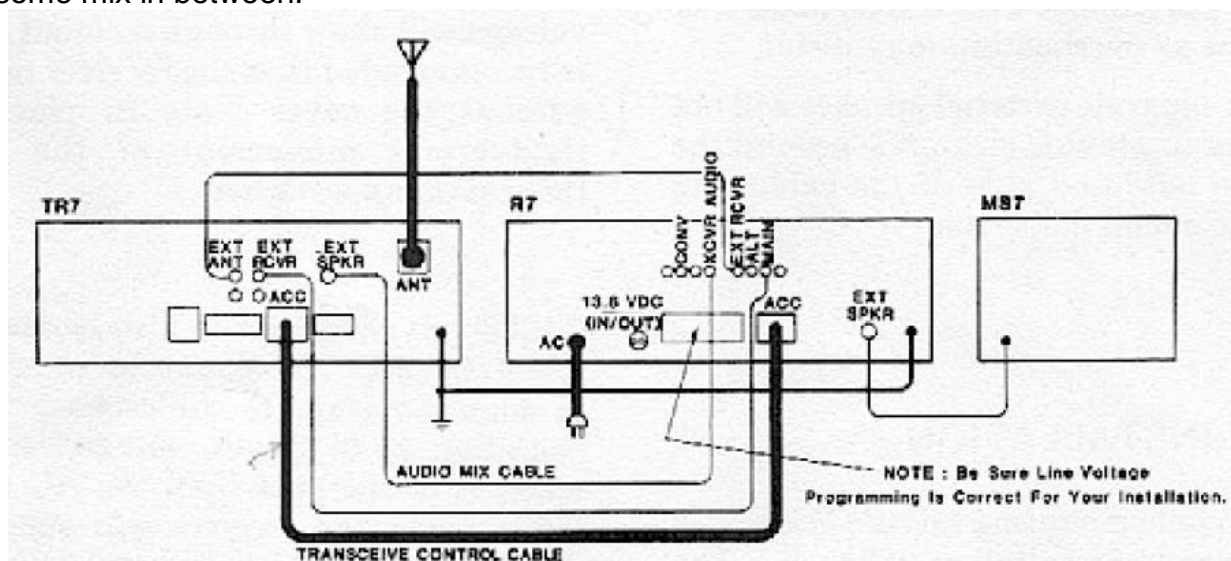
Drake "TR7/R7 Cable Assembly, Transceive," as Drake called it. The setup will not work without this cable¹.

A properly interconnected TR7 and R7 will allow for . . .

- Transceive on the TR7 dial frequency.
- Transceive on the R7 dial frequency.
- Transmit on the TR7 while receiving on the R7.
- Transmit on the R7 while receiving on the TR7.
- Transmit on the TR7 while receiving on both the TR7 and the R7.
- Transmit on the R7 while receiving on both the TR7 and the R7.

And, if that is not enough to cover your needs, you can also have the R7 chose between the same antenna being used by the TR7, a completely separate antenna, or a receiving converter. This is accomplished with the use of a front panel ANTENNA switch on the R7.

While the feature set of the Drake TR7 / R7 setup exceeded the Hallicrafters SR-400 and HA-20 DX Adapter, there was still a single monaural audio feed. Note here the Interconnection Diagram of the two units with the speaker. Audio from the TR7 is mixed, in the R7, for output through the MS7 Speaker (or the Headphone Jack on the R7). Levels to the Speaker or Headphones are a combination of both receivers with balanced set by the AF Gain control on the TR7 and R7. This can be 100% TR7 output, 100% R7 Output, or some mix in between.



Interconnection Diagram – Drake TR7 / Drake R7 Setup
Drake R7 Receiver Operating Manual

This arrangement added a new level of features to the dual frequency receive. By using a truly separate Receiver (the R7) with the TR7 Transceiver, modes can be different, bands can be different. That means in addition to operating split and listening to the monitored frequency of the DX caller, one can use this setup to be making contacts on SSB with the TR7 while listening for a CW station on a different band. That said, it must be

remembered that the primary antenna is the one connected to the TR7. That line feeds the R7 Main antenna feed. If they two units are on different bands, the R7 will be seriously attenuated if it is receiving on a different bandpass filter in the TR7. A work around for that is to attach a separate antenna to the R7. Using the ANTENNA switch on the R7, one can then pick an alternate antenna not run through the TR7.

About ten years after the Hallicrafters Cyclone SR-400 series, Ten-Tec came to market with the Corsair and Corsair II HF Transceivers with their matching 263 and 263G Remote VFO units, respectively.



**Ten-Tec Corsair II HF Transceiver
With 961 AC Power Supply/Speaker and 263G Remote VFO**

W9MXQ

Those Ten-Tec transceivers came to market with a remote VFO setup that seemed to clone and improve on the concept of dual receive as Hallicrafters had introduced.

The Ten-Tec approach smooths out the procedural inconveniences of the system Hallicrafters used by introducing some additional switching that made sure you had complete control of the transmit frequency when transmitting. That included smooth operation of the station even when in the dual receive mode. Like the approach Hallicrafters took, the system was designed to work with a monaural audio path to the speaker or headphones. However, the system used a balance control to put audio emphasis on the frequency of the main transceiver or that of the frequency on the Remote VFO in a ratio determined by the operator. So, the range of that control was to have all audio from or the other VFO (at extreme CCW or CW settings of the balance control) or something in between.

The Corsair and Corsair II, while they possess the usual Ten-Tec oddities² (most of which are not present on current day Ten-Tec products), was a radio that can be used on today's bands with good results. It possesses the mentioned dual receive capability, has a very quiet receiver by today's standards, produces excellent SSB audio on the air, has competition grade bandwidth filtering, and perhaps is the pinnacle of Ten-Tec's much complimented CW QSK system. The example shown here (the Transceiver and Remote VFO) came from a local ham that had moved up to an Elecraft K3S. Upon selling the package to me, he commented that the only advantage the K3S had over the Corsair II was its

ability to interface with his computer. An avid contester and DX'er, he loved the Corsair II³.

The Corsair and Corsair II differed in that the later model had an internal electronic keyer for CW (with a 40-character user defined memory) and a higher degree of front-end selectivity filtering. They had a similar panel layout, but the color scheme was totally different

...

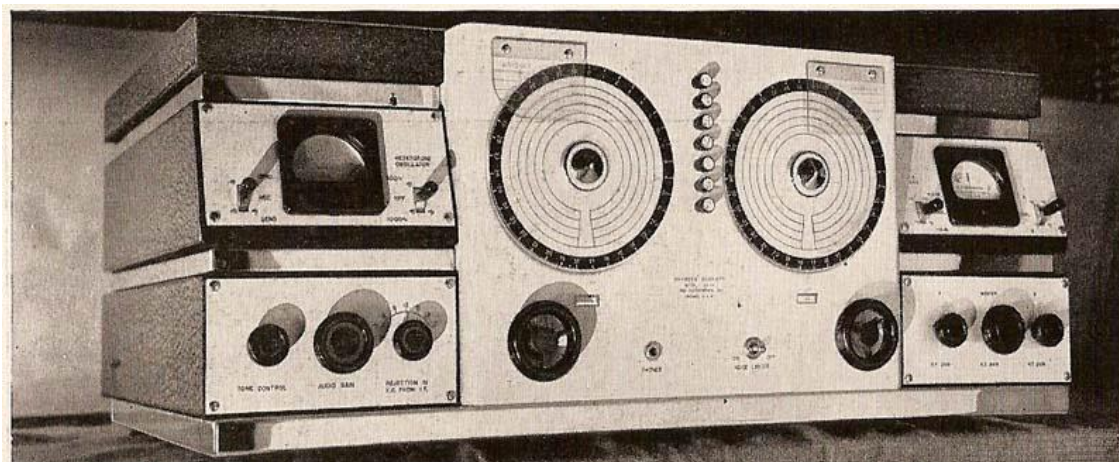


The original version Ten-Tec Corsair HF Transceiver
Note Logo above Phone Jack (left) replaced by an added control on the Corsair II.

KE9PQ

Accessory differences were minimal as well. While different colors, the Remote VFO for the Corsair was the Model 263 while the electrical and mechanical aspects of the Corsair II's Model 263G was the same, it added the "G" to the model number to denote its color difference. In use, they were interchangeable. Similar similarities existed with the matching 260 vs 260G AC Power Supply / Speaker⁴.

These three examples (more with the various versions of the Hallicrafters SR-400 and SR-2000 series) are dual receive examples familiar to me. If you know of others, please contact this author (W9MXQ@TWC.com) with details. There are other dual receivers not intended or setup for dual receive amateur use. Some quite old, such as the Hallicrafters DD-1 console from the late 1930's . . .



Hallicrafters DD-1 Dual Diversity Receiver from 1937
QST, December 1937, via https://radioblvd.com/hallicrafters_skyrider_dd1.htm

The intent of Diversity Reception was to receive via two different signal paths or polarizations in order to eliminate the effects of signal fading, noise more prevalent on one kind of polarization and not another, and other aides to improved signal recovery. The DD-1 was intended for the very high end of the amateur radio market – but was not intended to listen to two different signals, as in split operation⁵.

Collins Radio Company offered a Diversity reception product as well. It utilized an adapter unit connecting to two of their R-390 Receivers (1950's vintage) to provide Diversity reception. One form was the use of an FRR-33 Adapter (essentially an antenna coupler for two R-390's – primarily for use in RTTY setups to assist in keeping a clear signal in use. Diversity Reception as a concept did not catch on in the amateur world – perhaps due to the cost well over double the cost of a single receiver used in most installations.

Also to note, in the examples in this article, only the Drake TR7 / R7 (TR7A / R7A) product used two separate receiver units. The Hallicrafters and Ten-Tec approach was to mix the signals of both VFO's in the system (the Transceiver and the Remote VFO) to allow the listener to hear both frequencies at once. The Drake approach did not utilize the concept of using stereo headphones to hear one receiver in the left ear and the other one in the right ear, as can be done with today's truly dual receiver transceivers.

A special note of thanks to my proofreader, Bob Bailey, W9DYQ. Bob is a lot more than a proofreader as he nearly always adds commentary that makes it into the article. He even looked at this rather non-technical article!!

©W9MXQ

Notes and Credits:

¹ If the reader wants to make a clone of the Drake "TR7/R7 Cable Assembly, Transceive," they can contact this author for details at W9MXQ@TWC.com.

² One of these oddities that I think is humorous on the original Corsair but then just crazy when not corrected on the Corsair II. That would be the fact that 12-meters on SSB was lower sideband (LSB). In the real world, it was upper sideband (USB). To use the band in SSB Mode, one had to switch the MODE switch to SB-O (Sideband Opposite) rather than SB-N (Sideband Normal). My assumption is that the needed switch contacts were not available to correct the issue without an extensive redesign. I just refer to these things as the radio's charm.

³ Okay, I have not repeated the question of preference to him in the several years I have owned the Corsair II, and he has had the Elecraft K3S. For the most part, as much as Vintage Amateur Radio users like to feel their radios perform as well as current designs, the truth is that it is rarely the case!

⁴ The Power Supply / Speaker pictured above with the Corsair II is the later Model 961. While it was made for later Ten-Tec radios, it is electrically quite similar to the correct Model 260G that was made at the time of the Corsair II. Ten-Tec made the 260G, the 961, and the 962 in the same color. They all matched the Corsair II, the Omni V, the Omni VI, and the Omni VI Plus Transceivers.

⁵ The reference to https://radioblvd.com/hallicrafters_skyrider_dd1.htm in the text contains more background on Diversity Reception.

Upcoming Events

de: Tom Trethewey, KC9ONY

3/17/2024 – Jefferson, WI – Tri-County Amateur Radio Club Hamfest

<https://www.w9mqb.org/SwapFest/>

4/13/2024 – Stoughton, WI – Madison Area Repeater Association Hamfest

<https://w9hsy.org/hamfest-2024/>

4/27/2024 – Cedarburg, WI – Ozaukee Radio Club Spring Swapfest

<https://www.ozaukeeradioclub.org/>

6/01/2024 – Green Bay, WI – Green Bay Mike & Key Club Hamfest

<https://www.k9eam.org/>

6/15/2024 – Neenah, WI – Fox Cities Amateur Radio Club Hamfest

<https://www.fcarc.club/>

8/24/2024 – Baraboo, WI – Circus City Amateur Radio Club Swapfest

<http://yellowthunder.org/>

9/07/2024 – Cedarburg, WI – ORC Annual Regional Fall Swapfest

<https://www.ozaukeeradioclub.org/>

9/20/2024 – Milwaukee – HRO Superfest, ARRL Wisconsin State Convention
September 20th and 21st

<https://www.hamradio.com/>



Ozaukee Radio Club minutes of Membership Meeting. 2/14/2024

de: Ken Boston W9GA, Secretary

The monthly ORC meeting occurred at the senior center as we have returned to live in-person meetings, along with a streaming version held via Zoom. ORC President Bill K9GN began the meeting at 7:31 PM, with actual members attending, a go-around was conducted. Zoom attendees were also in attendance and were also introduced.

Program:

Jeananne N9VSV presented on Stamp collecting [Philately] with an emphasis on stamps representing ham radio, both in the USA and around the world. She gave some history, and some basics of the hobby, and showed slides of several representative ham radio stamps, plus examples of other themes in stamps, like space exploration, scouting and famous people; amongst other pursuits. Also presented were 'covers;' stamps placed on a card or envelope and showing the cancellation; particularly on the first day of issuance. Stan WB9RQR brought a few albums of examples that were passed around the room.

50/50 Raffle: This was won by Don K9MOI; winning an award of \$13.50

Scholarship Auction: WB9RQR auctioned a couple of classic receivers: HQ129x and an S38., plus some coax, ladder line and an antenna.

Committee reports: Bill, K9GN asked for volunteers to review and update out club bylaws.

1ST VP: Jeananne N9VSV: reminds all that the swag is listed on the website. She thanks Gregg W9DHI for an updated inventory; and is looking for programs for the fall, maybe a project night?

RPT VP: TECH: {no reports}

Treasurer: Gary N9UUR: Forgot to print balance sheet, did announce current solvency; nearly \$6K in checking, \$16.6K in the MM fund; over \$19K in the scholarship fund. Bills paid include the liability insurance, repeater site rental, and rent for the expo center. Members stand at 97 paid. [need 3 more to reach 100 member goal] Motion to accept made by KC9FZK, 2nd by WB9RQR, and carried.

Secretary: Ken W9GA: reported that the January 2024 minutes have been posted, a motion to accept was made by N9UUR; 2nd by WB9RQR and carried.

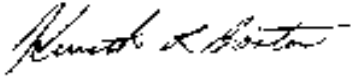
STEM: Pat W9JI: ORC will be purchasing ARRL publications and some STEM kits for placement in the West Bend Library. ORC has been invited to perform a demo of Ham radio at the Library on July 15; and may serve as an event supporting the ORC 60th anniversary. Further, we may be able to serve the Cedarburg Library via help from Don Zank AA9WP.

OLD business: Tom W9IPR reiterated the proposal that new members receive a name badge for free upon joining.

NEW business: Pat W9JI proposed that ORC creates a 60th anniversary event in conjunction with an upcoming demonstration that is planned at the West Bend Library this coming summer. Ken W9GA reminds members that the awards nominations are open; details to follow.

Adjournment: WB9RQR moved to adjourn, KC9FZK 2nd, motion carried; time end was 9:07 PM. There were 17 in-person attendees, 12 zoom attendees.

Respectfully submitted;



Kenneth Boston W9GA, Secretary:



W9XT Photo

**Daylight Savings Time Arrives on Sunday
Set your Clocks Forward One Hour.
Sunday, 11 March 2024**

This Month's Meeting: March 13, 2024 - 7:30 PM
Program: From the Ashes: Fire and Rebuilding the Ideal Ham Shack by Dave Ellison, W7UUU

de: Jeananne Bargholz, N9VSV

Dave is back to finish what he started telling us about rebuilding the shack that burned down. If you recall, Dave was forced to cancel his presentation twice, due to poor internet service.



Picture: QRZ/W7UUU

Dave Ellison W7UUU holds an Extra class license and has been an active amateur radio operator since 1974. Now retired after many years running a marketing firm, Dave is currently the Director of Forums for www.QRZ.com and an active member of the Radio Club of Tacoma. His program covers his devastating shack fire in October 2020, with lessons learned, and offering up ideas for shack construction based on his own experiences.

Upcoming Meeting Programs:

April: Vic Shier, WT9Q – The Solution – A Fan Dipole for 160/80 Meters
May: Paul Martis, W9PEM – Batteries for Ham Radio – Comparison and Applications
June: Gary Sutcliffe, W9XT and Pat Volkmann, W9JI – Contesting
July: Gregg Lengling, W9DHI – Repeater Receiver Voting Process/Operation
August: Bill Shadid, W9MXQ – The End of the Line – the Drake TR5 Transceiver
September: To Be Determined
October: Project Night **
November: Stan Kaplan, WB9RQR – Building a Crystal Radio
December: Gary Sutcliffe, W9XT – Digital Modes

****Project Night**

Sign up for Project Night! This is a round-robin of 5 minute "Show and Tells" of some of our members' latest amateur radio-related projects! This is a way to showcase your antenna work, home brews, problem solving and even kit-building or modifications. It can be a work in progress or complete. The real trick is to summarize your project in a 5-minute (or so) presentation with a few photographs. This is open to all members regardless of how you attend meetings (in person or via Zoom). If this generates only a handful

of responses, the time allotted for each project will, of course, be a bit longer. Contact Jeananne, N9VSV 1stvp@ozaukeeclub.org if you would like to be on the list!

The monthly program is the highlight of the Ozaukee Radio Club meeting. We are fortunate to have many talented people in our club, many of whom have shared their knowledge through a presentation. Programs can be on any ham radio-related topic. Please consider sharing some of your experiences with the rest of us. If you have an idea and would like some help putting a program together, contact me at 1stvp@ozaukeeclub.org.

We are also currently in need of a member to chair the Programming Committee. If you have any programming experience or think you would enjoy coordinating our monthly meeting programs, please let me or any of the board members know.

ORC Meeting Agenda

13 March 2024

- | | |
|---|--|
| <ol style="list-style-type: none">1. 7:15 – 7:30 PM
Check-In and Introductions2. 7:30 PM Call to Order:
President Bill Greaves (K9GN)3. Announcements, Bragging Rights, Show & Tell, Upcoming Events, etc.4. Dave Ellison W7UUU
Fire and Rebuilding the Ideal Ham Shack5. President's Update:
Bill Greaves (K9GN) | <ol style="list-style-type: none">6. 1st VP Report:
Jeananne Bargholz (N9VSV)7. Repeater VP Report:
Tom Trethewey (KC9ONY)8. Secretary's Report:
Ken Boston (W9GA)9. Treasurer's Report:
Gary Bargholz (N9UUR)10. Committee Reports11. OLD BUSINESS12. NEW BUSINESS13. Adjournment |
|---|--|



The 2024 Wisconsin QSO Party

de: Bill Shadid, W9MXQ

Historically, Ozaukee Radio Club has been a significant, if not winning club player in the Wisconsin QSO Party. Should 2024 be any different.

Get on the event, work as many stations as you can (inside Wisconsin and outside Wisconsin, anywhere¹), and submit your score, crediting "Ozaukee Radio Club." (The club name must be spelled out – not just, "ORC")

General Information Link: <https://warac.org/wqp/wqp.htm>

Rules Link: https://warac.org/wqp/wiqp_rules.htm



2024 Wisconsin QSO Party

Sponsored by the West Allis Radio Amateur Club
March 10, 2024 - 1:00 pm - 8:00 pm
First day of Daylight Saving Time

Seven Hours of Radio Fun!

WI QSO Party Committee

- Chuck Dellis W9WLX
- Tom Macon K9BTQ
- Howard Smith WA9AXQ
- Jeff Pahl W9JSP

Tom Macon, K9BTQ
WIQP Team

¹ Stations outside Wisconsin can only work Wisconsin Stations for the event. I know we have readers from outside Wisconsin – this message is for you!! Join us for this special annual event sponsored by a sister club here in the Milwaukee Metro Area.

The Back Page

**This Month's ORC Meeting
Hybrid In-Person/Zoom Meeting
13 March 2024**

Program:

**Dave Ellison, W7UUU
Fire and Rebuilding the Ideal Ham Shack**

7:00 PM – Doors Open

7:15-7:30 PM – Zoom Check-In

7:30 PM – Meeting Begins

**NEXT MONTH
Hybrid In-Person/Zoom Meeting
10 April 2024**

Program:

**Vic Shier, WT9Q
The Solution – A Fan Dipole for 160/80 Meters**

The Ozaukee Radio Club presents its 44th Annual Spring Indoor
Amateur Radio, Electronics & Computer



SWAPFEST



featuring **TOWER ELECTRONICS!**

Saturday, April 27, 2024 – 8 AM to 12 PM (setup begins at 6 AM)

Ascension Columbia St. Mary's Center (Milwaukee Curling Club)
W67N890 Washington Ave., Cedarburg, WI 53012

Talk-in: 146.97 MHz – PL 127.3 Hz

Door Prizes! Free WIFI

Food sold by Cub Scout Pack 516/586

Admission: \$7.00 at the gate

Children 12 and under FREE, with a paid adult admission

6 ft. Tables: \$12.00 in advance, \$15.00 at the door, if available

Use the Order Form below, email, or call Tom Trethewey, KC9ONY at 262-421-6351

Email: swapfest@ozaukeeradioclub.org

More information: <http://www.ozaukeeradioclub.org/> or <http://www.facebook.com/orcwi>

For Advance Tickets and Tables, send check with a **SASE** (Business-Size #10 envelope) to:
Tom Trethewey, KC9ONY- W69N905 Evergreen Ct N, #202, Cedarburg, WI 53012-1170

Name: _____

Call sign: _____

Address: _____

Phone number: _____

Email: _____

No. of Tickets: _____ X \$7 = _____

(Advance tickets are double stub)

No. of Tables: _____ X \$12 = _____

Electricity: Yes (Add \$5) _____ No _____

Total Amount: _____

(Please make checks payable to ORC)