



Volume 14 Issue 3

The official newsletter of the Straight Key Century Club
"The Rag Chew"
Editor: K8AQM/VE9AQM

September, 2021

Canadian Operating Event...VE9SKCC/VE# All September, 2021

Just like K3Y, the Canadian Operating Event will be a month long activity with Canadian stations signing up to operate as VE9SKCC/VE#. Canadian SKCC members may contact the following coordinators for operating times:

VE9DCD..... VO1, VO2, VE1, VY2, VE9,
 VY9 (if any)
 VE3RDE..... VE3, VE2, VE8, VE0 (if any)
 VE4DL..... VE4, VE5, VE6, VE7, VY1 and VY0
 (if any)

Email address of coordinators for signup times (the same address for all coordinators):

coe-manager@skccgroup.com

Calling CQ and the exchange format is basically the same as K3Y:

CQ CQ CQ COE de VE9SKCC/VY2
K8JAD de VE9SKCC/VY2 ur 599 PE Ted VE9AQM 1629s BK
QSL TNX Jeremy 73 de VE9SKCC/VY2 QRZ?

Sign-up for Canadian operators will begin mid-August. If you were a K3Y/NA operator you know how much fun this can be. It's the closest thing to being DX and think of all those SKCCers worldwide wanting to work you!



A QSO database upload system similar to that for K3Y is in the works and will be available for the event. QSLs will be handled by the SKCC bureau just as K3Y cards are. Come join the fun!



Confirming QSO with	Date Day / Month / Year	UTC	NRx	RST	MODE
	Sept. 2021				





The Straight Key Century Club's new on-air event promotes the club's many Canadian members. At this time the SKCC board wanted to extend the fun of hand key CW throughout the year. VE9SKCC is the special call sign that has been granted for this "KEY" event. We refer to the event simply as the "Canadian Operating Event."

VE9SKCC runs from Sept. 1st. through the 30th. It's a perfect time to introduce or reacquaint hams to the fun of hand-keyed Morse code sent with straight keys, bugs, and side-swipers. Members and non-members alike are welcome to hunt the Canadian based VE9SKCC stations. Non-members are encouraged but not required to use straight keys for their VE9SKCC contacts. This year we hope to field VE9SKCC operators in all Canadian Provinces.

You can track your progress working the event stations by referring to the Stats section on the Canadian Operating Events page. Check for regular updates in your standings for Number of Areas, Bands and VE9SKCC operators to document your success.

Earn a QSL card by making at least one contact with any VE9SKCC event station. Work all Provinces for a basic sweep; check the Op Schedule and Operator Map links to find where and when the VE9SKCC stations are operating.

For SKCC members VE9SKCC is a great opportunity to make lots of progress toward various club awards. Contacts with VE9SKCC stations are valid for SKCC awards purposes. Also, by signing up as a VE9SKCC Operator you can readily log dozens or hundreds of award-eligible QSOs with other SKCC members.

Would you like to sign on as one of our VE9SKCC Operators? You can try it for just an hour or two. Or reserve a series of time slots throughout the month. Code speed and station sophistication are not important. The on-air exchanges tend to be fairly relaxed. Please contact the Regional Coordinator in your area for more info. He or she will be eager to sign you up. Our VE9SKCC Operators are key to a successful event!

Be sure to listen for our VE9SKCC operators during September and work 'em when you hear 'em!

73,
The Canadian Operating Event Committee

Free Information Everyone “Must” Have In The Hamshack!

Here are two free PDF files to download to help you improve your station's performance.

Common-Mode Chokes - Yankee Clipper Contest Club (<http://www.ycc.org>)

This an excellent article about common mode chokes which will help reduce the noise level of your receiver and improve you antenna performance. Just go to the YCCC web site as indicated and download this free PDF.

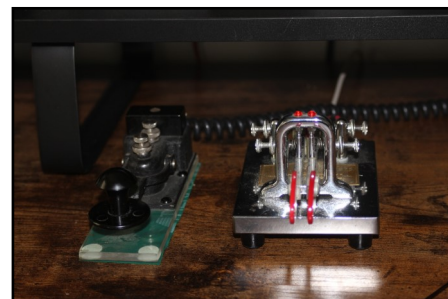
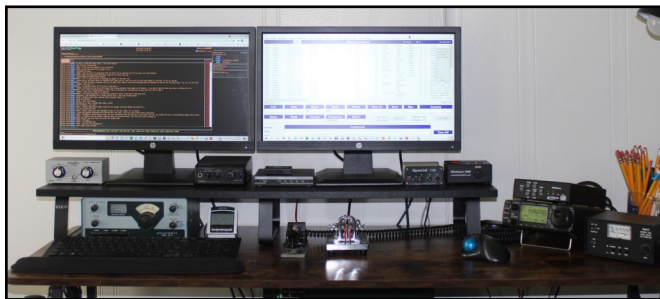
Here is another excellent free pdf download about improving station performance. Track down those strange noises and prevent intra-station interference (good ideas for Field Day). Head to the Vibroplex web site and download for free.

http://www.vibroplex.com/techdocs/INRAD/MII_W2VJN.pdf

Finally, visit the K9YC site. Scroll down to the ham radio articles...lots of great free info!

<http://audiosystemsgroup.com/publish.htm>

Improve your ability to hear those QRP signals, keep your signal clean and enjoy your operating more.



Well last evening I had a brief but excellent QSO with another SKCC member. As is usual I have the radio on while I'm doing stuff that needs doing and I heard a CQ SKCC, Oh yeah, I'm on that like white on rice. Well to be fair we struggled a bit and I feel that at that time in the evening my propagation window was closing fast on 20m. Full disclosure here, I only run 5 watts (for lots of reasons but the main one is I ENJOY QRP). The antenna is a wire strung in the tree to the side of my house but nonetheless we made it. My little corner of the world to PA, about 950 miles and at that time of the evening I'll take it. So thanks John for hanging in there and making my evening, you were terrific. 73 all and keep on doing what you're doing, you are a fantastic bunch of which I am proud to be a member. – 73, Wayne NQ0RP 1155T

As an aside a huge thank you to all you ops who pull us QRPPers out of the noise for a FB QSO.

The following article appeared in the Fort Wayne ARC June issue of "Ham News" and reprinted with the author's permission.

Multi-band Antenna Designs

There are many different kinds of multi-band antenna designs nowadays, and all of them have one thing in common: Cover the most number of HF bands possible with the least amount of wire and expense possible. In this month's article, let's take a look at some of the more popular multi-band HF antennas now in use by radio amateurs.

Design #1) The G5RV (and its derivations)

Probably one of the most common multi-band antennas in use today is the G5RV. The classic G5RV (designed many decades ago by British amateur G5RV) was originally intended for single-band operation on the 20m band. As time wore on, amateurs discovered that they could use the G5RV on multiple bands with the addition of a wide-range tuner. Today, several variations have been developed of the G5RV, the most famous of which is the ZS6BKW, which uses a specific length of antenna and "tuned feeder" balanced line to achieve low swr on parts of multiple bands.

Advantages: Easy to build at home; increased signal strength due to the addition of gain (similar to an extended double zepp at the expense of some increased deep nulls); Easy installation; multi-band abilities with the addition of an external tuner (assuming low loss in the feed line).

Disadvantages: Deep nulls that can make copying stations in certain directions impossible; Requires a wide-range tuner to cover every band; Extremely high swr on some bands (like 30m); Higher risk of high-losses occurring in the feed line, resulting in a low effective radiated power;

Design #2) The Off-Center Fed Dipole (and its derivations)

The Off-Center Fed Dipole (or OCF dipole) is actually an old design that has been updated since its inception as the "Windom" antenna in the 1920s by Loren Windom, 8GZ (later W8GZ and a general in the U.S. Army). The Windom antenna used a single wire feeder that connected to a dipole antenna. The feed point of the Windom was done at an "off center" point, instead of the exact middle of the antenna, creating a "short" and "long" leg to the dipole. This arrangement meant that hams could use the now "off-center fed" antenna on multiple bands, so long as those multiple bands were even harmonics of each other (e.g. 80m, 40m, 20m and 10m). Eventually, the single-wire feeder was replaced with coax cable and the "Windom" antenna morphed into the "Off-Center Fed dipole." Today, OCF dipoles are fed with 50 Ohm coax which connects to the antenna's feed point through either a 4:1 or a 6:1 impedance transformer, depending on the manufacturer/home brewer and the antenna's height above ground. The most popular derivation of the OCF dipole is the Carolina Windom (which technically is not a Windom but an OCF dipole that uses a resonant 1/4 wavelength of coax to pick up operation on a non, even-harmonic band such as 15 or 17 meters).

Advantages: Multi-band use without the need for an external tuner (at least for most of the bands); Length equal to a traditional dipole antenna; Broadside radiation pattern on lower bands of operation, similar to a dipole; Low cost to build/repair; Easy to put up

Disadvantages: High amounts of common-mode current, caused by the off-center feed point; Requires good common mode chokes (due to the off-center feed point); Does not cover non, even-harmonic bands like 30m, 17m, or 15m (unless the antenna is a Carolina Windom); Difficult to build the 4:1 or 6:1 transformer for beginning antenna home brewers

Design #3) End-fed Antennas (9:1 end-feds, end-fed half waves, and random wires)

The end-fed antenna is a bit of a hybrid antenna, mixing design ideas with an early antenna known as the “Zepp” (used on Zeppelin airships in the early 1900s) and the “random wire” or “long wire” antenna (simple wire antennas fed at one end). All end-fed antennas require a main radiator (the “antenna”), an impedance transformer (using a 9:1, 49:1, or 64:1 ratio), and coax cable to act as a “counterpoise”. 9:1 end-fed antennas use a semi-random length of wire for the main radiator that is not a 1/4 or 1/2 wave multiple on any particular band. A counterpoise wire is usually used in addition to the coax cable. 49:1/64:1 end-feds, known as end-fed half-waves or EFHW, use a length of wire equal to 1/2 wavelength on the lowest band of operation. Recommended counterpoise lengths are usually 0.05 wavelength’s long, although many folks only use their coax cable as the only counterpoise. Both end-fed designs use some type of impedance transformer wound on a ferrite toroid (a type 31 mix is common). EFHW end-feds are resonant on all even-harmonically related bands, whereas 9:1 end-feds are resonant on pretty much every band. SWR values for either antenna will be less than 3:1 on most resonant frequencies.

Advantages: Easy multi-band use with less than 3:1 swr on most bands (if using the 9:1 variety); Easy installation; Low cost to build/maintain; Performance similar to simple dipole antennas

Disadvantages: Large amounts of common mode current if not choked off by current chokes; Difficulty in building impedance transformer for new antenna builders; Installations and swr values vary depending on length of antenna radiator/coax cable/counterpoise chosen; Main lobes of radiation differ, depending on radiation feed line, antenna radiation, and height of antenna.

Design Idea #4) The 43-foot Vertical

The last antenna we will look at is the 43-foot vertical. In reality, the 43-foot vertical is nothing more than an end-fed antenna that has been installed in a “vertical” configuration with a 4:1 impedance transformer at its feed point. Instead of using one or two “counterpoise” wires like a traditional end-fed, the 43-foot vertical uses a traditional ground plane of 8, 16, or more radials, similar to a typical 1/4 wave vertical antenna. The 43 foot length is not anything particularly special, other than that it is a non-resonant length on any particular band (e.g. it is not a 1/4 wave or a 1/2 wave on any particular band). On 20m, 43 feet is roughly a 5/8 wavelength tall, giving a very low takeoff angle for antenna radiation. On 40m, the 43 foot length is about 1 1/3 times longer than a 1/4 wave vertical. A 4:1 impedance transformer is connected at the vertical’s base with the purpose of lowering the antenna’s feed point impedance closer to the industry standard

of 50 Ohms for the feed line and for the transceiver. An external tuner is required on some bands of operation. Some companies sell an additional coil that can be inserted at the vertical's base to allow the antenna to load up well on 80m and 160m.

Advantages: Low take off angles on every band 20m and below, great for dx; Simple to erect; Very few moving parts, increasing durability; Use on multiple bands; Ability to chase DX on 80m/160m effectively with the low take off angle; Small horizontal footprint in space-constrained properties.

Disadvantages: If purchased commercially, very high cost (several hundreds of dollars); Requires the use of a 4:1 transformer (possibility difficult to be built for beginner homebrewers); Not desirable takeoff radiation angles on bands higher than 20m; No amount of noticeable gain on any particular band; Requires some kind of tuner to be used on multiple bands

These are only a few of the many multi-band antennas now available to today's ham. Many of these antennas can be built by the antenna home brewer on a budget, but others may prefer to purchase these antennas to eliminate any "guess work" in assembly. All of these antennas have one thing in common - multiple available bands of operation with one length of wire. Whichever antenna design is used, keep in mind that any multi-band antenna will be a compromise in performance, space, and cost. The "best" multi-band antenna is the one that gets your signal on the air and a contact in your log!

73 de Jim ac9ez

May....What a Great Month!

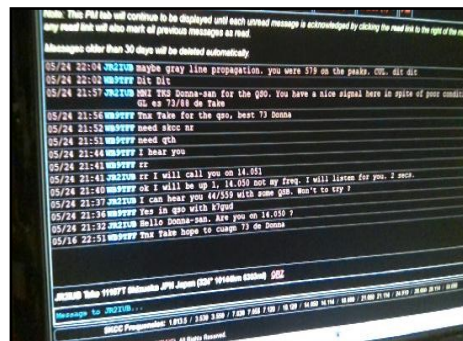
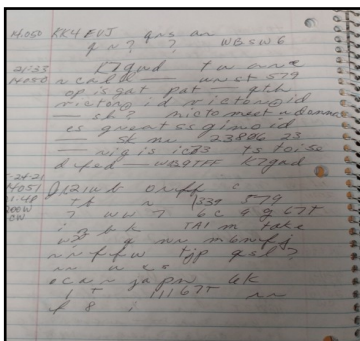
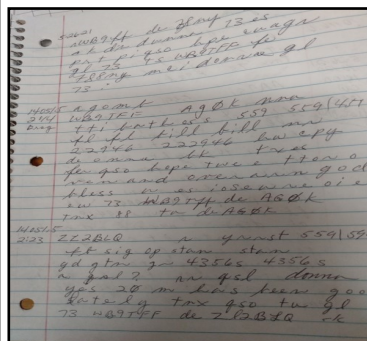
Editor....And this is a happy SKCCer! I received this from Donna WB9TFF.

Hi Ted

Thanks for the ND S qsos on 20 and 30 meters. I can't wait for VE9 dxpedition in September. It's marked on our calendar.

I had a cw qso with Stan ZL2BLQ on 20m at 02:230 utc on May 26 just after the SKS. We had a very clear sig. I used 100w and our Yaesu FT1000 yagi beam facing west 232° azimuth.

I also had a cw qso with JR2IUB Take-san on May 25 20m at 21:48 utc at gray line. I was using 200w and our Yaesu FT 1000 yagi beam facing west 330°. Take said I was rst 579. I heard him 339. Here is a screen shot of our sked message. My log pics of these qso's are also attached. I hope you can see how much fun May SKCC was for me. 73 WB9TFF Donna



June Slow Speed Saunter 2021

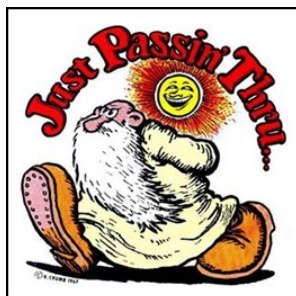
Nice showing for June. SSS is fast becoming a popular hangout for "ragchew" QSOs, come join the fun!

Participants and QSOs by SPC

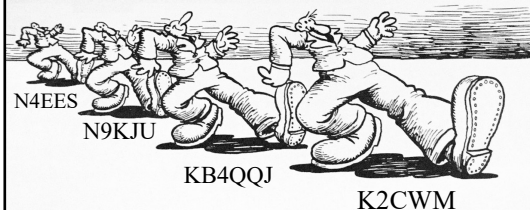
FL: 1/3	GA: 1/4	IL: 2/23	IN: 4/42	MD: 2/12
MI: 1/15	MO: 1/3	NC: 1/18	NJ: 1/9	OH: 3/43
OK: 1/4	TN: 2/28	TX: 3/24	WA: 1/5	WI: 1/13



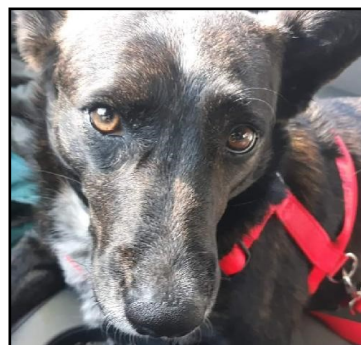
While I worked 9 stations, only 7 were SKCC members. Both of the other guys who answered my CQ were from Ontario. After my QSO with each, they looked up my email address on QRZ and sent me emails thanking me for the QSO. One of them wrote, "I was very glad to hear you calling CQ at a speed I can copy and that we were able to actually communicate the way Marconi intended (albeit without sparks)." The other one wrote, "My most exciting CW QSO yet". I love this SSS event. And those emails made my day. 73, Ken N9KJU



Slow Speed Saunter



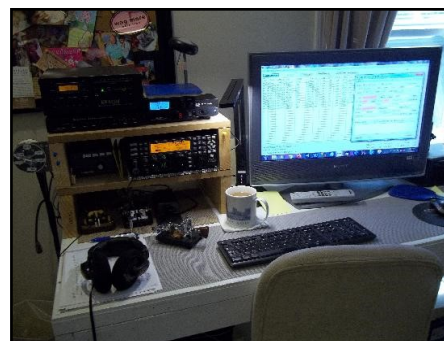
I didn't get as many contacts this month as I usually do. Hectic time for me right now. Should be OK for the next one. Used my TS-590SG, 75 watts into a vertical, with a Kent Straight Key. 73, Curt K2CWM NJ



Brought back fond memories of my Novice days back in 1982....OMG, I've been a ham for almost 40 years!?!?...73, Jim N4EES



WELCOME SUMMER!!! Glad to see the sun getting a little higher in the sky and making great portable operating weather. Bands were in great condition from my location. I made several 6m contacts but none were SKCC members. Many Thanks to the new members and operators from LICW. Great to work new members and have a little chat. Let's enjoy the early summer before it gets too hot. Winter will be back before you know it. 73, Randy KB4QQJ



Wow...There are some great guys out there but perhaps they don't tell the truth? I used a cootie for all my QSOs and asked to please excuse my very poor sending. Many of the stations said it was fine! Impossible but thanks for not hurting my feelings! I'll be better next time, I promise! 73, Ted K8AQM

Confessions of a Casual Contester

from the shack of David VE4DL

I am not now, nor ever have been, a Contester. I don't see myself becoming a Contester either, if one defines the term to include round-the-clock operations, intravenous fluids and diapers, and frequent relays of cold, one-hand meals. Not my thing, at all. BUT.....

I enjoy CW. I like the challenge of copying a little above my usual speed. I like the mystery aspect of unexpected contractions and 'slang' (sometimes it's really annoying though.) Takes me back to grade school, passing notes in class without any vowels. Kids today think they invented this shyte for smartphones. I tell you, it was happening in Plato's classes.

What nobody warns you about is the rabbit hole a new CW op is about to fall down, that will lead to empty bank accounts and sleepless nights wandering swap shops and eBay. Waiting for the delivery person with sweaty palms and staring eyes....

Keys. Glorious keys.....

- Brass. Stainless. Steel. Pot metal. Silver or gold or platinum-plated.
- Straight. Semi-automatic. Cooties.
- Paddles, dual and single lever. Vertical. Horizontal. Switchable. Ganged. With or without integrated keyer.
- Spring, torsion or magnetic return
- Capacitive. Whistle.
- Expensive. Absurdly expensive. Almost affordable. But rarely inexpensive.

Like a lot of people, my first real key as one of the many, many J37/38 clones produced around the world. Mine was pot metal and galvanized steel with no bearings at all, not even needle bearings (except by courtesy – blunt trunions in a shallow cup.) It had a replacement spring from somewhere and miss-matched adjustment screws. But it worked. It did. At 4-5 wpm, a hammer and anvil works, too. It arrived in the post one day, without warning, addressed from a friend/Elmer in MA. A year later it was in the hands of another grateful newcomer, and I moved on to a Nye Speedkey. Briefly. Like sending with a spoon in a bowl of porridge, it was. That one found its way to a flea market. Then I went wild – I found a capacitive paddle set that could work like a cootie with the right keyer, so that's what I did (PIPAD, now out of business) and very happy I was.

I had more weird ideas- I was thinking in terms of copying in handwriting, so I learned to send left-handed cootie with a pencil in my right. I actually accomplished this feat to the tune of 12 wpm, which is my max legible writing speed. I still have this arcane device, currently used as an iambic paddle in my remote shack, hooked to my ORB. In this incarnation, I run it right-handed.

Life happened and I was away from the radio a while.

Surfing one night, I found that VizKey had changed hands and was back in business. An American ham manufacturer of quality keys and bugs. I jumped at a Camelback straight key and boy, was I right. A fabulous key, obviously expressly made for my sending style, because I find it effortless and easy to adapt to. I can send up to about 22 wpm in practice (10 in my usual state of neglect.) It's attractive too, so what's to complain about? I did swap in a Navy knob for the original, though. This is my last straight key, no question at all.

One day I decided that I would try teaching code for the Club, using some crazy theory that learning at speed with paddles was the way to go, so I did that. People actually signed up for it. People actually learned CW. I was amazed! The Club had bought the MFJ clone Bencher paddles for the class. My first experience with paddles also. I learned to use them, but I did not learn to like them. I kept looking around for something better.

I have a Kenwood TS-590S, so when I found a used Vibroplex Vibrocube in the 70th Anniversary livery, I picked that up for not a lot. It's an interesting set of iambic paddles, that's for sure. I find them much easier to adjust and use than the MFJ paddles, and more comfortable to use. They hold the adjustment perfectly. I like them, but I will keep looking at other makes/ styles until I find one that is best suited to me. I'm looking at single-lever paddles, currently.

But it isn't contesting. Nope. Not at all.

A Very Unique QSO

Monday June 7, 2021 was a very warm and sunny day in upstate New York. Wanting to enjoy the day outside I decided to spend a couple of hours operating portable.

I put my Icom 703 QRP rig, 20 meter folded dipole, J-38 straight key and portable power station containing a 12 v 8ah battery in the car and drove to the top of Hooker Mountain, an 800 acre state forest at an elevation of 2350 feet in Otsego County.

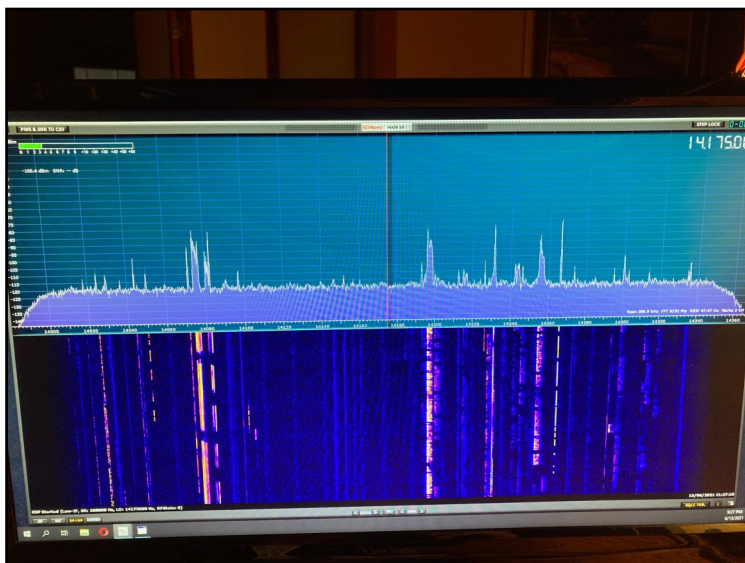
I set the radio on the car's tailgate, threw the dipole into the tree's and started calling QRL and then CQ. Of course every time I hit the key the side-tone could be heard from the radio's speaker. After about 15 minutes with no response I took a break and ate a sandwich and drank a soda I had brought in a cooler.

I then started calling again with two QRL's and then two CQ's and my call twice. Well about 20 yards from me I see a deer come out of the brush staring at me. He was a young spike buck with 6 inch antlers. He then snorted and stomped his hoof, and continued looking at me, so I sent him a signal report of 599, but he just turned and walked off.

How many bonus points do I get for having a QSO with a deer?

73, Frank, AA2XB

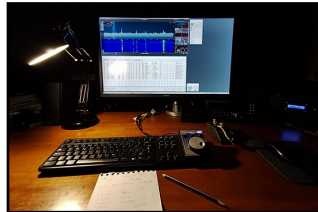
Need a Panadapter for Your TS-590sg?



Josh W9HT, picked up a SDRPlay from HRO. It works flawlessly and adds an interactive pan adapter to the 590SG.

There are many different SDR Play models available with many fine features. Josh bought the RSP1A - Radio Spectrum Processor 14 Bit SDR Receiver/includes SDR-UNO Software. Earlier Josh had tried a Chinese knock-off with little or no success. RSP1A sells for about \$120....not a bad investment.

June SKSEu 2021



It was fun. Thanks all for qso. See you later in next WES. 73, David CT7AUP



Many thanks to all for contacts in the SKS-E. Four new members this time, glad to meet EA5FID, DM1AA, EA3IJO and W0HXL. GL everybody and see you next time ! On the photo, some straight keys from my little collection. 73 de Bernard F5DE



Lots of people tonight. Evening always so nice. 25w in a dipole, and a BK-100. We look forward to seeing you again for the June WES. 73, Franck F8DTU



No DX but good fun as usual. All 5 QSO's were on 20m. TS-440s, 100w, 20ft ground mounted vertical. Key pictured a Marconi test key possibly for tuning receivers. Or a very old practice set. 73, John G0RDO SKCC 2133s

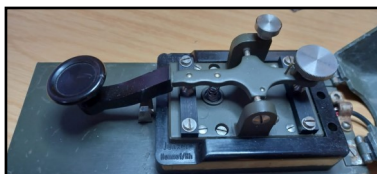


I am on holiday in the North of Friesland and brought a TS520SE, a fiberglass mast and a 20m dipole. Thanks all for the QSOs! 73, Jo PG4I



Great propagations, worked G4PVM om Paul on 7 Band (40-10m) and F5DE om Bernard on 3 Band (40-20m), many thanks also F8DTU om Franck and G0RDO om John for nice QSOs. Using FT-817nd 5W output into double window and invV antennas. 73, de Kare YU7AE

De Face Book



This baby arrived today! Wow ! Such a nice feel to it. 73, Chris M0AWN



The underside of an 1980's Junker Morse key . A little different than earlier models. 73, Andy K2AAK



My new camelback straight key arrived today! 73, de WQ1C SKCC #228 Warren



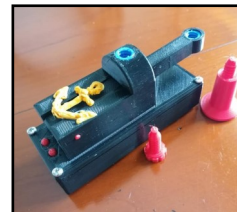
WWII Junker. 73, Josh W9HT



Home brew cootie. 73, Josh W9HT



Here's a picture of my new Nye Viking master key I got today. Giving it a workout on 20 meters.



Here my 3D printed project of straight key. 73, Pat, IS0FQK.

Editor...The following article first appeared in CW Ops, "Solid Copy." and authored by Tom, K7QA #24253. It's an excellent article on how to shunt feed a tower for 80m and/or 160m. This is Part II. It's time to think about ways to improve our 80m and/or 160m signal for the coming season.

Adding a Second Shunt Fed Tower

Two years ago, I decided to install a second tower, 58 feet overall height about 83 feet to the west of the first tower to support a two element 40 meter yagi. Realizing I could easily add a slant wire feeder and radial ground system for that tower, I began researching the use of two slant wire fed towers in a directional antenna (DA) array to form a switchable cardioid pattern. Theoretical antenna models showed an achievable forward gain of about three dB with a backside null around -20 dB.

While there are numerous online references and antenna manuals available that describe shunt feeding a tower, nothing was found that contemplated using shunt fed towers in a phased array. Most all of the resources I found dealt with four square switchable arrays or multi-element in line arrays using transmission line phasing and parasitic wire elements using catenary supports from a center tower.

Computer Modeling the Patterns

Armed with an assortment of variable capacitors and old AM broadcast inductors along with a Potomac Instruments FIM-41 field intensity meter, I started testing my two tower shunt fed array. Using my experience building and repairing AM broadcast DA arrays, I initially used a broadcast antenna modeling software program to design a desired pattern and calculate the phase delay of the coax lines feeding each tower's base feed point. To produce a cardioid pattern pointed east with a -20 dB null to the west, I would need to excite each tower base with about equal currents with the west tower lagging the east by -280 degrees (+80 degrees).

My initial calculations modeled the actual tower heights plus top loading and correct spacing but as uniform series fed vertical radiators with standard broadcast buried ground radials. The resulting power distributions to achieve that pattern indicated the east tower would get 75% of the power at its base and the west tower would get 25% to produce the 1:1 radiation loop current ratio. It also indicated that a semi-cardioid pattern could be produced using a fully parasitic west tower but with a back null of only about -8 dB.

Shunt Feeding Multiple Towers in an Array for 80 and 160 Meters

In my previous installment, we described an easily implemented slant wire feed method on towers of modest height supporting a large yagi for use as a very effective antenna on 80 and 160 meters. As long as any metal guy wire lengths are insulated from the tower and not close to resonance and an adequate ground system is installed, a properly matched vertical tower will easily outperform any wire antenna at equivalent heights.

I originally installed a 52 foot crank-up tower to support a large tribander with a 20 foot rotatable mast and overall height of 72 feet near the backyard corner of my house. I included two #10 insulated stranded copper wires attached at the top of the tower as a slant wire feeder and installed 70 ground radials to be able to use the tower as an 80 and 160 meter vertical antenna.

The driving point impedance on 80 meters measured very high, about 1000 ohms. Using a parallel resonant LC tank circuit as the matching network back to 50 ohm coax, this antenna has performed beyond expectations on both bands.

Tuning a Parasitic Tower

Parasitic radiators in a multi-element array induce all the current they need from the driven towers. The desired operating phase angle can be set with a variable reactance to ground at the base. So I would only need to add a variable capacitor to ground at the end of the west tower slant wire to cancel the large amount of inductive reactance and set it to achieve the deepest null at the target phase value.

The challenge of determining and setting up the correct driving current and phase angle with a high impedance slant wire feeder becomes complicated by the fact there is no easy way to measure the radiation loop current parameters for each tower. We use base current sampling transformers or inductive loops side mounted to the towers that drive a phase monitor to do this in the AM broadcast services. So finding the +80 degree offset for the deepest null had to be done empirically with the FIM-41 portable field intensity meter using very low transmitter power.

Field Strength Meter Options

Most hams will not have easy access to an FIM-41 unless they know a local AM radio station engineer who could assist in such measurements. While a high accuracy frequency selective voltmeter like the Potomac makes the field measurements and tuning easier, I've also had decent results using a Tecsun PL-880 portable all band all mode receiver that features a dBu signal strength indicator with external antenna input port. Other multiband portable radios with an S meter or wideband field intensity meters marketed for ham radio applications that can accept an external directional loop antenna should also be useful for this exercise. See attached photos.



With a two tower array, you will need to find suitable measuring locations on the front and back tower lines at about the same distances away from the towers. For the simple cardioid, you can easily see the level of the back null move quickly at only a 1/4 wavelength distance away, about 65 feet on 80 meters. Moving farther out to several wavelengths or farther is recommended to reduce near field reradiation distortions. Get-help with this task using cellphones or 2 meter

ting a buddy to handhelds makes it easier and faster.

Measuring both the back null and the front major lobe after each change in the variable capacitor position allowed seeing the forward gain readings rise and fall as well as the null. It turned out that with the null set for a minimum, the forward gain did not increase as much as I had hoped comparing it to the original non directional measurements from the east tower at the same location and power level.

Driving Both Towers with Power

I decided to operate the two tower array for a year using switchable parasitic 2nd towers controlled by vacuum relays to flip the patterns on both 80 and 160 meters. This setup performed well enough but after reviewing the various theoretical patterns my two tower array could produce, I realized I would have to drive both towers with power using an adjustable power divider and phase controller to achieve better cardioid patterns.

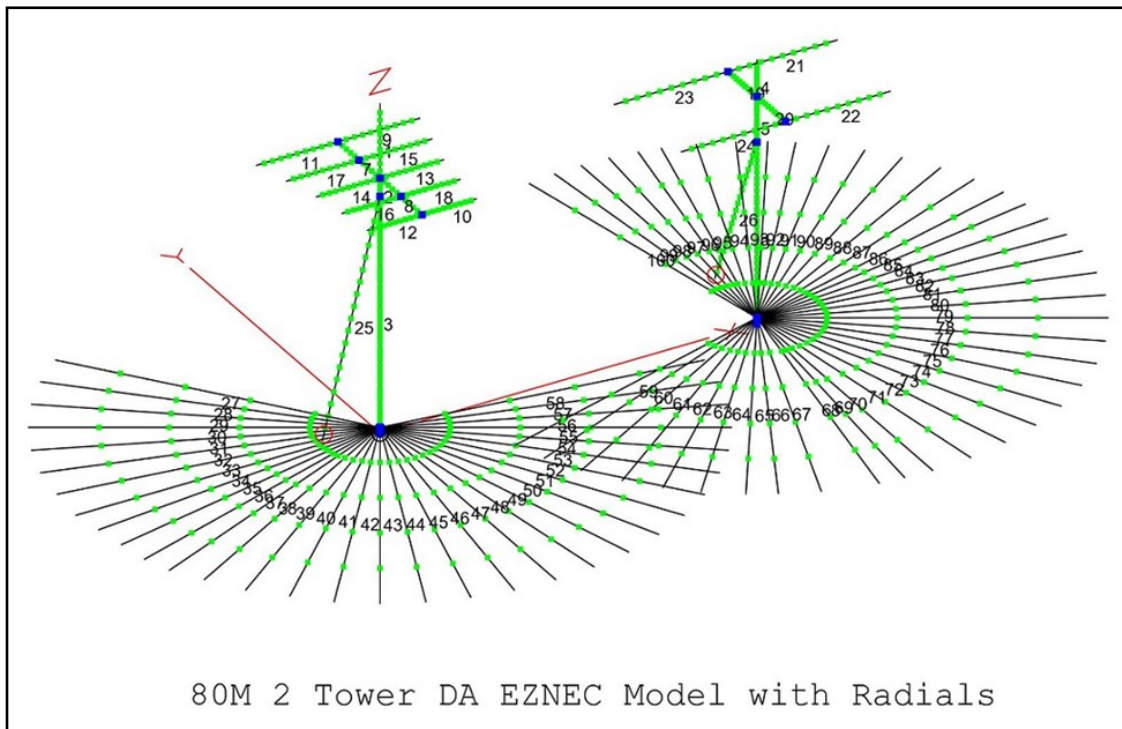
My initial attempts using a variable shunt coil across the input of the east tower matching network to feed the west tower were not promising and presented another challenge. I would need to replace the series variable capacitor used for the west tower parasitic element exercise with a matching network before it would accept positive power. So I added a 15 uH coil and configured a parallel resonant tank network very similar to the matching network at the east tower. Matching that as a single tower back to the 50 ohm feedline as a starting point with my Rig Expert AA-230 pocket analyzer was easy. See attached photos:

An important point to note here is that even with 83 feet between the two towers (107 degrees at 3530 kHz), the mutual coupling between them is significant and affects how the array is tuned. How each tower is terminated to ground will affect the other regarding the matching network settings. When adjusting one tower, the other tower's base network needs to be actively connected. You will notice some interaction which decreases as tower spacing increases.



EZNEC PLUS 6.0 Modelling

My AM DA broadcast design and analysis software did not include a slant wire feed option or a method to accurately characterize the large amount of top loading or the as-built radial ground system. So I modeled this array in EZNEC+ 6.0, including the slant wires, top loading and ground radials. See attached photo.



The first desired pattern result it produced indicated I would need to drive the east tower slant wire with 80% of the power and 20% to the west at a phase angle of -190 or +170 degrees. Since both tower slant wire matching network component values were about equal, I assumed the same phase shift across each one in the EZNEC model.

I was hoping the EZNEC model would produce reasonably accurate phasing, power and current distribution data using the slant wire feeders to achieve an optimized cardioid pattern. That would make the design easier to implement and more accurate without having to rely completely on back and forth hardware changes and adjustments using field measurements.

EZNEC PLUS 6.0 Limitations

The EZNEC Plus 6.0 NEC-2 engine does not resolve analysis of ground radial wires at the surface or below real ground. We had to connect all the tower base wires at the first tower segment junction, one foot above ground in the model to be able to generate pattern results. As a result, that model produced significant pattern distortions when compared to a model using only real "very good" ground without the wire radial systems. I concluded neither model as designed could depict truly accurate ground currents or the real phase shifts across the matching networks and the slant wire feeders. However the real ground EZNEC pattern without radials compared reasonably close to actual field measurements.

EZNEC Pro-4 which uses the NEC-4 engine can calculate true ground radial currents and would undoubtedly produce more accurate results if you care to buy the rather expensive NEC-4 license. While EZNEC modeling can get you to a good starting point, there is no substitute for actual field intensity measurements to determine the best adjustments in arrays like this to achieve maximized results.

Tuning In the Desired Patterns

Since measuring actual phase and current distributions for the slant wire fed towers to confirm the modeled predictions was not practically possible, I could only rely on power distributions at the feed points and field intensity measurements as a guide to achieve the desired patterns. In order to determine real power levels fed to each tower, I used a Bird 43 wattmeter with a 100 watt 2-30 MHz slug inserted at the input of each tower's matching network. As long as the matches were kept close with low reflected power, the indicated forward power levels were reasonably accurate.

I initially set up the same variable inductor shunt power divider to the west tower base network. According to EZNEC in order to generate a cardioid with a -20 dB null to the west, I needed to add another 40 degrees of phase delay to the existing -150 degrees of RG-8 line feeding the west tower. That computed to about 20 feet of additional RG-8 poly coax to produce a total feedline phase shift of -190 degrees at the bottom of the west tower slant wire feed point.

Finding and Crashing the Null

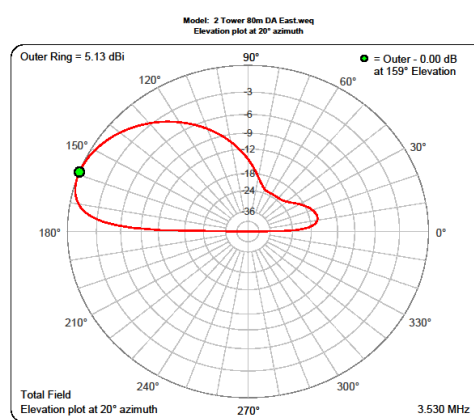
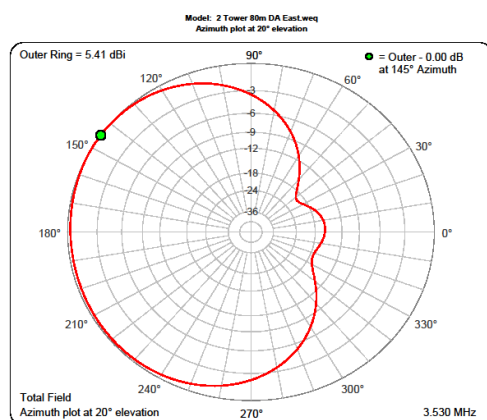
Field intensity measurements revealed a null of only -10 dB after this addition, so I started increasing power to the west tower. I moved the tap point to the top of the power divider coil in steps and found I could drive the west tower with about 25% of the total power. I later found I could remove the shunt power divider coil completely and simply use taps on the tank coil to set the target power level needed to feed the west tower.

The null actually filled in as the west tower was driven with more than 15% of the total power so I knew I was at least in the right ballpark of the EZNEC predictions. I installed a 500 pF variable capacitor in series to the west tower to be able to fine tune the phase angle. That filled the null again with any adjustment so I removed the extra 20 feet of line extension coax

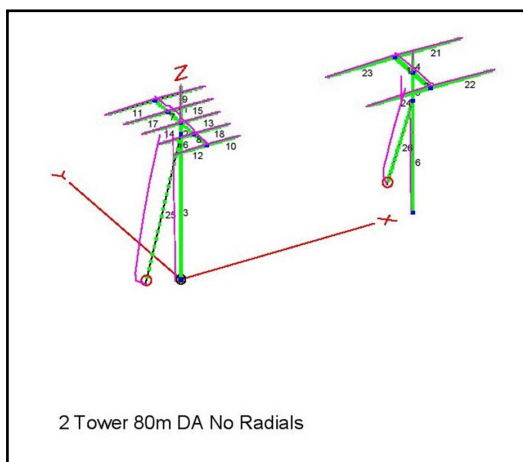
and replaced the capacitor with a 15 uH variable inductor to be able to swing the phase in the other direction.

Final Tweaks for Success

With most of the series variable coil active, I was able to achieve a sharp -24 dB null to the west. However the forward main lobe was not maximized at that setting which had been predicted in the EZNEC model. Moving the series coil tap back to about half active turns filled the null back in to about -15 dB and produced the highest forward main lobe radiation as measured by the FIM-41 at 5 feet above ground. That level was a full three dB higher than the original non directional measurement from the east tower and satisfies my goal for the best DX and contesting performance I can expect from this array. See attached final east pattern plot.



I rematched both tower base networks, reconfirmed the field measurements and then measured the final power distributions to both towers. I discovered the east tower gets 90% of the power and the west only 10%. However because of mutual coupling, the currents radiated by each tower show the west tower field at about 80% of the east tower as shown by the attached EZNEC model plot.



Reversing the Patterns

In order to reverse the cardioid pattern and beam west, the power distributions on 80 meters flipped with the west tower getting 90% of the power. I installed 85 degrees of phasing line extension to the east tower and added a pair of SPDT vacuum relays at each base network to select the line extension and different tap positions on each network to achieve proper matching. See attached photo.



That process required mostly cut and try iterations since the towers and top loading are different physically, but the field results produced are similar.

My 160 meter setup for this two tower array still uses the simple parasitic tower arrangement since the mutual coupling is high with tower spacing about 55 degrees at 1820 kHz. The pattern to the east is cardioid and produces a -14 dB back side null and a 1.5 dB enhanced front side simply by tuning the null to a sharp minimum with a 500 pF variable series capacitor from the parasitic west tower slant wire to ground. Losses on 160 meters are greater using short towers and short ground

radials. Like all vertical antennas, shunt fed towers are noisy receiving antennas. But the cardioid patterns are still useful for reducing unwanted interference in the null direction.

Finding the Parts and the Thrill of the Chase

For hams who have several towers at their QTH with favorable locations and spacings and are interested in experimenting with this method, the use of antenna modeling software like EZNEC provides a very good starting point to evaluate possible achievable patterns. Installing the slant wires and ground radial systems is relatively easy. The appropriate inductors, capacitors and relays needed for the matching networks and pattern switching can often be acquired by asking other ham friends and using hamfest flea markets and eBay. Maybe your local AM radio station could even be a source.

This project did consume a fair amount of time iterating and evaluating changes to be able to move the results in the desired direction. But the fun of doing it and learning some new tricks along the way was well worth it.

Article by Tom McGinley, K7QA
3300 Loraine Drive
Missoula, MT 59803
K7QA@AOL.COM



Secrete Revealed?

This untitled photo appeared at the editorial desk. I believe it is a smuggled picture of the antenna system of Bert F6HKA! We have all worked “Bert” when no other signals are on the band. K9JP even worked Bert on his Buddy Pole he assembled in his basement! In North Dakota Bert’s was the only signal heard on 17m all weekend!

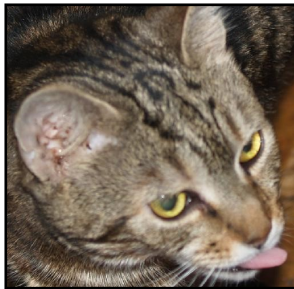
Clearly this now explains why Bert has such a strong signal on any frequency 1.8—50 MHz!

All is now revealed!
Editor.....

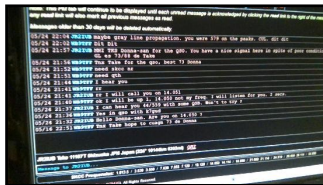
May Brag 2021



Fun Month. Worked a lot of CW stations: SKCC, DX, Parks-on-the-Air and Contests. Met a lot of new SKCC friends and came across quite a few that I haven't chatted with in months. Just a great all around month. Summer is coming, so I hear. Be safe out there. See you down the log. Weather finally matches the picture. Wonder if N.E. Ohio will get snow in June? We did in May. It made for more good reasons to stay inside and operate. 73, Carmen AA8CL



Hi kids! The fun never ends! 73, Tom KB3CVO



Thanks for the May Brags. I had a qso with Stan ZL2BLQ that was the best sig ever here in WI. I also had a qso with Take-San JR2IUB (screen shot) that was our first. I had quite a few new member qsos. It's always nice to hear from all of you. 73 WB9TFF Donna



Spent half the month running QRP from Tennessee, so my Brag count is down because of all the travel. Busy month for me. 73, Curt K2CWM NJ/TN



73, "Sam" KC5SAM



Was a nice month seeing some of the new members participating. Thanks for the new member QSOs...welcome to the SKCC and hope you enjoy our group and its events. 73, Jack KK0I



73, Les WB5JWI



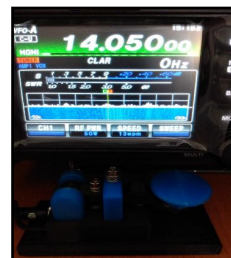
73 to my fellow CW nerds, Jim.



Thanks to all who participated in this month's Brag activities, as well as the other SKCC fun. Spring ward work is taking too much time away from the radio. in a few more weeks it will be too hot to work outside, & I'll be forced to play radio. Everyone have a good summer. May the "Love Of Christ" (LOC) be with you. 73, Ric KA3LOC



Nice WX and busy month around the home-stead. Thanks for the QSO's and Take Care All. 73, Rick N8XI



THANKS ALL SKCC FOR GOOD CONTACT WP3PW CHE 73



Rough month. Totals down. Some days not even 1 QSO. Lots of rain last month. Almost 20 inches total. One day was 7 1/2 in. Hope for better in June. CU all there. 73, Allen KA5TJS



My antenna has been down for the last 5 days. Hope to get it back up this week. 73 see you next

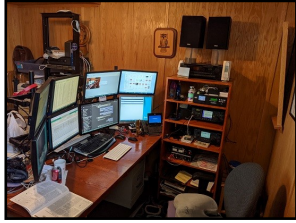


Have been on the air a bit more since the annual move to Maine. Nice to see the short-skip season underway. A bunch of these contacts were on 10 meters. Thanks to all. 73, John W1TAG



Been busy as special station YL50AGCW in May now more time to work SKCC. Sometimes I do some fieldradio in the beautiful forests here in Latvia. 73, Hanz YL3JD

May Brag 2021 II



Hello All, Very glad to have a QSO with you. Got 3 new DXCC in the CQ contest this Month. Hope to keep working on Tx5 and S quest. Keep up the good work in amateur radio SKCC members. 73, Mark W8YA



De Phil K3EW on the June WES



Thank you, Art, for organizing and fostering such a wonderful weekend .

Thank you for all of the calls and especially the QRPer's for whom I have to turn off the AGC and switch the 250 HZ in on the TS590S.

Because of the 10/15/6-meter bonus for this WES, first order of business was to fix the problem of my computer bombing when I keyed the amp on 10 and 15 meters. Obtained some mixture 43 Toroids (saturates at much higher freqs than others) and wound signal cables to monitor, from keyboard to computer, and the USB cable from rig to computer around the toroid cores. What really surprised me was that the keyboard had to be moved away from the AMP to complete the isolation work. So, when I moved the keyboard, along with the Toroid fixes, voila, no computer reset when I keyed the amp on 10 or 15. I was ready for the WES.

The only problem on 10 and 15 is my wire loop limitations- I caught some qso's on 15, but none on ten. I am sure folks with antenna systems containing beams did much better. Conditions on 20 were strange- band would go dead for an hour and then perk up and then go dead again. This was especially true on Saturday and Sunday PM . 20 did not open much, for me at least, to eastern Europe on the weekend. At times it was very slim pickings until the band finally perked up. Usual suspects from France F6EJN, F5JWH, F5DE. et al at times were 579 and other times during daylight hours were nowhere to be found. 40 was likewise strange- did not work any Eu stations until early Sunday Morning their time. It went dead for periods as well. 80 was not populated with signals like normal- but conditions seemed pretty normal.

Strange that I made a late night (midnight) 20-meter contacts on Saturday evening (Ireland) and 7PM Sunday qso with a Ukrainian station.

20 Meters to South Pacific: Old reliable Stan ZL2BLQ was relatively loud qso on Saturday evening, and had easy early morning Sunday QSO with Adam Vk2ANN.

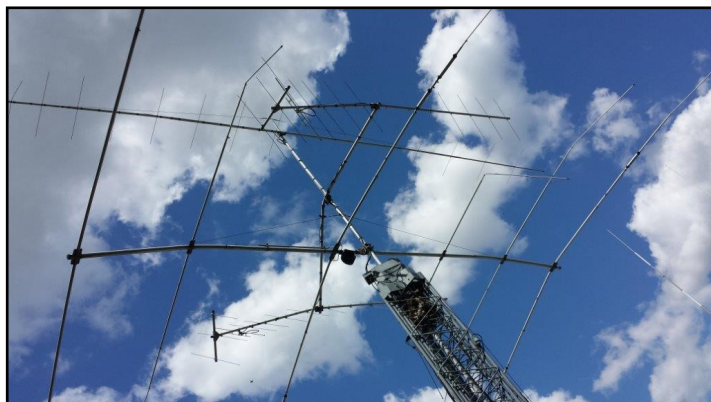
So, this weekend was a slog at times, but still very entertaining seeing the ages of all of my usual WES contacts. Statistically in my 335 qso's, 70% were OT's and 30% were not. Preponderance of OT's were in the over 60 years licensed group. Strange that there were so many licensed in 1959- Dave, W1DV classified us in that 1959 group as a bumper crop.(Includes Dave , Chas K3WW, Myself, and others) KA0NES claimed 82 years, and I believe Stan ZL2BLQ claimed 86 years, meaning that those two are still operating into their 90's – keep pounding brass and stay young!

If this statistical sampling of 70/30 is accurate, us OT's need to guide at least 2-5 folks into CW proficiency, to ensure that the artform will last into the future. Either through local clubs or CW academy GET INVOLVED and take CW aspirants under your wing. I am trying to clear some of my volunteer schedule to be able to do just that for the fall.

Suggestion: That you all look at Rob Sherwood's excellent RSGB presentation on You Tube which he recently gave. Outstanding presentation on today's receivers and transmitters in our transceivers and how best to use them.

73, Phil K3EW

An “Interesting” Tower Project



You know those “nice self-supporting towers with the nested sections that can be raised and lowered ? How about a 70 footer that has an electric winch that raises and lowers the section with cable....a dream right? Well, they can also be a “nightmare!”

Imagine sitting in your shack working DX with the tower extended to 70 feet with a Hygain TH-6DX and some substantial vhf/uhf antennas on the top when suddenly you hear an ex-

tremely loud “BOOM” and the signals on your radio take a “dive.” Your cable broke and about 800 lbs of tower and antennas came crashing down! The

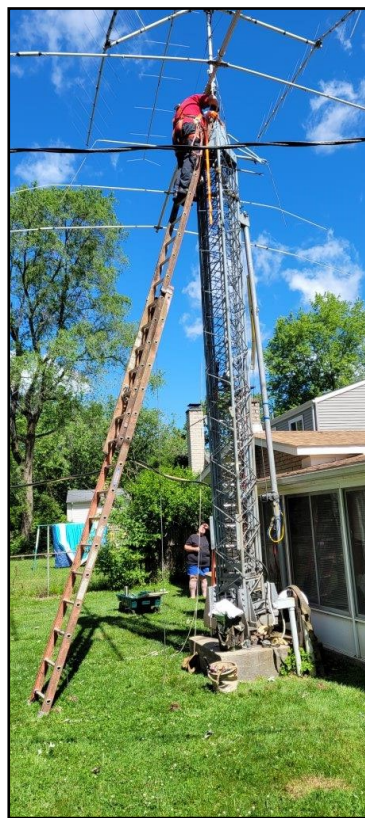
“whiplash” on the antennas was disastrous! Your 2 inch boom on the TH-6 now flexes down front and back, element tips bent and even the larger element sections at the boom bend! Your vhf/uhf antenna booms look like inverted V booms....a major disaster for sure!

You can’t climb a nested tower, that’s suicide! So how to you get to the “top” and start removing antennas?

The tower and “antennas” became a gift to Stan W8ATE (#13165) and with the help of a few friends (K8AQM #1629s and K2RLY #18143) the project began. Stan had a very long extension ladder and after securing the ladder safely to the tower with several straps, work began to lower the TH-6 by a cable and winch attached to an “I” beam that was used to raise and lower the tilt over

tower. W8ATE guided the beam down while descending the ladder. Once on the ground the TH-6 was disassembled. Then the 24 ft 1/4 wall aluminum

mast had to be fed down through the tower. Problem was the mast was scored from super tight thrust bearing bolts and would not slide down through the thrust bearing! Using a “come along” on the bottom of the mast to raise the mast, Stan was able to use a file and smooth the scored mast.



All this being done at the top of the ladder fastened with straps to secure the ladder at the tower top! The filing worked and the mast was lowered slow, the middle VHF antenna was then removed. Once the rotor was unbolted there was just enough room to slide the mast down to the top UHF antenna and it was removed.

Ok, so antennas down, mast down and now to lower the tower itself and figure out how to move 1180 lbs of tower through the yard and on to the flat-bed trailer! Picking it up and carrying it just “ain’t gonna happen!” ...especially with three old retired guys! But Stan is one smart cookie! He used an axle and two car tires to place the tower balanced on the axle! Very cool, checkout the pictures!

With the use of a ‘jack’ the tower was easily balanced



and the three of us could pull it through the yard and out to the waiting trailer. Fortunately the trailer had a power winch and with the use of a furniture dolly and the “jack” to slide the tower in place, we put 4 x 4s under the tower. It was unanimously decided to let the next owner of the house deal with the super-large concrete base!

The tower road beautifully the 30 miles to the W8ATE QTH. Now to have another



very large base poured....and to use stainless steel cable rather than galvanized cable on the next installation!

What seemed to be an impossible task, Stan thought everything through perfectly!

Interested in More Sprint Style CW Events?

Who: Members of the K1USN Radio Club, who are also members of the [CW Operators' Club \(CWops\)](#), many of whom belong to SKCC, run a [twice-weekly, one-hour *slow speed* CW "contest," called the SST.](#)

What: The twice-weekly, one-hour *slow speed* CW "contests," are for those who prefer a more leisurely CW pace or are new CW operators or testers, this just might be what you're looking for! Everyone is welcome to join in the SSTs including new ops making their first attempt at completing a CW QSO. The objective is a no pressure event that provides "on the air" CW practice. Using paddle keyers, bugs, side swipers and straight keys is fine.

SST is designed to encourage and assist those who enjoy CW. The activity has an upper limit of 20 wpm but participants are encouraged to use any slower speed they are comfortable with. All participants are asked to be patient, supportive, and willing to slow down as necessary to match the other op's speed.

When: DAY / TIME

Every Monday from 0000 UTC to 0100 UTC and every Friday from 2000 to 2100 UTC

Where: BANDS

160, 80, 40 and 20M.

Recommended frequencies 1.812 – 1.828, 3.528 - 3.545, 7.028 - 7.045, 14.028 - 14.045

For more information on the Rules, Exchange, Logging, etc., please navigate to the following link: <http://www.k1usn.com/sst.html>

Personally, I enjoy working with Ops looking for contacts where there is zero pressure on speed unlike many activities we may play in. It is hard to describe the feeling of getting a QSO where the Op thanks you for your patience and that you are their very first CW contact on the air. Wow, what a feeling! These small successes for those Ops lead to more confidence which in turn leads to more activity.

See you on the bands es 73,
Bill W0EJ SKCC 10440S

Hamfests Are Back!

After almost two years hamfests are back! The pictures below are from the annual Father's Day hamfest held by the Monroe ARC (MI). Not only was it great to be able to attend, there were twice as many attendees as usual. There are many more scheduled returns this summer at their usual time and places.. At this time the "big" ones are also scheduled to happen again so check your sources for the hamfest in your area and plan to attend!



June WES 2021



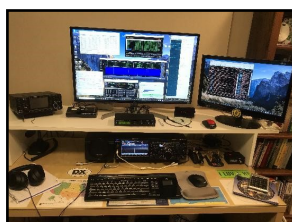
Tough band conditions, but it was great to make some contacts on 15 meters. Thanks everyone for a great sprint. 73, Bill AA2MX



Great theme. Of the 32 contacts I made, 30 of them were with old timers like myself, and 26 were Senators. We need to get more new members to participate in the Wes so we should have a theme with bonus points of those who joined within the past several years. 20 meters was a winner for me and if it wasn't for a power failure Sat. afternoon I would have had many more contacts. Picture of my key setup shows that I am ready to accommodate any fist and try to match key being used by other station. Really heard some great bug fists this Wes. 73, Frank AA2XB



Been a long time since I dusted off the ol' Speed-X! 73, Rob AD0IU



The band conditions were very poor here in Oregon but the contest was still fun. Not many signals moved my S meter. I appreciate everyone who gave me a call. 73! Bill - AK6A



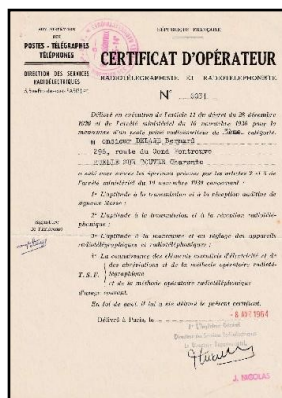
It was a fun WES. Thanks to all for QSO. Conditions were good on 20m at night but some thunderstorms reduced my contest time. 73 All and see you next month David CT7AUP



Didn't have a ton of time but worked what I could. Good time. Thanks, as always, to everyone responding to the all of us QRP & QRPp stations. Ya never know, may be a bonus station.... 73, Bud AA8CL



Nice to participate in WES again. Wish I could've worked more stations, as I was one of the "old timers" (licensed since 1976) - but my QRP set-up awaits better conditions! Very 73, Colin AE3A



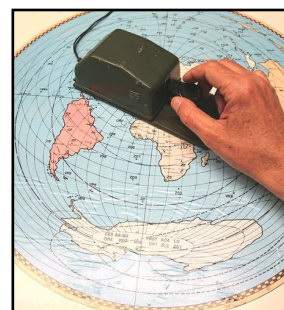
Many thanks to all for only a few contacts as I was not often on the air due to other activities this Sunday. I hope to do better results next month. On the photo is my radio amateur ticket dated April 8, 1964, 57 years ago without any stop in my activity mainly on CW since ! 73, Bernard F5DE



This was a fun sprint and good practice for Field Day. But what happened Sunday afternoon? All my signals disappeared. 73, Jim AD0AB



Nice WX here in north-east Ohio, so I operated 'patio portable' for a few hours Saturday and Sunday evenings. It was a pleasure to work many calls/SKCC numbers for the first time - it felt like a much higher percentage than usual. The IC-706 was throttled back to about 40 watts to conserve battery power, so thanks to all who copied me and sent accurate signal reports. 73, Gary AF8A



Thank you all for the nice QSOs! It was a big fun as always and so nice meet old friends and make new ones. Again I stayed longer at the station than initially planned :) 73, Tom DF7TV

June WES 2021 II



The mysteries of propagation, 103 qso on Saturday and 40 on Sunday, including 15 over 40m at the start of the day at 3 am GMT. But still very interesting to achieve with very different correspondents. See you soon at the next WES. 73, Bob F6EJN



25 w in a dipole. Not a lot of time on the air, but still so much fun participating in SKCC events. Thank you all for the QSOs, looking forward to seeing you again. 73, Franck F8DTU



Just 4 QSO's. Many thanks to DF7TV Tom/42, F6EJN Bob/45, K3WW Chas/62 and IZ0FBJ Alex. All on 20m. 73, John/31 G0RDO



Despite bad conditions, a lot of fun participating in WES. Thanks for the QSOs. 73, Jean FG8NY



Hello everyone, working 30W portable, some contacts in the 40 meter band, as always a lot of fun, 73, Ric HP1RIS



I was honored to share 64 years - I was licensed June 12, 1957 All the bands were UP/Down..6m was no exception. Thanks' for all



The W1SFR cootie and Vibroplex Champion shared the duty. The Champion has a W0EB dot stabilizer and an added jumper for continuity. Weights are stair gages from Home Depot. They fit round and flat pendulums and weight about 1 oz each. 73, Gary K1YAN



Another great WES! Lots of old-times here, and was very happy to work W9TE (Ft Wayne Radio Club) with 101 years (tnx Ken). Also found the Club's bonus station. Only made a couple on 15m and called/heard no one on 10m, which is sad since the FT8'ers were having a blast on that band. Ran 75 watts from my TS-590SG into an elevated vertical, using a Kent Str Key. We should do a WES each month (oh wait, we already do) hi hi. 73, Curt/49 K2CWM NJ



A lovely time, although I only dipped my toes in the swift-flowing WES current for a few scant hours. Very pleased to persuade my old K2 to function on 15m, for a few contacts up there. 85.7% of my contacts were new SPCs! I worked AH6AA last night, on 20m, with 5W!! The K2 at 5W was hooked to primarily an 80m dipole up 80', and on 40m, I use a 20m EDZ up 50'. Key is a TBFB cootie, by W1SFR. Radio may be the best hobby, but it's sure nice to be able to get out and play music with friends! 73, Lloyd K3ESE



Was nice to see enough Eskip to make this interesting. I only made one QSO on 6 M, the local clubs are very active in the VHF contest and I did not want to get in the way. Lots of flowers starting to bloom in your yard, they are there to hide the antennas. Thanks for all the contacts. 73 Chas K3WW



Great contest this weekend. Especially fun working KS1KCC on 6 meters! Had to shut down early due to lightning storm. Icom IC-7300 to a 40 meter delta loop. Used Begali Spark and Begali Intrepid keys this month. 73, Bob/58 K3ZGA



Only three contacts but getting better on the "cootie"...well, at least more comfortable and maybe more competent..hihi! 73, Ted K8AQM

June WES 2021 III



A fun theme, recognizing all of us old-timers, with decades of experience enjoying this wonderful hobby. My only problem was trying to find a good balance between sitting in my shack working WES, and being outside doing something active in all this nice June weather. Can't lose either way. Cheers es 73,



Very fun activity. Lots of stations to work. 73, Al K9FW



Saturday was pretty slow here, no contacts on 80 and only 13 for the morning. It was better Sunday and still only 2 on 80. I know it is a winter band but we should try more early to get on 80. It is still doing good rite now. I got 2 on 80 11 on 40 17 on 20 and 4 on 15 meters this month. TNX to CO9GBB Ramon for the CUB contact. Worked 9 stations with member # over 20K. 73, Allen KA5TJS



I only did a few hours of very casual operating, but it was a lot of fun. Thank you to all of the Old Timers who took part. CW keeps our minds sharp and our hearts young! 73, Dave K7TRT



My first WES and had a blast! I had to figure out the exchange and then looked on the SKCC web page later to verify - should have done that first. Even though I'm an "old timer" by definition, I haven't done much CW for years, so this was a great time to polish off the dust and improve (I hope). While 23 contact is quite a small number, it's the most CW contacts I've made in a single setting, so that's a big deal to me. I had to use the "Kent" key since it wouldn't have been appropriate to use just any straight key. Thanks to everyone I worked as I appreciate it! 73, Kent, KA0LDG



Lots of activity on 20, but scarce on 15 and 10 from NC. Had a little more time to play this month and that was fun! The photo is of two miniature devices by KA6IRL. Mini J-38 and mini lightening bug. Both work well!! The coin is a Lincoln penny for perspective. 73, Randy KB4QQJ



61 Years and counting...Only had time for a few & wish to thank those we worked...73, Larry K8TEZ



First sprint with a new to me K-Line the panadapter really help's to sort things out. Thanks for the Q's 73, Ray K9EYT

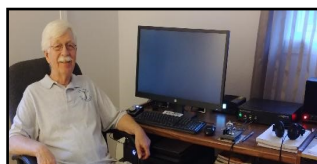


Managed 5 QRP QSOs from the base of a ski lift tower in Vail, Colorado after a hike up the slope. 66 ft EFHW tied off to the tower and an IC705 were enough for a taste of the WES QRP life, really like the feel of the little British army hand key, thanks to those that heard me!

72



Thanks to all who participated. The "Summer Bands" were not good here. I did make a few contacts on 15m, but that was it. I did get to use my BK-100 "Coffin Bug". Hopefully the bands will improve as we get into the summer. 73 & God Bless. Ric KA3LOC

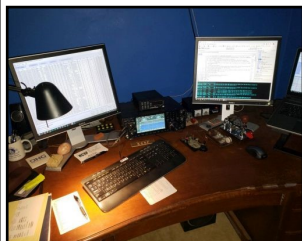


Not much on 10 or 6 meters, but got a few on 15. Had fun and hope to see you all again next month 73, Dave KB1WOD



A bit more time this month. Used the IC-761 and J-38 into a fan dipole. A lot of fun. 73, Randal KG5IEE

June WES 2021 IV



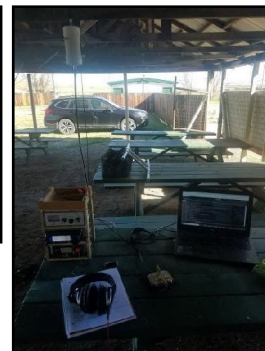
What a blast with the summer bands on Sunday morning! Snagged KS1KCC on 5 bands, 40m -6m, too. But no Europe until my next-to-last QSO. Odd conditions, but lots of fun, as usual. Thanks, all! 73, Steve KC5F



I NEGLECTED TO NOTE THE YEARS ON MY LOG, EXCEPT FOR ONE OF THE STATIONS. IT FELT GREAT WORKING THE OLD TIMERS SINCE I AM ONE NOW (25 YRS) 73, "Sam" KC5SAM



Lots of fun . Conditions seemed poor. Probably my last WES as INDIANA. Moving to Wi. I will really miss Fort Wayne. Great place to be a ham! 73, Jim KD9GDY



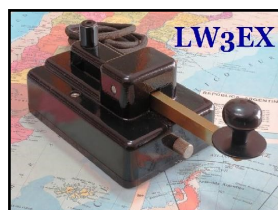
Started off slow, but 20m got better later in the afternoons. Was hoping to work portable at the local fairgrounds since I can set up a large horizontal loop antenna and the common mode QRM is negligible. But, the fairgrounds was busy with a tractor pull, of all things, on Saturday and cleanup on Sunday. People pulling heavy weights around while I'm missing out on CW! Finally got out there and set up around 2230z Sunday. Made lots of contacts on Sunday and a few more at home on Saturday. I misread the rules and miscalculated my worth in points. Oops. But, I was about 20 QSOs into it before I realized and wasn't going to change it. Not much of a difference. And, as Mrs. KJ7GNB (a/k/a "Lucky") tells me- I'm worth far more points anyway "just because." Had fun, reconnected with old friends, and made new ones. 73, Bill KJ7GNB



Pleasantly surprised to see the nice number of OTs participating. Quite a number of new numbers for me. Used the KN4YB dual lever, right-angled bug for the event along with the cootie for the QRS contacts. Thanks for the contacts folks! 73, jack KK0I



Fun! Logged some new numbers. 73, Bob KN4UCN



Nice theme, it reminded me when I started on radio during solar cycle 21, those Gud Ole Days ... other other hand, NO Summer on this side. PROP AWOL maybe next equinox will be better QSO Stats: 2 > 14MHz - 7 > 21MHz - 1 > 28MHz TA33 - 50W - Home Made DSK + restored Danish Great Northern Telegraph Works model 605 SKTU everyone for the QSOs. Take care & Stay well BCNU 73, Walt LW3EX - ... ZUT



Great fun operating KS1KCC for the whole event. It was a bit of a learning curve me, many more stations calling at a time and although I had handled this on 2-meter SSB in the UK, in a past life, not so much on CW. Although I have been using the HST with the left hand and the Intrepid with the right for some time, it came as a surprise that under contest conditions I could not switch from one to the other without making a lot of mistakes. The picture shows my keying setup. Both keys go to the Morserino which in turn keys the cw machine which keys the K3S. The Analog Discovery 2 is used to setup the dit on off ratio of the Intrepid. The bands seemed a little difficult 40 being noisy at times and serious QSB on the summer bands. Thank you to SKCC for letting me use the call and everyone else for giving me the many QSOs. I don't think I did so well with the QRP stations sorry. 73, SKCC KS1KCC



I struggled with marginal conditions, but it was nice to score some contacts on 10m and 15m. 73, Jim N4EES

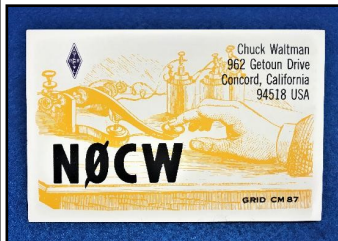


Wish I had more time but still had a great. 73, Ed N2GSL

June WES 2021 V



I forced myself to work QRP, which worked 99% of the time, even though I wasn't able to work as many stations as I hoped. 73, Derek N7PHI



Pictured here is part of my original novice rig from many moons ago including Leyden jar power supply. While the bands were fair on Saturday, Sunday seemed like trying to make QSO's with the Leyden jars again. 73, Chuck N0CW



Lots of fun, despite poor band condx. Introducing the very first SKCC key of this model ever made by Steve WISFR (shown here), on a beautiful marble base. Feast your eyes on this beauty! The sideswiper is accompanied by its sister straight key, also the first ever of this type, under plastic. I ****LOVE**** these keys! You can get yours soon, stay tuned! CU next month! 73, Roger VE3RDE



Glad I was able to get my Cushcraft A4S w/40M Trib-ander fixed on June 5th and 6th. My friend Kim, N8FNC a neighbor Darrin with a rented 50 foot Man Lift helped repair the broken coax and loose driven element. Therefore out of 52 QSO's 46 were OT's and 11 were on 15M. Wish I could have dedicated more time to the WES. 73, Rick N8XI



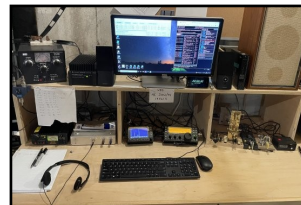
This WES has been a bumpy ride. 20 meters started out completely flat, did only make my first QSO six hours after the WES started. But the band only took off during late evening hours when I made most QSOs during the first day. The second day started early on 40 meters with a couple of US stations. Then I moved to the club station where I had the opportunity to operate with a ICOM756PROIII and a 3 element STEPPIR beam. The highlight at the club was my first 15 meter WES QSO in months with W5ZR. Thanks Bert! During evening hours I was home again and completed another round of US contacts on 20 meters. Another fun WES and glad to be a ham for 44 years! 73, Jo PG0I



Really nice to recognize the "OT's" that have kept Amateur Radio around especially via CW. TNX! to all the "OT's" on the air for this event!!! 73, Steve NQ8T



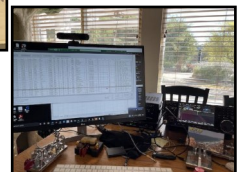
Worked Saturday and spent Sunday afternoon out on the lake so just operated on 15 meters Sunday morning. Lot's of fun having the band open! Used my K3 at 100 watts to a 2 element quad at 40'. Key was a Bencher RJ-2. 73, Bill NZ0T



Not a bad weekend, despite some quiet band conditions on Saturday afternoon. There was decent Sporadic E late on Saturday and from the morning to late afternoon on Sunday, all favoring the eastern US and Canada. 60 out of 207 QSOs were on 15-6M. A highlight was working W4ED on 6, 10, 15, 20 and 40M. Lots of old-timers - the "senior" member for me was W3DF at 72 years. Altogether, the OT's represented 74% of my QSOs. On the other side, there were a number of new folks, which is also good. Nice combination of themes for the June WES. Thanks to all. 73, John W1TAG



K2 5wts g5rv..only worked for 20 qsos.. hb stkey.. one kz1kcc qso.. 18 qso were cqng, 2, I answered who were cqng..fun..abt only 650 qsos so far this year.. I need to make more QRM... hi hi..I still have ONLY 71 keys.. so, tnx to board mbrs for their time in SKCC., since last WES, we have only (hi) 189 new mbrs to create QRM.. hihi.. .. pix is SKSS. Stkey, sideswiper. 73, Dave n9zx1



Been a couple of months since I did WES. Nice to be back! Great hearing everyone out there! 73, Ted W6TED

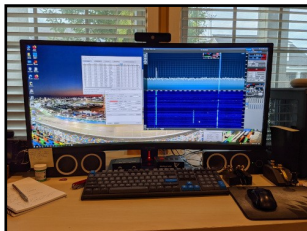
June WES 2021 VI



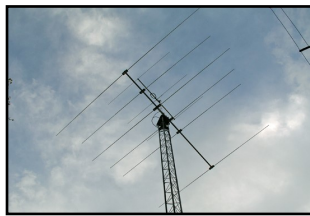
It is interesting to see the years that SKCC members have been a ham. About 79% of my QSO's are with members who have been hams more than 25 years. Still it is nice to see a monthly parade of new SKCC member numbers. New to the ham shack this month are my IC-7300 and Xiegu X5105. Operability of both is very intuitive and I am comfortable with both on the air. The X5105 is reserved for lazy wx days on the patio and PO-TA. Still having fun with CW and looking forward to operating W2XRX during FD. 73, Peter W2SKY



I had fun. Thanks for everyone for the QSOs. 73,



I made a concerted effort this weekend to finish up my Senator. Playing radio as much as possible with my new Flex 6400, 100% remote. This is a game changer compared to my Elecraft KX3 & RemoteRig setup of the past! 73, Tommy WZ4M



I finally got my Rohn 25G tower outfitted with a OB duo-bander for 12&10 and a M2 3 ele 6 meter yagi just in time for the "summer bands" theme. Es was good the week before WES with lots of QSO's on 6 & 10 and I had high hopes for working a lot of members on 6 meters. But, other than working a few "vhf contest" guys on 6, that band as well as 10 was not cooperating for the sprint. I did manage 8 contacts on 15. 14 out of my 22 QSO's were with other "old buzzards" and I enjoyed the theme. 62 years a ham come this Dec. One of my contacts was a Marathon QSO on 40. Tnx Steve K2FW!! Keys: Junker, Twanger, Lightning Bug. 73, Dave W3NP de West Virginia



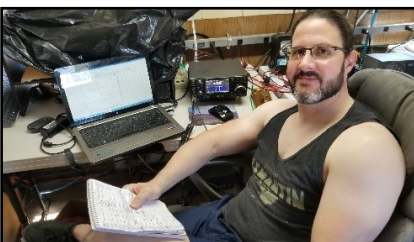
Had to work most of the weekend. Band conditions were horrible here on Saturday. Much better late Sunday when I got back in. Tnx fer all the Qs. 73, Greg WA3GM



Enjoyable, as always. I was able to get more operating time than in previous WES's. It was great to work some members that I haven't heard in a while. Can't wait for the bands to pick up! 73, Randy W4XJ



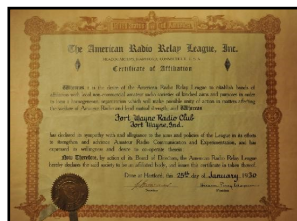
Summer bands were disappointing, but I tried to stay on 15 M as much as possible! There are a lot of long time hams in this group, many in the 60 year range! Thanks to everyone I had a QSO with! 73, Gene W9KMK



I was able to get to the PPRAA Clubhouse to use their Yagi for this event. First time running, and everyone was awesome to work with! Thanks to all for the 15m contacts. What a blast. I didn't know how much I was missing with the noise floor at my QTH. 3 contacts shy of my Centurion, can't wait to get on air and finish that up. See all you fine people on the airwaves! 73, Steve WJ0C



I really enjoyed this month's theme. I have my new antennas up (2-el 40m and DX Engineering Skyhawk trib-ander) after my previous beam quit on me. I had to wait about 3-months for everything to be back in stock and for the tower climber to be available. 73, Roger W6LAX



Celebrating 101 years as the Fort Wayne Radio Club, the club call, W9TE - #20000T, was activated and logged 101 contacts! The original ARRL affiliation certificate, signed by Hiram Percy Maxim is displayed here. 73, FWRC W9TE

The Wonderful SIMPLE Dipole

While amateurs today are captivated with the endfed multiband antenna, those looking for performance may wish to look back at the antenna most of us “old” hams began with: the dipole. Dipoles are built to be resonant on a specific band. Having resonance yields nearly 100% efficiency from the radio output to the antenna output. We all desire that perfect 1:1 swr and contrary to common belief, antenna tuners, whether in your radio or external are not really tuning your antenna; it’s simply fooling your radio making it believe it is transmitting into a perfect 50 ohm impedance when, in fact, the antenna will not radiate any better than its original, “untuned,” design. (I can use my big antenna *tuner* to match my 40 meter dipole to my radio on 160 meters. The tuner actually *lies* to my radio making it think that I have a resonant antenna. And while I have a perfect impedance match, my little 40 meter dipole will radiate little on the 160 meter band with its actual 30:1 swr!)

Our radios are looking for a 50 ohm (or so) impedance match with the antennas. The impedance of an antenna changes with frequency. The dipole design provides the transmitter a perfect match – 1:1 swr! That simply means 100 watts out from the transmitter is 100 watts at the antenna! And while many hams get concerned about anything over that, consider the following:

• SWR	RADIO OUT	ANTENNA OUT	LOSS (watts)
• 1:1	100	100	0
• 1.2:1	100	99.2	.8
• 1.3:1	100	98.3	1.7
• 1.4:1	100	97.3	2.7
• 1.5:1	100	97	3
• 1.6:1	100	95	5
• 1.7:1	100	94	6
• 1.8:1	100	92	8
• 2:1	100	89	11

The above figures from a recent test do not take into consideration any losses from coax size, length or connectors. Generally, on HF, those losses are usually insignificant. Looking at these figures, an swr of 1.5 to 1 results in a 3% loss in power: 3 watts from a 100 watt transmitter! (BTW, if you were to use your internal radio’s tuner and get that 1.5:1 swr down to 1:1, your antenna will still radiate 97 watts!)

The resonant dipole does not depend on a tuner to work. In simplest form, divide 468 by the frequency you want to use, divide that by 2 and you have the length of each side of the dipole. Consider these simple dimensions:

• 15 meter dipole	21.300 MHz	11.0 feet each side or 22 feet total length
• 15 meter dipole	21.100 MHz	11’ 1” each side or 22 feet 2 inches total length
• 10 meter dipole	28.300 MHz	8’ 3” each side or 16’ 6” total length
• 10 meter dipole	28.100 MHz	8’ 4” each side or 16’ 8” total length

As you can see, there is little difference in length between the lower end of the phone band to the upper end of the cw band. Choosing a length in the middle affords an swr under 1.5:1 over the entire band! (Who needs a tuner?)

Constructing the dipole is simple. It can be done without a 1:1 balun by simply soldering one wire to the center conductor of the coax and soldering the other end to the shield. Wire gauge can be from 20 gauge to 10 gauge. The larger the wire, the stronger the antenna with a tendency to be a little better broad banded. (I used 20 gauge for Indiana QSO party on my portable mast and 18 gauge at my temporary Florida qth.) Using a thin wire (and it does NOT have to be copper) works well and lends itself to the *stealth* characteristics. (I've seen hams hide dipoles under roof shingles, hang from trees, right above privacy fences, and even in attics! In my limited size lot in FL, I let the 80m dipole legs hang unnoticed by the flagpole and when it gets dark and people go to bed, I get out and stretch it out crossing our little street to a telephone pole and back behind the neighbor's house to a tree (with his permission)) 14 gauge is a good size to use, either stranded (more flexible) or solid, insulated or bare. I use insulated wire with a color that is less noticeable. A dipole can have sloping legs (inverted vee) or can even have one or both legs bend in order to stay on your property. You can also have multiple dipoles fed with one feedline spaced apart from each other. (Fan dipole) Again, if they are resonant for the band intended, no tuner required.

The use of a 1:1 balun, while not necessary, will match the unbalanced coax to the balanced dipole. The balun can keep the feedline from becoming part of the antenna both in transmitting and receiving. It can also help keep unwanted rf out of the shack. With more and consistent openings on 10 and 15 meters, consider trying out the simple dipole. You'll find it easy to build, simple to trim to your desired frequency, and great performance without the use of a tuner.



Editor.....Ken's report is true. Yes, a tuner will make your radio happy but will not allow more power to radiate than the tuner-less swr says. Sometimes an end-fed or random wire is all you can really do but the performance of a dipole used at its resonate frequency is far superior to any end-fed or random wire with or without a tuner. The simple dipole does not have to be "straight," the ends of either side or even just one side can be bent, up, down, to the right or to the left; it will still be resonate and is better than a random wire or end-fed antenna....and in many cases can be used on other bands with a tuner! Stations with the consistent big signals will most likely be using a resonate antenna on the bands. Even so, an end-fed or random wire is better than no antenna but if you can, put up a resonate antenna and the simple dipole is a proven winner!

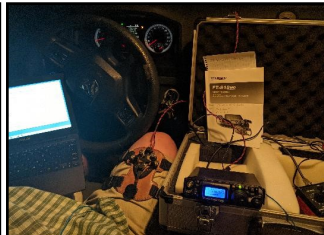
June SKS 2021



Great time, one of my better showings. Even worked Alaska on 20M. Good condx. Ran my 12-year old IC-7000 at 50 watts to a multi-band vertical (elevated) using an old Lionel J38 straight key. (Love my old '7000 hi hi) 73, Curt K2CWM NJ



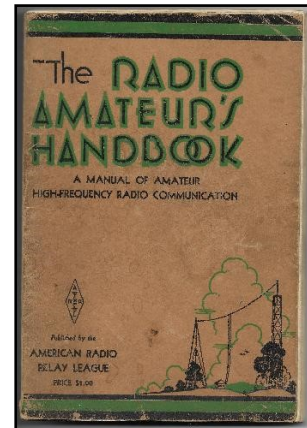
First time I tried just sitting on one frequency calling CQ with my 65 watts the whole period. It was so tempting to go search for all of those strong signals on the waterfall, but replies came pretty regularly. Lots of new calls that way, too. Thanks, all, for the fun! 73, Steve KC5F



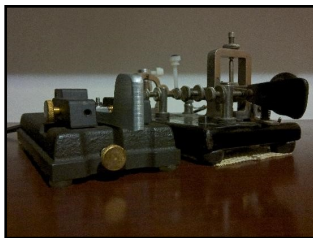
Working QRP and portable. 73, Jim KG4IKQ



Started slow then WOW lots of stations to work. Lots of fun. 73, Nee NE9EE



40 was the place to be tonight. got a couple new numbers but unable to find Ray WB0PYF but there were a number of very good operators & they were pretty well spread out too which helps all us "seek & pounce" people a lot. Thanks all for a fun evening... 73, Larry K8TEZ



Almost forgot...busy mowing the lawn. Caught the last half hour. Still great fun! See you next one. 73, Jack KK0I



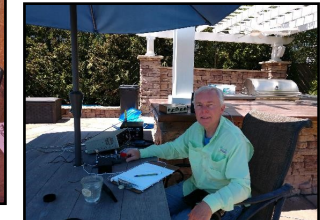
Maybe not the smartest thing I've done in the summer when QRN is high but I decided to run my little QRP Labs QCX+ at 4 watts in the QRP category. Antenna used was an OCF dipole at 40' and the key was a J-38. Mostly had to hunt and pounce but it was fun! Thanks to all who heard my 4 watts among the QRN and QRM! 73, Bill NZ0T



I stayed on 20 meters tonite & had to quit early, Thanks to all who endured my Cootie Fist tonite, I'm rusty and need to use it more. I met some old friends like Curt, and some new friends for our first QSO tonite, Thanks. 73, Rich W4RQ



I stayed up past my bedtime for this. First SKS in ages. 73, Tommy WZ4M



WB9EAO/8 working pool side is tough! 73, Joe WB9EAO/8



Operated portable from Crotch Lake, Ontario with an FT-891 at 50 watts into a Hyendfed multi-band antenna up in the trees. 73, Wink VE3UEE



SKSE July 2021

Straight Key Sprint Europe Results

Results for SKSE: 01-Jul-2021

Overall | QRP | QRO | QRO+ | SWL | By SPC | Soapbox

Overall results

Rank	Call sign	Name	SKCC #	SPC	QSO's	SPC's	S/T/C	Score
1	F5DE	Bernard	6247S	FRA	17	12	0/3/2	244
2	PG6NTC	NTC	24551	NED	15	11	3/2/1	235
3	ON7DQ	Luc	14984T	BEL	15	9	2/1/1	180
4	YU7AE	Kare	5790T	SER	7	4	2/1/0	68
5	HB9CPS	Geo	20350	SUI	10	5	1/0/0	65
6	SM0SBL	Bjorn	23900	SWE	4	4	2/1/0	56
7	DM1AA	Andre	21162	GER	5	5	1/1/1	55
8	OE3IAK	Andreas	24546	AUT	5	5	1/1/0	50
8	YL3FW	Sergei	9673	LAT	6	5	0/0/4	50
10	DD2AW	KAMI	21630	GER	5	5	1/0/0	40
11	GM4PVM	Paul	17810T	SCO	3	2	2/0/0	36
12	N4EES	Jim	1434T	TN	2	2	2/0/0	34
13	VE1AHX	Ben	18100S	NS	4	4	1/0/0	31
14	DJ1TF	Tom	24512	GER	1	1	1/0/0	16
14	KB4QQJ	Randy	3508S	NC	1	1	1/0/0	16
14	IK1ZUV	Davide	24440	ITA	1	1	1/0/0	16



TNX for the QSOs. I am on holiday on the Isle of Lismore (IOTA EU-008). Running 100W to a multi-band vertical. 73, Paul GM4PVM

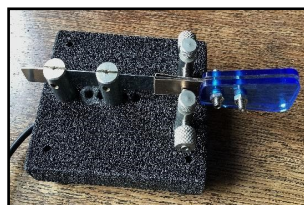


Thanks to Bob, F6EJN, for the new number and for helping me break in my "new" birthyear 1965 Lightning Bug. 73, Jim N4EES

Nice to activate the Netherlands Telegraphy Club club station and hope to be back every month during the SKSE. 73, NTC PG6NTC



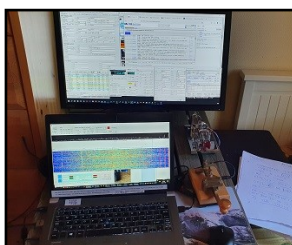
Well I managed one contact and I think this is my first SKS-E submission. Normally not home during the event. But thanks to Bob, F6EJN for my whopping big score!! 73, Randy KB4QQJ



Hard going this time. Few stations. But fun as always. 73, Andre DM1AA



My first SKSE... 73, Davide IK1ZUV



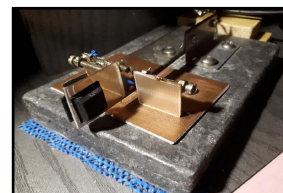
Tnx all for QRS with me during the entire SKSE! I worked with my "Swedish Pump Key" I first tried to learn morse back in 1987. Four QSOs where three in EU and one to Canada is a great score for me. I work from my tiny temporary QTH at my summer QTH.TU all es 73, Bjorn SM0SBL



Thanks for nice QSOs, strong QRN and static from the approaching thunderstorm, in the end it had to be turned off from nearby lightnings :- (Thanks PG6NTC and ON7DQ for 2 band QSOs. Rig is FT-817nd 5W output, Z-817H Atu, Timewave DSP , Windom FD-4 antenna in forest. Key is old German FUG-7 key. 73, Kare YU7AE



What a strange SKS-E this month ! First of all, I had no contact with our North American friends, I think for one of the first times in an SKS-E ! Strangely, the same day I contacted 12 VE and W stations on CW in the afternoon on the 6 m band. After that, I was very glad to be called by eight (8) new SKCC members, sometimes at a slow speed, a real pleasure to help them to enter to this nice SKCC group ! Being called by several of you on 40 m band, I had not a big time to go on 80 m as usual before the end of the event, then I did only one contact on this band. Another curiosity was that I contacted no Senator level this time. Many thanks to you ON7DQ (2 bands), PG6NTC (new nr, 2 bands), DD2AW, GM4PVM, SM0SBL (new nr), OE3IAK (new nr), SV3IRG (new nr), YU7AE, G3ZJR, YL3FW, EA2CAR (new nr), DM1AA, IK1ZUV (new nr), DJ1TF (new nr), G0GUF (new nr). One more time, my key was a Junker Straight Key, rig TS-590SG about 90 watts into my good old multiband GP antenna. On the photo is my QSL card, all new contacts will receive it via the bureau as I am 100% QSL since 1964 ! Good luck to all, see you very soon and have a nice time with CW contacts ! 73, Bernard F5DE



No DX worked, but plenty of EU stations on 20/40/80, so had a good run. IC-7300 100W and 33m random wire + groundplane on 20m. Homebrew Cootie key (see picture). 73, Luc ON7DQ

Confessions of a Casual Contester

Vol. 2 Issue 1
from the shack of David VE4DL

I am not now, nor ever have been, a Contester. I don't see myself becoming a Contester either, if one defines the term to include round-the-clock operations, intravenous fluids and diapers, and frequent relays of cold, one-hand meals. Not my thing, at all. BUT.....

Logs. Loggers. What images come to mind? Lumberjacks in British Columbia, leaping from tree to tree? The mighty larch? Mounties? Strangely, I find myself humming a tune.....

Not so much, eh?

I know hams who don't keep logs, just as I know pilots who don't. Either one is the exception, not the rule. And like everything else in amateur radio, there are more ways to address the problem than I can count. What I can do, is take you on my own pilgrimage through the logging wastelands, and maybe you might find something you can use in your own quest.

IN THE BEGINNING, there was paper. I bought a nice spiral-bound notebook and filled in those details of a QSO that I thought important to me: name, call, date, time, frequency and such. I got about 4-5 a page and I thought it would take forever to fill a book.

Soon after I found QRZ.com, which amongst many other things holds biographical and geographical details of a large fraction of amateurs world-wide, and I thought it was a neat way to know something more about my new friends, particular bearing and distance, so I could imagine the path crackling with radio energy. That was fun, but QRZ is more than that. It's an interactive online logbook too. You can record all kinds of details, some even auto-fill, and the other party does the same, and you get pretty silver stars when they match up. I like it, I used it as my "official" log for a while. I still kept the paper log for "important" QSO and "firsts". For a time anyway.

About this time I started getting QSL cards in the mail. I liked it. But-it is sloooow. Someone pointed me at eQSLcc, which is another on-line logger and checker. It records less detail about the QSO but provides IMMEDIATE GRATIFICATION in the form of a downloadable QSL card if it matches the other parties' entries. I now have HUNDREDS of these cards on my hard-drive. (I should back that up....) I'm still using both of these on-line loggers, but now at one remove. I check them every Friday for new QSLs. These are both excellent choices for a general personal log, and may fit your needs entirely. Yes, I use the Bureau, too.

Enter Temptation in the form of VE4EA, who promised greater CW skills, but delivered the crack of ham radio – HF contesting. (I'm not a contester – I'm not, I'm not, I'm not....) This introduced me to the other side of logging – the Contest Logger.

A Contest Logger does just that – it logs only those details that are important and necessary for scoring points in whatever contest you're in and stores it in a form convenient for contest submissions. The most-used appears to be N1MM+, which is an app on your computer rather than an on-line service. It is pretty nifty, with an enormous number of bells and whistles to smooth your contest operations and speed up your entry afterwards. This is open-source software with a large number of contributors. This can bite unexpectedly, but the important outcome is that there is a format downloadable for just about every contest you can think of. It would take hours to describe its operation, but suffice to say it can search for hams on the air in the contest, tune your radio to them, fill in the call sign, send your exchange and log the QSO with minimal fuss. And more.....much more. I like it. I use it. It is often the best or only choice for a contest logger. But it IS a contest logger. It is almost worthless as a general logger and the creators are constantly reminding newbies of this truth.

One consequence of using N1MM was seeing the deficiencies in QRZ and eQSL as general loggers. They work fine, but are missing some of the tinsel I got accustomed to with N1MM.

So I kept looking until I found DX Lab (dxlabsuite.com) I thought I had reached Ultimo Thule. DX Lab has a module to run your radio. It has a module to record your QSO. It has one to map the QSO and show the great circle path (totally in love with this) and one to print QSL cards. It's quite comprehensive, and it's FREE. There is a lot of customization possible here, to make it what you want it to be. I used this for two years as my personal logger, then found I wasn't computer-savvy enough to really get it to sing and dance. I kept looking.

I forget who mentioned N3FJP's ALog software, but I looked at it a few times. I ignored it because it cost money (what?) but last spring figured I'd try it for 30 days free and see what the fuss was about. About Day 14 I bought the whole package with the lifetime support and update. \$60? something like that. ALog is really, really good as a general personal logger. It is highly customizable, just like DXLab, but for me more understandable, less nerdy to work with. It also controls your rig. Any rig. It can record and send both voice and CW. It is much simpler to do these things than with any other I've talked about. But wait, there's more! It integrates seamlessly with a number of other useful radio apps like FLDigi, PSKexpress, MMTTY to name a few. I run digitally primarily with FLDigi, and when I hit 'log' it is stored locally AND sent immediately to ACL. Not enough? I have my eQSL and LoTW logins stored in ACL and all my entries go immediately to these sites. Once a week, I download all my new confirmations from LoTW. They get colour-coded in my personal log. ACL will print QSL cards and/or mailing labels. It will check for new entities in Great Lists of Such Stuff on the wide web. It is missing the mapping app. I miss the mapping app. But I can live with that. ALog is a live app, updated regularly by the original coding team. They are highly responsive to email, and there is a groups.io forum for support.

Want more? ALog has modules for contesting, too! Not as extensive as N1MM by a long stretch, but it covers a lot of the most popular ground. These apps can run stand-alone with all the radio-control and fancy toys, or run slaved to the main logger. Typically I run them stand-alone because uploading is a one-button process that can't go wrong (yet.) I find them easier to set up and use than N1MM, but they do everything necessary, including tabulating your score, formatting the submission file and uploading to the contest website. Easier than N1MM.

End Commercial Here

But everyone online kept raving about Ham Radio Deluxe. Another suite vaguely similar to both DXLab and N1MM. A one-log-to-rule-them-all effort. I've tried the free trial, didn't buy the full Monty. Yes it does everything. Everything! Yes it is customizable to a large degree, but like DXLab you will need more computer savvy than I possess. Yes, it contests. (Did not try it.) And yes, it costs money. Double ALog, and only one year of support. Extra years for extra money.

There is one specialty log I use as well. I'm a member of Straight Key Century Club, and they have their own logger to log their own contacts, casual and contest, and track their own awards. The Loggerhead is simple to set up and use, and exports in a file usable by ALog, so eventually all winds up there, and from there, to LoTW and eQSL. It all looks complicated, but it's a few minutes a week to keep it all co-ordinated.

Here we have caught up to my travels through this strange landscape of ham radio logging. I have not covered much ground at all, really. There is a host of other loggers out there, for Windows, for Mac and for Linux. Venture out and try a few. Move on til you find one you like for what you want to get out of YOUR log. None are perfect, none are for everyone. Play and have fun.

But it isn't contesting. Nope. Not at all.

July SSS, 2021

Results for Slow Speed Saunter: 1-2 Jul 2021

Overall | Soapbox

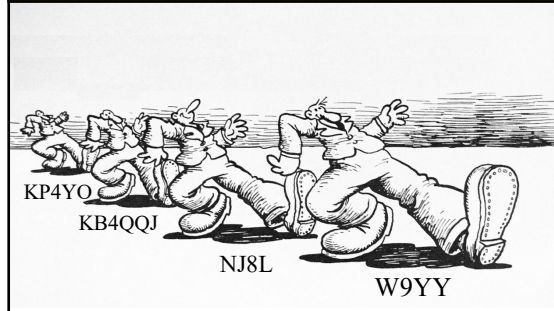
Overall results

Callsign	Name	SKCC #	SPC	QSO's
W4RQ	Rich	8699S	FL	1
N4API	Brian	11673S	GA	2
N9KJU	Ken	19964T	IL	5
W9YY	Jack	21824S	IL	20
KB4QQJ	Randy	3508S	NC	18
K2CWM	Curt	3018S	NJ	6
KA8HFN	Larry	2046S	OH	4
KG8RRY	Gerry Sorensen	24548	OH	9
NJ8L	Vern	13613S	OH	20
NQ8T	Steve	5919S	OH	5
VA3FRL	Rick	24441	ON	2
KP4YO	Amando	23845T	PR	14
W4CMG	Cathy	20093T	TN	6
W5H	Mike	11770S	TX	11
K7CLA	Chon	24598	UT	2
WA8ZNC	Tom	22868T	WA	6
WB9TFF	Donna	7057S	WI	8

Participants and QSOs by SPC

FL: 1/1	GA: 1/2	IL: 2/25	NC: 1/18	NJ: 1/6
OH: 4/38	ON: 1/2	PR: 1/14	TN: 1/6	TX: 1/11
UT: 1/2	WA: 1/6	WI: 1/8		

Slow Speed Saunter



Not many pictures submitted this month but lots of entries.

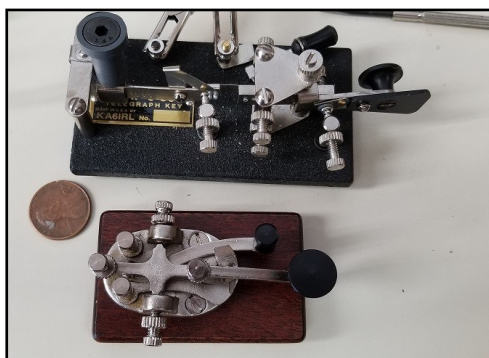


My favorite SKCC event, but I'm afraid something came up and I couldn't spend a lot of time with it. But did enjoy the few contacts I did make. Ran 50w from my old IC-7000 into a vertical using an old Lionel J38 straight key. 73, Curt K2CWM NJ



I camped out on 7.0545 for the evening. Made 20 QSOs all with a straight key, and all from CQs. Many of the contacts were new ones for me. Thanks to all for responding, and hope to see all of you on the air during the month. Running 100 w to a long wire on the fence up 5 feet! 73, Jack W9YY

Talk About "Small" Keys!



Randy KB4QQJ has several really, really small keys! Check this out! All these keys "work" and although they do work, Randy says they are not his go-to everyday keys! Amazing keys!



SKCC at the Auburn, IN Hamfest

By Ken N8KR

For the second straight year, the Auburn, Indiana Hamfest was held at the world renown Auburn Cord Duesenberg Museum. With free admission to the hamfest and museum, hundreds of visitors spent time shopping, and visiting along with viewing the vast array of vehicles at the venue. SKCC was well represented with a special booth and with over 25 members visiting. The booth was set up including a variety of keys and oscillators along with a computer (w/ internet) displaying our SKCC website. Visitors were given a tour of the many “treasures” on our website including our logging software, our sked page, membership information, along with our fine newsletter. Ed – WA9BBN assisted by Rose –KA9GKE took the leadership in staffing the booth. There was always a lot of activity there and Larry - W9FLA signed up at the booth and received #24665 the following day! Ed – WA9BBN does a phenomenal job talking with fellow hams about CW and getting them to try their fist on one of the keys on the table. One newer SKCC member, KD9MGZ, had his first exposure to a cootie . . . and he kept returning to the table to practice with it! While we took no formal picture this year, the picture here shows our booth with Jim – KD9GDY and Ed – WA9BBN standing (plus Josh – W9HT on the far right) with Rose – KA9GKE chatting with a visitor. We are grateful to the Auburn Club for giving us space and helping us display our banner.



July WES 2021



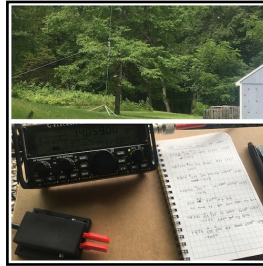
Tough conditions between contests, poor propagation and thunderstorms, but it was still great contacting old friends and new members. Thanks everyone. 73, Bill AX2MX



Great theme. The sweep was much harder than the standard 13 Colonies last week. I wasn't even close! 73, Brad AE4AN



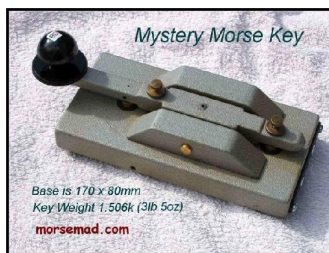
This WES was difficult for the European OMs. The Saturday contest and little spread on Sunday. Fewer participants than usual with less comfortable postponements. No participation in the next WES. See you in September. 73 to all, Bob F6EJN



Saturday was my 1st busy WES on 15 & 10 meters. I dodged the S6 noise on 40. I've had to miss several WES events and it was great to be back again. My Tx7 overflowed into my TX8. Many thanks to All of you for earning your C,T,S Awards. 73, Herb AA7XP



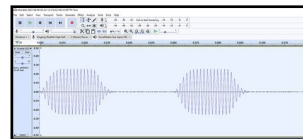
I had only a few hours available at the end - for another 'patio portable' operation. Thanks all for the QSOs! 73, Gary AF8A



Good fun and tried using a couple of straight keys - a Mystery big grey key and a Marconi PS N0213A coast station key. Conditions poor with no DX heard at all. Grand total of 7 QSO's in the log - F8EZZ Jo, F6EJN Bob, PG4I Jo, I5ECW Vanni, ON7DQ Luc, OE3I-AK Andreas, PH9E ERIK. All on 20m. Kenwood TS 440s, 100 watts, 20ft tall fishing pole vertical. 73, John G0RDO SKCC 2133s.



That was fun. Did good for QRPP, 1w, Hustler 5BTV Vertical, Ground Mounted. Got 6 of 13 Colonies, on 80m, 40m & 20m bands and Portugal (Thanks Carlos). 20m was my favorite band this weekend. Worked many stations for the first time for my log. Have a great rest of the month. Good Event!!! as always of course. 73, Bud AA8CL



Thank you for the nice QSOs! I participated only a short time due to my activity in the ARRL IARU HF Championship. This WES enabled our club station to apply for the coveted "T" :) 73, DF7TV/Tom, Operator at DK0SU DIT DIT



Had a great time earning my way to my next T and working POTA at Starve Hollow State Rec area in Indiana park K-4181. These logs will be uploaded for credit towards POTA as well. TNX Everyone! 73, Wayne AC9HP



Bad conditions this weekend, thanks to all for your patience. See you soon. 73, Lluis EA3NO



Greetings, here are some photos of Team Cai-barien CO9GBB and its operators, we regret bad propagation conditions and lack of AC on Sunday morning. 73, CO6QK and CM6SQ

July WES 2021 II



It's been ages since I did a WES and I'd forgotten how much fun it is! I only managed a few minutes at the end but 20m was lively with decent signals despite some qsb. Glad I made it. 73, Peter GM0EUL



Conditions weren't very good but still lots of fun. Perhaps poor band conditions favor poor operators! Here's a photo of my arsenal of keys. Much thanks to the SKCC directors and support team for your tireless efforts to keep SKCC going and for all you've done for the CW community. 73, Andy K0AF



Saturday morning 6 mtr's the place to be..then the storms moved into the area creating tough conditions from intense lightning, wind gusts, all the good stuff. Sunday was somewhat better, F6EJN 579. K1ARR back to back contacts 20 & 6 meters. Ten of the 13 Colonies logged along with F6EJN es WM3PEN...Thanks' to everyone for a fun WES. 73, Rick K0KEX



This is definitely the most I've worked in a WES, trying to get enough contacts towards my S! Had a great time, made a ton of contacts, and drank a lot of caffeine! 73, Sam K0SPU



Another Fun WES! Thank to everyone that participated! Hope to see more new members next WES. 73, Ed K1EDG



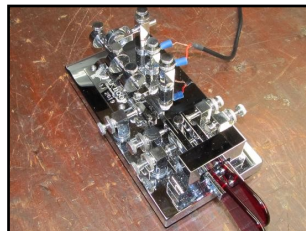
Saturday QSOs was the who is who of PA and MD. Few other SPC. Sunday 20m filled in a few of the gaps. Overall a tough weekend for QRP. Here is a photo to help with the heat and humidity that has been around lately. 73, Gary K1YAN



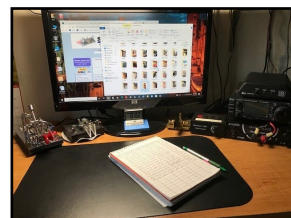
Very nice event. Set my goal for 50 contacts and that's what I got. Used 80, 40, 20, 15, & 10 meters. Good conditions. Ran 75 watts from my TS-590SG into an elevated vertical, using my Kent Str Key. Always fun! 73, Curt K2CWM NJ



Long time since participated. Using portable dipole antenna on MFJ tripod (picture enclosed). Great to getting CW fingers going again. Not many contacts, but got North Dakota!!!!!! After ND for a long, long time ... thank you WS0Y for hanging in there! 73, Jim K3YMI



Unfortunately, I didn't have a lot of time for this WES. We were having a big birthday party for our Grandson who was turning 4 yrs old. Also, I was concentrating on making QSO's on 10 & 15mtrs & not going for lots of QSO's. Both bands were fairly decent though. I was surprised with how well I did on 10mtrs. I attached a picture of the Bug I used, which is a Frattini Evolution model in chrome. Love using it! 73, to all Steve K2FW

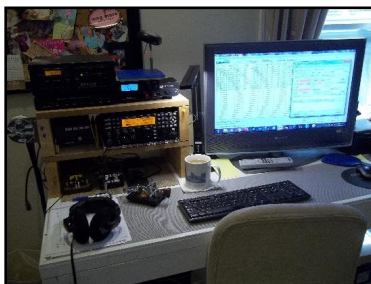
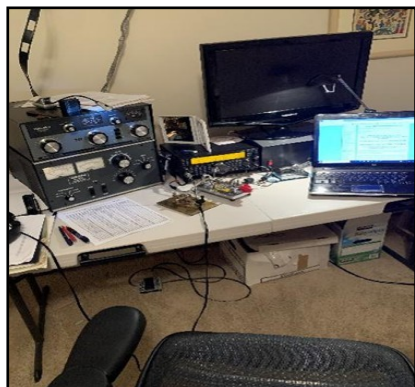


1946 Vibroplex Deluxe bought in 1955 to KC-706 to G5RVjr up 35'. Great conditions and strong signals on 20m for my hour of operating this month. So much fun and thanks to those good ears in Portugal! 73, Don K3RLL

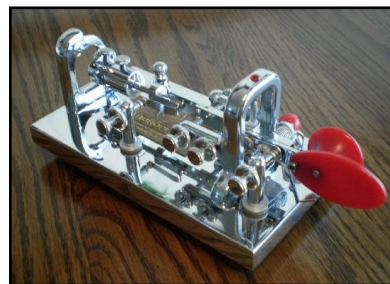


Played for about an hour or so Sunday. Band conditions horrible with lots of QSB and QRN. Where are those sunspots? Worked QRPp running 1W with my KX3 into a G5RV @ 28ft and SCHURR hand key. 73, Steve K2DEP

July WES 2021 III



Casual operation but still lots of fun. 73, Ted K8AQM



Fun as always! 73, John K8LJG

Another fine WES on another major contest weekend. Saturday's DX multipliers were down to a trickle and then Sunday's conditions were not conducive to finding many more. DX Propagation on Saturday for the IARU World Championship were quite good from my brief observations. Our 20 meter daytime and 40 meter nighttime WES activities on Saturday were almost exclusively on our alternate frequencies (14114 and 7114.) That being said, I found activity pretty close to normal with the preponderance of signals from the eastern seaboard states. Conditions on 20 Sunday afternoon to the west, were marginal- I did eke out NV and UT and had many very marginal CA, and WA QSO's. 20 did perk up late afternoon until WES end to EU (F, DL, OE, CT) Never did find a SD or DE station though. Must start thinking about a DC area contingent DXpedition to DE for a couple of weekends a year. I did have a few 15meter QSO's and a couple of 10-meter contacts, but the rates were so slow that I returned to 20.

It was great seeing all of the newcomers who partook of the event. My rule, as is the case with most SKCC'ers, is to send back at the speed that we are called at. I also try to, every two or three CQ's to transmit at a slower speed. Does help the less experienced operators feel at ease answering calls. Only one instance of clicks was observed- a definite decrease from last month's WES. Please set your risetime to at least 6 ms. (no less than that). Just a short digression- When you get a signal report from me, IT IS NOT YOUR STRENGTH ON MY S METER. I use the original ARRL convention. So if you send me 599 because I am hitting S9 on your meter and I send back 579, rest assured that you are probably just hitting the S9 on my meter ON AVERAGE. (ARRL Definition of a loud signal "7"). Yes there is subjectiveness to that convention when QSB is an issue (isn't it always?). But in my book if the signal is on the average 'loud' it gets a 579. Thank you for the excellent operating practices- I observed courtesy through the WES. Thank you for all of the QSO-s and to all of those QRPers who tested my hearing abilities once again, please keep it up- Keeps me sharp, even at 75 years young.

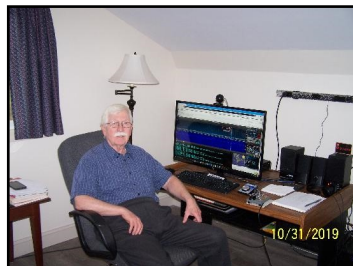
Revision to operating position necessitated by a catastrophic crash on my new HP Desktop. So I had to go with plan B, my older HP Pavilion Laptop and reconfigure the operating surface for WES operations. 73, Phil K3EW



Thanks- WB6IZG-N3CKI-K2FW & KG5YR. 73, Larry



Thanks to all who participated, in make this WES so much fun. The bands were not the best, but they are getting better. Everyone have fun and hope to work you in the July Brag program. I'm the Bonas Station. 73 & God Bless. Ric KB3LOC



Contacts on 40,20,15 & 10 meters.



Wow, Saturday was a wash out here. 40 was short and weak and 20 was total IARU WW. Only got 6. Sunday was better and got 13 on 20 meters. Thanks to Ramon for Team Caibarion. That is the way the spelling comes up on the logger! Got more T's than S's this time and 8 over 20K. IC 7410 @ 70 watts and a doublet for 80 meters up 30ft. 73, Allen KA5TJS

Missed out on CT, RI, DE and UK but had a fun time anyways. Hope to see you all next month!! 73, Dave KB1WOD

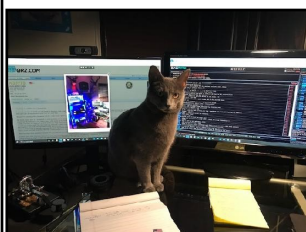
July WES 2021 IV



Thank you everyone for the enjoyable WES. It was great to hear some familiar calls and some new ones too! 73, Eric KB3NSK



HAVE NOT WORKED WES IN QUITE A LONG TIME. LOOKING FORWARD TO THE AUGUST EVENT. 73,



Man from here in Texas the conditions were really rough this weekend and we some some storms blow thru Sunday morning early so had to wait awhile. Still the time I got to sit here I had a great time working everyone.. My helper made it hard at times and she enjoyed stepping on the key so if some of you copied some strange Dit's and Dot's Well you know why.. 73, Doug KG5YTS



One of my favorite themes this month. Especially coming off right behind the 13 Colony Special Event. I got to play for a short time at the Guilford Courthouse Battleground. A POTA site I activate from time to time. Have Fun Folks!! That's what it's all about. 73, Randy KB4QQJ



73, Andrew KD9SSX



Didn't get started till late, but had a great time! 73, Russ KK4WX



Enjoyed the time I could steal away for WES. Thanks for the QSOs! 73 -Wayne KC5PRK



Only operated a short period of time ... did not want to compete with the IARU contest underway. Always fun to S & P when time is limited.



Enjoyed working 6, 10, 15 bands during the event. Was having a good time, then boom, boom, boom of thunder and then follow-on lightning. The end of event for me! Only a few at 200 Watts so high power this time. 73, Paul KN4NVU



Had very little time this weekend to operate, but did set up with our local club's "Hams in the Park" outing to show off SKCC. Thanks to all who participated. 73, Warren KC9IL



Used my recently refurbished Yaesu FTDX-560 and a Chech Military RM-31 for the WES. It was really fun to put the 50 year old rig back on the air. Just need to get a CW filter so I am only listening to one station at a time. 73, Randal KG5IEE



Very limited time for this event. Hoping to catch the next one. 73, jack KK0I



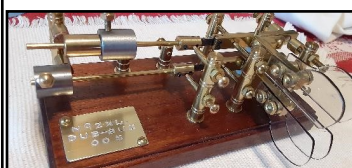
July WES 2021 V



Managed to run a few hours on es off. Tnx for all who worked KS7KCC over the weekend. 73 CW. 73, Cw KS7KCC



Openings on 10 & 15 are encouraging. 2 QSO's on 6 but non SKCC. Activity seemed light this weekend. 73 de AL, N4ow 11375s



Argo 6 5wts g5rv 35ft n/s inv vee... only on 40 and 20 mtrs...got my usual amount of qos ,30 more QRM..tnx to SKCC officials..I think we need to pay one dollar for each WES, just think what they are doing for all of us around the world.. abt at least 125 new SKCC mbrs each month.. I used my own design stkey..so, tnx to all.. c u in AUGUST for more QRMpix is my design DUBBUG nr 005.. so,,, 73, Dave N9ZXL



LW3EX

Ruff PROP, had a little fun on SAT... NADA on SUN Nice to QSO F6EJN Bob and DF7TV Tom across the pond QSO Stats: 5 > 14MHz - 2 > 28MHz TA33 - 50W - Homemade DSK + German SK 1943 made by Firma Hans Widmaier TU everyone for the QSOs. Take care & Stay well BCNU 73, Walt LW3EX - .. - ZUT



Fun weekend: SKCC booth at the Auburn, IN Hamfest on Saturday and lots of SKCC contacts during WES on Sunday. 73, Ken



Lots of fun as usual. Conditions weren't the greatest, but we made do. Icom 7600 60w, EndFed antenna @ 45ft. 73, Dennis N0SMX



Propagation wasn't cooperating with me. Tried a Sweep. Only missed DE & the UK. S&P until about an hour from the end. Thanks for another fun filled WES. 73, Rick N8XI



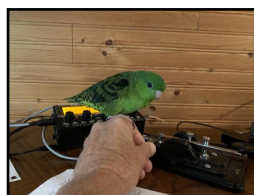
Only able to play radios for a little while, on Saturday...and all my contacts were on 40m....Fun,



I ended up with 10 SKCC QSOs. Since several were very short with a known and simple exchange, I was able to work them faster than my normal copy speed. I was able to collect 6 new numbers toward my Tx6. Just 4 more to go for that. One QSO turned into a rag-chew with a potential SKCC member. Since he used a keyer, I could not count it toward my WES score. He and I have now had 5 QRS QSOs since we met during the June SSS. Our average QSO duration is now 31 mins long. And I had him listen in on an exchange I had with another SKCC member. 73, Ken N9KJU

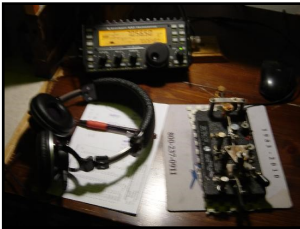


Making Qs with QRP tough, so got mad and used my highly modified Ten Tec Scout with its blistering 50W to finally make a whole 38 QSOs. Photo attached. Still fun, and delighted to work several new members 24000+. Worked 8 of the Colonies. Spanish colonists arrived in my NM town on May 8, 1598, 22 years before the Mayflower. Seems that should be worth something - hi. CU next month with hopefully clear skies and a higher solar flux. 73, Paul NA5N

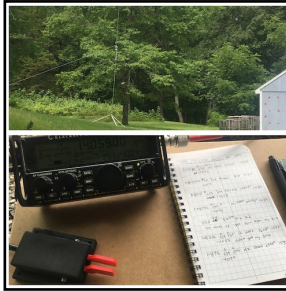


Had a great time! Special thanks to Jose, KP3W, for taking the time to pull my QRP signal out of the mud. 73, Robin NG8S

July WES 2021 VI



As usual, TNX to all who copied my shaky fist. Appreciated visiting with SKCC guys at the Auburn HamFest yesterday! TNX Ken for the visit and contact this evening. 73, Steve NQ8T



Operated from backyard at my daughter's house where we are staying while house hunting in Western Massachusetts. Managed to get a few QSOs in before the rain resumed. First WES in many months. Good to be back. 73, Mark NX1K



I used my newly acquired Ten Tec Triton IV digital. The old girl (43 years old) performed really well! I used an OCF dipole at 30' or a 2 element 5 band Quad at 40'. And I used my first novice key from 1982 - cost me \$15 at Radio Shack. It's Japanese made and still sold today as the Ameco AM-K4. With a busy summer weekend and storms around Saturday night time was limited but I had a lot of time Sunday and had a great time on the upper bands. Thanks to all I



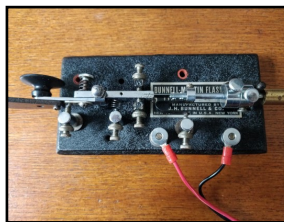
Thanks, even though it's been overshadowed by the IARU HF contest, I found some stations and had great QSOs! The Weekend Sprintathon also brought me my first Japan DX. mni tnx = 73 es gl! 73, Andi OE3IAK



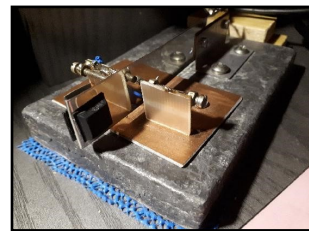
This WES I operated the KX3 at 5 W from the boat (a sailboat SunCat 17) anchored at the cove in Pinhey Point Historic Site (abt. 8-9 miles upriver from Ottawa in the Ottawa River (FN25ak). The KX3 was powered by a deep-cycle battery of the boat (used only for the lights, the sounder and the autopilot since the boat engine is an outboard with no battery). The battery is charged via an 11W flexible solar panel on deck. The antenna was the PAR EndFedZ 10-20-40 trib-ander rigged as an inverted V using the mast of the SunCat as its mid-pole. I was able to operate only for two hours (12:00z to 14:00z) and although I heard many others, I was able to log only three QSOs. Thank you three for your contacts in the boat. In the past similar QSOs were logged by some as /MM. However, not everyone acknowledges this mode of operation (from a small sailboat at anchor) as "Marine mobile", and since it is very similar to operating "Portable" from land, I prefer to call it "Portable Afloat" ("/PAF" ?). 73, Jose VE3DTI.



I had fun. Thank you for all the contacts. Perhaps it is easier being in one of the 13 colonies. Still I operated the higher hands trying to help out with that 5x multiplier. Where was DE and UK? I missed getting all of the colonies. My G5RV antenna broke last week but I restored it just in time for this WES. Now it is a 80/35 ft. sloper. 73, Peter W2SKY



That was a tough WES but got to try my new bug: a Bunnell-Martin Flash Key which I have converted to left-hand use. 73, Jo PG4I

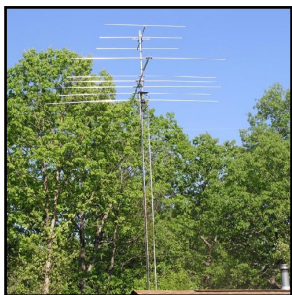


Tough condx, I could not work ANY DX station, but had a few new ones in EU. All QSO's made with homemade Cootie key (see pic), IC-7300 @100W and GP(20m) or LW(other bands). 73, Luc ON7DQ



Thanks for the contacts. I took out the Heathkit HW-9 on Sunday and horsed around with it a little. I was very happy for some QSOs on 20 and 40. 72 and 73 Ron, VE3SIF

July WES 2021 VII



Wrked 11 colonies plus France. Had contacts on all bands 6-160. Total summer band QSO's: 1 on six, 7 on ten, and 13 on 15 meters. 6 and 10 had some good openings but not many SKCC stations took advantage. Used my new Optibeam duo-bander (12&10) @ 42' on 10 and M2 3 element @ 47' on 6. Keys: Vibroplex Blue Racer Deluxe c.1963, Twanger cootie, and Junker SK. K3 line. 73 from West Virginia...Dave W3NP



Condx seemed better this weekend, at least on 20/40m. HiPerMite filter helped considerably on the MTR3, especially during IARU contest. 3 watts QRP was a challenge, but received the dreaded 'SRI' only once. SKCC folks have good ears and show patience... 73, Dennis W5WIL



Saturday was more difficult because of the IARU HF Championship CW operators. They do have as much right to the bands as we do. Unfortunately, my transceiver developed some problems on Sunday afternoon, so I missed 6 or 7 hours of operating time. With all that, any WES is always fun. 73, Drexel W4DHT



Another fun WES. Was breaking in the new BUG, its replacing the old one (+60 years). Interesting that the tolerances on the old are still tighter/smoothen than the new - but new one is OK. 73, Bob W4ED



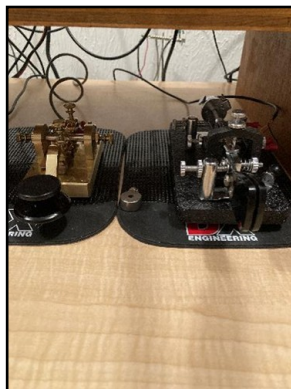
Wish I had more time to operate. WES is always a great time. Here's hoping band conditions will get better in the months ahead. I had several stations that were heard and disappeared before I could work them. 73, Randy W4XJ



Had a Great WES Got Tx7. hope to get Tx8 soon to reset the logbook so to speak. thanks to all SKCC members. It is so fun. 73 to all and see you next month or sooner!! Mark



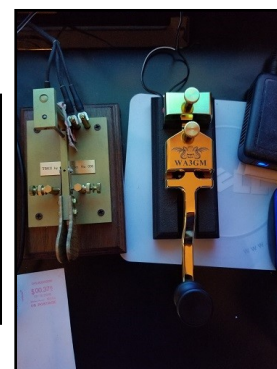
Fun Sprint - Thanks all for the contacts. Worked 20m 40m & 80m. Vibroplex Original and Navy Flameproof. Knwd TS590 @ 90w. 73, Mike W8MDE



I operated on Sunday afternoon. Started slow but had a couple of good runs later on. 73, Bill W9SA



Worked WES for a couple hours Saturday, then took a hike on Sunday morning for QRP CW from POTA K-5293 which included some SKCC numbers. I returned to the shack for a couple hours WES on Sunday evening. Glad that 20M stayed open Sunday for my final QSO with Paul, G0DJF at 2359Z to claim ENG in the colony count. Stay well & 73, Mike, WB2FUV



Split the weekend in half here. Saturday i worked my home call WA3GM and on Sunday I worked our club call WM3PEN with our new SKKCC number. I was also one of the WM3PEN OP's during the 13 colony week so chances are I worked many of you during eh event. Bands here were HORRIBLE to say the least so hopefully next month will be better. Thanks for the Q's & C U Next Month. 73, Greg WA3GM /

July WES 2021 VIII



I operated on and off over the weekend, while camping at Susquehanna State Park in Maryland (POTA K-1601). My radio is on the little green table to the left of the picture below. It was rough going at times for QRP. Thanks to everyone who managed to hear me. 73, Craig WB3GCK



Pulled out the IC-705 and cobbled together the connectors and cables I needed to drive my KXPA100 from the little Icom QRP XCVR. I ran 70-90W to my OCFD or my wire loop depending on band selected. Worked mostly 15M some 20M and one on 40M. Thanks for the QSOs 73 until next time DIT DIT, Mike WI5H



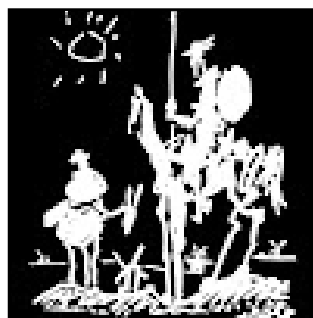
Limited time available - again. Operated 40M CW QRP with an antique HW-8 with a 60' hunk of wire. Much fun, as usual. Murphy visited early, so had to clean and burnish the bug's dit contacts just prior to the contest. Figures! heh! 73, Jeff WN1MB



We are one of the 13 Colony Club Stations her in Phila PA and are new members of SKCC. The ops this weekend were Greg WA3GM & Austin KA3ATT. Thanks for letting us be a part of this event and we will surely see you in future events. 73, WM3PEN Greg WA3GM Austin KA3TTT



Always fun. 73, Rick WO8L



SKCC Members in the August QST!

The August issue of QST has an excellent article entitled, "Anatomy of a Special Event Station," but even more important is the photo below showing SKCCers Greg WA3GM and Kurt NN3C! The QSL and event were honoring the 95th birthday of Elmwood Park Zoo in Norristown, PA. I'm guessing the guys are sitting at the CW and SSB tables ...but why does



The K3E Special Event Station at the Elmwood Park Zoo in Norristown, Pennsylvania. From left to right: Greg Malone, WA3GM; Kurt Magni, NN3C; Ken O'Connor, KB3DFR, and Sal Marandola, NC3U.

Kurt have his back to the SSB guys!?! Check out your August QST for operational details.



Editor...The following article was previously published in the Belgian Ham magazine CQ-QSO and written by well known SKCCer Luc ON7DQ. The format has been changed to better fit in "The Rag Chew." Read along and enjoy Luc's introduction explaining SKCC and his achievement of the Triple Key Award (TKA).



What is the SKCC?

The **Straight Key Century Club** is the largest mechanically sent Morse club in the world. It was founded in January 2006, and currently has nearly 25,000 members. The name was of course inspired by the DX Century Club, DXCC for short.

Membership is free, you can easily request a membership number via this link:

https://www.skccgroup.com/membership_data/member_application_form.php

The contacts you make for SKCC must be made by mechanical means, an electronic keyer (external or internal in your transceiver) is not allowed.

The keys allowed are therefore: a basic 'straight key', a semi-automatic key or 'bug', or a sideswiper or Cootie Key. See below for some examples.

Anyone who has a medical problem, or another good reason to use an electronic key, can be exempted from this requirement, see <https://www.skccgroup.com/keypolicy.php>

I joined the SKCC in 2014 to improve my CW skills for SOTA activities. I had noticed that I was missing about half of the contacts because I didn't do CW. I've been licensed since 1979 and barely made a handful of CW contacts before, it didn't interest me. And now about 95% of my QSO's are in this fashion ... funny how the tide can turn.

Practice makes perfect ...

During each QSO you make for SKCC, you are expected to send your name, your SPC* and your membership number. This makes good practice for sending and receiving numbers, something that many beginners struggle with, because many learn the numbers after learning the alphabet (same with punctuation).

That SPC stands for 'State, Province or Country', and is a two or three letter code. Here you will find a list: https://www.skccgroup.com/display_spc_list.php

So for Belgium this will be **BEL**. If the conditions are good enough, you can of course also pass on your full QTH, and all other info about your station, your key, the weather ...

In order to stimulate the activity, many small contests are organized, the best known are the SKSE and the WES. There are also a lot of awards to collect.

Contests

Every month on the first Thursday, a two-hour 'sprint' is held especially for Europe, the SKCC Sprint Europe, or SKSE. This lasts from 9 pm to 11 pm local time (CET). Beginners who send QRS (< 12 WPM) may start fifteen minutes early and continue fifteen minutes longer.

The Weekend Sprint, or WES for short, also takes place monthly. The WES begins on the first Saturday after the sixth of the month, and lasts 36 hours (Saturday 1200 UTC to Sunday 2359 UTC).

These contests always have a 'low pressure' format, and are in no way similar to the big contests where you only have to send a 599 and a number. So don't worry, you can send as slow as you want, and the other station will always adapt to that.

On the first day of every month there is also a special 'Slow Speed Saunter', where you can't key any faster than 12 WPM.

Awards

Listing all SKCC awards is almost impossible, but here are the most important.

On the website you will find the complete list in the left column.

Centurion, Tribune and Senator

From these names you would think the SKCC was founded in the Roman Empire, hi.

But the three titles you can earn simply mean that you've already made many QSOs. How many ?

For starters, if you contacted one hundred different members, you will receive the Centurion award, and you may add a 'C' to your membership number. Please note: from then on you have to send that C every time, so that means a bit extra work!

The requirements to obtain a T and an S are a bit more complicated, see website for details.

QRP 1000 miles per watt award

Span more than 1,000 miles (1,600 km) per watt of transmit power.

Triple Key Award

Work 300 different members, with the three different key types, so 100 QSOs with straight key, 100 with bug and 100 with a sideswiper.

Ragchew award

This is one for the real diehards: you have to add up 300 minutes of QSO time, but with QSOs that last at least 30 minutes each.

TIP: if you send real slow, this award might be a little easier to get, hi.

Sked page, SKCC Logger, SKCC Skimmer, Frequencies

There are some helpful tools if you're serious about sprints and awards.

On the **SKED page** (<https://sked.skccgroup.com>) you can find someone around the clock to make a sked. Unfortunately, there are usually a lot of Americans QRV, and only a handful of Europeans. By the way, Belgium currently has 106 SKCC members. So it's up to you to do something about it!

To 'count the points' you have to keep track of everything, this is best done by logging all your SKCC QSOs in the program **SKCC Logger**. This full-fledged logging program saves everything directly in ADIF format, so that you can easily transfer the data to another log. You can also log QSOs with non-members here, they are not counted for the scores. Mind you, the log program only knows the CW mode ... or what did you expect?

TIP: make sure you log the type of key you used for the QSO from the beginning. You may only have a straight key now, but before you know you may get addicted to bugs and cooties as well, and go for the TKA.

Another program is the **SKCC Skimmer** (see <https://www.k7mjg.com/>).

This program looks at your log and compares it with the spots on RBN and the sked page. You will be notified when you need someone for an award, or if that other person needs your number.

The SKCC has designated 1 or more **frequencies** on each band as 'center of activity'.

They are: 1,813.5/3,530 3,550 / 7,038 7,055 7,120 / 10,120 / 14,050 14,114 / 18,080 / 21,050 21,114 / 24,910 / 28,050 28,114 / 50,090.

This is of course not mandatory, but if an SKCC member calls CQ on 14.005 at 30 WPM, they probably aren't looking for SKCC contacts, but if you find that same station on e.g. 14.051 at a much lower speed, then it is more likely that they are using a mechanical key and are looking for SKCC members. In that case you will also hear 'CQ SKCC'.

Magazine

A magazine is published quarterly, which can be downloaded from the website in PDF format. It's appropriately called 'The Rag Chew'. It can be found in the 'Newsletter' section.

Bugs and other critters...

The most well-known mechanical Morse key is probably the hand pump or 'straight key'. One of the most popular was the model J-38, a key widely used by the US military. A copy of this was sold in the 'Tandy' (Radio Shack) stores for a long time. It was my very first key back in the seventies .



Typical straight key(source AA5TB)

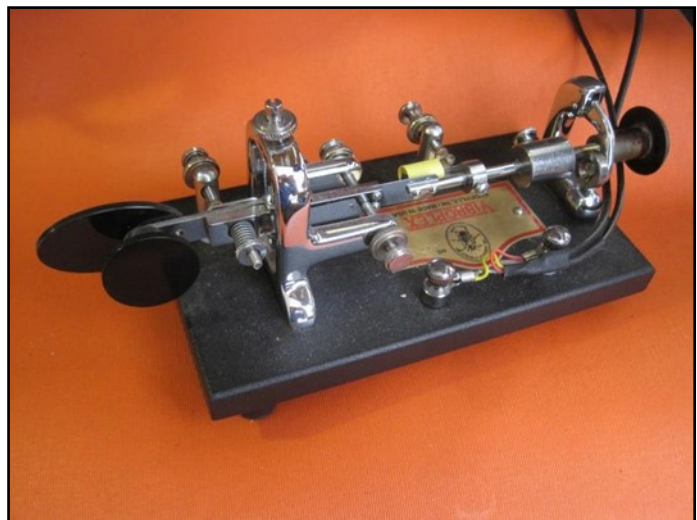


Nowadays my favorite hand pump is this German 'Junker' (source ON7DQ)

A bug is a semi-automatic key, but without electronics. It was invented by Horace Martin in 1905. The intention was to spare the operator's wrist, yes they already knew the 'mouse arm' (RSI) back then, hi.

You have to make the dashes yourself by closing a contact long enough, but the dits are made automatically as soon as you touch the DIT paddle. A small weight is released from its resting position and causes a long lever to sway back and forth, rhythmically closing the DIT contact. After a while the swaying is over, so you can't make a hundred dits in a row that way. Adjusting a bug is not that easy, and learning how to send with it may be even more difficult!

Here you see the Vibroplex 'Original Standard' that I use. An extra weight on the arm ensures that I can send a bit slower with this bug. A small piece of heat shrink tubing (the yellow bit) over the DIT contact reduces the 'scratchy dits', a common problem with such bugs.



Source ON7DQ

And then the infamous sideswiper or Cootie Key.

A very simple idea, but using it is not so simple...

The construction however, is simplicity itself, you place a flexible arm, which is connected to ground, between two contacts that are in parallel, and are connected to the keying input of the transceiver. Every time you hit one of the contacts, it makes a tone (and carrier).

It is sometimes explained that you put two normal straight keys sideways and back-to-back.

You move your arm (wrist) sideways, back and forth, and back and forth...but on each side you have to keep the contact closed for as long as necessary to make the dots and dashes.

That is why the arm must be somewhat flexible, or the contact supports must 'give way' a little bit ...

The proverbial 'hacksaw blade' was often used as a lever, but if you let go of it, there is too much swaying, resulting in a whole bunch of unwanted dits, which is also very bad for your T/R relay if you work QSK (full break-in).

That is why sometimes springs are placed on a stiff arm. This allows you to close the contact both short and long, without your 'swing' being stopped abruptly. You can, as it were, push a bit further, and this determines the length of the dah, while a short tap makes the dit.

For more explanation I refer to the wonderful info from Mike, K5MP on QRZ.com:

<https://www.qrz.com/db/k5mp> , and have a search on YouTube for 'cootie key sideswiper'.

And if you really get the hang of the 'sideswipery', be sure to visit the Sideswiper Club website: <http://www.sideswipernet.org/>

An OP² Cootie

In 2020 I took on the challenge to get that **Triple Key Award**. There was one problem: I didn't have a Cootie Key, and I had never used one.

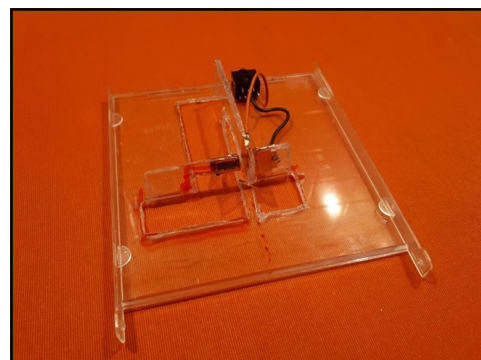
Anyone who knows me, knows that if I make something, it has to be dirt cheap, or better: free! So I started working with some junk, in this case the lid of a CD box.

First I drew some lines with a marker pen, then made the necessary cuts with a solder gun (do this in the open air because it smells quite bad).

Then, heating the plastic in the right places by holding it over a regular soldering iron, I could bend the pieces for the lever and two contact supports, and the base was ready. Three pieces of adhesive copper foil, three wires and a 3.5mm connector, and my One Piece Plastic Cootie was complete. I hope the picture makes it clear. Anyone who can mill out the grooves, and has a real plastic bending machine can probably make it a little more professional...

You can see this Cootie Key in use, in a video on my YouTube channel:

<https://www.youtube.com/watch?v=4l2wlfOsd6s>

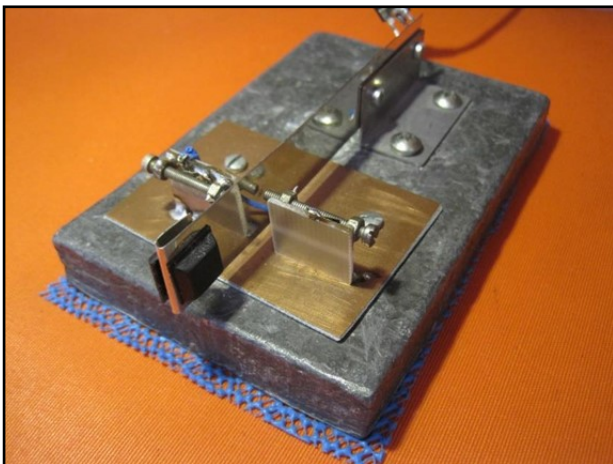


The cootie didn't really have a 'knob', my fingers just held the bit of plastic that sticks out slightly in front.

Believe it or not, with that Cootie I made all 100 Cootie QSOs for the TKA! (and then another 100 QSOs with the bug, and 100 with the Junker key, and all with 300 different SKCC members).

In order not to get confused with the bug and the electronic paddle that I also still use, I taught myself to 'sideswipe' with the left hand, and it works quite nicely.

Some time after I got the award the inevitable happened, the plastic arm broke off, and that was the end of the plastic Cootie.



So I replaced it with a metal one, mounted on a 2.5 kg support, which remains rock solid on the table, and it has become my favorite key. I still use the bug very little, and the straight key only when I have to answer someone QRS.

Finally: on <https://groups.io/g/skcc> there is a forum where you can ask all your further questions.

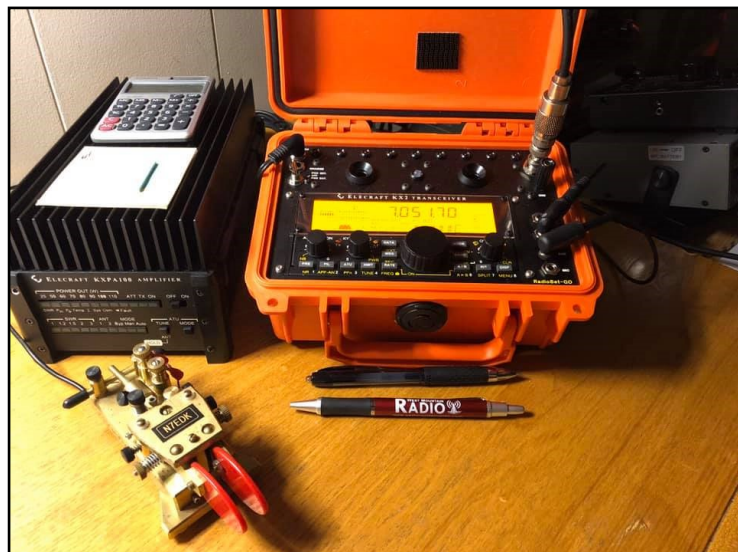
Have fun in CW with the straight key, bug or cootie ... or all three!

73, Luc ON7DQ SKCC member #14984T

Taking Your KX3 to the Field..With Class!



Working a little Wes from the boat yesterday QRP. 73, Mike N2PPI

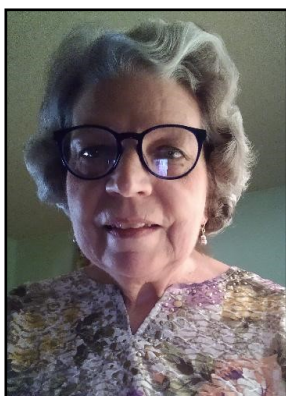


Great portable setup, so glad I got one from Hanz! 73, Ed N7EDK

June Brag 2021



Another fun month. Even helped a couple folks work KD8IE/7 in Wyoming. He'll be there a few more days into July. Will try to post when he's on the air. With the towing of the USS Cod, let's post the only pic I have of me in the Radio Room from a few years back. A definite "Must Visit" if you are ever in Cleveland, OH. 73 everyone. See you on the bands. Bud, AA8CL



Thanks to all of those who helped me to acquire my "S". 73. KC5 "SAM"



MY NEW TOY ! HEXBEAM HOMEBREW. 73, Denis VE9DCD



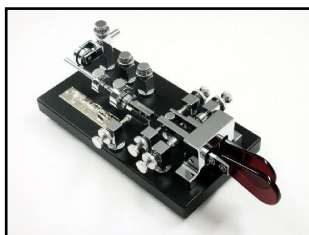
My first brag submission since joining in April this year. Working less than 25W from my FT-891 and a linked dipole barely 7ft off the ground, all my QSO's have been on 20M with the exception of Bjorn, SM0SBL on 17M. I find CQ's rarely successful so I'm more likely to hunt and pounce. A big "thank you" therefore, to all those who have worked hard to make the contact - often under less than ideal conditions. The majority of my on-air time is now dedicated to SKCC, working to achieve my "C" status along the way. I'm very much enjoying the camaraderie and rewards that being a member entails. 73, Ron GM4KJQ



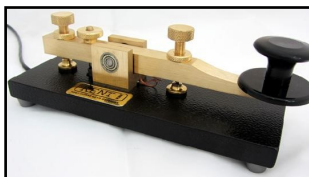
Thanks to all for a fun month of CW! 73, Jim N4EES



I promised myself (and Curt) I would record my QSOs better so here we are! Not many, but all were fun and that is the name of the game! Fact is I need to log more time on my Cootie keys. Thanks to all who put up with my poor Cootie Fist. 73, Rich W4RQ



73, Steve K2FW



Decent month for me. Used either my TS-590SG @ 75w, or my old IC-7000 @ 50w. Got quite a few on 10m, too. 73, Curt K2CWM NJ



Thank you everyone for a fun month despite marginal conditions. Thank you Larry KA8HFN for serving as the bonus station. 73, Wayne KC5PRK.



Western Union 2A Legless

Some other distractions this month, so count was down. Nice to have a bunch of QSOs on 15M and up. Thanks to all. 73, John W1TAG



Band conditions were not real good this month. Very little DX. Only two from Cuba for the month. Thanks for the contacts and hoping July will be better. 73, Allen KA5TJS



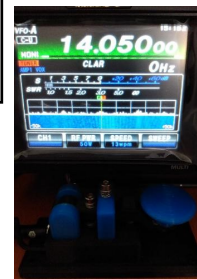
The dog days are here! Thanks for the brags! 73, Dave KB1WOD



Busy summer. Thanks for the Brag's all. Glad I cleaned up the shack ;> Take Care, 73 Rick N8XI



29 years a HAM Good Stuff. I hope everyone had a good time. 73, Mark W8YA



Muchas gracias por sus contactos espero contactarlos otra vez cuidensen. 73, Che WP3PW

A Very Good Idea!

Editor....The Allen County area (Fort Wayne, IN) is a hot bed of SKCC activity. Check-out how they fire-up for the SKS and WES. Ken N8KR sends an email to all local SKCC members encouraging them to get on the air for these events. He has his finger on the pulse of all members who are working toward an award and is very encouraging to their cause. But they also "debrief" after the events on two meters and share their experiences. Maybe this is an idea for other areas to consider?

Subject: SKS Tuesday NIGHT

SKS 0000utc Wednesday (8pm Tuesday for us in IN)

This is a great 2 hour event where Indiana always (almost) has the most entries and highest cumulative score! What an active group here in Allen Cty!

I've added Rick - K7CNT to my list. Rick is in AZ and is close to getting his S. Rick was also helpful in organizing our expedition to NV for K3Y last January. If Rick is on, he'll be an important multiplier/state that is often missing in these events!

Bruce - N9DGL has been eagerly pursuing Tx5 status - I think he's close to that and then some more for that coveted Tx8!

Jim - KR9U has sent off his log for Centurion status. Hopefully he can append "C" to his number tomorrow night.

Terry - K9FMX is ready to send in his log for his "C." I'm looking forward to working Terry more in our events.

Ed - WA9BBN operated remotely from his car last month giving up the "shack" radio to Rose - KA9GKE. He had a great signal and was pleased to work many stations "mobile."

John - W9GOO can now take a break from the Auburn Hamfest preparations and spend some time on the air! He usually always seems to find my signal.

I believe Jim - KD9GDY has packed up his station and will soon be off to WI. He will really be missed here but we can always look forward to working him during our events!

With the 91 repeater down, lets plan to meet on the 76 machine right after SKS and share our experiences.

Next month WES theme is home brew keys.

See you tomorrow night.

Ken - N8KR

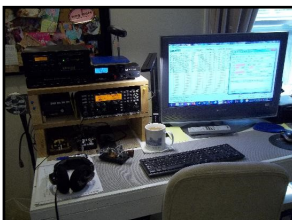
July SKS 2021



Missed last month so made sure I was home and ready to run my whopping 1w. All contacts on 40m. No luck on 20 or 80. Started strong, then finished strong. The middle was pretty weak but still had fun. Have a great rest of July everyone. 73, Bud AA8CL



Just a dozen for me this evening, 2 on 20m, and 10 on 40m. Ran 75 watts from my TS-590SG into a vertical, using a Kent Str Key. Always a fun event. 73, Curt K2CWM



Just short time. Heard KG5OWB but he didn't hear me. F6EJN Bob called and that was cool. 73, Ted K8AQM



All the activity was on 40 tonight. We were especially glad to be able to work Bill AK6A in OR-F6EJN in France & Denis VE9DCD in NB. I took the photo this past weekend of the Lagoons in Vermilion, Oh about 7 miles from my QTH..73, & Thanks to all we worked. 73, Larry K8TEZ



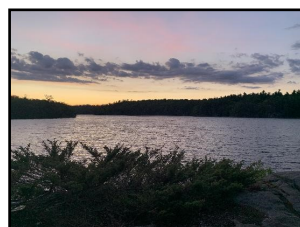
40m band condx fair to good. All QSOs on 40m. IC7300, J38 key to a 4BTV GP. 73s and Stay Tuned! 73, Daryl K9QEW



Tried 20 for a few minutes and switched to 40 after only 1 contact. Stayed on 40 in not so good conditions but managed to do OK. Used my K3 at 100 watts, an OCF dipole at 30' and a Bencher RJ-2 key. 73, Bill NZ0T



Thought the bands were bad. 40m was really hopping. loads of fun. STOPPED AT 01:38. 73, AL K9FW



Time well spent... good fun. 73, Dave VE3KIU



I was called away right after the sprint started, but I enjoyed the short amount of time I had. Thank you to W3NP, W6WU and K2IZ for the contacts. 73, Wayne KC5PRK



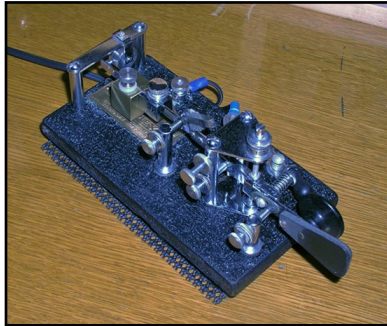
73, Denis VE9DCD



Only had an hour and a half before shut down by lightning. 80 meters was a waste of time but 40M surprisingly solid. Good fun. Notice my assistant operator - keeping warm on top of the omni-7. 73, Dave W1DV

My second SKS. Got up at 5 minutes before 2 AM. 20 meters was still open when I started and worked some new SKCC members. Then after 45 minutes the band suddenly shut down and I moved to 40. This was more difficult, it is hard to get noticed between the loud US signals. Best QSO on 20 with Mike, K5UV from OK and on 40 with Bill, W9SA from IN. Most QSO were done with a Czech Army straight key which I got off Ebay. 73, Jo PG4I

July SKS 2021 II



13 QSO's on 20, 2 on 80, and the rest on 40. Conditions not the best but lots of activity and no shortage of stns to work. 20 yielded short skip to MD as well as west coast and PG4I. 1942 Lightning bug and K3 Line. 73, Dave



My first time doing a SKCC event and I stayed on 40 mtrs all evening. I am using a HB cootie key and I actually had fun. Met a whole bunch of considerate hams on this event. Looking forward to next months! 73, Bill W3SI



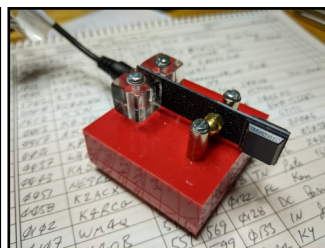
A fun time as always, except having to deal with a wasp nest after sundown towards the end of the sprint... 73 de W9HT/WASP



Great sprint night. The first hour I answered CQ's and the second hour I sent CQ. Fun as usual. 73, Bill W9SA

Old key...New Key

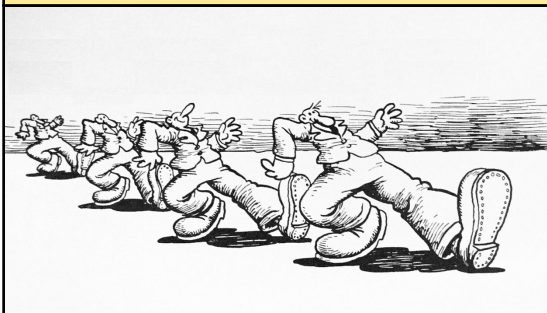
Who still has your original Novice key? As I'm just getting interested in straight keys again, I was looking through my "collection" -- consisting of only three keys and only one of those in service. Anyway, I thought I'd post this picture. Back then I was surprised to learn that you needed to mount your key on a base. The solution that I came up with as a teenager was to saw



up a piece of wood from an apple crate (I think I used a hacksaw), stain and varnish it. The wood screws were too long for the wood so I hacksawed them off, leaving a couple of gouges on the bottom. Much later I added rubber stick-on feet. Note the original and vintage Dymo Label Tape. Always proudly displayed in my shack. 73, Bill KR8L

Slow Speed Saunter August 2021

Slow Speed Saunter

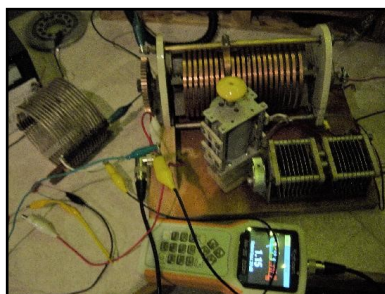


At 40 contacts, this is probably my best showing in the SSS. 15 on 20m and 25 on 40m. Really a fun event. Used my old IC-7000 running 50 watts to a vertical, and an old Lionel J38. Thanks all for all the contacts. 73, Curt K2CWM NJ

Callsign	Name	SKCC #	SPC	QSO's
WB6IZG	Bruce	17714S	CA	11
N4OW	AL	11375S	FL	9
N4API	Brian	11673	GA	1
W4QDV	David Price	21777	GA	1
N9KJU	Ken	19964T	IL	8
AC9XS	Steve	23280T	IN	23
W1ZIY	Ron	9621T	MA	2
KC3PZY	Jack	23471T	MD	1
NN3E	Kevin	19625S	MD	3
W6WU	Steve	20314S	MD	2
K8AQM	Ted	1629S	MI	3
KB4QQJ	Randy	3508S	NC	13
AC1GF	Bob	19399S	NH	15
K2CWM	Curt	3018S	NJ	40
AA8CL	Carmen "Bud"	2339S	OH	5
KA8HFN	Larry	2046S	OH	7
NQ8T	Steve	5919S	OH	25
VA3RSA	Rich	21258S	ON	25
VE3NJE	Neil	23781	ON	1
W4CMG	Cathy	20093T	TN	6
K05USA	Thomas Young	15744T	TX	17
W5H	Mike	11770S	TX	10
WB9TFF	Donna	7057S	WI	2
WY7BUD	Bud	21994T	WY	10

Participants and QSOs by SPC

CA: 1 / 11	FL: 1 / 9	GA: 2 / 2	IL: 1 / 8	IN: 1 / 23
MA: 1 / 2	MD: 3 / 6	MI: 1 / 3	NC: 1 / 13	NH: 1 / 15
NJ: 1 / 40	OH: 3 / 37	ON: 2 / 26	TN: 1 / 6	TX: 2 / 27
WI: 1 / 2	WY: 1 / 10			



I am pretty slow, but, I appreciate each & every contact! C U next month 73, Steve NQ8T

Visiting Fellow Hams?



While camping, Steve NQ8T and his wife Mary, KC7CJI were visited by a couple "locals"

"Amateur radio ops are the nicest folks While we were in the Great Smoky Mt National Park, Mr. & Mrs. B1GFOOT, stopped by for a visit likeable sort of blokes. Had trouble with keying though," Steve NQ8T

SKSE August 2021

Straight Key Sprint Europe Results

Results for SKSE: 05-Aug-2021

Overall | QRP | QRO | QRO+ | SWL | By SPC | Soapbox

Overall results

Rank	Callsign	Name	SKCC #	SPC	QSO's	SPC's	S/T/C	Score
1	PG4I	Jo	11019T	NED	21	19	10/4/1	594
2	SP6JOE	JOE	7673 T	POL	21	16	6/6/1	491
3	K1NV	JON	2609S	NV	20	16	6/5/1	465
4	EA3FZT	Francis	13051	ESP	15	14	2/3/0	270
5	ON7DQ	Luc	14984T	BEL	13	12	1/4/1	216
6	HB9CPS	Geo	20350	SUI	10	9	2/4/0	160
7	WB9HFK	Mark	83S	IL	8	8	4/2/1	149
8	F8DTU	Frank	8662	FRA	8	5	1/3/0	85
9	DJ1YFK	Fabian	1982	GER	6	3	2/2/0	68
10	G0RDO	John	2133S	ENG	5	5	1/1/0	50
11	DL8FMA	Mane	24047	GER	4	4	0/3/0	46
12	YU7AE	Kare	5790T	SER	4	4	1/1/0	41
13	W4NLT	Andy	16400S	VA	3	3	1/1/0	34
14	PA3BKD	Ruud	23700	NED	1	0	0/1/0	10



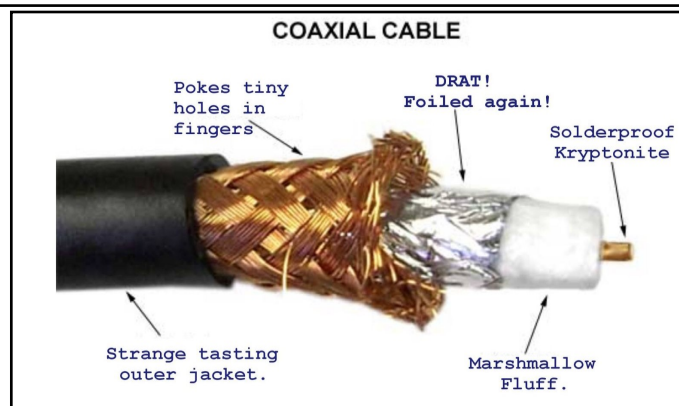
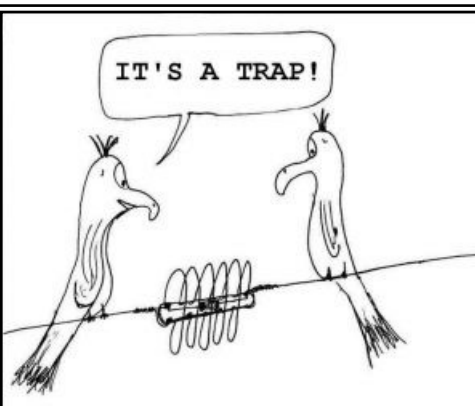
Thanks everyone for the QSOs. Still had a good time. 73, Frank F8DTU



Pretty good signals from Europe on 20m tonight ! Had fun for an hour or so. 73, John G0RDO SKCC 2133s



High noise level, static QRN (after thunderstorm). Worked 4 nice QSO, 2 new member (SV3IRG and IZ6TSJ). Thanks for nice activity. Using FT-817nd, Timewave DSP, Vibroplex Presentation bug, 5W output and double windom and Inv.V antennas. 73, Kare YU7AE



Adding 6m To Your Tribander

This article appeared before in *The Rag Chew* but with heightened interest in 6m it bares re-printing.

Add 6 Meters to Your Triband Trap Yagi

This approach is almost painless, stealthy and gets the job done.

Joel R. Hallas, W1ZR

Back in the 1950s, HF transceivers were just starting to replace separate receivers and transmitters and our DX bands were 20, 15 and 10 meters. The triband trap Yagi became a very popular antenna for those who wanted to work DX but couldn't swing separate monoband Yagis for each band. Many amateurs also operated on 6 meters in those days, but the equipment was usually separate from the HF gear — the focus of VHF specialists, in many cases.

Fast forward to 2011 and almost all current "HF" transceivers also cover MF (160 meters) and VHF (at least 6 meters), with similar performance, power and features as on the HF bands. A look on the towers of many amateurs will yield a view of the same type (or even the same) trap tribander from the '50s.

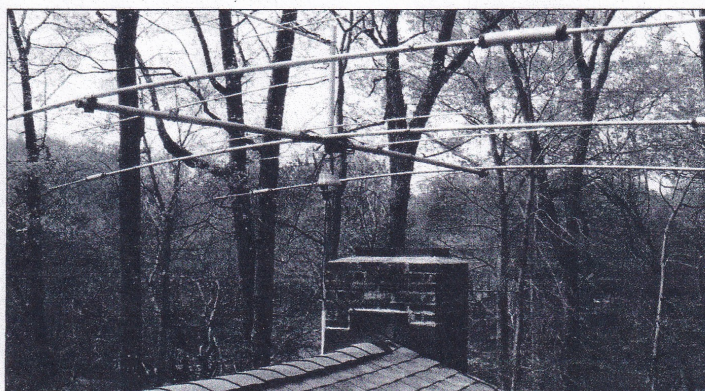
That Was the Situation at W1ZR

In my case, the triband Yagi was a relic from the '80s I obtained for a price too good to pass up. I didn't actually have a tower to put it on, and after getting the neighborhood acclimated to the driven element tied to the top of my chimney for a few years, I took the plunge and sunk a pipe mast next to the chimney, put on a rotator, and — one piece at a time — the Yagi grew in place of the solo driven element.

During the same period, I retired my old 160-10 meter transceiver to replace it with a modern unit that covered 160 through 6 meters. Now my radio had outpaced my antenna farm. I could operate 6 meters using my 100 foot center fed Zepp, but I had nulls every few degrees all the way around — something had to be done.

The Mast Thickens

My challenges were twofold. First, because my rotator was mounted on top of a mast, rather than inside a tower, I had to derate the rotator's wind load capability by 50%, and avoid any bending moments resulting from loads above the rotator. That put the tribander right above the rotator. To add 6 meters, my first thought was to investigate the low wind load Moxon we reviewed in 2004, secured a few feet above the tribander.¹ Unfortunately, my modeling indicated that installing them just a few feet apart would result in significant degradation of the gain and pattern of both



antennas — back to the drawing board.

I had been very pleased with the results of my 40 and 20 meter skeleton sleeve dipole described in a recent *QST* article — could I use the same technique to add 6 meters to my Yagi?² *EZNEC* modeling indicated that it could indeed work — and work very well.³

This gave me two significant advantages:

- I had sidestepped the wind loading and bending moment concerns. The added elements were right above the rotator and the thin elements were largely in the shadow of the tribander's elements or boom, depending on relative wind direction.

- Perhaps even better — I did not need an additional feed line. The HF feed line, going to the split driven element, would also feed power to the 6 meter Yagi. This occurs through parasitic coupling, so no connection to the tribander is required.

The Details

Before I proceed, I should give credit where due. Following publication of my two band "skeleton sleeve" dipole article, I found that the parasitic coupling to a single element was presented in an antenna article in *The ARRL Antenna Compendium, Volume 5* by Gary Breed, K9AY, also the developer of the low frequency receiving loop that bears his call letters.⁴ Gary called it a *coupled resonator* antenna — perhaps more descriptive a name. There's nothing new under the sun — it would seem.

Design Approach

The usual issue with Yagi design is that

there are many variables as well as many objectives. The primary variables are element length and spacing while the objectives are generally forward gain, front-to-back ratio (F/B) and bandwidth. They tend to fight each other to some extent, and others may find different combinations that are better in one respect or another.

My goal was to achieve reasonable Yagi performance with elements comfortably between those of the tribander. Using *EZNEC* modeling, I was able to find a set of dimensions that were predicted to work well starting from the National Bureau of Standards (NBS) baseline of 0.2λ parasitic element spacing.⁵ The modeled forward gain was within about 1 dB of a similarly sized three element Yagi in the same space but without the tribander — not a bad trade, in my view.

The loss in a mismatched transmission line is a particular problem at VHF, so it is important to match to whatever impedance the Yagi offers. In a traditional VHF Yagi, the low impedance is generally transformed to a matched value through an adjustable matching arrangement. For the coupled resonator with no direct connection this is accomplished, as predicted by Breed's formula, by adjusting the spacing between the HF driven element and our coupled resonator. I found that adjusting the center-to-center spacing from about 4 inches (the minimum possible with the mounting hardware) to the 10 inches shown, I could increase the impedance of a single element coupled resonator from 45 to 120 Ω . The same adjustments resulted in a reduction of element resonant frequency

¹Notes appear on page 42.

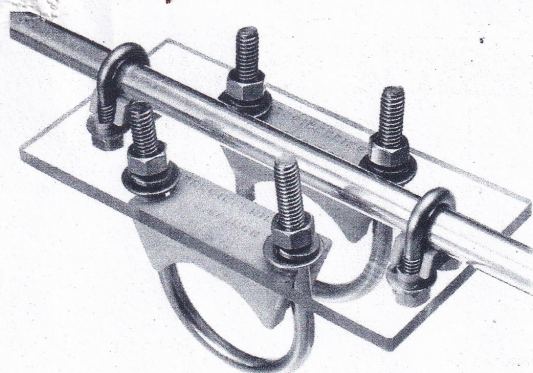


Figure 1 — I used the DX Engineering (www.dxengineering.com) stainless steel saddle clamps, as well as their telescoping aluminum tubing and stainless element clamps. Lower cost non-stainless hardware could be used if the budget is tight.

from 50.2 to 49.2, so retrimming is required. By using the 10 inch spacing for the three element case, the low impedance of the Yagi configuration was transformed to close to the desired 50 Ω (see Table 1).

A Few Caveats

This project was initiated on a trap tribander with a split dipole feed. Although this is the arrangement of many such Yagis, other configurations will be encountered. Some may include a shunt transmission line section across the feed or other matching arrange-

ments. They may also work but I haven't tried them. If you're not sure, try it with just the driven element before you commit to the whole project.

Elements

For elements, I selected aluminum tubing in diameters of $\frac{1}{2}$ and $\frac{3}{8}$ inches and a wall thickness of 0.058 inches. These telescope nicely. For the center of each element, I used a 3 foot section of $\frac{1}{2}$ inch tubing with the ends slit and compressed on the smaller section on each side using stainless hose type clamps of the appropriate size. I obtained my tubing and clamps from DX Engineering, which offers the tubing in 3 foot and 6 foot lengths. The 3 foot, $\frac{1}{2}$ inch tubing is available with one end pre-slit for a slight additional charge, and they may offer it with both ends slit by the time you read this. I had reasonable luck slitting the other end using either a band saw or a hacksaw with the tubing in a vise. The outer $\frac{3}{8}$ inch sections were made from 6 foot lengths, two required per element — each cut to 4 feet 4 inches long.

Table 1
Measured SWR at Antenna

Frequency	SWR
50.0	1.2
50.1	1.1
50.2	1.1
50.3	1.2
50.4	1.6

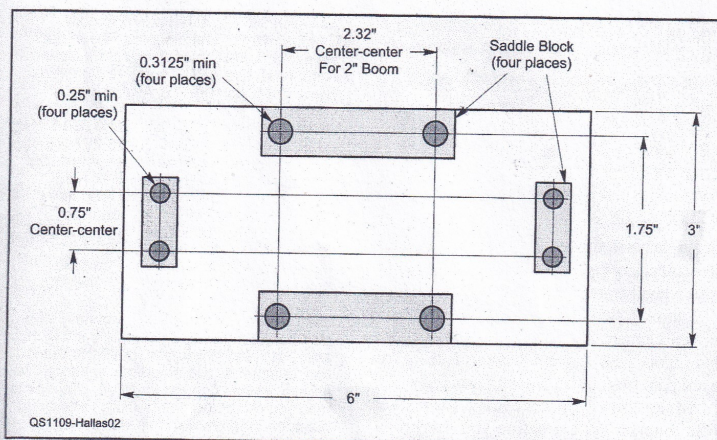


Figure 2 — Dimensions of the construction lines and hole locations for the 3 x 6 inch pieces made from the McMaster-Carr polycarbonate sample pack. The dimensions assume a 2 inch boom and $\frac{1}{2}$ inch inner element section. For a different size boom, obtain correctly sized saddle clamps and lay out accordingly.

Element Mounting

I chose to mount the elements insulated from the boom to avoid having to make the required correction for all metal construction. I used a 3 x 6 inch piece of $\frac{1}{4}$ inch polycarbonate for each insulator. I would guess other materials could be used, but polycarbonate comes highly recommended and was readily available.^{6,7}

To mount the insulator to the boom, and to the elements, I choose stainless steel saddle clamps also from DX Engineering. These clamps are very nicely constructed (see Figure 1). Although they are more expensive than the hardware store variety, I thought they were worth it. For those on a tight budget, less expensive clamps may work fine for many years, but will make for tougher disassembly.

Once you have the clamps selected, carefully lay out the insulator for drilling. Figure 2 indicates the construction lines that I laid out on the handy paper that came applied to the McMaster-Carr polycarbonate. It is important that the holes be lined up quite closely. If the clamps for one side or the other aren't parallel, the tubing may bind. If misaligned, the 6 meter elements will not be parallel to the HF elements.

If your shop gear and skills are up there with Barry Shackelford, W6YE, you could make the holes just a bit larger than the U bolts. For me, using a hand drill and a vise, I found I had to open them up just a bit with a rotary grinding tool.

Mounting the Elements

Figure 3 shows the dimensions of the 6 meter elements on the Yagi. Note that I have referenced them all to the center of the HF driven element. This should allow for some differences between tribanders. For the record, my tribander is a Wilson Electronics SY33. This looks a lot like the very popular Mosely TA-33, but has slightly wider element spacing.

Table 2 provides a summary of dimensions for the NBS 0.2 λ spacing case that I used. In case your tribander has a shorter boom, I have also included dimensions for a version with 0.2 λ reflector spacing and 0.15 λ director spacing. EZNEC modeling predicts that this version has about 0.5 dB less gain than the larger version. I haven't actually tried the shorter version.

Performance

Modeling is fine, but on-air measurements remove any guesswork. I made measurements of W1AW (50 air miles away) code practice on 20, 15 and 10 meters before and after adding the 6 meter elements and found no difference. I asked W1AW Station Manager Joe Carcia to put a signal on a clear 6 meter frequency. I was very pleased; gain was at least as good as EZNEC predicted (see Figure 4). My F/B was not as good, perhaps due to reflections from multiple antennas.

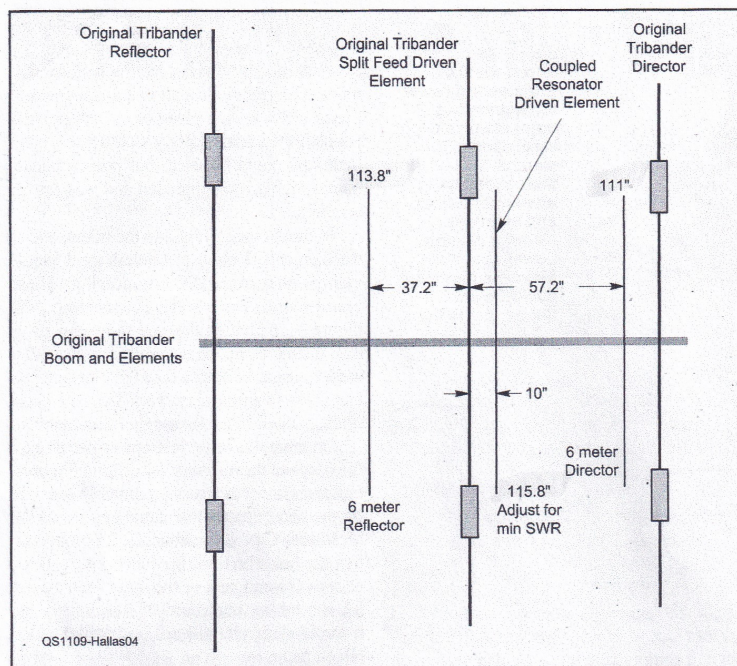


Figure 3 — Dimensions of the elements and spacings referenced to the center of the tribander driven element. The element length shown, assume insulated elements, 1/2 inch diameter, 3 feet long center element sections, the remainder 1/4 inch telescoped aluminum.

Table 2
6 Meter Element Dimensions (inches)

Reference is center of triband Yagi driven element.

Element	Element Length	Each 0.375 inch End-Section Length	Distance (c-c) to Reference
<i>Single Element Rotatable Dipole</i>			
Driven Element	113.5	38.75	5
<i>Three Element Yagi — NBS Version (0.2 λ Spacing)</i>			
Reflector	113.8	38.9	37.2
Driven Element	115.5	39.75	10
Director	111	37.5	57.2
<i>Three Element Yagi — Compact Version (0.2 λ Reflector Spacing, 0.15 λ Director Spacing)</i>			
Reflector	114.0	39.0	37.2
Driven Element	115.2	39.6	8
Director	111.2	37.6	45.6

After adjustment of the driven element length, the SWR was also quite close to the predicted values. I also made use of near (N2GHR/B at 24 miles) and distant (NL7XM/B, 108 miles and K2ZD/B, 118 miles) beacons to verify sensitivity and pattern as I made adjustments — thanks for having those signals out there!

A Few Observations and Suggestions

While this design was focused on the three element Yagi and tribander shown, other arrangements are equally feasible. In particular, the single coupled resonator element is a

natural for those using a rotatable multiband, or single band, dipole. For that case, a center-to-center spacing of about 5 inches should give a good match.

I think a two element 6 meter Yagi with driven element and director would also perhaps work well, just down about 1 dB in forward gain from mine, but with less F/B.

Make sure you carefully look over your antenna system before you fire up on 6 meters. If your tribander has been there since the '50s, chances are good that there is a low-pass filter in the line that cuts off at 30 MHz. Don't ask me how I know that it

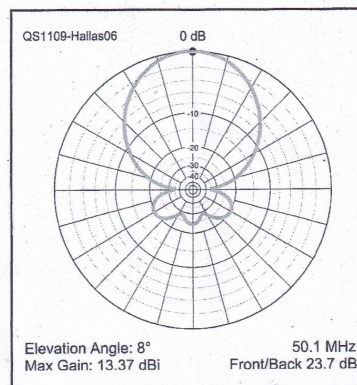


Figure 4 — EZNEC model results showing azimuth pattern including front-to-back ratio.

needs to come out! Similarly, while my coax surge arrestors are rated into the VHF range, not all are. Check yours and see before you push power down the line.

I also noticed that the usual cable run from the transceiver through my bypassed HF only amplifier and bypassed high power HF tuner changed the SWR significantly and added a bit of loss, even with everything "bypassed." No doubt this was due to wire lengths in the equipment — they weren't designed to pass 6 meter signals, after all. Make sure you make all measurements and adjustments directly at the coax to the antenna with no HF gear in the line.

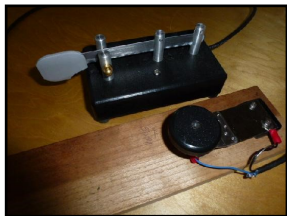
Notes

- ¹C. Greene, K1JX, "Short Takes — Par Electronics SM-50 6-Meter Stressed Moxon Antenna," *QST*, Mar 2004, p 66.
- ²J. Hallas, W1ZR, "Getting on the Air — A Folded Skeleton Sleeve Dipole for 40 and 20 Meters," *QST*, May 2011, pp 58-60.
- ³Several versions of EZNEC antenna modeling software are available from developer Roy Lewallen, W7EL, at www.eznec.com.
- ⁴G. Breed, K9AY, "The Coupled-Resonator Principle: A Flexible Method for Multiband Antennas," *The ARRL Antenna Compendium*, Vol 5, pp 109-112. Available from your ARRL dealer or the ARRL Bookstore, ARRL order no. 5625. Telephone 860-594-0355, or toll-free in the US 888-277-5289; www.arri.org/shop/; pubsales@arri.org.
- ⁵P. Viezbicke, *Yagi Antenna Design*, NBS Technical Note 688, Time and Frequency Division, Institute for Basic Standards, National Bureau of Standards (now NIST), Boulder, Colorado 80302, 1976.
- ⁶J. Wonoski, N1KHB, "An Ideal Plastic for Amateur Radio Projects," *QST*, Oct 2009, pp 42-44.
- ⁷McMaster-Carr offers a "polycarbonate sample pack," consisting of a single 6 x 6 inch sheet at 1/4 inch thickness for \$2.65. Cut in half, this makes two element insulators. Two sheets provide enough for three, plus one to help you remember to measure twice and cut once. See www.mcmaster.com/#polycarbonate-sheets=bz5b3e.

Joel R. Hallas, W1ZR, is the Technical Editor of *QST*. You can reach Joel at w1zr@arri.org.

QST

August WES 2021



I used two home brew keys, a Straight key made from a multi tool blade and a Cootie using a hack saw blade. I split my qso's between each key. I had to try to train myself to use my left hand to send with the cootie as I found that I just couldn't switch between it and my bug with my right hand. Those who I worked with the cootie probably thought that I was sending with my left foot. Thanks for putting up with me and my terrible fist. Thanks everyone for another fun WES, I'm ready to go back to my bug. 73, Bill AA2MX



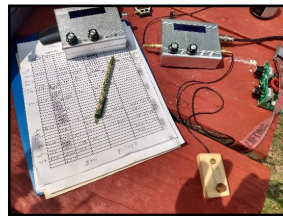
Home-brew key worked well but was noisy and the spring action of the lever was a bit stiff. Had to rush the build due to time constraints. I plan to use a different lever and base next time. The thumbtacks used as contacts work well even if they are noisy. Will also start earlier next time -- Elmer's Glue takes time to dry. 73, Charles AI4UN



Only had one hour on Sat. and one hour on Sun. but did enjoy using my homebrew cootie that I made in 2010. Back then they gave out a certificate for making your own key for one of the Wes. I can always count on working Bert, F6HKA and this Wes my cootie reached out from NY. to Mike, K5UV in OK. Thanks fellows (didn't hear any gals this Wes) Hope to be able to have more time next month. 73, Frank AA2XB



This was a weekend full of CW fun. I ended up with a case of CW whiplash going between running NAQP CW at 30 WPM then back to slowly pounding brass at 15 WPM for WES. I'll admit that WES was more fun. Thanks for all the QSOs despite very poor band conditions. I wasn't able to make a home-brew key on time so the closest I could use was an old refurbished key. Next year I'll be ready with something out of my shop. See everyone next month. 73, Bill AK6A



Had both my 20 and 40 meter QCX's with my homebrew paperclip key out at POTA K-7839. Thanks for the Q's. 73, Dave AB9BZ

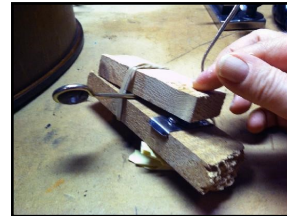


Sunday's activity and conditions were much improved over Saturday. Gave me a chance to try out a new key from AF6L. I'm happy with it so far... 73, Phil AF6GA



Had fun using an old straight key as I did not build a homebrew key in time. The picture I submitted is of a h/ brew key of 2012 vintage. QSO's with 9 stations and the only USA stn QSO was K3WW Chas. Worked into ESP, FRA, SLO, POL, NED, PA USA, ITA. TS-440s, 100watts, 20ft fishing pole vertical, Marconi PS 213A Morse key. 73, John G0RDO

Operated for a while on Sunday morning, made contacts on 10 and 15. Finally worked a "S" in NY on 10, need "S" contacts in 8 more states for WAS-S on 10 meters. 73, Dan K0FD



Wow! The bands were all over the place. I was working the Pluto discovery anniversary event as well as WES so, Pluto thanks everyone who worked me as W7P/0. Check out their QRZ for details and wallpaper. Also, my home-made key was less than ideal so please excuse the scratchy sounds it made. Begali has nothing to fear from me, LOL! Thanks es 73, Jim AD0AB



Just a small passage in the early evening on Sunday for lack of time. Tinkered with a cootie with what was lying around. Possible improvement: a much heavier base and a slightly stiffer blade. In any case very good theme, thank you. 73, Frank F8DTU



August WES 2021 II



My apologies to those I could not pull out while I was calling CQ. Nice Sprintathon, as always. Ran 75w from my TS-590SG into a multi-band vertical, using my Kent Straight Key. See y'all next month! 73, Curt K2CWM



I spent some time on both 10 & 15 mtrs in hope of making some contacts. Neither band was in good shape but was able to make some contacts & get new numbers on those bands. Both 40 & 20 mtrs seemed in good shape on Sunday. Also, participation seemed quite good for a WES during the summer months! 73, Steve K2FW



Very nice sprint this month. I had two people tell me they were using homebrew keys & they both sounded good. My DX for this sprint was CT7AUP-DAvid//F6HKA-Bert//& CL3OR-Orestes. I did not make this telegraph key display but I have used it in the past. It was made by one of my mentors K8USD (sk) 73 to all and thanks for the contacts, Larry K8TEZ



Used this homebrew Cootie Key make of free tile samples from Lowes, a few L brackets and some hardware for about half of my contacts. Switched over to my Bug because of low contact rate. Found out it had nothing to do with the key and all to do with poor band conditions. Thanks to All who got on the air. 73, Bruce K6TTT



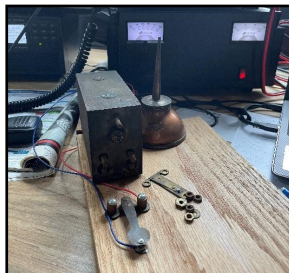
The bands were up and down. Lots of fun for the limited op time. 73, Al K9FW



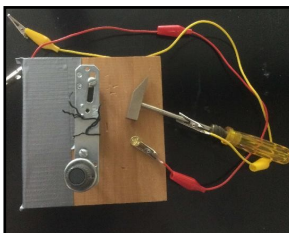
Good one this month. TNX to Adam for the only DX to Australia. We had to work for that one. Most were 40 and 20 meters this month. IC 7410 @ 70 watts and a doublet antenna up 30ft. 73, Allen KA5TJS



As always thank you everyone for another WES. God Bless and see you next month...some of you a lot sooner! 73, Eric KB3NSK



I had a lot of fun this weekend. I used a 1926 Model T car ignition box part for my key. The contact piece was really springy and made a perfect key. I'll bring it to the HSV hamfest if any fellow SKCC'er are there. 73, Paul KN4NVU



Great fun. Fifteen contacts with the hammer key, 16 with the other. The latter used a spring clip from a window shade. It was a bit stiff, so adjusting the key was tricky. Sending got better as the WES went on! Added a stabilizing nail to keep the slippage down! 73, Dan KF4AV



Fun but kinda tough with QRP. 73, Curt KB5JO



73, Thomas KO5USA

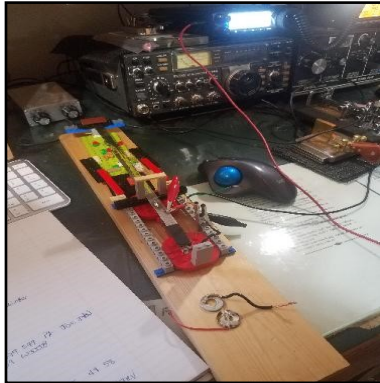


Another fun WES. Didn't make a home brew key but I'm finally getting the hang of my bug. WES is great practice! Thanks everyone for the QSOs. 73, Scott N3OLP

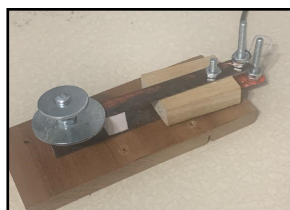


Greetings: Thank you all for this great WES. Had a chance to try my new Vibroplex Bug. 73, Sergey KD9EBS

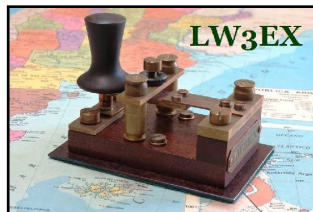
August WES 2021 III



Saturday WES was a bit of a bust. Spent a lot of time setting up portable mostly to test new HB ladder line that is flexible and compact. The antenna system seemed to work as I snagged some good contacts out of New England, but generally condx were bad. Sunday, the condx were better and used the HB Lego key my daughter built for me. Some of you are thinking that this is cheating. But, after careful review of the rules- it just says "homebrew key". It doesn't specify that I have to make it. So, yes- it's an unfair advantage having my magically talented daughter make a key far superior to anyone else's, but it's not against the rules. She really was excited to make the key. It's all part of my ongoing effort to get her interested in CW and radio to flex her math and science. She really struggled with it and lost interest until I hit upon teaching her CW with words and concepts that any 9 year old finds interesting, engaging, and entertaining or the "Fartsworth Method." Took her a week to learn to send her name of 4 unique characters, but about 3 minutes to learn "poophead", "farty pants", and other concepts that 9 year olds of any age find hilarious. She can call me "asshat" in the grocery store as long as she's learning code. What would I change to improve her key? Nothing- it's perfect. At a compact 14" long and made of Legos, it's the perfect size and ruggedness for portable ops. The trunnion alligator clip is a pleasure to adjust. And I've never had a key with such easy horizontal axis movement which makes finding the sweet spot of the incredible ever-shifting contacts simple. It's also just very comfortable tapping out code with one finger at an angle to guide the hacksaw blade down, then guiding it back up. The way the hacksaw blade hops around is fantastic practice for the upcoming WES theme of "sending CW while driving 70 MPH down a dirt road." I did gently suggest that we use the Lego as a prototype design for a wooden version. She looked at me like I just grew a horn out of the side of my head, said "where's the fun in that?", and called me a "speed bump" in perfect CW. So, it's not for sale. Don't even try. It reminds me of my daughter- up for a challenge, intricate, a journey and not a destination, beautiful, and with a definite mind of its own. I'm tacking it to the refrigerator door for all to admire. 73, Bill KJ7GNB



Had a fun time with my K.I.S.S. Ver. 1.0 straight key. Had to add a block of bulk eraser to work as a return spring. Took ~20 QSOs to get the feel of the key to minimize the key chirps. 40M was the money band for me. Glad to see many newer SKCC members in this event along with a larger S suffix turn-out. 73, Vern NJ4L



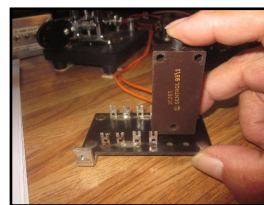
One of my favorite themes. This time I built a vertical manipulator, almost all pieces are handcrafted with surplus material (Brass, Cooper - Silver contacts, Hard Wood, Steel plate). A simple design, the main lever is fixed to a flexible strip at the rear, a middle bridge to regulate the spacing between the large contacts with silent style mounting and located just below the knob so gives a good control in the keying... it works flawlessly Dit Dit. Had a good time in spite of poor conditions, glad to QSO with K4VRC, K0KEX, CT7AUP, AK6A thank you guys! QSO Stats: 2 > 14MHz - 2 > 21MHz TA33 - 50W - Home Brew Key baptized "Lock-and-Load" Take care & Stay well BCNU 73, Walt LW3EX - ... ZUT



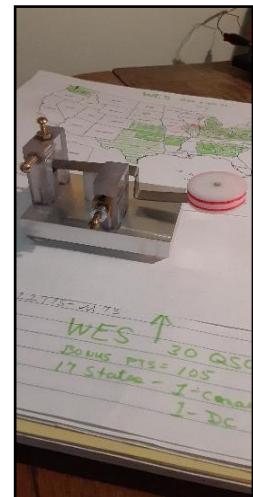
I used the Western Electric Model 1A key on the left for this WES. This WES marks the start of my 12th year in the WES. In those past 11 years I've only missed operating in ONE WES. That was due to a family vacation. Pretty poor planning, huh??? ;-) 73, Mitch NW0M



Dreadful conditions at my QTH. Getting rf out of my backyard was a challenge :) 20 was busy on Sunday. Very few big sigs. Lots of rapid QSB. Thanks to all that pulled my QRP out of the noise. 73, AL N4ow



Thanks for the QSO's all. Found a Magnetic Reed Switch in my "can use later" parts box along with a phenolic board used for diodes. A couple of screws, pair of wires and 4 spade lugs with 2 connections to my Cootie modded Vibroplex single lever paddle made a decent keying device. The bands were in fair shape with exchanges on 80 (9 QSO's), 40 (49), 20 (24), 15 (10). But 15M closed on us and none heard on 10M nor 6M. DX worked this time around David, CT7AUP-Bert, F6HKA and Jo, PG4I. 73, Rick N8XI



Hi.. argo 6 g5rv 5wts.. I got my 30 qsos..only canada.. 1 DC k2acx.. tnx to the board mbrs.. agn, I say each WES shud be given a 1 dollar bill for their intense work on the SKCC.. so, tnx to all for hearing my 5wts.. HB key agn..hi, I know have ONLY 71 keys, to create QRM.. hihi..so, wutz next ??? Hihi.. only 936 qso's for 2021, all cw.. more coming..hihi.. u all takecare and c u agn.. in abt 3 months, u will have SNOW on ur antennas..hihi.. then, QRM still works..hihi.. stay safe and c u ..73, Dave N9ZXL

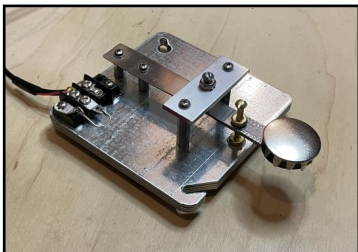
August WES 2021 IV



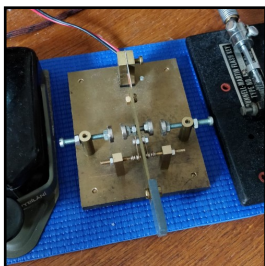
Had no time on Saturday, so started building a wooden Cootie on Sunday morning. It took me about 1 hour and 45 minutes to make, and it works fine. All WES QSO's were made with my new "Woody Cootie". No improvements needed, I think it's a keeper! 73, Luc, ON7DQ / KF0CR



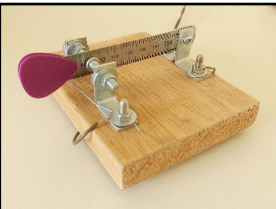
Not so good condx in Eu but nice to work some US & Canada. Used Charles & John Chester NY pocket set made circa 1860. Thanks for all qsos. Hear u in next WES. 73, Joe SP6JOE



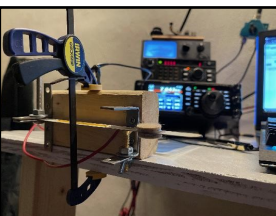
Nice contest. Better condx on Sunday, and I had more time than as well. Used the HB SK below for all contacts. It has the WalMart knife (5 for a buck) as the key arm, and four 4" electrical box plates for a base. Did some fooling during the contest with the knob -- that's not quite the final version. The key worked pretty well, though I prefer my old WU SK. Thanks to all who participated. 73, John WITAG



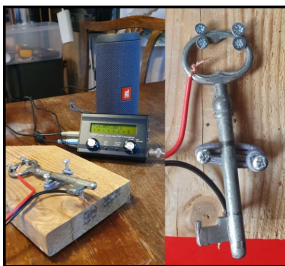
Fun WES with a homebrew cootie. Nothing much to improve on this one! Propagation only picked up until Sunday evening on 20 meters, so finally could work some US stations. I hope to be a senator in the next WES. 73, Jo PG4I



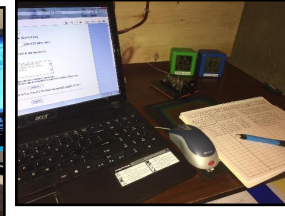
Enjoyed this month's WES. Only made a few contacts this time. Operated on 20M & 40M. My homebrew cootie is made from a stainless steel rule and guitar picks. I managed to hit 16WPM by holding the base when sending. 73, Adam VK2NNW



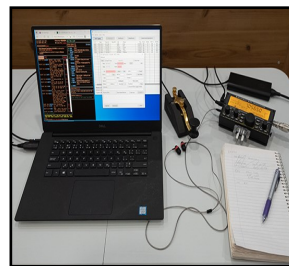
3 QSO's in I realized my homebrew SS wasn't great. Out of desperation took it apart flipped it on its side and used it as a straight key. To my amazement I really enjoyed using it as a straight key. 73, Dave W4AWH



I realized 11:55z on Saturday the theme was "Home brew key" so I went to my tool shed to see what to find. What I found was this lovely key in the door :o) It took about 20 minutes to make and it worked flawlessly for my speed which is about 8WPM atm. The condx was terrible and all Europe seemed to be working the "EU HF Championship" instead of the much more important WES so I managed to get one single contact using my new QRP-rig. G4PVM made my day as it proved my new QCX-mini actually worked! TU! Antenna was a vertical monobander I put together during the day consisting of a 6m fishing rod and a few wires. Better luck with the condx next time. 73, Bjorn SM0SBL



Great WES, I really enjoyed it and appreciate all the FB operators who were sending in the 10-13wpm range. You made it fun for us slowpokes and thank you! Thanks to all who make these fine events possible. 73 and God bless. 73, David W4QDV



My first WES running QRP with my new KX2. A very different experience than running the FT-991 at 100w. I found conditions quite difficult; according to RBN, my signal was not moving very far. Still, quite a learning experience, fun and 9 new numbers towards my Tx6. Thanks all and 73, Robert VE2KZW



I've missed out on a lot not playing on the radio in the last five years, but I'm glad to be back. This was a fun event, and became even more fun when I kludged a key from some nuts, bolts, a block of wood, and a lock key. I'll be glad to be back on the smooth operator G0NVT straight key. Hope to see you all again soon! 73, Robbie W1RCP

August WES 2021 V



My first WES and it was tough from my QTH. The bands were noisy and signals low. I earned my Tribune during this event and have enjoyed every aspect of SKCC. Looking forward to making more new friends. I used a homemade SideSwiper 'COOTIE' key for the entire event. It is my second edition of this key and this one looks better than the first one but it bounces a bunch. It is comfortable and I have enclosed a photo of it for extra 100 points. 73, Bill W3SI



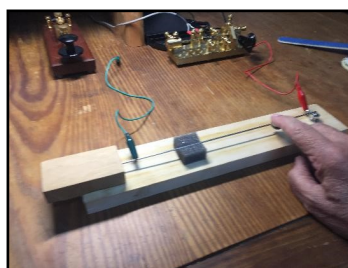
Used "primitive" home brew key for much of the time. It was constructed in approximately 10 minutes with a piece of brass strap, 2 screws, 4 washers, and a small piece of plywood. Connected it with a couple of clip leads. It actually worked quite well. I was only on for awhile on Sunday, did the best I could with available time. 73, Jack W9GT



Used my previous HB key for most of the qso's. Enjoyed operating on Sunday pm for a couple of hours. Nice to get into Europe with a 20 meter band opening. 73, Gerald WA5AFD



The bands seemed to improve for me on Sunday. I didn't hear any Europeans on Saturday but managed to work several on Sunday. Both days everyone left 20M and moved down to 40M even though 20M was wide open. This seems to happen in every SKCC event. I didn't make a key for the event. Instead I used my TBCP cootie through out the contest. Not many stations mentioned using a homemade key but from looking at the results there were a lot of guys and gals using them. 73, Terry W7AMI



The bicycle spoke key didn't work well, I need to build a real key for next year. It was fun to talk with everyone, but the band conditions were bad some of the contacts were difficult. Forty meters seemed the band of choice! 73, Gene W9KMK



Wooden key with stainless steel contacts. Made all 7 contacts with it. Works really well; very light action allows quicker, more even dits. Got compliments on my fist. More RBN spots. To be improved: reduce lateral movement, try brass contacts, add more dampening to make it quieter. 73, Jordan W7VC



I used my home brew cootie for 44 of 48 contacts. Thanks to everyone for putting up with my lousy fist and slow speed. See all of you on the air with smoother sending with the bug or straight key! 73, Jack W9YY



Used my call this WES. Sat was tough, I used a Walmart paint stir for the lever, 120v rocker switch, jumper wires, a cut off piece of wood flooring and some tape. Total cost less than a buck. 73, Ray WB0PYF

Spent about 7 hours on Sunday on 20M, 40M and finally on 80M. Band conditions were very noisy, didn't hear any CA stations! Did work a few EU stations on 20M. Always fun! Stay well 73, Mike, WB2FUV

August WES 2021 VI



I used a homebrew machined aluminum key which was a bit sloppy at first and required some on the fly adjustments to be able to send better in operation. It worked pretty well overall, but was a little stiff and clanky with such rigid bearings and no flex anywhere in the contacts. Not nearly as pleasant as some other keys I own - but it's homebrew! 73, Chris WB2VVV



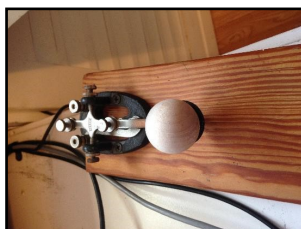
Got a late start. Began building my 'junk box' home brew key at 10 pm local time on Saturday night. Finished on Sunday and only had a limited time to play. Always fun though ... one of my favorite WES themes. Hope to C U in the future down the log. 73, Bill KE3O



Operated QRP "stationary-mobile" for a bit on Saturday. Unfortunately, I forgot my homebrew key. Conditions weren't great, but it was fun anyway.



Always fun thanks for the Q.s. 73, Ray K9EYT



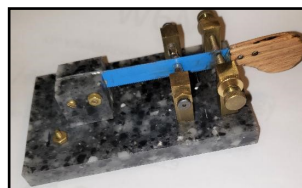
As always the WES was great fun. 73, Drexel W4DHT



Good time as always. Thanks to everyone hearing my 1 watt as well as all the other QRP Signals. Much appreciated. See you on the bands. 73, Bud AA8CL



Very limited time to participate this past weekend but enjoyed working a few with the crazy homebrew straight key. 73, Gary KE2YK



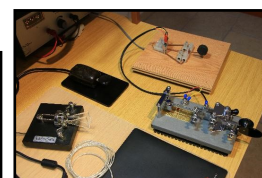
Some spare magnets, left over brass stock, some Corian, a hacksaw blade and leftover finger piece from the SKCC Side-swiper. Worked pretty well so I may have to make a cleaner version of it. KX3 to a doublet and an LNR Quad at 33 feet. Lots of fun and more time to play this time. 73, Randy KB4QQJ



Greetings to all, colleagues, you don't know that thanked that we are of entering to the Club SKCC, I could not imagine that we were able to build a cw key with taken out old parts of the drawer, and that also worked so well. Very bad propagation conditions. We hope to be ready for the next WES of September, we are a club and it seems that we give more points, we will see each other. 73, Club Caibarien



I was very limited on time this weekend - having a young kid in sports is NOT conducive to the ham radio hobby! He owed me so I broke down his Minecraft Lego set to construct my homebrew straight key. The cool thing about lego is that you can continue to add when needed. When I found it unstable, I added more flat pieces. When the pivot point kept disconnecting from the base, I added more support. It was a fun WES and wish I could have worked more! 73, RJ WF4W

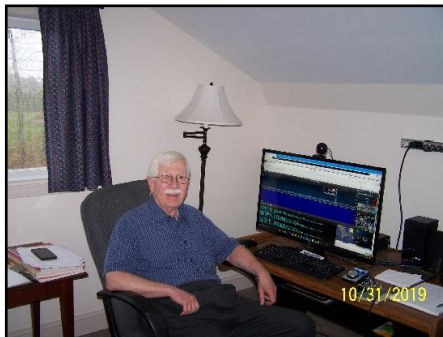


No better way to come back to the radio activities after a few days away at the beach. I was on the radio only for a couple hours but have enjoyed every minute of it using my home made copper wire cootie, shown in the picture. Thank you everyone and best 73. CU in the next WES. Carlos CT1BQH

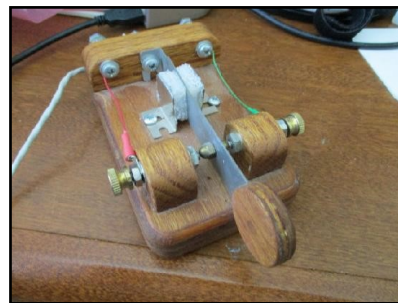
August WES 2021 VII



... Always a great fun ... not too many QSO's ... "Cootie" with quite smooth operation ... made in a winter weekend with two components ... PCB and silver wire !! Simple devices are beautiful !! 73, Carlos CT7AFN



Didn't hear too many HB keys, but was able to get some more numbers towards some awards. Had a good time as always and hope to see you all again next month 73, Dave KB1WOD



Worked on Sunday afternoon, mostly 20M good fun with side HB swapper. 73, Dave NE5DL



Views



Bill This is my current key set up. SL-75 Cootie key , Ham Key SK and RA-150 . Thanks for QSO's. 73, Bill W3SI (SL-75 and RA-150 mfg by KN4YB)

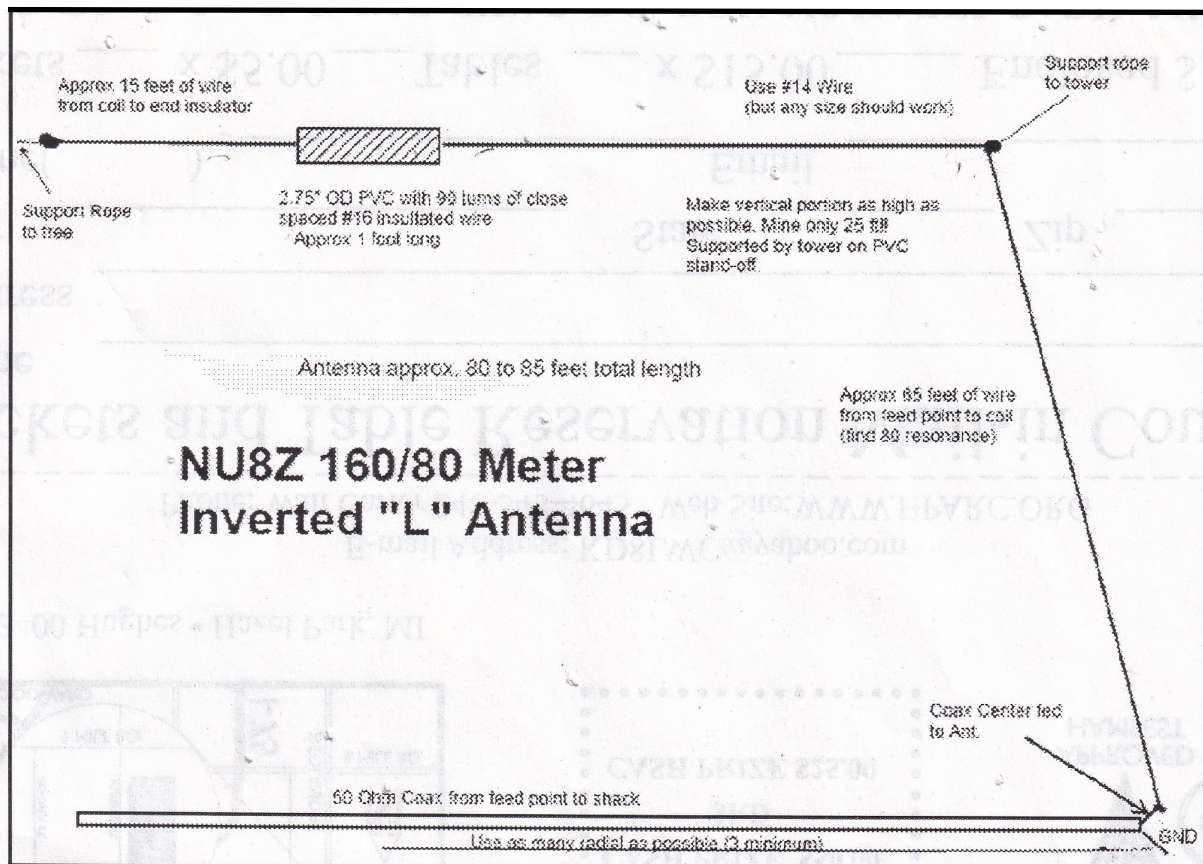


KC4LZN has a new antenna. 73, John



I found this picture I took from the top of my tower a few years ago. The top of the 80 meter delta loop is about 6 feet below this level. I guess that's why I get out well on 80 and 40. The tower is only 56 feet tall but on the edge of a hill that slopes to the southwest and west. 73, Mike VE3FGU

NU8Z 160/80m Inverted L



With the summer coming to an end, it will soon be time for the low bands to quite down from the summer time static and for darkness to start displacing daylight as the days shorten. Not good for some things, but great news for those that want to work 80 and 160 meter DX.

I live on a small city lot. It is not possible to have a full size inverted "L". I have solved this problem with the NU8Z shortened inverted "L" antenna. This antenna is loosely based on the old W9INN designs and the use of the so call "resonator" traps. This antenna will get you on the band and allow to work both stateside and DX. I have been able to work about 120 countries on 160 meters in the last three years. It also works just as well on 80 meters. If you should decide to build this antenna and have any questions, please do not hesitate to ask me. Have Fun ! NU8Z

Antenna Notes:

- I used two 6 ft ground rods and 2 full size 1/4 wave radial bent around my fence line
- May need to tweak dimensions. The position of the coil on the wire determines the 80 meter resonance point. And the number of turns on the coil determines how much wire you will need downstream of the coil to achieve 160 meter resonance. (See Diagram)
- Make sure the wire on the coil is close spaced. This means one turn touching the other. The only separation is the thickness of the insulation on the wire.
- The PVC coil is not critical. Dimensions may vary a bit, but will affect the length of wire beyond the coil. In general the coil has to be substantial enough to provide a high impedance on 80 meters so that it functions somewhat like a trap or switch.

July Brag 2021



Fun month. Was on the air when I could. Lots of new numbers this month. Hope everyone is enjoying their Summer. See you on the bands. Do you know AF4K Crystals is back open for business? Bought some new crystals. 73, Bud AA8CL



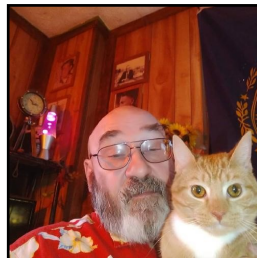
Just made a handful of contacts this July. It seemed like the e-layer propagation was not as good this year as the past few years. Maybe next year we will have sunspots and better f-layer propagation. Still "buggy" after all these years! 73, Dan K0FD



Always fun months with the SKCC. Used either my IC-7000 (50w) or TS-590SG (75w). Always a straight key. 73, Curt K2CWM



Thanks for all the nice QSOs. Thanks Ric KA3LOC for serving as the bonus station. Looking forward to hearing you all on the air again soon! 73, Wayne KC5PRK



FUN FUN FUN IN THE SUMMER SUN. 73, Tom KB3CVO



Slow month for me. Hope to do better next month. 73 and thanks for the QSOs! Dave KB1WOD



Thanks to everyone who participated in making the July Brag program so much fun, and I enjoyed being the Bonus station. It was a good month, with a few good openings. Sure is nice to be retired and able to take advantage of the opening. 73, God Bless. Ric



Since I attained level S I adopted a mascot, a/k/a Slow Speed Sam. 73, Sam/Virginia KC5SAM



73, Chuck N0CW



A good month for me. I worked AB1IP Gary for his 1st CW QSO. I think that is my 3rd first timer in two months. Love those. I worked Ric for the Brag bonus on the 1st of the month during the SSS. I have now had 5 QSOs with a relatively new CW OP that I met in the June SSS. We have averaged 31 mins per QSO. He has been on a keyer, but just got himself a straight key (and helped me get another) from an estate sale. I hope to get him to join SKCC soon. It has been good practice for both of us and a budding friendship. I'm loving CW, even if I'm still struggling to get my speed up. 73, Ken N9KJU



73, Jerry WA4JK



Thanks all skcc 73, dit dit Che WP3PW

Editor...The following article appeared in the August 2021 issue of "Solid Copy," the CWops newsletter. "Flip" Lahra Svare, is a member of SKCC (#2474c) and a regular check-in to the weekly LICW SKCC forum.

"Flip"

About seven years ago, my husband Doc, N9DRS, and I turned to each other after the third round of plowing out from under a winter storm in Montana and decided we were done. Fifty-three days later, we had sold EVERYTHING, including our home and we were living in Las Vegas. Later that summer we moved to Pahrump, Nevada, in the "Kingdom of Nye," where we have made our home base for the last seven years.

There are many things that change when you go from living in a three bedroom home on the Missouri River to a 400 square foot fifth wheel RV. Besides the inevitable shock of being a country girl and now living amongst other humans in close proximity, there's the question of "what about my shack?"

I had a very large room dedicated to my shack back in Montana. I had a 48 foot Rohn tower, a plethora of radios, antennas, tuners, power supplies, wall maps, world clocks and so much more. What about my drawer full of unattached wall warts? I really had no idea how I was going to go from that to...well, what would we do? Fortunately, I am married to the most understanding and supportive husband in the multiverse and he decided we would give up the dining table in the RV and it could be my ham station.



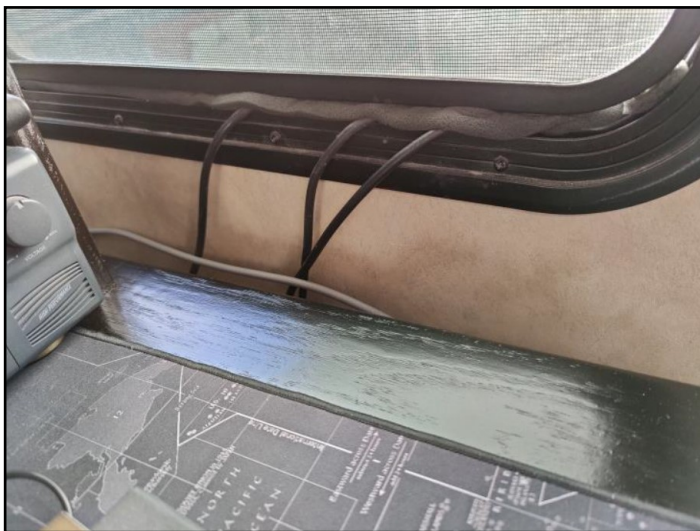
Editor...FYI, that's "Winston"...note where Winston sleep, a real foot-warmer!

I sold the very large and heavy Yaesu 1000MP Mark V and just about everything else (not my keys!), and paired down to an FT991. As usual, I bought it and a week later Yaesu came out with the "A" version -- but that's a complaint for another day. So with my meager station having arrived, we had headed down to the high desert to begin anew. It didn't take long for me to realize that I missed having a bigger station and over the next six years I sold and bought radios until I had exactly what I wanted. So my current RV station consists of a Yaesu FTDX101D, an Elecraft K3, a Yaesu FTM100DR for local comms and an Elecraft KX3 for when we go camping. Yes, we sometimes leave the RV to actually CAMP in a tent, and my radios and keys come along.

So here is a little bit about how I setup and use my RV station. Antennas are always a sticking point. I went through a few stick antennas, wander-leads and things that sort of worked, but it felt very handicapped. Art Bell, W6OBB, told my husband and I all about his loop antenna on his RV. He used glass standoffs and basically ran it around the whole perimeter. Ok - there was an idea that seems a step up from the stick antennas. But in the end, we finally came up with something that worked very well. We use a 73 foot long-wire with a 9:1 UNUN up on the roof and then shot it up into a tree at 40-50 feet, depending on which tree. We have to move every nine months, so we bring it down and shoot it up again with an air canon, each time with a slightly different placement, depending on how it lands. It's basically sitting as an inverted L right now. In addition to the longwire, I have a Sigma Euro-Comm SE-HF-360 fiberglass vertical, 18 feet long. It doesn't play as well as the longwire, not even close, but occasionally it will hear something better and I also use it as a second antenna for my second receiver in the 101. In my photos you can see that my OM has built a frame that mounts to the RV ladder, to which the Diamond vhf/uhf antenna and the Sigma Euro HF vertical can mount. Behind that in the photos you can barely see the longwire where it comes down to the roof.



Because we want to be able to resell the current fifth wheel we are in, we didn't want to create a permanent pass-through in the RV. Our next RV will be our last, and I have plans that include a great pass-through panel. But for now we are using the small window next to the table as a make-shift pass through. I placed thick foam above and below the cables to protect them and to keep out bugs and the seldom seen rainstorms here. It works very well and makes it easy to remove the cables, so I can pull the slide in when we move the fifth wheel. Doc also built me a table to match the exact measurements I wanted and a custom "hutch" to set on the table that fits all my radios and tuners and equipment well. I wanted something nice and stable. When we first started doing this, the old table was wobbly and no fun at all to work on.



We have the frame of the fifth wheel grounded to the electrical pedestal and that is about the best we can do for a ground, as they frown upon us pounding anything into the ground here, not to mention the ground is pretty much like solid rock anyway.

I have very little issue with noise, unbelievably. It's not the S1 noise floor I was used to back on the Missouri River in Montana, but it's a fairly consistent S3 with only occasional interference from Area 51, nearby. (Just kidding - but really I'm not sure what the weird interfer-

ence is, and my friends who work up there aren't talking.) There are approximately 270 RVs in the resort where I live and so far only ONE person has ever complained that "beeping" noises were coming into his RV FM radio. I'm pretty sure it was me, as I think I'm the only "beeping" ham in the resort. We do have a fair number of hams here, but most of them are only on VHF/ UHF and the few that operate HF are not CW operators. But they all notice our antennas and stop by to say hello.



Winston rules!



Editor....It's a real treat to read "Flip's" bio on QRZ. You'll learn about all her many accomplishments and how she got the name "Flip!".... Cool!

Good Stuff!



Dad, I think I hear a strong clear signal on 160m and I copy it as "K8TEZ" and the skimmer says that we need his "S" so can we quick work him so I can listen to some more music from KDKA ?



Been down for quite some time rebuilding my station (WD4NKA), and in particular my FT-101EX, which now serves as primary CW machine, while my EE model serves as the AM driver for the FL-2100B. The RME-4350 and HQ-129-X on either side serves for AM receive on 75 and 40m. The typewriter is my mill, a 1910 Remington Model 20 which served telegraph/ telegram duty with the Atlantic Coast Line in its Hey-day. It is a true caps-only landline mill, still keeping my eyes open for an Underwood military code mill (keyed for military signal corps use). The key is a Hallicrafters HA-1 "T.O. Keyer", still my fav autokeyer. Keyed by a Vibropaddle gifted to me from a NRR member back in the founding days. Love that vibro. (Yes, I also use SKs and rotate my small Bug arsenal. SK is an RAF 8-amper, 1941 RAF vintage. But ya gotta love the sound of the electro-mechanical magnetic reeds and the late-forties/ early fifties tech of the T.O. Classic.). 73, Gary WD4NKA

Hate "That When "This" Happens...



So how do you take care of "this" when "that" happens?



Gutter and some roof damage



**Why it's simple, you get one of "these"
and a couple of..."those".....**



**And you spend \$2400 and
two hours just watching
them do "that" and
"then".....**



"this" happens



And “that” happens, so soon “this” happens...



Lifting 50 feet of tower and antennas more than 120 ft to get above the trees.

Total for insurance company for replacing everything ... Nearly \$10,000... and “that” is why you pay for direct replacement!



And that is how the “pros” do it...and worth every penny!

73, Ted K8AQM/VE9AQM

August SKS 2021



Good time as always. Thanks again for answering my 1w and for answering all the QRP stations calls. Thanks for the great reports. 73,Bud AA8CL



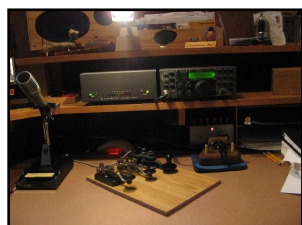
40 M was good in No West Mo. Thanks' to Bill, AK6A for "Bonus" ops. Sorry I missed U ...73, Rick K0KEX



Ran 75 watts from my TS-590SG into a vertical. Kent Straight Key. 73, Curt K2CWM



Nice conditions, 40 was very busy but 20 was also good. Thanks for the QSOs. 73, Chas K3WW



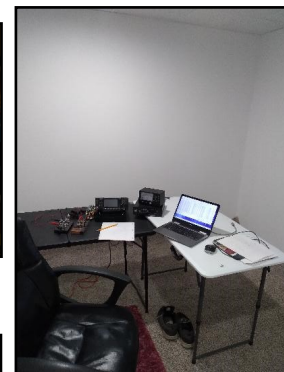
Special thanks to AK6A, who pulled out my 4W QRP on both 20M and 40M. Good to hear so many stations on. 73, Steve K4JPN



40 meters in very good shape up here on Lake Erie tonight. Thanks to all we were able to work. The picture is of the Kayak Launch in Vermilion, Oh near the Vermilion Lagoons . 73, Larry K8TEZ



73, Al K9FW



Less than 1 hour to operate. Storms here. Used temporary antennas. Also, still working on the new shack. Hope to have it complete and ready for next month. 73, Jim KD9GDY



Ominous clouds developing into major storms kept me idle until the last half hour and then braved the heavy rains. Mobile at the Indiana Dunes but took shelter in a public parking garage. Great signals from Larry K8TEZ and Chas K3WW along with good friend Josh - W9HT. Even mobile in storms SKS is a blast! 73, Ken N8KR



TNX! to all who copied my anemic 5w and my usual shaky fist. EVERY QSO is amazing to me TNX! 72, Steve NQ8T



I put this station together for about \$300 including antenna, coax and battery, thanks for copying my weak signal and bad fist to go along with the cheap key. Yes, its the keys fault, not I. HI HI "wicked" fun 73, Corry KE1AK



Thanks for the Qs. I used a neat little straight key made my N0SA. Kenwood TS-530S, Mosley tri-bander and OCF Dipole. 73, Mitch NW0M



Very noisy with QRN here on 40 so spent some time on 20 too. First contest with my new IC-7610 and it did well with an OCF dipole at 30'. Used my J-38 key. I, however am too tired to work the whole SKS this month so I was done at 8:25 CDT. Thanks all. 73, Bill NZ0T



August SKS 2021 II



My score is 404 winner not found hihi. Sorry, I couldn't resist an Internet joke. Some of these helped me towards my Tx3. Thanks! See you all on the bands! 73, Rob W1RCP



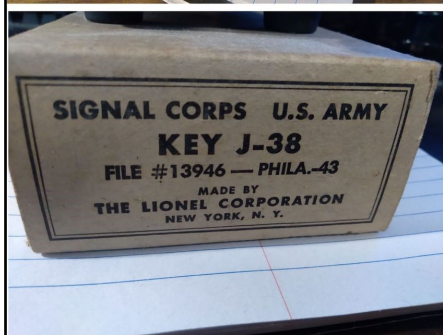
Condx on 20 were very good for most of the time. 40 was in excellent shape. Had a few on 80 but QRN hvy. First time I have used my TT Omni VII in an event in many years (since I got my K3). I finally got an SDR rec hooked up to it and running the SDRUno software, I now have a pan-adapter...just like with the K3/P3. Now I can see the band again with the Omni!! - YES! Didn't make a lot of contacts but had fun playing around with the rig. RIG: Omni VII, KPA-500...Ant: Loop and Optibeam 3 ele on 20. Keys: Junker and Lighting bug. 73 Dave West Virginia W3NP



Good to see the bands busy with strong signals! Thanks for all the good QSO's!
73, Gene W9KMK



Check It Out



Sometimes it's the simpler things in life that give most enjoyment. I have a beautiful Kenwood TS-590SG (Anniversary Edition) with a big heavy Kent straight key, but I really really enjoy using my 13 year old Icom IC-7000 at 50 watts into a 30 year old vertical stuck up on the roof using a 78 year old Lionel J38 (gifted to me from an Army MARS member). On 40m almost every morning for a short time looking for SKCC & FISTS numbers. I won't tell you my age, but it's a little more than the J38 pictured. Life is good. Curt K2CWM New Jersey



Slowing a J-36...
Russell KR2NZ



Michele IZ2FME...Marconi key
by I1QDO

Editor....reprinted from an earlier issue of The Rag Chew but still a very good idea!

Semi-stealth Antenna

In 1988, I bought a house in an HOA community not really paying any attention to what HOA was all about other than yards were mowed, fertilized and watered by the HOA's contractor.

After a 20+ year hiatus in ham radio, I decided to get active again.

YIKES! No outside antenna's allowed. Compounding the problem, I was elected President of the HOA (Lesson: never suggest you might be willing to participate on a committee.)

A 40M dipole would just barely fit in the attic. Converting it to a G5RV for 40M through 10M was the next step, but 100W just above the ceiling was a struggle on SSB. (SKCC hadn't been founded yet.) So, violating the rules I was supposed to enforce, I installed a semi-stealth vertical. In the back of the house off the patio were two large well branched-out, mature trees limiting any view from the alley to the upper part of the house structure. On top on the patio, with shielding by the trees in the back and the house roof line in the front, I installed a screwdriver antenna with a 7 ft. whip on top. From the bottom of the screwdriver, I ran tuned radials across the patio cover and across the roof. Anyone driving down the alley looking in just the right way could see the screwdriver, but only a ham would guess what it was.

It tuned well and with a SB-200 I had many DX QSOs on SSB and cw. I especially liked being able to get practically 1:1 SWR anywhere on any band. The screwdriver was hiding virtually in plain sight but no one ever noticed – or at least said anything. Hypocrite that I was, I did not stand for re-election and eventually moved to a neighborhood without restrictions. Now I am comfortable with my very visible beam, 43 ft vertical and bazooka antennas.

That's my story and I'm sticking to it.73, Bob K5ZOL

Sneak Preview...Coming Soon!

Be part of SKCC history, own these keys. Keys made especially for SKCC with the SKCC logo proudly displayed. More information coming soon!

