



Volume 13 Issue 3

The official newsletter of the Straight Key Century Club

"The Rag Chew"

Editor: K8AQM/VE9AQM

September, 2020



Field Day 2020

Certainly 2020 has made for a very unusual Field Day but even so, SKCC members have turned out and enjoyed the event and experienced some great adventures. The following are some of the adventures of our members.

The W6WU and N3NTS Adventure

Steve W6WU and Wayne N3TNS operated Field Day as 2B MDC in Carroll County Maryland. Murphy struck early. After upgrading N1MM logger an old laptop no longer keyed CW smoothly rendering it unusable to send an exchange though it served well as a log. Steve has arthritis in both thumbs so he manually keyed his cootie sideways as a straight key, fingers only, for 264 Q's. Wayne manned the phone duties.

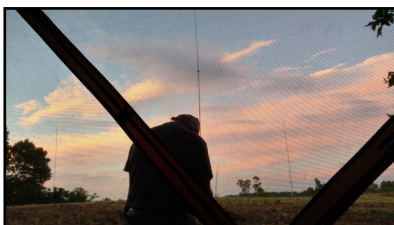
An end fed half wave antenna was setup as an inverted L served 80, 40, 20 and 15 meters for CW and a delta loop served the phone station. Three 40 foot masts did the job of keeping the wires in the air. Both antennas worked very well until Murphy struck again and the SWR on the delta loop went erratically bonkers. After replacing the connector at the antenna end all was well again until the generator quit, at different times, in the middle of 2 contacts.

The bands were in good shape, it was nice to see that much action on 15 again. The overwhelming class of most stations this year was 1D, the temporary rule changes no doubt kept participation levels up. The club station rule change made it possible for us to add points to the SKCC total. Hopefully that rule change will give the SKCC some good press. The weather held out and it did not rain until the last item was packed and in the truck! (Murphy must have been dozing after staying awake all night!) So far everyone has survived their own "cooking". Lots of fun, and really an enjoyable event.

73, Steve W6WU 20314T



Steve W6WU at the "cootie"



Ending to a perfect wx day



The three 40 ft masts

Field Day 2020 II

Field Day in a Barn

OK...now that I have your attention: yep, we had FD in a barn. plywood on homemade sawhorses ground floor for you dining pleasure, and upstairs 3 stations 2m apart for phone and CW.

As some here might recall, I just started learning Morse code May 1. Through a series of fortuitous (both the old and the new sort) posts here, there, and else where, as well as some recommendations from some now-fellow CWers, and some stumbling around the web, and some naive, but timely purchases, I found myself 7 weeks later being able to send the alphabet, numbers and some punctuation.

Receiving...well...a different matter, for me, entirely...

Not really a contender, but wanting to support the club on FD, I wandered over to the barn, and struck up a conversation with our local CW contest guru.

It wasn't long before he said that I could go up and actually RX at 30 wpm for FD, and I thought, yeah, another OT who doesn't remember how hard it was to get started.

But I knew that he'd be able to teach me how to do FD CW well, and I wanted to get a heads up for 2021, so I went up. And at first blush, it was that. But it didn't take long to start hitting about 50% at that rate. I'd get half a call sign. I'd miss the call sign, but get the class and loc. I was surprised. Not good enough to work FD, IMO, but good enough to make me immediately change the speed I was studying at. Today I changed from a char rate of 20 wpm and an actual car send rate (Farnsworth) of 5 wpm, to RX rate of 20 wpm, no Farnsworth. Rather than write the chars down, I close my eyes and listen.

To be honest, I can't get even 3 letters in a row at 20 wpm, but the result is such that I am sure this is what I should do. So at this point, I am studying RX @ 20 wpm. Fortunately, I /have/ learned the letters, numbers and .//? so I can practice with those. I'll bet that in a week I can do 5 in a row. I found that when I took a break during FD, when I returned I couldn't RX at 30+ wpm again. But after concentrating on each exchange, in about 15 minutes I was back to 50%. Never got better than that.

I don't think that I would have been much use for FD. I don't think that a contest is the place for newbies to learn Morse code, but I can see that it is a place to improve. I am thinking that I will be in form by next FD.

All the guys and gals were surprised to hear that I use a straight key, not paddles and a keyer. But I like keys. I am "stuck" at 15 wpm for now, but I'll bet that in a month or two I'll see that increase, especially once I get on the air. My TS-830S, which I really like (had it for decades), needs a key that can handle 65V. And I /will/ try paddles and a keyer. And a sideswiper. And a bug. Just to do it. I still don't see myself as a contest fan, but I will do CW to support the club.....and it was nice to see folks again, what with all the C19 stuff. I hope that the next few weeks show that we used good sense, and no one gets C19.

Oh...and I already have a ham who wants to know if I'll practice code with him on the air, and I said yes. We both need to get our hardware completed. I have phone on SSB, but no keys connected. He found me here...and emailed me off line. Good deal.

So my thanks to Steve, W1SFR, for pointing me here.

73 de Rich NE1EE

On the banks of the Piscataqua



The Ultimate Field Day/Mobile Antenna!

Field Day 2020 III

W0EJ Field Day

I planned for FD like most years where I track bonus points and do that paperwork for our local club but this year was sure different in the end. We use my call as GOTA station so I'm always busy at FD supervising that station and hopefully getting time off to operate the CW station for 2-4 hours during the night. This year due to the changes, I was still able to pick up 550 bonus points, Media, Emg Power, Bulletin, Solar power QSOs, social media and online submittal.

I worked at my home station on generator power and for seven contacts using solar power. Class 1E, low power, non-assisted, TS-890S up to my 160M OCF dipole up abt 30'. I tried working as much as possible and after a short night I ended up with 493 CW contacts.

Band	QSOs	Pts	Pt/Q
3.5	16	32	2.0
7	162	324	2.0
14	175	350	2.0
21	120	240	2.0
28	20	40	2.0
Total	493	986	2.0

Score : 1,972

I worked a bunch of familiar calls so I knew SKCC folks were out and about. I'm happy with my final score of 2,522 for my solo effort. Thanks to all that worked me.

"In days of old when Ops were bold and sideband was not invented, the world would pass by pounding brass and all were well contented."

73,
Bill W0EJ

Ask me about CW Academy.....
CWOps - # 1269

FISTS - #14786
FPQRP - #2057
NAQCC - #2271
Novice Rig Roundup - #71
QRP ARCI - #16961
Sasquatch Stomp - #846
SKCC - #10440S
ARRL VE and Life Member



Field Day Prep



This way to Field Day



Field Day 2020



Pretty tired at the end



Field Day 2020 IV

Field Day with the Boschveldt QRP Club (W3BQC)

I spent Field Day with the Boschveldt QRP Club (W3BQC), operating one of the CW stations. We had a traditional Field Day outing, while practicing social-distancing and observing other precautions. We operated 4A-Battery, running 5 Watts. Along with four HF stations, we also had a satellite station and a VHF/UHF station. My fellow SKCC member, NK1N, operated the satellite station.

Our Field Day site was a large, wooded piece of land owned by a local businessman. Despite the social-distancing restrictions, we all had a great time.



Craig WB3GCK 15052s

73, Craig WB3GCK
SKCC #15052S

Field Day With AA8TA

I operated from home for a few hours on Saturday; had a hard time getting into a groove.

Sunday, joined my local club's efforts. We were going to do a 4F effort at a Red Cross facility as we have done for the last three years but the pandemic scare nullified those plans. Instead, a club member volunteered his rural home for us to do a 3A; two CW stations and a phone station. We had a beam on an old cellular mobile tower, a big horizontal loop and some other wires for antennas. Two generators to keep us "off the grid." Primitive conditions but it is Field Day. Our call was K8ES.

Storms went through Friday and Saturday and made the lower bands pretty noisy. We kept the three stations on most of the 24 hours. I operated several hours, mostly on 80m/20m CW and some on 40m CW. Mid-morning, I tried 10m and found it wide open, though mostly east of the Mississippi. Got DX to France and Columbia, though not on 10m.

Attached is a pic of us putting up the big loop; I am on the far left. Notice, in the background, our "safety officer." Zoey hung around with us through all the antenna work and operating and let us know if he noticed something that he did not like. It was hilarious having him follow us around everywhere we went.

-
Joe, AA8TA
SKCC #13604



SKCC Results for 2020

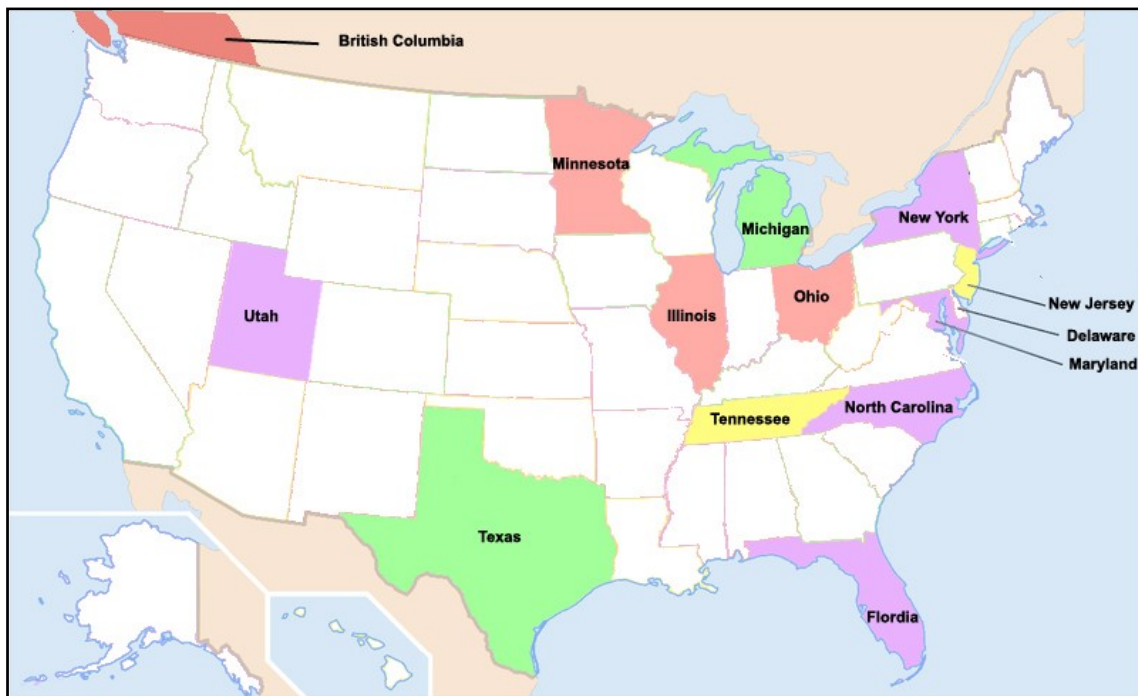
This year was an exceptional Field Day, due to the Covid situation ARRL made some specific rule changes to keep everyone safe. Keeping everyone safe meant few if any, club Field Day operations due to shelter in place restrictions. The ARRL allowed fixed class D stations to work each other and for those stations to submit their score for their club.

We had seventeen SKCC members submit their scores for the Straight Key Century Club. The stations submitting were:

AA4XU	KB8UMD	W0NZZ
AC2C	KD8VSQ	W6WU
AC2RJ	KF6C	W8IQ
AF2Z	KW4JS	
K8AQM	N7PHI	
K9JP	N9KJU	
KB4QQJ	VA7ES	

Thanks to all those stations who contributed their scores to the Straight Key Century Club. We had entries from around the country and Canada, thank you all.

Hopefully next year all clubs will be out in full force and enjoying a typical Field Day.



Fourteen different states supplied the entries for SKCC.

Data of members and map supplied by Drew AF2Z and Randy KB4QQJ. Thank you to all members who submitted their score under the SKCC banner.

Meet Al K9FW

By Al Biddle K9FW and Josh Long W9HT

Perhaps you have heard K9FW or NE9EE on the air over the last year or so. I would like to introduce the operator behind the key for both of these stations. A native of Fort Wayne and a retired industrial repair journeyman, Al K9FW (20492S) was first licensed in 1977. Having been “Elmered” by avid contesters, Al has always had an interest in using amplifiers—hold that thought until later in this article. In his early years as a ham operator, Al enjoyed chasing DX, contesting, and served as net control on one of the high-speed CW traffic nets. Al notes that back “back then, there was a lot of traffic” on the nets.



So, how did Al come to join SKCC? Al explains in his own words: “I love to make contacts. That is why I joined SKCC. There is almost always a contact to be had.” Al’s affinity for ham radio is evident in several of his latest accomplishments. Not only did he attain senator status for his own callsign, but also assisted the following clubs (of which Al is a member) to attain senator status: W9TE (Fort Wayne Radio Club) and NE9EE (Northeast Electronic Enthusiasts). Al is particularly proud of taking the club call of NE9EE from zero to senator status in five weeks and then the club call of WD7G from zero to Tribune in a matter of several days. I think that Al burned up some ether in the atmosphere in the process! Al is also a member of the ARRL and of the Ogemaw CW Group.



Al has lived in his current home since 1969 and uses a Kenwood TS-590S, Icom IC-7600, or Kenwood TS-530S. It should come as no surprise that Al runs a solid-state HF amplifier. However, his back yard hides his antenna farm: “five-band quad at 40 feet with a three-element 6 meter Yagi on the same boom and a 2m/440 vertical at 43 feet for local ragchew. On our 40-foot crank-up, tilt-over tubular tower supports a fan dipole for 30m-40m-80m, also an end-fed quarter wave inverted-vee at 30 feet for 160m. Also, a 30-foot mast, the main SKCC antenna, supports an OCF inverted-vee for 80m-40m-20m-17m-12m-10m-6m; and, to round it off, we have a 43-foot vertical with sixty radials.” It is an impressive antenna farm for a city-based station. Al’s antenna farm includes two special features. First, he built the five-band quad antenna. (Just this evening Al said that he worked a VK station on 17m using the quad!) Second, Al had a partner in building his antenna—his wife Kay, KA9CGX! Al and Kay have been happily married since 1967.

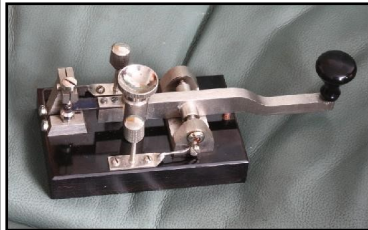
Outside of ham radio, Al and Kay both enjoy their “heavily modified” 1939 Chevy 2-door sedan, whether it’s for a drive around town or at a car show. It’s a classy ride!

So, what are Al’s next goals in SKCC and in ham radio. His answer was: “Just make contacts!” Be sure to give Al a call on the air when you hear him next.



Editor.....Al was the “KS1KCC” operator during the June WES and helped move our club call toward our “S.”

June SKSE 2020



Good fun and 40m quite lively. Had 1 QSO on 20m and the other 4 on 40m. Morse key is a wonderful Swedish pump key. 73, John / GØRDO / SKCC 2133s



I am on the island of Ameland, EU-038. I brought a TS-520, 40m dipole on a Spiderbeam mast and a Vibroplex bug. Paper logging... ;-) 73, Jo PG4I



Strange propagation, 3 QSO on 80m, 4 QSO on 40m and 2 QSO at the end of SKS-E. Tnx ON7DQ om Luc for 2 band QSO. Rig here is Yaesu FT-817nd, Z-817H atu, Datong FL-2 audio filter. Antenna is double windom and Inv V for 80m. Power output 5W. 73s and tnx for QSOs. 73, Kare YU7AE

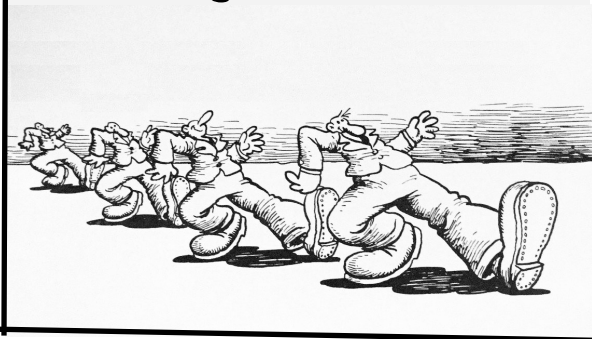


“The Real Straight Key!”

Designed and built by Andy K200

June Slow Speed Saunter 2020

Slow Speed Saunter



My first entry in SSS. Re-submitted as I worked a few more Monday afternoon. I need to learn to "Slow Down" Thanks all 73, Larry K8TEZ



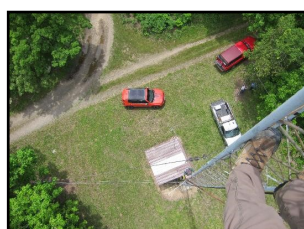
First time trying this hope I don't mess it up. 73, Randle KC2BE



My first Slow Speed Saunter. Lots of fun using my Navy Flame Proof SK. Ran QRP 5 for all my QSO's. Some very fine new ops joining the ranks of real Ham Radio -- CW!. 73 de AL N4ow 11375s



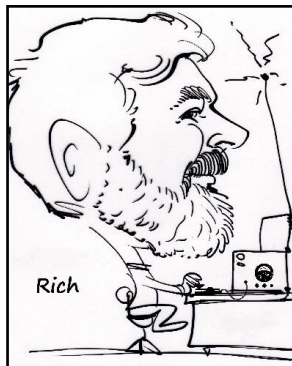
After receiving a "little push," I decided to finish my quest for Triple Key by experiencing the Cootie! I apologize for my sloppy sending but the Saunter was perfect forcing a slower, more deliberate "send." Many longer qso's with newer members was enjoyable! Nice to meet newer member CL3OR - Orestes from Cuba on 40 meters! 73, de Kootie Ken



Just got up a permanent antenna to go with the new QTH, but only got three contacts in. As the youngest member of my local club (and only sucker with a harness), I worked on installing a new antenna 110 ft up during most of the contest hours. All in all, still a good radio day. 73, Don WB0ISG



I took the day off work on Monday so I could spend time on the SSS. 17 QSOs including 2 NZL, 1 DL, and a self-proclaimed noob who is not yet a member of SKCC. I've struck up an email conversation and hope to draw him in. hi hi My last QSO also finished my Tx4. The big deal was that I actually got up the nerve to call CQ. Several very nice contacts. I'll do that again. Possibly my best SSS to date. 73, Ken N9KJU

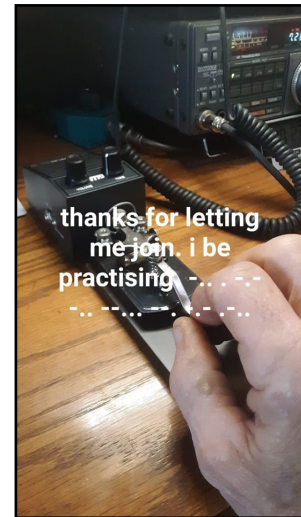
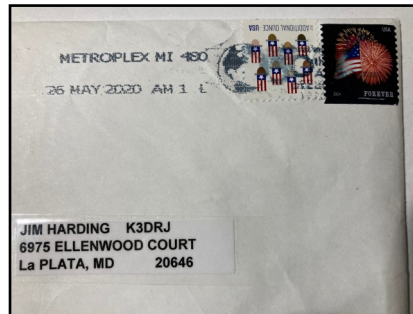


I Love SKN and the SSS! My QSO's this month with IN, VA, LA, TX, AR, FRA, SPA, ITA, & Ontario, and Toronto. 4 QSO's with new members (over 20000) and 3 with members over 19000 and thanks to Ken N8KR for a very pleasant QSO with my old friend whom I hope I will see again at the 2021 Orlando Hamcation in February! 73, RichW4RQ



Didn't get on until the last hour. Was about to change out all of the filter caps in my original "bought new in 1976" Drake C Line and decided to check out 40. Worked 5 stations using a Brown Brothers SK and a WW2 German SK. My first time in the SSS. Antenna was the big 160m horizontal loop. 73 de West Virginia Dave W3NP

From Facebook



Got a shipment from OUR bureau yesterday

!come on guy's use our bureau !! These were all MY own QSL'S... you didn't have envelopes at our bureau

!! 73, John K8LJG

Yesterday when I posted a note about stamp postage and our QSL bureau, no more than a half hour later I found one of my envelopes in my mail box. How ironic, and what did I see.....another stamp added to my envelope. The stamp was labeled "additional ounce – USA". (I used a forever stamp too) There were 12 QSL cards in the envelope. It's obvious that someone paid for this additional one ounce stamp. I'm also down to one envelope in the bureau, and when I send a few more SASE envelopes to our bureau today, I'm going to include a few bucks to cover the extra postage that our bureau covers. 73, Jim K3DRJ



My first 2 SKCC contacts.
98 more to go. 73, Steve W9BRI



Antenna maintenance when the mosquitos are out. Keep that net on! 73, Arnold KL7IH, Southwest Alaska



OPERATION TRACER

By John Jones, G4KLT

Details of Operation Tracer have been shrouded in mystery until a fascinating document from the files of Naval Intelligence at the Public Records Office, Kew (England) recently came to light. The plan, hatched during the darkest days of the Second World War, was for six men to be sealed in a cave in Gibraltar with only two small openings to the outside world and enough supplies for one year. They were told there would be no way out and anyone who died within the chamber would have to be embalmed and cemented into the walls. Only if Germany was defeated within a year would they be released. (It was presumed that Germany would overrun Gibraltar, hence the need for Operation Tracer). The Volunteers, two doctors, three signalmen and their leader, would run a cave-based observation post from two 12" by 6" slits, one looking due east over the Mediterranean and the other over the Straits and harbour. All shipping movements would be radioed to the Admiralty.

With the fall of France in 1940, there was only Spain between Hitler and his desire to invade Gibraltar and take control of all naval movements in the Mediterranean. He had already helped General Franco to power and it was feared the Spanish Dictator would permit the Germans to march through Spain to the Rock. This was seen as a very real threat and by the end of the summer of 1941 ideas for a series of observation posts, firstly in Gibraltar and later in places like Malta and Aden were put together as Operation Tracer. Work at Gibraltar began immediately under Commander Geoffrey Birley and his Chief Engineer Colonel Fordham. The site chosen at Lord Airey's Battery on the southern tip of the Rock already had an existing tunnel used as a shelter.

By the end of 1941 construction work was under way on the chamber where the men would live. This would be 45ft x 16ft x 8ft with a water tank containing 10,000 gallons of water and a passage section for the radio. As the whole plan depended on the communications system much thought was given to the radio installation. The equipment would be run from three small 12 volt, batteries which in turn would be powered by two generators, one propelled by a bicycle and the other by hand. An outside aerial would be vital. A rod, eighteen feet long was to be pushed out of one of the openings when required. Extensive trials began in January 1942 under the eye of Colonel Gambier-Parry, an MI6 radio expert. Much thought was also given to the type of men needed for such a strange and demanding task. Murray Levick, a member of Scott's ill-fated Antarctic expedition was called up as a Surgeon Commander to advise on survival techniques. There were practical matters such as diet, exercise, sanitation and clothing to consider as well as the psychology of the personnel.

In March a coded message was sent to Commander Gibraltar announcing the arrival of a Lieutenant White asking for full co-operation and reminding everyone that the ultimate success of Operation Tracer depends on 100% security. The rest of the team arrived on the Rock with jobs to cover their presence and signals on the Operation Tracer file announced the appointment of Surgeon-Lieutenants Cooper and Milne, both of the RNVR, who arrived on HMS Cormorant that summer on an operation "on the instructions of the First Sea Lord." The full team were in place by the end of the summer of 1942 and their cavern was fully equipped and ready for occupation. A comprehensive manual was prepared on all aspects of the operation and it was considered that similar secret lookout posts should be prepared throughout the world in the event of future wars. Happily, the Gibraltar Tracer was never called upon to go into commission (or should that be "deployment"!!) as Hitler turned his attention away from Gibraltar towards the Eastern Front.

The six volunteers were eventually stood down after a year, the stores and equipment removed and the cave blocked up. Today, more than half a century later there is still an intriguing part of the operation still to be discovered - the Manual of Operation Tracer. This contains full and elaborate details on what food, clothing and tools would be required and even a list of preferred books for the library! Should the manual ever come to light it would be interesting to find out about the radio aspects, such as procedures, watchkeeping routines, codes and details of the transmitter and receiver. It would be intriguing to find out who the telegraphists were and if they are still around.

I had the pleasure of many "good runs" in Gibraltar but during that time I never gave any thought to how Gibraltar got its name. That is, not until I spent a week's holiday there during October 1997, at the Caletta Palace Hotel, Catalan Bay, where incidentally, some of the Ship's Company of HM Submarine Torbay were billeted for a few days (Happy Hour was never the same once they left!). I digress. During the Rock's history it has been invaded, captured, laid under seige, recaptured and so on by a succession of North African Tribes. One such tribe was led by a Prince TARIK, and the Rock was known by the Arabic word JEBEL, meaning hill or mountain, hence JEBEL TARIK, which over the centuries has been alliterated to GIBRAL-TAR.

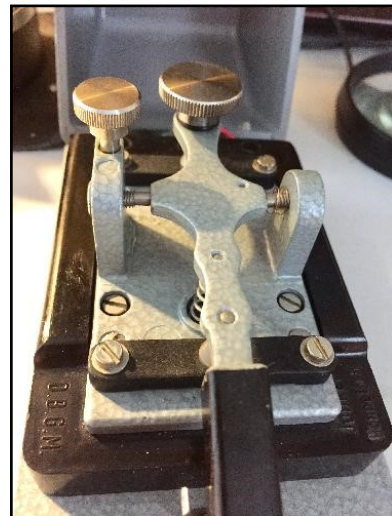
SKSE July 2020



Thanks all for qso.
CNDX are not so good
with NA. 73, F5JWH
Phil 8069S



Good fun using a new homebrew
Cootie key. Got a few new num-
bers, but no props to the USA. 73,
Luc ON7DQ



Conditions not optimal but
made some very nice qsos.
73, Hanz YL3JD



To Be a Ham!

June WES 2020



I enjoy making contacts on my favorite band, 10 meters. Was glad to get one contact on 6 meters, too. Wish more SKCCers would get on 6. With the summer Es you don't need a big, high beam. I use only a quarter-wave groundplane. As always, it was good to QSO stations I've not worked before. No new antenna. Picture is my Hustler mobile antenna on my mobile home which is all I have on HF. 73, Wes AA4XU



As always a lot of fun. Spent a little more time, worked a few more bands, got more qso's, reached a few more places--had more fun. Great



This WES was a bit different. Very rarely made QSOs on 15M or 10M before, but made total of 74 QSOs on 15M/10M. With all the nice weather it was tough to stay indoors. Photo shows the "long-awaited" SKCC "Hall of Fame" QSL card collection. Is your card up there? Currently there are 56 members, with room for about 25 more. 73, Bob AC1GF



Did not read the rules about antennas until Day 2. Turns out, I did put up a new antenna and this was the fifth day that it was fully operational; see pic. It is an 88-foot untuned doublet that keeps the worms and grubs warm. 73, Joe AA8TA



Conditions were sporadic here, but I managed to work KS1KCC and Chas, K3WW, on three bands. Thanks for the QSOs. 73, Jim AD0AB

Five QSOs on 10 m, one on 15 m, and one on 40 m. Ten meters was open from SE IN to the east on Sunday. My Realistic HTX-100, purchased at the peak of solar cycle 22, did the job. It is pictured along with the Vizkey cootie I use to key it.

It runs 25 watts so I am outside my usual QRP category. 73, Steve AI9IN



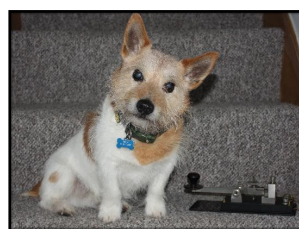
Thank you for this enjoyable event and all the nice contacts! CUAGN 73, Tom DF7TV



73 to all for qso. Propagation very bad in Europe on 15,10 and 6M. 73, Phil F5JWH



Another WES without much spread, only 2 times 3 hours each day from 6 p.m. GMT to 9 p.m. GMT. Outside these hours the QSOs are exceptional despite the power of 400 watts. Cycle 25 is slow to start. The photo of my SKCC station. 73, Bob F6EJN



Always fun but need propagation to pick up. No Stateside / DX QSOs at all. Kenwood TS440s 100w, vertical. Key Marconi PS No213a, dog Jack Russell Todd. 73, John G0RDO



Difficult to be active for this WES because of too much shoulder pain. Only three contacts but one was done on 50 MHz with F5JWH, tks Phil for 10 points bonus ! I hope to do better results next month. On the photo, my new VHF antennas: a 9 elements Yagi for 144 MHz band and a 5 elements Yagi for 50 MHz band. Maybe some contacts with NA members on 6 meters soon ? First transatlantic contacts for 2020 were done with W3EP and NP2J on CW last end of May. See you all soon! 73, Bernard F5DE

June WES II 2020



Great fun in spite of poor conditions and a questionable strategy. The European skimmers were not seeing any activity at all on 15m but I managed 1 qso with an Italian non-member. I also made a 15m end-fed-half-wave to get the maker's bonus.

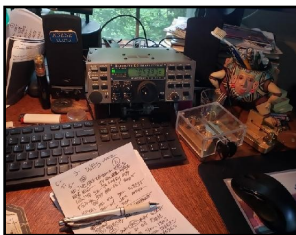
Gave up on 15m eventually and met some friends old and new on 20m and a few on 40. Picture is an attempt to photograph my new 15m efhw sloping up to the top of my 7m SO-TA pole, it's not very photogenic! I have no idea why I look so surprised. 73, Peter GM0EUL



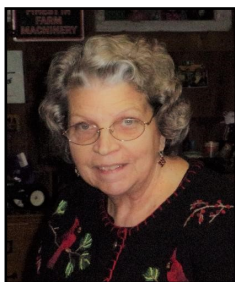
My first sprint with my new call sign. Proved interesting, esp for me (hi hi). Surprised a few regulars. Dug out my 12-yr old IC-7000 from the closet and ran 40w to 50w to a multi-band vertical. Kent Str Key. Set my goal of 50 contacts but actually did 60. Made contacts on 40m, 20m, 15m, & 10m. Got Bonus Station on 2 bands. Great condx here. Always a fun sprint. 73, Curt K2CWM (ex-WA2JSG)



North Dakota. Little Missouri National Grasslands. A few miles east of Marmarth ND. Total of 170 QSO's, 80 of which were made before WES began. Location was DN86, Slope County, 46 19' 14" N, 103 50' 44" W. TS-480SAT, Czech Military key, LDG tuner, Honda generator, 40 and 20 meter PAR end feds, 8010 MyAntennas end fed. Thank you for all the QSO's! 73, John



Conditions were pretty good, for the most part; had a ton of fun. I was able to make contacts on 10, 15, 20, 40, 80, and 160m this time around. Setup was the K2 at 5W to a 20m EDZ up 15m, and an 80m dipole up 25m. Key was the inimitable W1SFR TBFB cootie. 73, Lloyd K3ESE



I ENJOYED IT VERY MUCH, THANK YOU. 73, Virginia KC5SAM



Really enjoyed this summer event - I focused almost all my effort on 15, 10 and 6M. Also, built 2 speaker wire quarter-wave verticals. A 10M version on Sat and a 15M version on Sun. Both worked great at 45W!! The picture is of my Sat antenna. 73, Don K0NXV



Great contest. The summer bands didn't cooperate as I would have liked, but, I worked six contacts on 15 and 1 on 6 meters. I heard SK1KCC on three bands and succeeded connecting on 15 meters. Thanks for all the contacts. I look forward to joining you next month for another good time! I made the first 10 contacts with 5 watts using a battery powered HB-1B. The balance were made at 50 and 100 watts with my IC-7300. My Cootie, Begali Intrepid and Vibroplex Champion bugs and a Begali Spark were all called into use during the weekend. The antenna was a 40 meter vertical delta loop tuned with an Elecraft KAT500 tuner. 73, Stay safe, 73, Bob, K3ZGA



Had a good time, as usual. Bands up and down, as usual. 80m in the evening really dead - unusual. You can see by the photo I'm still using and enjoying the K2RFP logger. Great to work ops with high membership numbers - SKCC is thriving! Looking forward to the next one. Vy 73, Lee K1LEE

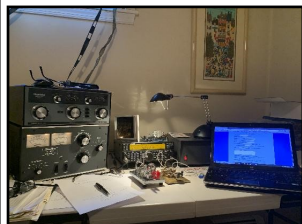


Felt a little weaker this session, see photo. Backup antennas did OK. 75 on 10meters and 51 on 15meters. The theme sure spread the gang out with lots of 3 or more band QSOSs but on 10/15/20 rather than my usual 80/40/20. Too bad the E skip was not as good out in the far west. 73, Chas K3WW



73, Warren KC9IL

June WES III 2020



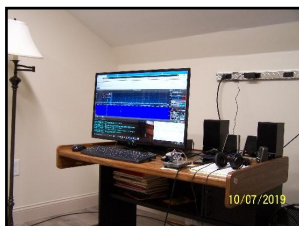
Not my normal operating scenario. Had house guests for early dinner on Saturday- missed 1600-0030Z- So how did I make up the time -by working rest of the time minus 3.5 hours. Till 0600Z -slept 3.5 hours to get up at 0930z to work Steve VK7CW as is our custom. By end of Sunday I was dozing off- Sorry if I sounded incoherent for some exchanges- Worked 17 on 10, 32 on 15 with my wire loop antenna- was okay- but beam would have been better. Was everyone running QRP?- I received so many 599 and handed out 339 to other end and heard 72 so many times. C'mon folks- give an old guys ears some mercy. Thank you for all of QSO's- again was super impressed with our new members' CW acumen- Going to get a lot easier to get SX endorsements with all these new great CW folks joining us who will quickly become T's and S's. Kudo's to Chas, K3WW on great showing with backup antennae for this WES. Thank you again to our North Dakota portable operator, John, K0FTC who braved personal physical impediments to make it possible for all of the new WAS-S recipients. (PS reason I am not in the photo of the shack- sleeping). 73, Phil K3EW



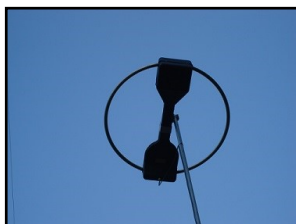
I decided to try and use my 1940 J-36 for all contacts this WES. 95% of the time I used the dah paddle like a straight key (half cootie) and for 4 or 5 poor souls the whole bug. Pure unadulterated FUN. Thanks guys. Some very excellent ops out there. 73. Hank K5TSK



40 meter operation only. TS530, J38 key to a 4btv. Stay Tuned 73, Daryl K9QEW



I did a lot of CQing this WES on 15 and 10. Had some runs of 10 to 20 QSOs. Most 15 an 10 QSOs were south to FL, west to WI and south west to LA. I also work KS1KCC on 4 bands Weather was great here and I had a great time. Thanks for all the QSOs and I will see you next month 73, Dave KB1WOD



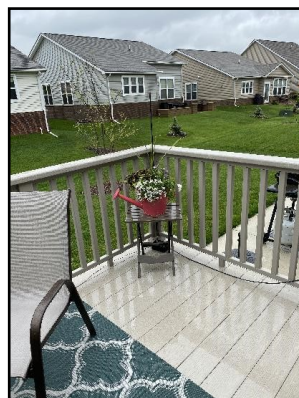
Another fun wes. Listened often to the bonus bands and managed 25 bonus QSOs. The old roof mounted mag loop served me well on 15m and 10m. 73, Randy K8ZAA



This was my first WES, and my first SKCC event. I've been a member since 2008. Shortly after I joined, well life happens and I have not make a CW contact for 12 years. It was a thrill to be back on HF and using CW again. It Felt just as good as I remember it does. Thanks to AD5A as he was my first contact for my return to CW. There was a lot of QSB on 40m. I used my QRPlabs QCX for both 20m and 40m. Into a Norcal Doublet in an inverted V with the peak at about 18ft. It was a great event. On Saturday I listened most of the day, and finally got up the nerve to answer a CQ. Very glad I did. I've been a ham for 36 years, even then I still had some key fright. But I believe I'm passed that now. Sunday for me was a total wash. Nothing but noise on both 20 and 40. I look forward to participating in more SKCC events. I am also looking forward to my first non-contest QSO. I love this hobby. I hope to work many more SKCC members. 73 Mike KA7PLE



Submitted my score Saturday but got home late Sunday afternoon & found 10 & 15 both open so we worked a few more. Glad to see 10 & 15 come alive after a long dry spell. Ran my Old Kenwood TS-820 after aligning & cleaning last weekend & it seems to work great with my Autek Research IC active filter. Thanks for all the contacts. 73 to all, Larry K8TEZ



I had a lot of fun during a very short amount of operating time this WES. Thanks to all for hearing my 5 watt QRP signal. Special Thank YOU to NW1W and W8HAP for my 6 meter contacts. Hope everyone had fun operating the summer bands and maybe using a new antenna as well. Mine was my 52" stealth vertical on our condo back deck. 73 de Jeff K9JP

June WES IV 2020



The IC-7610 is off to Icom for a new display, so all contacts this month were on the new Xiegu G90 at 20w. Still, my best WES other than being an Easter Egg in April. 32% on 10m and 15m also a surprise! Lost a couple of hours Sunday to storms. (My daughter recently made me a few KC5F items for the shack, including the magnet in the picture.) Only had a couple hours to operate this weekend. Set up my new PreciseRF magnetic loop on the deck and did a little Search & Pounce. Beautiful weather, so it was a nice time. Thanks everybody. 73, Steve KC5F



TNX to the 3 stations I worked. Maybe more time next time. 73, Russ KK4WX



Greetings: Ones again, great WES! And the conditions were great. Managed to work 4 stations on 15M band. Thank you! 73, Sergey KD9EBS



Another fun event. I wasn't too successful with upper bands but made a few on 15 and 10. Ran the 1919 Vibroplex Original and my Begali Single Lever Paddle as a Cootie for my QRS contacts. Looking forward to another. 73, Jack KK0I



Started rough, then smoothed out on Saturday. Sunday the high bands were booming. Cut it short at 6pm Sunday. Lots of fun. 73, Al KS1KCC



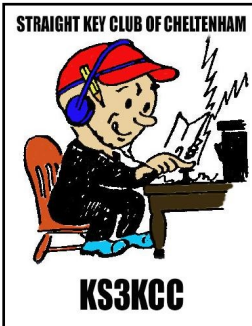
Fun, but I got very ragged at times both sending and receiving. Thanks to all those on the receiving end. The antenna I made this last month could only be counted as a negative "high bands antenna". The antenna I am talking about is a dipole for 80 and 160 meters, it is mounted awfully close under the Steppir antenna but has no effect on it, or the 2-meter antenna below it. On the picture you can see the wire coming down from close to the top of the tower, it has a couple of modules on the wire in view. The antenna needs 12 volts DC applied to it to work on the LF bands one direction for 80 the other for 160, without any trap loss. This antenna is very low to the ground for its operational frequencies, but to the west it is on the edge of an at least 45 degree over 300-foot drop. To the east it is not so good, the ground is level for some 300 feet before it drops off quickly. This picture was taken by a camera mounted on 4-foot tower for the 10GHz antenna that has Az-El control. I am claiming no points for this antenna but thought this an appropriate subject for this WES. I am planning to write an article on this antenna soon.

For what it is worth, I think putting a bonus for 6 meters on the same weekend as a major VHF contest is not a good idea. I hate working WES in the presence of other contests as I am not good at working under these conditions, the only way I was able to work 6 was to put a note on the sked page giving the frequency I was calling CQ on and then not really calling CQ but only "WES DE KF6C WES K". 73, Brian KF6C



Great WES. The upper bands were not great at my location, but still managed a few contacts. Thanks to all, 73, Mike KK7H

June WES V 2020



Great WES this weekend working back and forth between my personal call and the club call. I was hoping more KS#KCC stations would have worked this weekend. Tnx for all the Q's. 73, DAH KS3KCC



Bands weren't great on the East Coast but managed 15 10/15M contacts. As always great fun. Pic is my 'kinda' new antenna covering 10 and 15 surrounded by the forest. 73, Chris N0CC



Amateur radio is great at any age!



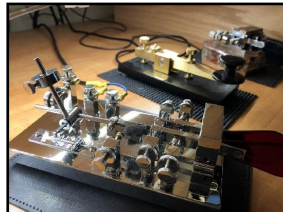
Good theme but PROP still AWOLQSO stats: 7>14MHz - 7>21MHz TA33 - 50W - Homemade DSK + 1943 Signal Corps RTO training SK model J-38 made by American Radio Hardware Co. TU everyone for the QSOs. Take care & Stay safe BCNU 73, Walt



Enjoyed working 15 meters again. 73, Ed N2GSL



Very little radio time again. Finally finished the house painting es landscaping. Whew, Hope the XYL doesn't come up with any more ideas for the rest of the summer... This retirement stuff is for the birds.hihi Tnx everyone for the Q's es was Great to get a few 10 & 15 Mtr contacts. 73, Randy N8KQ



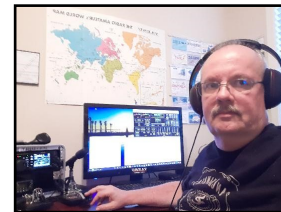
Very little time this weekend for hamming but always fun to participate in WES. I was hoping to catch some WES contacts on 6m as the bandscope was filled with signals, but only could find testers. 73 from NH, Larry N1FG



Nice opening on 10 Saturday afternoon and Sunday Morning. Many strong sigs. 15 was not as good as 10. I used my SKCC Sideswiper and Flameproof keys for all of my contacts. Very enjoyable Sprint with a high activity level. A+++++! 73 de AL, N4ow



Finished Triplekey with the Cootie . . . found a permanent addition to it! Had a blast working 10 and 15 meters, open to all corners of the US plus had one EU call on 15! Congrats to Curt, formerly WA2JSG who now sports a new call K2CWM! 73, Ken N8KR



Good Weekend Sprint. 73, Bob N1MHV



Thanks to all - Lots of fun! 73, Ed N4EWF



Enjoyed this month's WES. Fun to have some openings in the higher bands. KS1KCC was really strong on four bands here near Dallas. Thanks to all and 73, Dick N5KIP

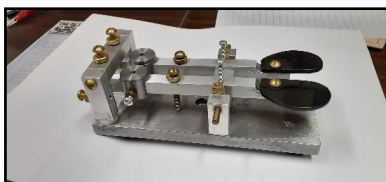
June WES VI 2020



It was great to see both 15M & 10M open for several contacts. I tried listening to 6M but apparently I wasn't in sync with the band opening(s). My goal was to make at least 50 contacts...Done! I even worked KS1KCC to my surprise with my noisy INV "L" And...this WES ended on my Birthday June 14th...Flag Day :) Thanks gang...CU in the next WES. 73, Rick N8XI



Busy day doing errands on Saturday and it was too nice a day to not be out on the lake Sunday so time on air was limited. But 10 and 15 were open and fun was had! Ran my Icom IC-7300 with my J-38 key. Antennas were an OCF dipole at 30', 2 element Quad at 40' and a 43' vertical with remote tuner. 73, Bill NZ0T



Argo 6 at 5wts g5rv.. benchr st key. Worked 5 bands.. ha ..that has been a while for me.. had fun working on 10 and 15 mtrs.. ha..just more QRM.. ha.. had 2 Canadians, 1 France qso.. tnx u guys.. so agn, more new monthly signed in skcc mbrs.. ha.. 25,000 will be hr soon.. my friend w1sfr, steve is staying busy making cootie keys.. he has a nice SKCC labeled cootie he now makes... no new BUG project hr for me right now.. so skcc board members, tnx you agn.. and all takecare. C U in July so we all can continue to make Q R M..... hahaha.. its fun. 73, Dave n9zxl



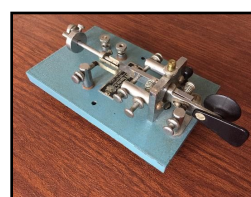
Propagation not so good this time and only managed 1 QSO on 15 meters. For a challenge I put up an active antenna for monitoring and used it with a RSP1A SDR receiver and GQRX on Linux. The goal was to compare it with a websdr station from the internet which I normally use. By looking at the waterfall you can get a quick overview of the activity on a certain band. It was a nice experiment, will stick to the websdr (at the university of Twente in the Netherlands) for the time being since they have a much better antenna position at a 20 meter high building. They receive more signals. 73, Jo PG4I



A fair amount of time on WES in spite of our wedding anniversary activities (XYL also a ham). A good weekend for QRP with a few yucky periods but generally good reports. Activity on 40 remained surprisingly strong until after midnight local for quite a few surprise QSOs. Heavy QRN Saturday afternoon and evening due to thunderstorms that only dropped .16" rain, but hours of lightning. Photo shows part of TFD antenna 80-10M with the approaching storm/ source of QRN. A few QSOs on 15. TNX to all with their good ears and SKCC for always an enjoyable weekend every month. 73, Paul NA5N



Very fine contest, congrats! 73, Hubert SP9MDY



Another token intermittent effort on my part, but enjoyed every QSO! This month I used my SK cousin's bug, the TAC "Hole-in-the-wall" bug, ca. 1945. 73, Chuck NI0C

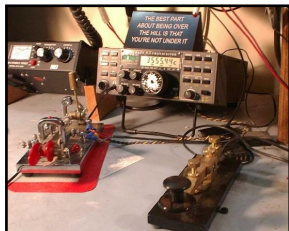


TNX! to all who copied my shaky fist & pea shooter signal. I was not going to participate. Then I heard my good friend & Elmer W4LSV on the air and had to work him. Then just one more QSO . 73, Steve NQ8T

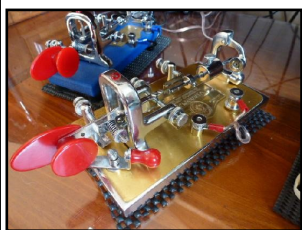


My first Weekend Sprintathon! Thanks for ufb fun. Cu next time Adam SQ9S #7404. 73, Adam SQ0S

June WES VII 2020



Great to have some 21 and 28 MHz activity. Half of my QSOs were on those bands. Thanks to all. Limited time here, but fun. 73, Ben VE1AHX



I only managed a little time late Sunday afternoon/early evening (VK time) but sure had a lot of fun as usual. Sadly the theme for this WES was "Summer Bands" but here in VK we are in winter, so I only got to work on 40m. All QSOs were on my 1953 Vibroplex Presentation bug and I managed to work KS1KCC bonus station. Thanks to all who worked me, 73, de Steve VK7CW # 10820S.



Best moment was when I worked AK3Y who was using 0.400 watts on 40M. Not sure which was best... his station or my ears! 73, Peter W2SKY



That was a great one! I set up two antennas: the MFJ-2982 for 20m and the Buddipole for 6m, 10m and 15m (photo). No luck on 6m, 1 QSO on each of 10m and 15m. Several new numbers in addition to the regulars. Highlight of the weekend: a QSO with Stan in New Zealand late Saturday evening (Eastern time). Thanks everyone for a great event. 73, Robert VE2KZW



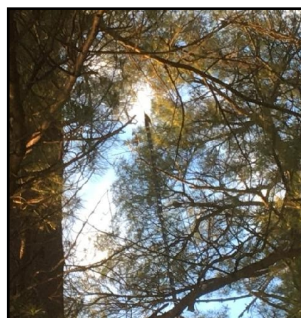
Pic is of quick and dirty 15M EFHW made from bell wire held up by an Ebay special telescoping bamboo pole. But only had one QSO on the band! Best band for me was 40M on Saturday night. 73, Kevin W2NC



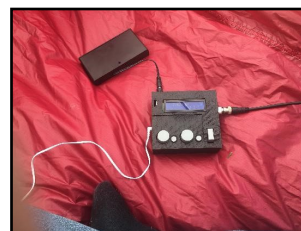
Always fun, tnx to all. Cndx not great here, lost cause on 15m and 10m. 73, Stan W6SMF



Wow, what a weekend... Best QSO count ever for a WES. Best 10m & 15m counts, and overall a whole lot of fun. Key was my WISFR Green Machine and I loved it. My new antenna setup works well over the pond too. 73, Roger VE3RDE



Great weekend, especially for the eastern half of the U.S. Es was present most of the time, with 15 and 10 meters being very active. I think I worked all members in Indiana! It was also very nice to see increased Canadian activity. Lots of VE3 contacts. On the other hand, the EU signals were lower than usual here. The picture shows the feedpoint to my 80m dipole up in the pine trees. That was the only antenna used for 80-6m this weekend. Thanks to all who participated. 73, John W1TAG



Set up a tent in the backyard and tried out a QCX 5 watt rig using a 61 foot end fed 1/2 wave thrown into a tree. tnx for the contacts!! 73, Ron VE3SIF



Ditto all the comments about nice condx (off and on) on 15 and 10 meters. Overall - seemed like excellent levels of participation. It was especially good to see so many "new" members (high numbers) take the plunge and jump in to the WES. (Two of the four hams I am individually "Elmering" made my log). Good event, good fellowship, perfect social distancing. 73, Dave W1DV



Pretty good condx, especially 40-m at night. Alternated between by Kent straight key and my Begali bug. 73, Roger W6LAX

June WES VIII 2020



Good WES! I had 24 QSO's on 15 and 10 but nothing on 6. Checked out 6 Sunday afternoon and at first look at the P3 scope I thought I had hit the SKCC 6m mother lode but turned out to be a crummy contest and I didn't find a single WES stn although I called CQ a few times. A lot of strong contesters on. My goal was 100 QSO's but ended up with 104. Had Q's on 6 bands 10-160. Got KS1KCC on 3 bands. 500 watts to my 160m horizontal loop for all bands. Used my Brown Brothers straight key along with a Vibroplex bug. 73 de Dave W3NP West Virginia



I used a long wire of 134 feet strung along the wood fence in the back yard up a whopping 5 feet off the ground, tunable from 80 to 10 meters. With 100 watts of power and a straight key, I had a personal best 131 contacts across 5 bands, working several stations on multiple bands. I enjoyed the 10 and 15 meter theme, two of my favorite bands, and found many stations active on those bands. After my key cools off, and my wrist returns to normal, I'll look for you on the air for a brag, the SKS, or the next WES. 73, Jack W9YY



Backyard portable... only had time for a couple but very enjoyable! 73, Art WA1GOV



A beautiful weekend for WES in Southern California. Always lots of fun! Thanks to all and 73, Ted WD6TED



Great time working the WES this month switching bdk and forth between my call and the club call. Tnx fer all the Q's and C U Later. 73, Greg WA3GM



Just got this in the mail today! 15 wpm... but I want to get this up to 20-25 wpm! (The decades have not been kind to my copying ability - lack of practice... "If you don't do the mode, you can't do the code" sort of thing. 73, Colin AE3A



Just got this in today's mail. I'm kinda proud of it. Onwards. 73, Bill KC9CS

Thanks to a "Rover"



If you needed a North Dakota "S," Nebraska "S" or a Wyoming "S" (even a Colorado "S"!) then most likely you worked John, K0FTC or K0FTC/7. John made several trips to Wyoming, Nebraska and North Dakota to provide QSOs to the many needing ND, NE and WY for their WAS or WASs awards.

The SKCC Board of Directors felt a notice of appreciation was in order for John's efforts. Through bad weather, bad propagation and at times through illness, John drove to WY, NE and ND from his home QTH in CO providing many QSOs to the membership.

On behalf of all SKCC members the SKCC Board of Directors want to thank you John for your efforts and support of SKCC.



Completed my first SKCC QSO with Steve, N5OMK. New acquisition Ten-Tec Omni V set up temporarily as I'm making adjustments and working out the bugs. After using a keyer and paddles, I found it tough finding decent ergonomics for the straight key, and tried three of them before choosing my preferred Nye Viking shown. Going to borrow a bug and take it for a test drive, next... 73, Mike AL7KC



Made about a dozen SKCC contacts this evening using the old Heath stuff. It may be odd, but to me...that smell of dust on hot tubes is one of my favorite smells! (3 in xmtr) One thing to say for this set-up...it has QSK on par with Ten Tec and Elecraft!! Will get hi tech tomorrow or this weekend, and set up the TS520S outside!! 73, Dave KD2E

N8CC & K8AQM in our old age...



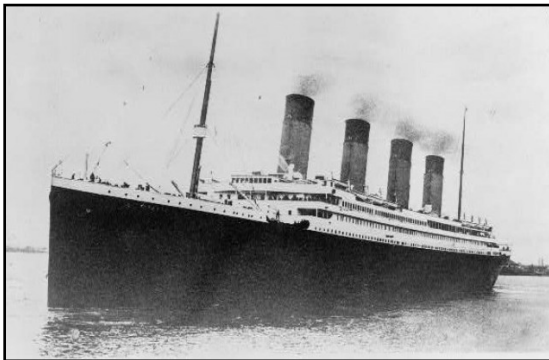
"Now take them big birds, Ted... Never eat a thing... Just sit and stare."

My "good friend" Jeff N8CC, sent this to me...I don't understand, what is he trying to say? Maybe vulture don't like bird seed?

73, Ted K8AQM

How Amateur Radio Sank the Titanic

The following story was gleaned and edited from QRZ.com; an article produced by John W0PV and reprinted with permission.



IMO while there may be some truth to this controversial historical tale, the projection and promotion of it could still be seen as hostile to the ARS of today, or better, *a cautionary tale against too much deregulation*, and deserves debate and counterpoint, as the modern battle for spectrum evolves.... 73, John W0PV

At 12:15 AM on April 15, 1912, a message rang out across the Atlantic: “CQD MGY 41.46 N 50.24 W.” The message, sent by a Marconi radio operator, came from the doomed RMS *Titanic* 30 minutes after striking the iceberg that would end the ship’s maiden voyage. It was followed by a series of messages from the ill-fated vessel, many of which went unreceived, or failed to establish any meaningful contact. Meanwhile, novice radio operators on land clogged the airwaves with false news of the sinking, leading to the early spread of misinformation, and later, overwhelming public ire. While the *Titanic*’s radio and its operators were to thank for the 745 survivors of the tragedy, the malicious behavior of amateur operators was blamed in the disaster’s aftermath – raising questions of how something so disastrous had been allowed to occur, and what could have been done to avoid it altogether.

Radio technology was still in its infancy in 1912, and was surprisingly complicated to use: Restricted to Morse code for transmissions, most radio transmitters at the time were referred to as “spark” transmitters, as they relied on sparks of electrical energy. This type of transmitter could not continuously emit radio signals, making voice messages virtually impossible. Spark communications also covered a large bandwidth, making interference from outside messages inevitable. As a result, despite being marketed as a maritime technology, radio was considered a relatively inefficient means of emergency communication.

This inefficiency was evidenced by its problems on the *Titanic* – although a radio was onboard the ship with two operators, it was never intended for emergency communication. Instead, the “Marconi room” was primarily for passengers to send telegrams from the ship as it journeyed from Southampton to New York City. The *Titanic* was one of only four ocean liners to employ two Marconi company radio operators, named Jack Phillips and Harold Bride. Both Phillips and Bride struggled with the volume of telegram requests, which were difficult to transmit to the far-off Marconi station in Newfoundland

This focus on telegrams led to the first of many mistakes by the Marconi operators, as they ignored several warnings of ice, failing to deliver them to the bridge for review. Their negligence was complicated further by the fierce competitive nature of their position's – in 1912, Marconi nearly held a monopoly over the radio industry, and there was an intense rivalry with their main competitor Telefunken. As a result, even after the *Titanic* had begun issuing distress signals, some Telefunken operators who answered were told to “keep out” by Phillips, who refused to deal with his company's competition. As a result, while the radio could have helped to prevent the tragedy outright, it instead only helped to save a small portion of those onboard the ship.

The limited scope of early radio technology was further complicated by its popularity with novice operators, who neglected to keep airwaves clear for official messages, and often maliciously interfered with transmissions. Professional radio operators had struggled for years with amateur operators (derisively called “hams” for their “ham-fisted,” poor Morse code skills) interfering with messages. Many of these amateur operators were younger than twenty years of age, and considered it good fun to play practical jokes on the navy by delivering false messages. They also tended to clog the large bandwidth of spark transmitters, making it difficult for others to send crucial messages.

The government failed to remedy the complaints made about amateur operators, who were completely unregulated at the time of the *Titanic*'s sinking in 1912. This led to several complications concerning the disaster, particularly with information relayed in the aftermath. It had been initially reported on land that a radio transmission claiming that “all *Titanic* passengers safe; towing to Halifax” had been delivered to a Marconi station, which was quickly printed within major newspapers to assuage the fears of passengers' relatives. The falsity of this transmission was quickly discovered, as the truth began to spread late on the 15th, nearly a day after the crash. Many were incensed at such misinformation, and blame quickly fell onto ham operators. It was suggested by Captain Herbert Haddock of the *Titanic*'s sister ship RMS *Olympic* that novice radio operators had interfered by stitching together two separate telegrams (one asking “are all *Titanic* passenger safe,” and another stating “towing oil tank to Halifax”) to create the misleading message.

The accusations directed at amateur radio practitioners did not stop there: It was also claimed that ham operators had been “gumming up” the available bandwidth, making it difficult for the *Titanic* to send messages, or be heard by nearby ships. In the weeks following the *Titanic*'s sinking, both the UK and US launched investigations into the catastrophe, concluding that several factors had contributed to the large-scale of the disaster, including failures in radio and “amateur interference,” as Marconi officials blamed “unrecognized stations” making communication difficult. As a result, a grand majority of the blame of the sinking was placed on faulty radio operation, particularly by amateur users, along with a lack of sufficient lifeboats and poor leadership from the vessel's captain.

The *Titanic* sinking had some inevitably large effects on radio and broadcasting, given all of the confusion and fury over the sinking. Only four months after RMS *Titanic* was lost, the American government passed the Radio Act of 1912 – the law was the first action taken by the US government to gain control of the airwaves, and required all operators to hold a valid federal license to use radio equipment. In addition, it restricted amateur users to bands less than 200 meters – wavelengths far below where official maritime communications would be conducted, reducing the chances of interference with transmissions. These requirements carried hefty consequences if ignored: Someone found in violation could be subjected to a fine of up to \$2500 USD (approximately \$63,000 USD today) and up to five years in prison.

Amateur radio soon found itself with far less operators, forever changed by the events onboard the *Titanic*, though it was impossible to blame only one factor in the sinking. Unfortunately, the combination of poor leadership, a lack of emergency preparedness, and both professional and novice radio errors was simply too much for the *Titanic* to bear – creating one of the greatest maritime disasters in history, and leaving an indelible legacy on those industries surrounding it.

A related story re-emerged recently that perhaps you will find interesting. A legal obstacle has been removed from retrieval of the Marconi radio set from the sunken wreck.

“Judge clears the way for salvagers to open up the Titanic and retrieve Marconi radio (text below)”

"In an order issued Monday in Norfolk, Va., District Judge Rebecca Beach Smith said RMS Titanic, the court-designated salvage firm for the Titanic, made its case that the radio had enough historic value to justify sending a specially equipped robot into the wreck. The remotely operated submersible would be equipped with tools to cut through the deckhouse if necessary."

During a video session presented last month by Everett, Wash.-based OceanGate, Bretton Hunchak, president of RMS Titanic, said the expedition would focus on the Marconi radio for a number of reasons.

"Many people have called it the voice of Titanic, and I don't necessarily think that's wrong," Hunchak said. "What I do think is wrong is that some people think it's just a radio. ... The story of Titanic is really one about overcoming adversity, and I think in today's environment, that rings truer than ever, right? We're afraid to go outside, we're afraid about what to do with our families."

He said the 700 passengers who survived the Titanic's sinking faced similar adversity, and argued that the tabletop radio was emblematic of their survival.

"The only reason there were survivors, and the only reason that we're sitting here today discussing the wreck, and are able to do this research, is because of that radio," Hunchak said.

Putting the radio on exhibit will help the world "re-engage with Titanic," he said.

73, John W0PV



Mock-up of Marconi radio room set-up as used on the Titanic and the radio room photographed on the sunken Titanic

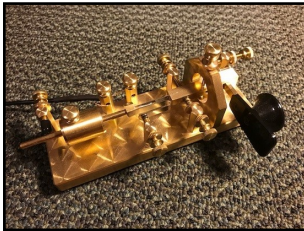
June SKS 2020



This SKS was a little more challenging than usual. From my position, 20 and 80m no luck and all the activity I was able to listen to was in 40m. Signal strength in and out, worth mentioning that while answering one station my signal went from 0 to 599 in seconds. During the whole the contact was concerned the signal would go back to 0 in any second. Good thing it didn't! Yay! Lots of fun, as always. Thank you so much to all that participated. See you in the bands. 73, Ruben AC2RJ



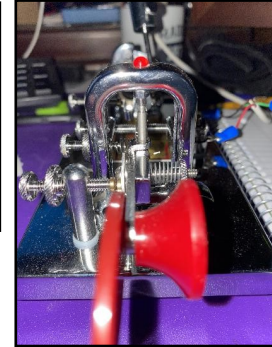
First straight key sprint in the books. Was fun. Look forward to many more to come. Thank You to all. 73, Larry K0HIO



K3 to 33' wire up and over garage. With only a half-hour to play, it was still fun to contact some good ops this evening with my 90 degree VizBug. Thank you & 73, Don K3RLL



I started off, like I said, on 20, band sounded dead, "HA!", 9 QSO's including New Mexico, if you call they will come, switched to 40, spent most of the time there, tried the last 15 minutes on 80 but not much luck. How come I don't get bonus points for listening to myself call CQ. Used the straight key when needed, I really had fun. IMHO everyone should try the bonus station, it will improve your CW and give your confidence a boost. The last half hour was a chore, my cat decided she needed her attention and it didn't matter what I was doing. 73, John K2IZ



I was able to earn my next T! Thanks everyone for the exciting night! 73, Wayne, Wayne AC9HP



Worked 40 es 80, both bands were headache noisy here on the wires. Thanks for working our club es we are working on the TKA. Loren D Hayes Memorial ARC. 73, RandyN8KQ



WOW .. 40 meters was the band tonight...Thanks All from the shores of Lake Erie. 73, Larry K8TEZ



Had to miss part for a meeting, so no high score tonight. 40m only, with nice conditions for my G90 at 20w. Always fun! 73, Steve KC5F



Fun to work the SK. Gud warm up for Field Day. Photo with Bert F6HKA from Hamvention. Sure missed that this year. 73, Jim KD9GDY



Almost forgot about the SKS...got in a bit late, but still a good time. Spent time on 40 and 80 with the "Ole Gal"...1919 Vibroplex Original. 73, Jack KK0I



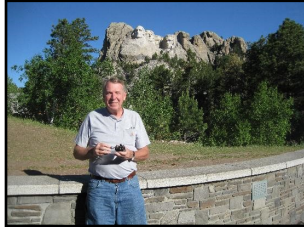
I worked a few new numbers tonight - good to hear everyone! 73, Russ KK4WX



Great fun, worked only 40 except for last 5 mins. 73, Brian KF5C

Not much action on 20 but W6LAX was a nice surprise. 40 was hopping. Lots of QRN here from close storms. Very happy to work G0DJF for a new T. Many new members heard and worked. A fun SKS! 73, AL, N4ow 11375s

June SKS II 2020



Operating mobile on "Boot Hill" in Deadwood. Slow start with little on 20 meters but 40 opened the last 45 minutes. Nice to work Josh-W9HT and Ed-WA9BBN and Tom-KU8T from back home! 73 from the Black Hills Ken, N8KR



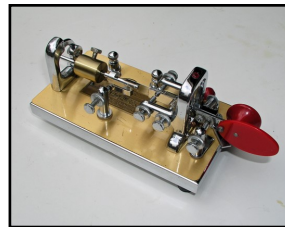
I haven't done a weekday sprint since October, glad to be back! I was late to the party tonight; my son needed a Fortnite partner, when you 9 yr old boy asks you to play video games, you don't say know b/c in a few years, he won't ask! Sprint was great! I didn't move off of 7.052.50 and called CQ 3 times, runs are the best! Ran the icom 7610 with 500w to my Hustler 6BTV vertical 73, RJ WF4W



Very tired today, slept through most of the SKS. 73, Nee NE9EE



Only had a half-hour this evening, but it was fun all the same 73, Roger W6LAX



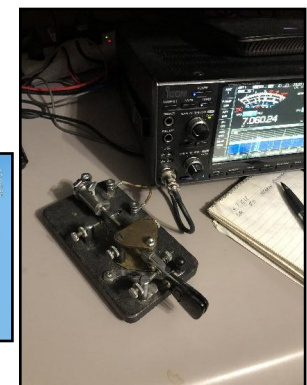
9 Q's on 20 which was not in great shape, 6 on 80 and all the rest on 40. 40 was packed with little space to call a CQ - I did see that we were spreading out a bit more. A good bit of QRN as well. K3 line @ 500w to 160m horizontal loop @ 50'. Key: Vibroplex Presentation from 1956. 73 de West Virginia Dave W3NP



Time flies by good to work everyone. 73, Ray W9GHX



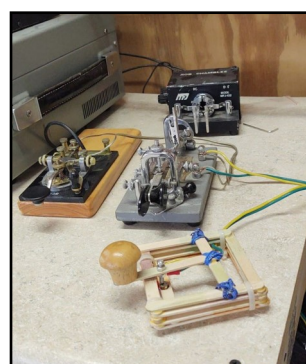
Well, I didn't find K2IZ, but I did have a fun evening in SKS. 20 Meters had some good activity for the first half, then to 40 meters and that was Rock'n ! used my newest K1SFR key just received this



A fun time that went by quickly. I spent my time working those I needed for Senator. I knocked 20 more off tonight. Thanks to all! 73, John W9WB



SKCC group has helped me learn Morse code and become brave enough to get on the air. I will be forever grateful for that and to all the people that have taken the time to work me. 73, Wayne AC9HP



Popcycle stick straight key. 73, Rob N5GEN

A Straight Key from a Friend

By Austin KA3TTT

I recently saw my friend Meg. I began paying her to drive me shortly before the pandemic began. I like not needing to deal with a stranger for my transportation during these times. When I got in her car, she said that she had something to give me, and placed an object in my hand.

I turned the mystery object over in my hands, and felt a straight key! Ham radio operators use a Key to send Morse Code. Straight keys date back to the beginning of telegraphy. This one had a wooden base and a plastic arm. It had some adjustment screws and a headphone cable to connect to the radio.

I felt stunned. I had begun thinking about buying a portable straight key to bring up to the roof deck. I imagined something light weight, maybe with a wood base. I now held the object I had visualized in my hand.

"It's a straight key!" I exclaimed.

"Do you like straight keys?" asked Meg.

"I love straight keys!"

"Do you have one?"

"I have two!"

"Do you want this one?"

Of course I said yes.

I need to tell a quick aside. Last year Meg had a science fair, and asked me to have a ham radio table. At first we set up in the basement, but my KX3 emitted a sad whine, so we moved up to the parking lot near the pizza truck. Donna made pizza which I couldn't eat, but she remembered that her science teacher taught them ham radio. She sounded delighted when I found him on QRZ, KC2JJ, silent key.

Our friend Becky helped me the whole time. Meg and Becky with a few others have what they call a science band named Mystery Lab Bag. At some point they bought the straight key, but didn't know what to do with it. This explains how I ended up with it.

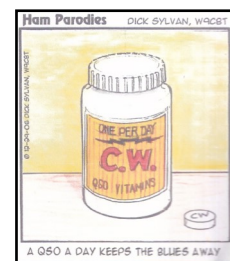
Later Meg sent me more information about the key. She identified it as an MFJ-553 Deluxe wood base Telegraph Key. It makes a fine portable key. I just need to get an adapter to make it fully connect to the Elecraft KX3, which requires a stereo plug. For now I can put it half way in, but I prefer firm connections.

I told Meg that the Straight Key Century Club would have their Weekend Sprint, and that I intended to use her key. I headed up to the roof deck on Saturday to do just that. I decided to try my Buddistick with a shorter length of coax. It tuned to an SWR of 1.6:1, but I didn't make any contacts. I came down for dinner and came back up. I tried again and this time it would not tune at all. I felt annoyed and switched to my trusty AX1. I made 3 QSOs and had a great evening.

I went back up on Sunday and decided to use my AX1. I made two more QSOs, including Randy, KB4QQJ. He made me a cable for my KX3, so I like to work him when I hear him. To my delight he gave me a 579, and I had the AX1 resting against my canteen's plastic cap. I still need to find something for the wind.

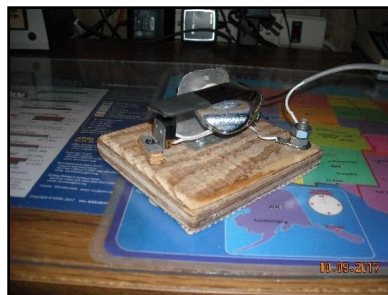
I came down for a snack, and when I returned my trusty AX1 would not tune. I appeared to have the same problem I had on the previous day with a different antenna. I could not figure it out and decided to call it a night. Clearly I have some testing to do.

In all I made five fun QSOs with my new straight key. It performed as expected, and it survived its first trip up to the roof deck. Thanks Meg! Imagination becomes reality.



Slow Speed Saunter July 2020

Slow Speed Saunter



A nice Saunter, it's refreshing to slow-speed CW! Bands were pretty good here in WNY. Rig: IC-7000 at 100w. into a G5RV up 25 ft. w/ a home key I made from an old Toilet Flush Handle! Check out my pic. 73. Tom KA2KGP



I had fun running my G90 QRP for this SSS. I never realized how dusty it had gotten until I looked at the picture! Thanks, all who dug out my signal. 73, Steve KC5F



40 was the place to saunter. The QRN was a killer. All qso's at 5watts thanks to all that dug me out of the static. Cu all next month. 72/73 de AL N4ow.



Glad to see lots of activity this month. Get on the air, and stay away from that dangerous virus! 73, Rich W4RQ



Slow and easy. Was a lot of fun. 73, Al NE9EE



TU FER QSOs. 73, Bobby KN4UCN

Bands were real quiet here during the day. They pickup great at night, but then the clock rolled over to tomorrow. Have a great July 4th week and weekend. Be safe, bring back all your fingers. We don't want to say "Nice Fist" and you take it literally. Wait, why do we say "nice fist" when we use our fingers? Our Sun Dial says it's time to call CQ. 73, Bud WB8SDA



I WILL NOT SPEND MY STIMULUS CHECK ON RADIOS AND ANTENNAS
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WES

SKS & SKSE

SSS



Making CW QSOs is the Best Form of Practice Still Today

by Howard Bernstein, WB2UZE

Making CW QSOs is the Best Form of Practice Still Today and Was so for a Young Ham Back in the 1960s



I was thinking the other day about all the first QSOs our Long Island CW Club members (longislandcwclub.org) have made over the past 2 years and how exciting an experience that has been. I was then reflecting on my first QSOs of 54 years ago and what I remember them being like and how I made the transition from practice to QSO. So for those who want to read my story here it goes:

Back in the '60s there were no cell phones, computers and most houses had one landline and one TV. No way would your parents allow you to tie up the phone to talk long to friends or monopolize the TV. So ham radio back in the day was a great outlet for youth that wanted to communicate. In mid 1965 I studied CW using a 78 LP record which I still have and the outcome was memorizing it. I remember on day 30 saying to my Dad, who was a radio operator on a WW2 B17, that I only memorized that record and was never going to be able to really learn the Code. Well, on day 31, I had my epiphany and everything clicked and there was no turning back.

So once I got my Novice License in November 1965, I jumped on the air with hundreds of other teens on Long Island NY and started making QSOs at 5-7 wpm. There was no further training with the record or other means....just taking the QSO plunge. I don't remember if I was scared or nervous but the strong desire to communicate got me in gear. I did have some practice making QSOs before being licensed with the son and father team who gave me my Novice test, so I would not say I jumped in cold.

I am a saver of all things and I have all my paper logs to date. I know how to computer log but I like the retro way of paper logs and still use paper today. In looking over my first log entries from November and December of 1965, it's interesting to note that I mentioned a number of times 'difficult to copy due to QRM' in November but later on in December that comment was infrequent. So there you can see my learning improvement curve through trial and error of operating. In looking further at the logs, I went on the air every day after being licensed with the exception of a 10 day layoff, which was caused by not knowing how to tune my transmitter and burning up the grid bias resistor of the final 6146 tube. Not knowing how to solder, my cousin who was a TV repairman, replaced the resistor and I thought he was god! We took the rig back to Lafayette Radio where we bought it and a ham there should me how to load a PI network and dip the plate etc. A lesson well learned which I need to know still today with my boat anchor station.

My first rig was the very Heathkit DX60 still in my shack, and a Hallicrafters SX110 I never liked because it drifted and was inaccurate. My 40m dipole was made out of the wire we stripped from TV 500 ohm twin lead because at 13 years old we did not know antenna wire could have insulation on it. It took painstaking hours to strip that wire and being stranded was a further nightmare. The antenna went up 8 feet above ground and worked. A few months later we replaced it with solid wire which was a 'miracle' to use.

Back in the day, there was a lot of QRM as we Novices were stuck on crystals without VFO privileges so a Novice frequency was akin to a telephone 'party line' of yore. In my log entries the crystal frequency called on, and in a couple of cases the received reply came on a different frequency, so we were working 'split' already! All of this training to listen through QRM with vintage boat anchor gear that had no filters/selectivity, caused us to be able to copy by tuning out the other stations mentally, which was good training for eventual head copy. Hence today many of my fellow Long Island CW Club members are surprised when I still prefer listen to a receiver wide open rather than hear that 'tunnel sound' of a 500HZ filter.

So when was my first European contact? It was 7 months later in 1966. I still remember what my contact's QSL card looked like and I just found it in my old shoe box of cards: G3OSJ, Lionel must be in his 80s or 90s as he is still listed in QRZ yet not active and with no email. I will write him a letter soon and hope he is still healthy enough to respond...stay tuned. For this QSO, I do remember being nervous and so excited to make my first European contact. An experience that has left indelible and fond memories.

EPILOGUE:

As you can see back in the day we jumped into QSOing right away. It seems to me that some CW students today might be losing sight of the fact that the end game of learning CW is not to initially master speed, head copy or to be able to decode calls signs at fast speeds. That will all come in time. **The end game is to get on the air and for that you do not have to be perfect.** All that is needed is to get the other station's call sign correct and be able to send correctly your call sign and QSO protocol. Once you get the other station's call sign, you are home free and you can follow along in QRZ.com and double check the QTH and name. The only onus is to decode the RST.

So to all CW students, please just jump into making QSOs. There is no need to be nervous and fearful, which is a very common feeling among new ops, as we are not talking about 'life and death' matters here. Most experienced CW ops are very patient and understanding and the few that are not are not worth discussing. The more QSOs you will do, the faster the learning curve will become. There is just so far each of you can go practicing with APPS and websites. **Sometimes there is a practice saturation and leveling off and the answer is doing the end game: QSOing.**

Editor's comments.....There are of course many ways to learn and improve cw but after reviewing the Long Island Club cw course, I find it one of the very best. Here is what they highlight in their teaching:

- *Using a combination of the Koch and Farnsworth methods, we send the CW at 20 words per minute character speed but the spacing between letters is 5 words per minute.*
- *Beginner students are needing to practice 15-20 minutes daily using G4FON CW software and 4 letters and or numbers are taught per week.*
- *Sending skills are honed on a weekly basis.*
- *QSO skills are taught live on the air, simultaneously assisted by internet video conference, as soon as a student can send their call sign and 599.*
- *Head Copy is taught along the way and a special class teaching head copy for QSOs is available once per week.*

This is a very sound approach to learning/improving cw skills. **De K8AQM/VE9AQM**

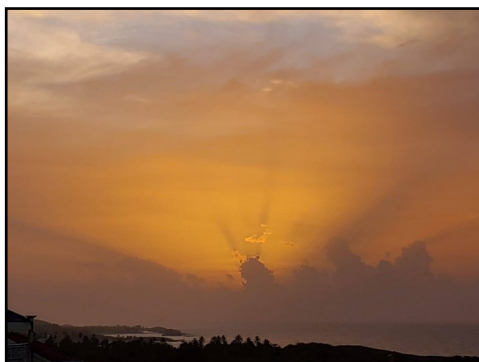
THE JOB IS YOURS!

Mike W8RF

Back when the telegraph was the fastest method of long-distance communication, a young man applied for a job as a Morse Code operator. Answering an ad in the newspaper, he went to the office address that was listed. When he arrived, he entered a large, busy office filled with noise and clatter, including the sound of the telegraph in the background. A sign on the receptionist's counter instructed job applicants to fill out a form and wait until they were summoned to enter the inner office.

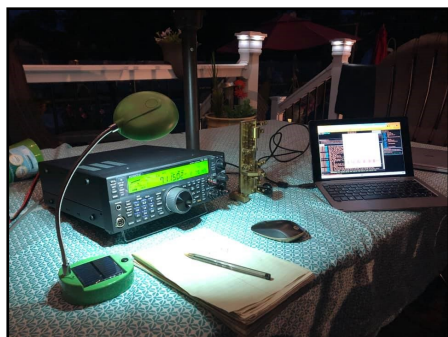
The young man filled out his form and sat down with the seven other applicants in the waiting area. After a few minutes, the young man stood up, crossed the room to the door of the inner office, and walked right in. Naturally the other applicants perked up, wondering what was going on. They muttered among themselves that they hadn't heard any summons yet.

They assumed that the young man who went into the office made a mistake and would be disqualified. Within a few minutes, however, the employer escorted the young man out of the office and said to the other applicants, "Gentlemen, thank you very much for coming, but the job has just been filled." The other applicants began grumbling to each other, and one spoke up saying, "Wait a minute, I don't understand. He was the last to come in, and we never even got a chance to be interviewed. Yet he got the job. That's not fair!" The employer said, "I'm sorry, but the last several minutes while you've been sitting here, the telegraph has been ticking out the following message in Morse Code: 'If you understand this message, then come right in. The job is yours.'" None of you heard it or understood it. This young man did. The job is his.

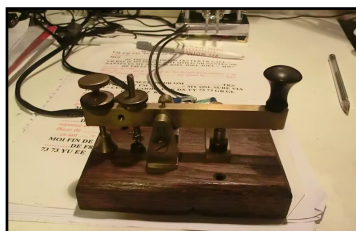


Just wanted to show what a Sahara Dust sunset looks like at KP4 land.....

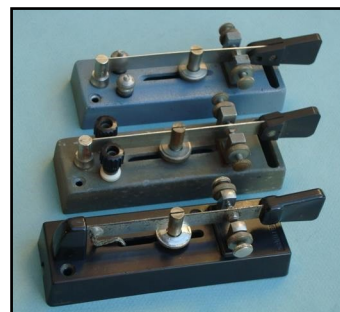
73, Fernando KP4DX



Hammin' it up, back deck...Everything on batteries! 73, Dave KD2E



Father's key hidden in a barrel before a control during the WW2 found 50 years later by **F8EZZ JO SKCC15300C** and brother Pierrick F5JGW good condition.



In the picture, the 3 Maniflex side swipers.73, Christian F9WT



Temporary solution until I find a decent base for the MANIFLEX cootie. 73, ON4KNP
Pat



Just getting the station back together and this arrived in the post today... a heartfelt KUDOS to KN4YB.com for producing such a fine work of art. I look forward to this coming years CW work. 73, Edgar NS5N



I'm wringing out my portable station, playing with antennas in the back yard. Lookie what came on the big brown truck from the guys at HRO. Had to resurrect my old ASTRON to run the rig until I get a battery. Oh yeah, SKCC content: I worked W9GHX on 20m, my second contact on this new rig. And the first time I could share my brand spankin' new SKCC number. 73, KD1JT Dennis



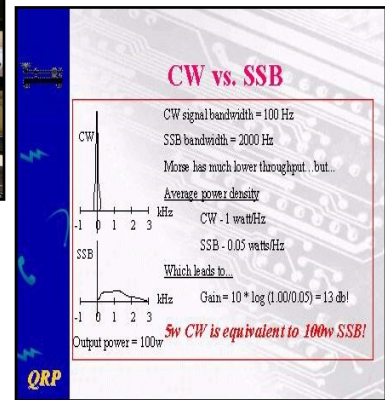
This arrived this morning. Can't wait to try it out later today. Absolutely beautiful key. 73, Bill W9SA



New place at ARS N1MHV to post QSL cards. 73, Bob N1MHV



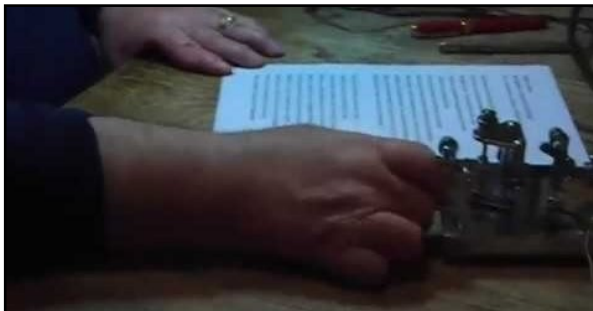
Hello dear ham friends! I worked a first few contacts on cw, after many years of working on ssb etc. It's absolutely fantastic! I wonder if anyone recognise the Key I'm using. I get it for a gift and I'm planning to polish it these days. It's like a J-38, but there is no sign on it, except tel and line signs. Thank you for accepting me. Lionel J-38 polished. My first 10 qso's on cw! 73, S52OW Tilen



Check Your CW Sending

When Morse decoders came out, I used one to detect the deficiencies in my Vibroplex semiautomatic key sending. I could now be sure I was actually sending NN MA instead of CQ. So I watched the screen while I sent, it really helped me. I'm probably going to embarrass myself but have to automation read this: <https://youtu.be/r8JXr3I2ycQ> Turn on English captions as I added them a few days ago.

To turn on the CAPTIONS use the menu in the upper right (click and three vertical dots will appear which you also need to click to get to the menu.) When you see the drop down box, you must select English-United States. Usually the captions will NOT start, so do this: Click the video time bar at the middle, all of a sudden the captions start. Now click back to the beginning and start the video from the beginning. You will now see: KUBLA KHAN BY SAMUEL TAYLOR COLERIDGE OR A VISION IN A DREAM. A FRAGMENT. = IN XANADU DID KUBLA KHAN A STATELY PLEASURE-



DOME DECREE (&c) complete with punctuation sent in Morse. Since there is no exclamation point in International Morse currently, where a ! is used in poem, I substituted "EXCLAIM" for that symbol as ITU Handbook for Sending and Reception on Morse by aural (ear) means (sounder or tone) (Appendix B,) Enjoy!

73
DR
N1EA

HF Mobile CW (SKCC) with N8KR

While there is much information on mobile HF operating on the ham bands, each individual situation, operator preferences, and purpose offers a variety of challenges and requires some research and on-the-air trials. My past mobile experiences were trailing a wire from a



Piper Cherokee loading it on 40 and 75 meters. That not only required extra grounding (an airplane??) and adding ferrite chokes to keep RF out of the plane, it also presented challenges with mounting a radio and tuner and finding the right remote head that kept cables at a minimum for less clutter in a tight cockpit.

With normal daytime turbulence,

CW operation was hardly considered. Moving to auto mobile operating, life got a bit easier and CW became a reality!

Having past experience with Hamstick antennas operating in state qso parties, I decided to go in that direction and found a

vast array of Hamsticks for various bands at local hamfests. (These can sell used for \$5-10 each.) Mounting of the antenna became the next obstacle. I tried the 3 magnet mount but I found changing Hamsticks on top of my Ford Edge a bit difficult. I had a couple of trunk lip-mounts and with a little bending got it attached



to the back hatch. To assure a good ground to the chassis, I ran a small braided copper wire from the mount to a tailgate hinge bolt, making sure I removed paint under the bolt to assure a true ground. Checking ground continuity with a meter verified a good ground. With a good antenna mount and antenna, it was time to find the right radio.

I have experimented with most every mobile radio as aeronautical mobile, I knew what

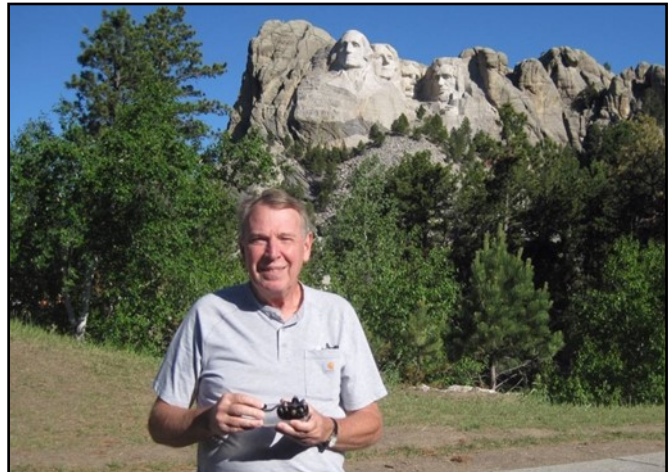


was available for mobile use. I wanted the radio and tuner to be in the back of the vehicle with the control head in the front seat. Most mobile radios will require separate control lines for headphones, microphone, cw key, and main radio control all running to the back of the vehicle! With a little bit of research, I discovered the Icom

7100. With a simple CAT 6 cable, the head connects to the main unit in the back and headphones and CW key plug directly in the head! Wow, this was perfect! Mounted on a *coffee cup holder* mount, I have full control. The main radio is now in the back along with an added LDG AT-100 auto tuner, all grounded to a chassis bolt. A simple push of a button on the control head activates the tuner, if needed!

So, go SKCC mobile! That's exactly what I did during my 10 day trip from Indiana through Wisconsin, Minnesota, to South Dakota, Wyoming, and back home through Nebraska, Iowa and Illinois. When Debbie drove, I operated solo and when I drove, Deb would log for me. It was a good change and time passer during our long drives. June SKS found me in Deadwood, SD. Randy, N8KQ, our membership chairman changed my location in the SKCC database so during the SKS, the AC2C logger had me in the right spot. Hoping to capitalize on 20 meters, I found a location on Mount Moriah (Boot Hill) where Wild Bill Hickok is buried. Only making a couple of 20 meter contacts to the west, I switched to 40 meters and waited for the band to open (Mountain Time Zone).

With an hour to go, I was making contacts on 40 meters. It was fun contacting familiar calls, especially with members from my home city. The drive home added several more contacts from Wyoming and Nebraska. By the time I hit Illinois, it was Field Day and I switched over to N1MM and began making FD contacts. So much fun! I use a little Acer notebook running Windows 7 for logging. I can get 8 plus hours of operating on its battery! Naturally, I use AC2C's logging program and update membership daily. I also bring along a few ground wires cut for 20 and 40 meters. If I sit at one place and operate, I clip on a couple of wires and extend them out from the back of the vehicle. They do make a difference. When the Hamsticks are not in use, I have a plastic cap that keeps water out of the mount. Finally, there are no 80 meter Hamsticks....they are all 75 meter! They will not tune down to 3.550. If you add about two feet of copper wire at the base of the resonator whip (the "stinger") at right angle, it will load perfectly!



FD Key



Rumor has it this key was found in the deep woods near the Oregon and Washington state boarder shortly after Field Day 2020. Experts say the key was in good shape so hadn't been there long. Officials are puzzled as to who (what?) could have left this very large J-38 key deep in the woods! Any thoughts or information on the mysterious operator was should be directed to the CIA.

Introduction to the CW Academy

Joe Fischer, AA8TA, SKCC 13604

The CW Operators' Club (CWops) came into being in January 2010 and shares a few interests with SKCC: both groups are dedicated to keeping CW alive on the airwaves and both offer a variety of on-air activities to encourage members to contact other ops. CWops differs from SKCC in that new members must be nominated and sponsored to gain admission and it has a 25 WPM skill threshold.

Shortly after its founding, some people said that they would like to belong to CWops but the 25 WPM threshold was beyond their current abilities. A few of the founders said: "No problem. We'll train you." Thus was born the CW Academy.

One might note that 2010 was a few years after the FCC (in the United States) eliminated the Morse code element from the requirements to obtain an amateur radio license. It was not too long before a steady stream of people was inquiring about not just improving their CW skills but learning Morse code starting from scratch. Since then, these beginner learners have always been the predominate group of students.

The CW Academy emphasizes one key goal throughout its program: the ability to hear each character as a distinct, unique sound, not a composite group of sounds (dits and dahs). The use of pencils, code charts, mnemonics and other tricks are discouraged, in fact students are frequently asked to practice with their eyes closed. By learning to quickly recognize characters, students can transition to hearing words as sounds and even phrases as sounds.

The CW Academy now has four levels. The beginner class is designed for people who do not know Morse code or may have known it in the past but have forgotten most of it. Exercises are designed to help the student become comfortable with approximately 40 characters, begin the process of head-copying and to learn basic CW QSO structures.

Many students continue on to the basic level which is designed to help students gain expertise with "instant character recognition (ICR)." This is the ability to not think about what one heard but to immediately react to what the ears heard using one's subconscious mind.

The next level is the intermediate level where students work on hearing multi-character combinations, such as state or province abbreviations, and short words as sounds. Students practice with retaining short phrases and sentences in this class.

Next is the advanced class where code speed is increased and more emphasis is placed on longer exchanges, higher-speed contesting, copy from behind skills and other advanced topics.

Classes are offered three times a year, in January-February, April-May and September-October. Each class last for 8 weeks and meets twice a week for about an hour using a video conferencing program, which currently is usually Zoom. Each class typically has five or six students and one advisor. Each class has a curriculum that contains exercises that student does on her/his own. During class sessions, the advisor reviews what the students went over in their most recent practice sessions, leads exercises to help emphasize certain points, helps students work through any problem areas they may have, tries to keep everybody moving forward and answers questions students may have.

There are a few important things to keep in mind for being in a class. Character speeds of 20 WPM or higher are used in order to reduce the temptation to count. The use a paddle and keyer is required in order to help form characters with minimal effort. Students are encouraged to practice for 45 to 60 minutes every day to help form new connections in their minds. Students are encouraged to relax and have fun – since Morse code is not required to get an amateur radio license in most of the world, there is no need to stress out about it.

There have been CW Academy classes for over five years and over 6,000 students have taken a class. There are many reasons why people take a class: perhaps they heard about somebody who took one, perhaps they want to operate from a park or a campground and need a simple setup, perhaps they want to build a simple QRP transceiver and CW is the only mode it will do, perhaps they want to join in contesting fun, perhaps it just something that sounds interesting and fun.

Some people go through the CW Academy and become members of CWops and become advisors themselves. Even if they do not, if we can instill in them a bit about how CW can be fun, it is well worth it. We want CW to be fun for everybody and we want to help anybody who is interested to give a class a try.

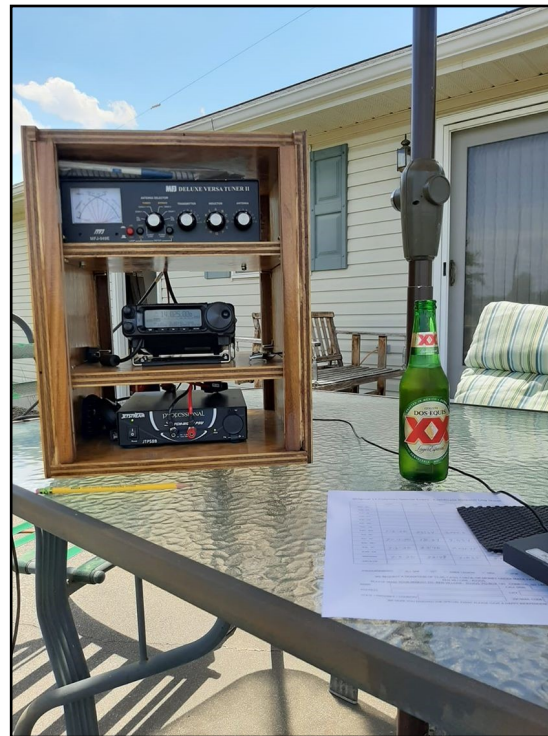
How to get started? Simple, go to <https://cwops.org/cw-academy/cw-academy-options/> and read through the information, then please sign up. Remember, there is no charge to take a class.

Joe Fischer
AA8TA
CW Academy co-manager

Summer Operations



A little QRP CW from the boat this weekend!! 73, Andy AC8SV



Working some 13 colonies and enjoying the breeze (and beer!). 73, Tony KD8BBK/patio

July WES 2020



I was looking forward to giving out my 13 colony bonus points this weekend but mother nature had other plans. The heavy rain and strong winds took out my antennas but at least I can get 100 bonus points for my comment and picture. 73, Frank AA2XB



Limited time operation on Sunday last hours. Bands were acting weird. I had a contact with MD in 20m, from NY, that something unusual. I went to look at the online Space Weather chart and I didn't see anything unusual, but may as well not reading it right, hi hi. Maybe is the comet :) Anyways, few contacts but lots of fun. Because of the weird propagation I made contacts with new stations I hadn't before, and that is great in itself, and good for the Senator :) 73, AC2RJ Ruben



It was a fun experience to work 10 & 15 meters as well as my usual 40 and 20 meters. QSB was a bit extreme at times, but that isn't to unnatural. I was happy to work the SKCC station on two bands and one colony station. 50% of my stations were CA which isn't big DX from OR. 73, Herb AA7XP



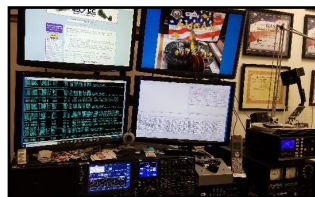
This Was a busy weekend! Saturday the IARU contest and Sunday SKCC. It's a wonder I don't have a cramp in my CW hand. To relieve the stress I went for a ride in my mobile and used one of those new-fangled HTs which you actually talk into and people talk back! 73, Jim AD0AB



Had a lot of fun operating portable. Tnx to all who worked me. My station is shown but what you can't see is the new Little Tarheel HP. It worked pretty well and carried my sig all the way to France. Thanks Bob, F6EJN for making me feel good about my new antenna! 73, Brad AI6DS



Conditions were very poor at times. I almost gave up Sunday afternoon around 3PM local time, but I'm glad I didn't. Worked 90 QSOs the last 5 hours of contest. 20M finally opened up and I worked 5 new SPCs during the last 40 minutes of the contest. The 20M loop I put up early this spring has really paid off. Not much propagation into Europe on 20M. Only worked F6HKA on 20m, and he was much weaker than usual. I worked "DC" for the first time, I didn't even know it was an SPC until I looked it up. I think some of the guys have calculated the bonus points incorrectly. If I am correct, one can only have a maximum off 65 points per band for bonus points. Just sayin'. Photo shows my 20M loop mounted on 10 footbank. Thanks or all the QSOs! 73, Bob AC1GF



Enjoyed the 'chase'. I am recovering from a short hospital stay - all's well - (so no ham gear for you buzzards... yet! lol!) but being tired, I couldn't stay onboard as much as I would have liked.. I did okay for the short times I was able to play. I've enclosed a pic of ham station - with me NOT in it - didn't want to scare ya! 73, Larry AH6AX



I had fun at the contest. Thanks for the QSO's 73, Billy AB4RH



Only had a few minutes to play this month, but I got enough contacts for Centurion, so it was well worth it. Operating mobile from a Walmart Parking lot in Pullman, WA. 73, Cliff AG7CC



Limited time but had fun. TenTec Argonaut V at 5 Watts and Small Wonder Labs DSW 40 at 3 Watts. Got most of my QSOs thru S with that little blue rig. 72, Peter AK3X

July WES 2020 II



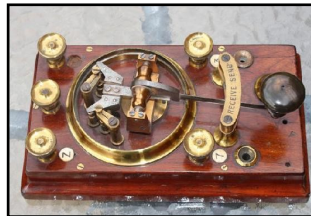
WES more difficult than usual, IARU contest and bad spread on Sunday afternoon (morning for the USA). Weak signals and significant noise on the 40m and 20m. Thank you all for the QSOs with new T or S numbers. In the photo, the assembly of the Cushcraft XM 240 with the nacelle 50 feet from the ground. 73, Bob F6EJN



Bands up and down. Thought 80 in the evening would bring in some colony states that are CT neighbors, but it was dead dead dead. Had a good time, as usual, and looking forward to the next one. 73, Lee KLEE



Saturday was a bust. Bad conditions and a contest on 20 meters. On Sunday 20 meters was great and accounted for most of my score. Rig was an Icom 7300 and a G5RV up 60 feet. I used both a Lightning Bug and a HiMound HK-706 strait key. 73, Bob K3CKO



No DX worked or even heard this WES, and seems that the UK is in a blind spot to North America lately. Still - got to use a Morse key or two and my Kenwood TS-440s is performing well (fingers crossed)! 73, John / G0RDO



Very spotty band conditions here. Changed QRPp plans to QRP after a look around. 40m was the workhorse with a few 20m contacts. 73, Gary
K1YAN



I only spent a few hours in WES, but again had a lot of fun. 73, Linda K9UOV

July WES 2020 III



I spent my radio time on Saturday in the IARU contest, and went to 40 to try the WES at 1200 Sunday morning. One QSO and slow, tried 20 and it was slow, so did some work on the 6 meter beam to replace the one that did not survive a 90 foot fall back on June 3. Tower replacement going OK, will be another month or more before close to what I had. All but one QSO on 20 this month. 73, Chas K3WW



Trying to finish up the Club Call TKA with the Straight Key.. Bands were up es down here. Saturday had a few storms es shut down fer awhile. Thanks Everyone



Worked 4 1/2 hours on Saturday, all on the same 40m freq. 100qs. WAS A LOT OF FUN. 73, Al K9FW



Operated 40,20 and 15 meters. TS530 to a 4BTV. Good activity on 40 and 20 meters. 73, Daryl K9QEW



A fairly relaxed WES this month. Happy to have my 7610 back, although the G90 has been fun, including for POTA activation. The picture shows a couple of callsign things my creative daughter made for me for Father's Day too. 73, Scott KC5F



Thanks to everyone that was able to decrypt my first WES cootie experience. Used the homebrew QRP rig with the RAF Type 51 key part time as a break from the cootie as it was set up for the QRP/CI Homebrew Summer event. Big fun. 73, Scott ka9p



"Sam". 73, Virginia KC5SAM



I had a severe injury to my right hand in January. I have always used just a very simple straight key. Now with the injury it is difficult and very painful to use. I made the "cootie" in the picture from a design by K4IGY called Depot cootie key. Trying to learn to use it and I do make mistakes but getting better. I put my straight key on the same board so if I get too fouled up with the cootie I can get straightened out with the straight key. Also I have a real hard time writing so I rely heavily on the QSO notes feature in the SKCC Logger so thanks for that. 73, Randy KA8MNP



Thanks everyone! I had a great time using my Flex6400 and Spark key. Hope to do better next month. 73, Lloyd KD0I



This was my second WES since moving from TN to CO. I was able to spend some quality time this time plus I had a little better antenna (40m dipole). I was able to make my dipole work on 20m using a tuner. No luck getting it to work on 80m. I'm surprised at how dead 40m is here during the day. Back in TN, 40m was hopping 24x7. Of course, the issue here might be my lousy antenna. I was really happy to work some of my friends that I worked all the time when I lived "back East". Especially Brian N4API, Mark WB9HFK, Ken N8KR, Phil K3EW, and Jim AD0AB. The rig this month was my Heathkit SB-101 with a Navy flameproof key. 73, Steve KE4OH

July WES 2020 IV



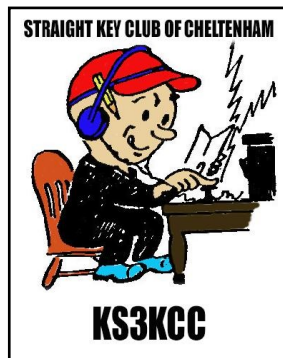
Bands were not good on Saturday and seemed to get worse Sunday morning. They were a lot better Sunday afternoon. Picture shows home made weight on Vis Vertical to slow it down. Makes it a little fragile but helps me get where I want if for WES. 73, Brian KF6C



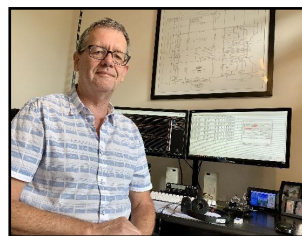
Auburn, Indiana Hamfest Saturday (picture at the Auburn Cord Duesenberg Museum) and limited time on Sunday. Still managed working a couple of new members along with many of the regular gang! 73, Ken N8KR



Tough weekend with the contest on Saturday and bad band conditions on Sunday. But still an enjoyable WES as always. Better than being outside with a heat index of 110 degrees! 73, Randal KG5IEE



Tnx everyone for working the Club Station this weekend. Had a lot of fun. C U in the next WES. Everybody be safe and wear your MASK!!!! 73, DAH KS3KCC



Only a few hours logged this contest. 10m did not really open. Interesting condx on 40m and 20m with both bands showing deep slow QSB. Ten Tec ArgoVI driving a HB amp at 50W into an 80m Inverted Vee doublet up 35ft. Thanks to all stations. 73, Dick N4HAY



Thanks to those few I had time to work. The 13 Colonies is always a favorite of mine. Hopefully next time I can spend a little more time on the key. 73, Russ KK4WX



Rough conditions, but I had FUN.TA33 - 50W - Homemade DSK + 1914 Swedish SK Firma L.M. Ericsson Typ TA 610.TU Everyone for the QSOs. Take care & Stay safe. BCNU 73, Walt LW3EX- ... ZUT!



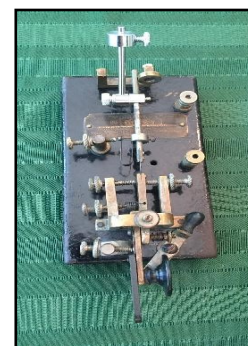
Worst conditions in several months. Daylight hours were very rough down here in the swamps. Sunset woke the bands up. Good fun as always. Great to work Carlos CT1BQH and F6HKA. 73, Al N4ow



I enjoyed working different bands as my focus this month. Needed 1.8 and 50 but got the rest that were allowed. It was a nice weekend between thundershowers. 73, PaulKN4NVU



Thanks to all for the QSOs! Tough condx at times, but lots of fun. 73, Ed N4EWF

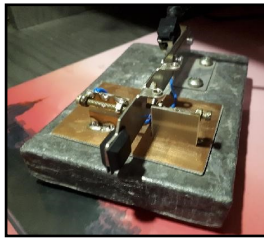


First WES with the 1919 Blue Racer, suitably tamed! 73, Chuck NI0C

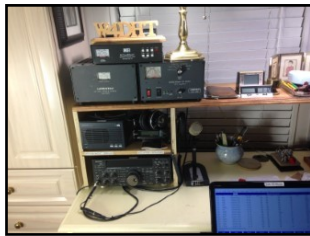
July WES 2020 V



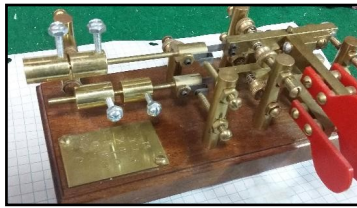
A casual effort on my part. But I enjoyed the time I did spend. And I got a few new numbers on my way toward Tx5. I only need 28 more for Tx5. 73, Ken N9KJU



Didn't have much time for WES, but F5DE made my day, working him on 3 bands! Still using my new cootie key ... still need 99 for TKA. 73, Luc ON7DQ



I always enjoy the WES (as well as SKSE and SKS). Even with family here I was able to work in several hours of fun. 73, Drex W4DHT



G5rv hb1b 5 wts.. nice time.. happy for more new mbrs.. this year is half gone..tnx agn to board mbrs.. only was on 40 and 20mtrs..every qso and letters I have is written in my notebook... no p/c hr. I'm still in 1971 logging..ha.. for qrp it is nice to see ur cqng on RBN.. so , now I only have 60 keys to make QRM.. haha.. a new one in progress on lathe and mill.. ha chips for the floor. 73, Dave N9ZXL



40 meters was by far my "go to" band. Nice but short openings Sunday afternoon on 10-15 meters. Seemed like fair amount of activity despite mediocre conditions - the first half was brutal with all the IARU contesting. Good showing! 73, Dave W1DV



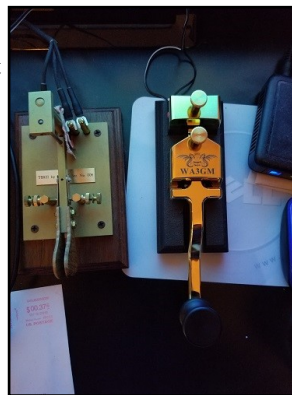
73, Pete WH6LE



Operated a couple of hours Sunday, QRP. Thanks to those who pulled me out of the noise. KX3/PX3 and W1SFR's Green Monster Torsion Bar side-swiper. 73, Dave



Good fun, especially on 40 on Saturday. 73,



Great WES Weekend probably my best so far.. Had to split time between my call and KS3KCC but lots of fun for both .Everyone be safe and wear YOUR MASK!!! 73, GREG WA3GM DAH/ KS3KCC



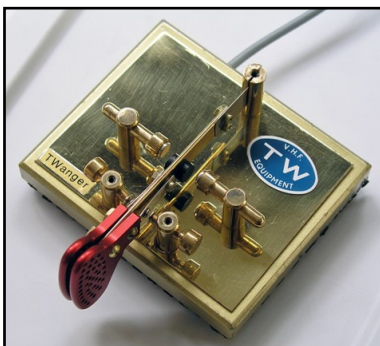
Used my latest boat anchor acquisition - a Kenwood TS-530S. The old gal worked well and with the CW filter was pretty darn selective for her age. Worked 40 and 20 meters using an OCF dipole at 30' and a 2 element quad at 20' along with my J-38 key. 73, Bill NZ0T



Note to self: When you finish the time machine, go back to 1970 and change your wedding date so the 50th anniversary won't fall on the July 2020 WES! Anyway... Despite the anniversary, the IARU contest and lousy conditions, it all worked out OK. Prop to the U.S. west coast and EU was definitely down. Never found a usable signal from the U.K., or any signal from DE, so no sweep. Participation level was definitely off, but it was nice to find new folks. 73, John W1TAG



July WES 2020 VI



Condx were less than stellar!then there was that big contest and a high QRN level (storms all around) most of the week-end....but all in all it was still a good event with a lot of activity. Used my Twanger sideswiper for all contacts this time. Rig: K3 line at 500w to 160m horizontal loop at 50'. My KT-34A yagi has finally bit the dust after many years (35+), so the big wire loop in the sky is my only antenna until (or even if) I replace the beam. Missed DE and UK for the colony hunt but France was well represented on 20 and 40. 73, Dave WS3NP de West Virginia



I started WES Sunday morning - i fiddled with IARU but had a busy social weekend so time was limited. I snuck away and operated WES when I could - I had a great time! I didnt think conditions were that great - lots of QSB on the bands. Had fun, nonetheless! 73, RJ WF4W



My first time using a bug. Thanks for the patience with all of the mistakes and extra dits! 73, Jack W9YY



Active on 7055 and 7053. Do not see anywhere to enter my log. This is my first WES. I like it. I think that I will use my QCX40 next time for five watts category. Also want to raise the antenna a bit. I operated for about 35 minutes and was getting calls right and left. Sometimes two or three stations at the same time. Is that a pile-up? The photo is me with my "modified" ARRL 2020 Handbook. If you can modify a rig, then you can modify a book. I bought this year's handbook because I had heard that ARRL had broken it up into six mini handbooks. The big handbook was just too heavy to hold and read. So I ordered one, expecting it to come in six volumes. To my surprise, it was still one big hunkin Manhattan phone book. So I modified it by taking a knife to it and slicing it into eight volumes. I applied a cover to each, and photocopied the handbook cover page and glued it to each volume. The big fur ball is my cat "Simba", a rescue as a kitten. Turned into being the best cat in the world. Loves to get on the table and lay on anything that is in front of me. 73, Joe W3TTT



I believe this is my personal best WES (without the 13 Colony Bonuses). Oh, worked 12 colonies, missing DE. Worked FRA but never hear UK. Great signal reports on QRP into FRA & BEL. Where are all the first timers and Centurions? I got to work DAH-KS3KCC, for the first time in forever. You have a great fist, DAH. The Hustler 5BTV pic is the point of exit and entry of my signal from me to you and back. 73, Bud WB8SDA



Had a great time regardless of being only on 40-meters, IARU contest QRM, direct conversion receiver, and meager 2-watts of RF to 60' of magnet wire. Even scored a 2xQRP contact with N2PPI! Great way to beat the July heat. 73, Jeff WN1MB

Confessions of a Casual Contester

De David VE4DL, #16477

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 like to participate in contests from time to time. I'll do an hour here or there, or an evening's effort. I like to go out to WARC's Field Days events in January and June. There is a certain thrill to catching the ear of some highly-sought entity that I've never heard before. It's akin to luring that cagey trout from under the root or stalking an experienced buck to a fateful meeting.

Part of the motivation for being 'just casual' was my previous 3 iterations of shack were not ideal. Not even close. Noisy. Noise, noise, noise. Who can listen to all that hiss and hash for hours, straining a dB-worth of signal from 30 dB of complete trash? An hour of that, maybe, I could stand.

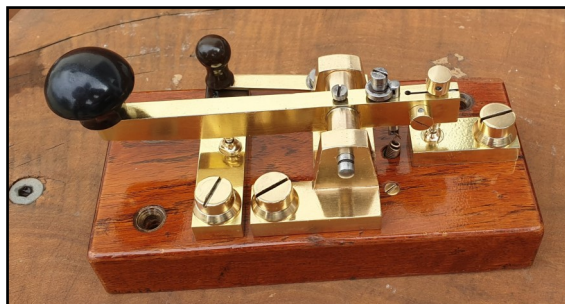
I'm still an inner-city ham, but I have a much better shack now. The Kenwood TS-590S is a very capable transceiver with good filtering and shaping. The GAP Titan is an okay multi-band antenna, just barely high enough up for DX. I can hear better, and I can get out well enough to be worth the effort now. Good headphones are still a must as speakers don't cut it at all. Now I can sit for 6 hours and work who I can, without ear-bleeds or hoarseness.

I began with phone contest-indeed, not a real contest at all, but the ARRL School Round-Up week. It's a no-stress introduction to basic contest skills, with some fun and a little education tossed in for spice. I try for it every year, but missed this spring's edition. I stayed away from those crowded weekends of rude rowdies muscling in all over the bands.

Then, curiosity led me to the Den of Iniquity known as the "QSO Party" - another casual hunt for as many stations from the "target zone" as you can, but no desperation apparent. These are fun, and I encourage new hams to try them out. It's NOT a 'gateway contest', you can certainly stop any time you like. I think... I'm sure, ...really! The only downside is there may be several QSO Parties on the same weekend, and trying to sort out only the one you believe you're in can sometimes be an effort. This is where a paper log shines - you can work as many different Parties as you like, and sort 'em out later. Software requires you to log only ONE contest at a time.

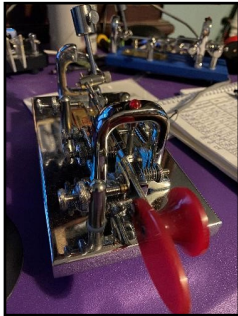
I spent about 5 years in this phase of hamdom, before the new shack let me step up my game. I enjoyed it, but I could shrug and walk away if something else caught my attention that day.

Beautiful Key Restoration...Help!



Hi Everyone. I'm after some info on the key I have recently cleaned up and restored. If anyone could give me some info as to the age, any history etc. From the little I have found about keys that look very similar to this, I believe it was used by the GPO. If anyone can help, it would be greatly appreciated. Cheers and 73, KerryVK7PAK

June Brag 2020



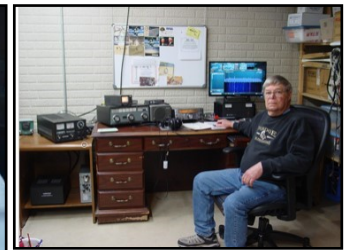
73, AC9HP Wayne



73, AH6AX Larry



Good month for me, but I had a callsign change during the month, so I really had to concentrate to make sure I wasn't sending my old callsign. Mostly used my Kenwood TS-590SG, 75w into a vertical. Good to see 10 meters coming back to



Had fun with my first Brag report. 73, Craig KA9ERV



See you next month! Thanks for the QSOs. 73, Dave KB1WOD



Busy month but still able to work a few. 73, Tom KB3CVO



Not a lot this month, but mostly done on my new G90. Quite a surprising little radio, and fun for portable operating. Only one outing so far, but I plan to do more! 73, Steve KC5F



Lots of fun, as always, to catch up with the regulars and find a few newer folks during the month for a brag. The warm-weather chores are really taking a toll on my time in the shack, but these days certainly nothing to complain about. Same old equipment as usual but have moved the dual-lever IIQOD bug to the gear hangar and gone back to my newer Vibroplex Deluxe Original as the go-to bug for the next few months. 73, Larry N1FG



Good month for brags. The SSS sure helps. Worked many new members. CW is here to stay. 73, AL N4ow 11375s



Propagation not very good this month, there were many days without contacts to the USA. Thanks for the QSOs and see you next month! 73, Jo PG4I



Thanks to all the august ops who braved wonky band conditions to contribute to June brags. Divided my play time between the shop and shack this month, so only logged 40 contacts, but I got to break in two new cooties I built this month in the process. 73, Arnie NA5ET

June Brag 2020 II



TEN things for June

1. Still not working, but worked outside all month and got a lot of projects completed. Definitely all that sun cut into my operating time, BUT IT DIDN'T STOP ME. July looks to be more of the same. Darn, HOWEVER, the yard does look pretty good.
2. Of the veterans I worked this month: Army 3, Navy 2, Air Force 1, Marine 1 and Coast Guard 1; thank you all for your service and thanks for working this modest station.
3. I worked an 83 year old who has been licensed longer than I've been around. My Age 67, he's been on the air 68 yrs. Thanks Don. No Excuses for turning off our rigs.
4. June 3 started my run for Senator. Worked 128 T's & S's thru June. 72 to go... But Who's Counting???
5. Met more wonderful men & women on the air, 41 states and 7 countries. I thought the bands were closed??? The longest run was to New Zealand, then also Canada, Belgium, France, Cuba, Germany & Porto Santo, Portugal (what a pretty island).
6. Had time for my first Field Day in many many years. Usually on vacation and out of town. Not this year. Good fun putting the Bug on the air for its first contest.
7. My "I survived the Covid-19 in 2020" QSL Cards are piling up. Great fun collecting all your cards.
8. Had the honor of being the first to work a couple stations that have been off the air over 35 & 40 years each. WELCOME BACK!!! Call me anytime.
9. Had the honor of working someone's first cw contact and maybe his first on HF. Welcome to Ham Radio. THIS IS THE BEST HOBBY, HANDS DOWN. (pun if you use a straight key) Call me anytime, even to just say hello.

and

10. All this With one week of awful conditions here in N.E Ohio.

73, Bud... Whiskey Bravo Eight Seriously Distanced Amateur



I didn't have a very high Brag count this month, but I still consider it to be a good month because I worked quite a bit of SKCC DX. I hope to participate in more SKCC activities in July. 73, Dan W2DLC



Had lots of fun using my 1938 McElroy Mac Deluxe bug that my Elmer Bob Rauhofer W2LCQ (SK) gave me in 1961! 73, Ed W2LCQ



Western Union 2A Legless

Had more time for brags this month -- fun, as always, made better by the many Es openings. 73, John W1TAG



The OST Morse Box

When I started SOTA in 2014, all my QSO's were HF SSB or 2m FM. Soon I discovered that I was missing out on half of the fun (and possibly S2S points !), and I decided to brush up on my CW skills.

What helped me a lot was the regular CW practice sessions in my local club, and **becoming a member of the SKCC in 2016.**

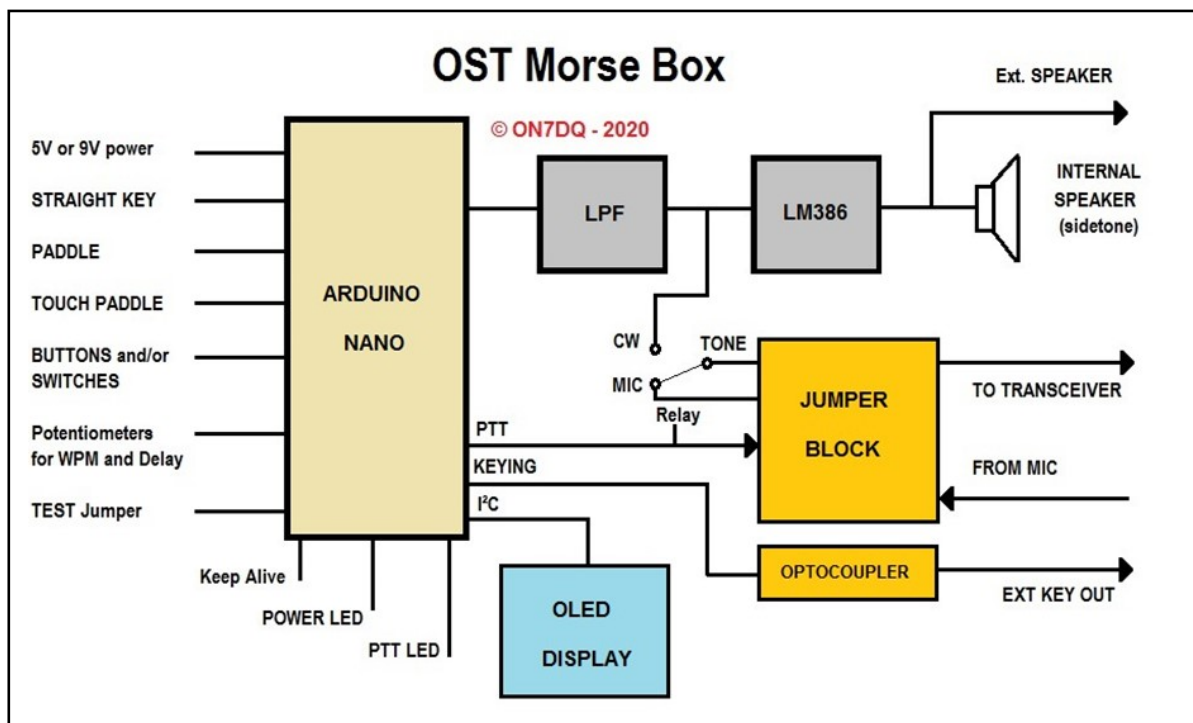
At present, about 50% of my QSO's are in CW, and again some 50% of those are using a straight key, bug or cootie.

My local club in Ostend, Belgium is the **OST** branch of the UBA (the Royal Belgian Amateur Radio Union).

We have a small group of people that hold a weekly CW practice session on the local club frequency in the 2m band.

Some years ago, I had the idea to build a **Morse Box**, to be able to have 'Tone CW' practice and QSO's on the 2m band, using FM mode. So I made a prototype in breadboard style, and it worked OK, but was not a project that others could easily copy. After a while, I had other projects on my mind, and forgot all about it ... Until this year !

While we were in full Covid-19 lockdown, it was time to do something useful. I called in some help from a fellow club member: **Gilbert, ONL12523**, who is a keen designer and programmer. After a lot of e-mails, we agreed on the basic concept, and this is what we fi-



nally came up with:

It's a versatile circuit that you can fit between the microphone and the microphone input of any transceiver. It was mainly designed for use with a VHF/UHF transceiver, but can be used for many other purposes. It's so much more than a mere Code Practice Oscillator.

By using an inexpensive **Arduino Nano** the following functions are available (it is a LONG list!):

- DDS Tone-Generator in software, for a **perfectly pure sine wave**
- Microphone is switched off while transmitting CW to avoid disturbing background noise
- Automatic activation of the transceiver PTT
- Adjustable DELAY for the PTT, from 0.5 ... 10 seconds
- Variable CW speed of 10 ... 35 words per minute (WPM)
- OLED display to read the set parameters and texts
- Keying with Straight Key, Paddle or a built-in Touch Paddle!
- Paddle polarity settable to NORMAL / REVERSE
- Built-in “Keep Alive” circuit for use with a Power Bank
- Adaptable to all existing transceivers, using the appropriate microphone plugs. The basic model is based on the widely distributed RJ-45 connectors
- Power via the USB connection of the Arduino, via the microphone jack or from an external power supply
- Use as a separate electronic keyer for transceivers without a built-in keyer
- **Random CW generator**, display characters in the serial monitor and on the OLED display.
- **Beacon function**, can also be used as a **memory keyer** (1 memory of 80 characters).
- Additional functions can be set via AT commands via the serial monitor
- Entering and transmitting text via the serial monitor
- **Windows program** for controlling the OST Morse Box (then no need for the Arduino IDE)
- Built-in TEST function for touch paddle

Of course, several functions of the project are not “SKCC” compliant (paddles , beacon or memory keyer), but it can be used with a straight key, and you can leave out the functions that you don’t want, it’s all very modular.

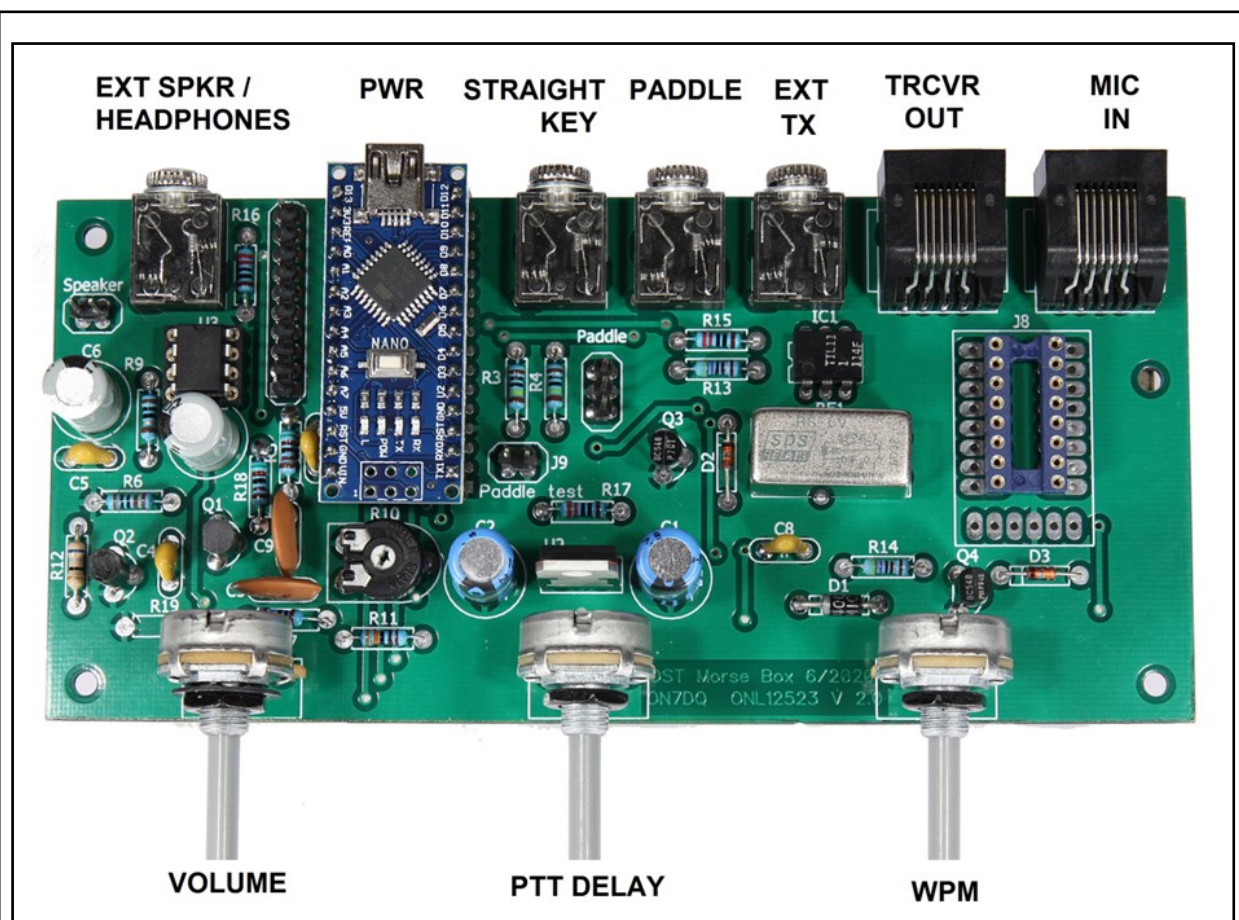
There is **32 page manual in DUTCH and ENGLISH**, which was my input to the project. It describes all functions and detailed building instructions, from building a very basic circuit to the full option Morse Box.

All files needed for **making the PCB** are on github (see link at the bottom). Make it yourself, order it from a local manufacturer, or order them cheaply in China. You can also change the PCB to your liking, it was developed with the free edition of **DipTrace** (<https://diptrace.com/>).

Versatility: not all options are mandatory, those who wish to do so, can partially fill the PCB to obtain only the desired functions. This is clearly indicated in the construction manual. If you wish, you could even build the basic version without the PCB, just build it on a solderless breadboard.

This is what the **full option PCB** looks like. External components not shown are an OLED display, speaker, touch paddle contacts, LED’s and some buttons and switches. And your own straight key or paddle of course!

Continued on next page.....



The “jumper block” to the right must be wired according to the microphone pinout of your transceiver. Transceivers with round (8 pin etc) connectors have to be wired to the pads near the 16-pin socket, omitting the RJ-45 connectors.

The relay in the picture was a special model for the first prototypes, but the PCB has been adapted since for a more common relay type.

All files and full documentation is on my github page: <https://github.com/on7dq/OST-Morse-Box>

If you (or your club) ever build the OST Morse Box, please let us know, we like to keep track of how many were built. And do send us a picture if you built it into a nice box!

Good luck and 73,
Luc - ON7DQ/KF0CR (e-mail address is on QRZ.com)

2020 SKCC's QSO Party!

The SKCC QSO Party will be October 3-4, 2020. The event is 24 hours beginning at 1800 UTC October 3 and ending October 4, 1759 UTC. The event includes the basic SKCC exchange **plus your four digit grid square**. Complete rules and categories can be found on the SKCC homepage.

AR	BR	CR	DR	ER	FR	GR	HR	IR	JR	KR	LR	MR	NR	OR	PR	QR	RR
AQ	BQ	CQ	DQ	EQ	FQ	GQ	HQ	IQ	JQ	KQ	LQ	MQ	NQ	OQ	PO	QO	RO
AP	BP	CP	DP	EP	FP	GP	HP	IP	JP	KP	LP	MP	NP	OP	PP	QP	RP
AO	BO	CO	DO	EO	FO	GO	HO	IO	JO	KO	LO	MO	NO	OQ	PO	QO	RO
AN	BN	CN	DN	EN	FN	GN	HN	IN	JN	KN	LN	MN	NN	ON	PN	QN	RN
AM	BM	CM	DM	EM	FM	GM	HM	IM	JM	KM	LM	MM	NM	OM	PM	QM	RM
AL	BL	CL	DL	EL	FL	GL	HL	IL	JL	KL	LL	ML	NL	OL	PL	QL	RL
AK	BK	CK	DK	EK	FK	GK	HK	IK	JK	KK	LK	MK	NK	OK	PK	QK	RK
AJ	BJ	CJ	DJ	EJ	FJ	GJ	HJ	IJ	JJ	KJ	LJ	MJ	NJ	OJ	PJ	QJ	RJ
AI	BI	CI	DI	EI	FI	GI	HI	II	JI	KI	LI	MI	NI	OI	PI	QI	RI
AH	BH	CH	DH	EH	FH	GH	HH	IH	JH	KH	LH	MH	NH	OH	PH	QH	RH
AG	BG	CG	DG	EG	FG	GG	HG	IG	JG	KG	LG	MG	NG	OG	PG	QG	RG
AF	BF	CF	DF	EF	FF	GF	HF	IF	JF	KF	LF	MF	NF	OF	PF	QF	RF
AE	BE	CE	DE	EE	FE	GE	HE	IE	JE	KE	LE	ME	NE	OE	PE	QE	RE
AD	BD	CD	DD	ED	FD	GD	HD	ID	JD	KD	LD	MD	ND	OD	PD	QD	RD
AC	BC	CC	DC	EC	FC	GC	HC	IC	JC	KC	LC	MC	NC	OC	PC	QC	RC
AB	BB	CB	DB	EB	FB	GB	HB	IB	JB	KB	LB	MB	NB	OB	PB	QB	RB
AA	BA	CA	DA	EA	FA	GA	HA	IA	JA	KA	LA	MA	NA	OA	PA	QA	RA

One Family's Adventure and Romance With Amateur Radio

I received the following note from Mike KK7H and decided to follow-up on his idea:

"I just worked one of our members, K4SAF Skcc# 699C. After our chat, I looked at her Qrz page, and it was quite interesting. The lady's name is Carol Laferty, and her bio reads like a ham radio romance novel. Her entire family was or is involved with ham radio, some are sk now."

Carol K4SAF



I was 15 when I got my license, K4SAF, in 1957 and will be celebrating my 63nd year as a ham on 9/28/2020. My brother, Fred Fraley, W4CHK > AA4FF > W4DF, who is now a Silent Key, was instrumental in getting me on the air. He taught me the code and shared his shack willingly with his younger sister. My late father also got his license at the same time I did and was K4SAB.

I met my husband Don Laferty, K4GFY via radio in 1957. He is also now a Silent Key. We talked for three years on cw and phone before we actually met in person. We had been married for 53 years when he passed. Our son Don La-

ferty, Jr. now has his Dad's call, K4GFY.

I am a retired high school Business and Computer teacher. I also taught part-time in the CIS Dept. at Morehead State University. When I get on the air, it is mostly on CW, working mostly 80 and 40 meters. I am active in the Young Ladies Radio League and was the U. S./ Canada Receiving Treasurer for 11 years. I enjoy seeing my YLRL and ham friends at Dayton Hamvention and at our national YLRL convention, which is held every 3 years. I am also a member of QCWA, SKCC, and FISTS, and our local radio club, Morehead Amateur Radio Society, in Morehead, KY. I received my Extra class in 2000, just before the 20 wpm code requirement was dropped. Hope to see you on the bands or possibly on Facebook.

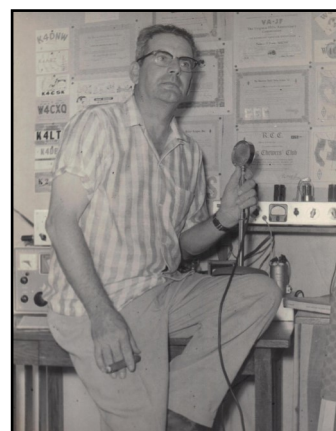
73, Carol K4SAF SKCC #699C FISTS #7503



K4SAF - 1959 Age 17, looking pretty somber. Our dad C. Kermit, K4SAB, built the rig. We were crystal-controlled when I first got on the air.



W4CHK, AA4FF, W4DF (My mentor, the big brother who taught me the code.) Now a Silent Key and missed greatly.



Our dad, K4SAB. Electronics person before my brother and I were even born, but did not get his ham call until he and I took our test the same day. Now a Silent Key.

July SKS 2020



Saying today's SKS was fun would be an understatement. Stayed on 40m all the time, no signals heard on 20m and really bad QRN on 80m. Lots of activity and strong signals. I heard more stations from NY than usual, but I was only able to work a few, because the others were too close. Anyway, I had a great time. I upgraded the key and used it for first time today, I believe it increases the signal SNR by 10 dB, hi hi. It definitely feels and looks better than the old one. 73, AC2RJ Ruben.



Storms shortened my time safely operating, but I enjoyed the experience and felt like my operating skills improved! 73, John KJ4KPW



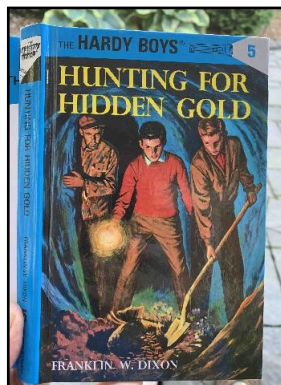
Using a new bug. Thanks for your patience with the extra dits! 73, Jack W9YY



I did not plane to be active at such a late night time but impossible for me to sleep. A quick look at the radio shows that it was the last half an hour of the SKS. I was glad to do 5 contacts on 40m with AC1GF, K3WW, WK4WC, N4OW and W4LRB. Thank you OM ! Sorry I have put my callsign on the SKCC sked page forgotten that this is not allowed for this monthly event. Conditions here : about 80 watts CW, a Hy-Gain DX88 GP antenna and a WW2 German Baumuster T1 key. 73, Bernard F5DE



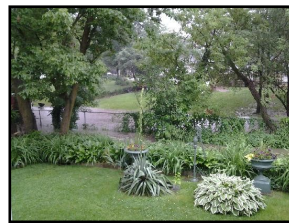
Quick sprint, fun as always. 73, Bob N1MHV



Some good sigs tonight. 73, Dave VE3KIU



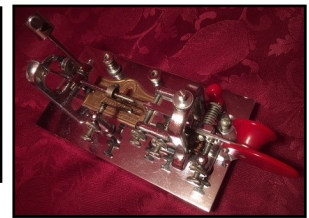
Quit early this evening so only a dozen for me. Ran 75w to my HF6V Butternut (elevated) and Kent KT1 SK. 73, Curt k2CWM NJ



Lots of activity on 40 tonight despite the heavy QRN. Great signal up here on Lake Erie from CO8RRM -Rafael . The picture is the creek behind the QTH where my ground counterpoise wires are buried for my 160 meter inverted L which I use on 40 & 80 . Also great to hear Bill tonight WA4FAT in Birmingham, AL. 73, Larry



20 was fun the first hour or so, 40 was packed. Very happy to work Bernard F5DE on 40, he has great ears :) Did mostly s/p and found a few need T's for SX6. 73 from hot and humid Port St. Lucie, FL. 73, AL N4ow 11375s



1946 V-Deluxe using since 1955. Even I was young then! 40m pretty crowded with some QSB but lots of good signals tonight. Fun 40 minutes, but I'll let the big prize money go to someone else. (SMILE) 73, Don K3RLL



Lots of activity on 40 and 20, not much on 80 with the noise. Thanks, all, for lots of fun! 73, Steve KC5F



Lots of noise tonight with storms all around. 20 meters was quiet and productive. Lost my frequency on 40 to the digital folks! Picture is with my old friends Ed-W7GVE and Rick-K7CNT in AZ. 73, Ken N8KR

July SKS 2020 II



Managed 7 QSOs (KD9GDY, AA9WJ, K8TEZ, AA8TA, W4TYD, AC4ZH and W5WTH) in an hour's time while rockbound on 40 meters with my recently repaired HW-16 and 6BTV vertical. Thanks to all that bring us these sprints. 73, Brian N4API



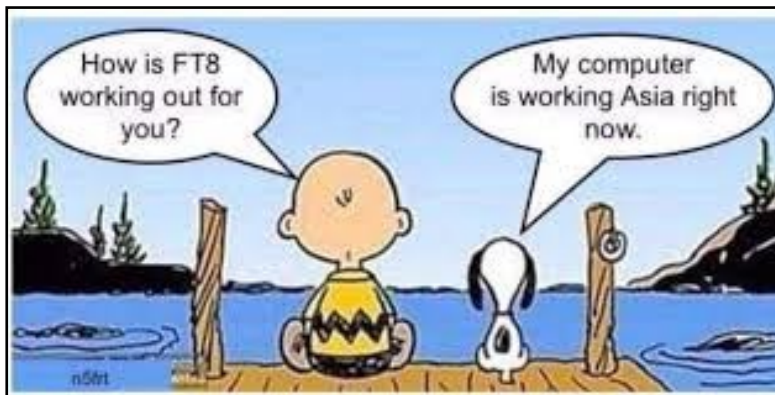
Had some weak QSO's on 20m. 40m. was unusable here in WNY with very Hi-QRN from nearby T-Storms. Switched 80m, to close out this sprint. Rig: IC-7000 at 100w into G5RV up 25 ft. w/ old WWII German Junkers straight key. 73, Tom KA2KGP



Ah, Life is all the things that interrupt the things you want to do! I didn't get to play much this time...But I did have fun doing what I could! Thanks to all who put up with a Cootie Fist that needs more practice! 73, Rich W4RQ

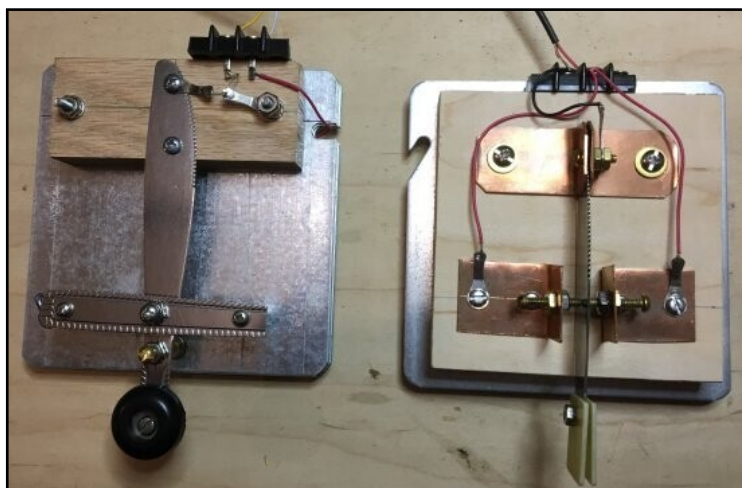


Thanks to everyone for answering my 5 watts. Good time tonight. I worked some new stations and some I haven't talked to in a long while. 40m was hopping, great to see so many on the bands. 73, Bud WB8SDA



August WES Was "Home Brew" Keys

The August WES featured home brew keys. Here are a couple from John W1TAG:



"Be vewwy, vewwy afraid! Just finished these two speed demons made using butter knives from WalMart. Other than the obvious copper in the sideswiper, Lowe's and Home Depot were the principal sources of parts. Strangely enough, both keys work pretty well. The knives are pretty thin, so fairly springy. Both keys will be in use during the August WES. "

John, W1TAG

Torsion Times Two

By Ted WB3AVD

Here's a look at one of my latest ... ah ... 'projects.' Having previously built a straight key using a torsion bar instead of springs, I succumbed to the temptation to build a second key with TWO up-and-down levers instead of just one ... in other words ... a 'cricket'. And again, using torsion bars instead of springs or magnets for lever tension.



Photo #1: This shows the back end of my previously-built torsion bar straight key. The lever (rectangular rod) is attached solidly to a horizontal bar between the two upright posts (the torsion bar) which is anchored at one end and floats freely at the other. In actual use, this bar simply twists a little bit.

and down ... it's essentially two straight keys side-by-side. Electrically, I usually connect this key to the rig with three circuits, just like an iambic paddle. Wired as such, one lever does 'dits' and the other one 'dahs.' I typically operate this (being right handed) with my index finger on the left paddle (doing dits), and my middle finger on the right paddle (doing dahs). Ergo, using this key is like tapping

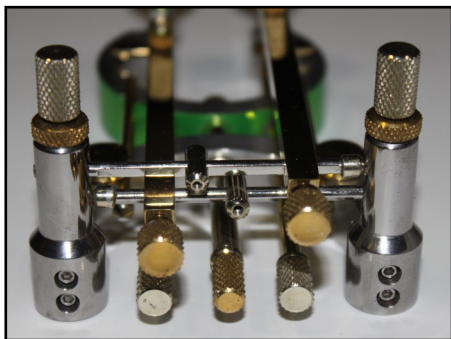


Photo #3: This shows the far end of the torsion bar cricket. Note the two horizontal torsion bars, one above the other. Hence, the levers are at two different heights. The two knurled knobs at center attach the levers to their torsion bars. The lower three knobs are the binding posts.

Now just in case you're wondering how a torsion bar telegraph key works ... after all, you don't see one of these every day ... here's a quick refresher. Have a quick look at Photo #1, which shows the rearmost end of my earlier straight key (where the key lever attaches to the torsion bar). Note that the lever is rigidly attached to a horizontal rod (the torsion bar) ... it does NOT rotate on this bar. This bar is attached solidly to the upright post at one end (the end farthest from the lever), and floats in a simple sleeve bearing at the other. Thus when the lever is keyed (pressed down), this bar simply twists a little bit—providing both the key's tension, and returning it to neutral position. Our torsion bar cricket, then, has two levers, each of which is attached to its own horizontal torsion bar. Let's take a quick tour!

As Photo #2 shows, our cricket is composed of two levers, each of which goes up

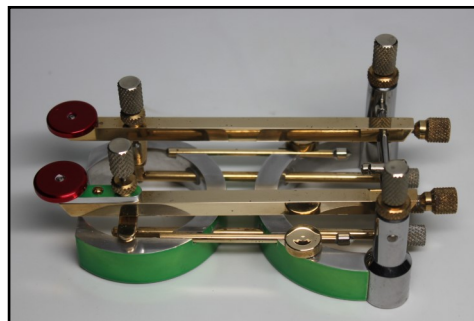


Photo #2: The completed torsion bar cricket, which is essentially two side-by-side straight keys.

on a table top with two adjacent fingers (on the same hand, of course!). As well, one could use the cricket in "manual" mode with a two-wire connection just like a straight key. In this instance, dits and dahs would be formed "by hand," alternating between the two paddles with the two fingers for each dot or dash component. It's quite intuitive either way, and easier to do than it is to describe! (In 2-wire manual mode, I like to think of it as being an up-and-down side-swiper; does that make any sense?)

Photo #3 shows the rear of the key. Note that each lever is attached to its own horizontal torsion bar. The two knurled knobs at center level are what attach the levers solidly to their respective torsion bars. The three lower knurled thumbscrews are the binding posts, which (as noted above) accommodate either two- or three-wire connections to the radio. While we are still looking at the rear of

the key, you can easily see that the two horizontal torsion bars are stacked one above the other. This, of course, necessitates that one lever be positioned “higher” than the other. Thus one of the paddles (the red discs at the operator end) has a riser beneath it, so that each paddle occurs at the same height (see Photo #4). The adjusting knob which occurs on each lever right behind its paddle is the gap adjustment.

A final little option ... I couldn't leave well enough alone ... shows up in Photo #5. Note the brass rods here (one on each side of the key).

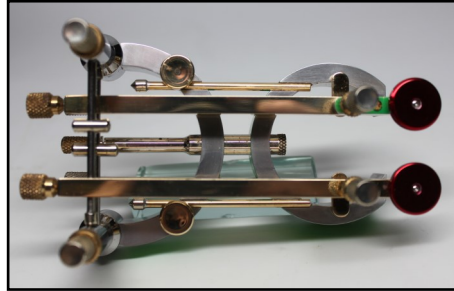


Photo #5: This top-down view shows the ‘skeletal’ nature of the key! The ‘square’ bars are the levers. The two round rods at upper and lower center are the spare torsion bars. These brass rods can be used instead of the steel torsion bars, to afford a softer ‘feel’ to the key.

These are spare torsion bars. The bars currently in place on the key are fashioned from steel drill rod.

The brass rods can be switched in if one desires a somewhat “softer” feel to the keying, in other words, a little less tension for each lever. As well, the tension can be changed by shifting the position of each lever on its torsion bar; moving the lever closer to the fixed end of the bar effectively shortens the torsion bar, ‘stiffening’ the feel of the key. In actual use, I have not found this to be necessary!

So “how’s it” where the rubber meets the road? I made several hundred contacts with it during a recent field day, and found that only several minutes of practice were required to overcome its personality! I was operating on a not-very-solid table, and if I pounded the table with my fist, I could elicit a chirp from the key. Thus my sense was that the levers are just a touch too heavy; but a moderate gap space coupled with a fairly light “fist” did the job nicely. Nonetheless, were I to build a subsequent version, I would do two things: shorten the levers slightly, and incorporate an upper travel limit so that any “lever bounce” could be essentially tuned out. But all in all, I had a great time, and I’ll say once again ... there is no experience like operating with a key you built yourself!

There you have it! I believe the torsion bar cricket to be a rather rare animal, and I’d love to hear from anyone who could point me to relevant photos or historical data regarding these creatures! (I’m at tedwb3avd@netzero.net). Now on to the next project: I have a buddy who is a pipe smoker, and he wondered if I could perchance build an operable key which could be smoked! Well two weeks went down the drain on that project, and if *The Rag Chew* runs dry and needs a little filler material, I could perhaps share that prototype with you somewhere down the log ... hi hi.

73, Ted WB3AVD #392

Editor...When I first read and saw how the “cricket” would work I thought, “gee, a horizontal cootie!” I practiced tapping my fingers as to how it worked and it was very easy to get into the “swing” of it using my cootie technique. A very “sweet” project Ted and thanks for sharing!

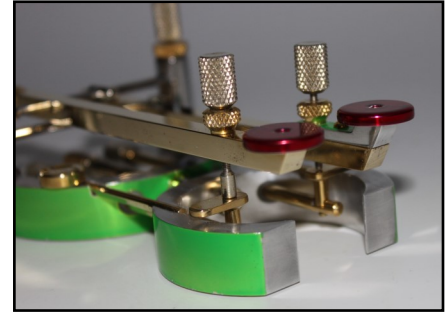
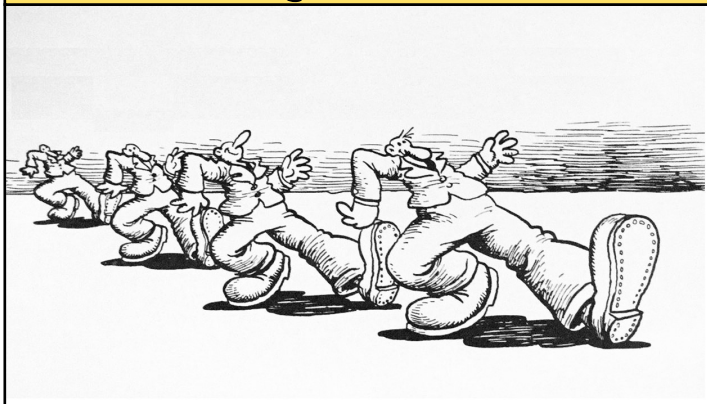


Photo #4: This shows the cricket’s two paddles. Because the levers are at two different heights, the one paddle (on the right) has a riser beneath it so that both paddles are at the same altitude! The knob on the lever behind each paddle adjusts the contact gap spacing.

August Slow Speed Saunter 2020

Slow Speed Saunter



40 was lots of fun the first night. My antennas came down Saturday for the unpronounceable hurricane and the shutters went up. Photo of my two classic SK's, SpeedX & Navy Flameproof. Long live CW! 73 de AL, N4ow 11375s



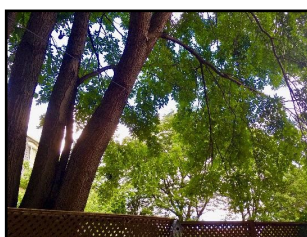
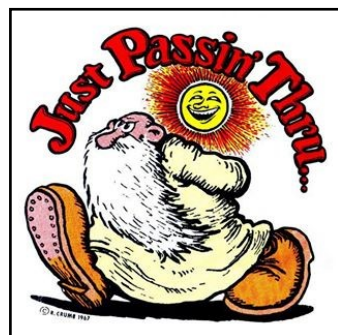
Probably my favorite SKCC event. Dug out my 12-year old IC-7000 from the closet and ran 50 watts (although it will put out 110 watts, I didn't want to work the old guy too hard hi hi) using one of my Kent Str keys. Multi-band vertical. Some QSO's were just regular SKCC exchanges and a few led into more of a short rag-chew type QSO, and all were fun. A great event and I think we should do this each month (Oh wait, we do hi hi). 73, Curt K2CWM 3018S SNJ



Another fun event. 73, Dave NE9EE



Used my new bug. In order to slow it down I needed to add two weights and a drill bit. But there were still plenty of extra dits, all for free, of course. I sometimes needed to take a penalty lap and retransmit a word. But getting on the air and being able to make mistakes is a quality that makes SKCC a great organization! 73, Jack W9YY



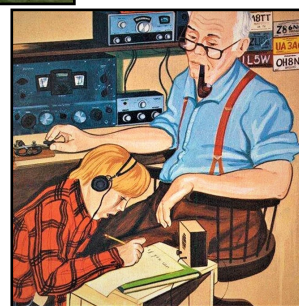
Rig: 703 & 5W and a new Ant.: Endfed 76 ft. inv. V with vertex 30 ft up the maple tree in the small backyard, iand LDG RT-100 (remote). Four contacts in 40m and one in 20m. TNX All es 73, Jose VE3DTI



Was only able to be on the air for a couple of hours, but the folks that were kind enough to chat, made very nice qso's. 73, Bud WB8SDA



Running QRP @ 5 watts using just built QCX+ 40M Transceiver Kit es dipole @ 25ft. 73, Randy N8KQ



An "Elmer" doing what "Elmers" do.....

Introducing the “DOG”

The old saying, “If you can’t hear them, you can’t work them,” is especially true when working stations on 80 and 160m. Everyone knows the beverage antenna, the rx loop and the K9AY array are all good antennas but all three either require lots of dollars or real-estate and sometimes that’s just not practical. Let me introduce you to the “DOG” aka, “the dipole on the ground.” Oh, no worries mate, this is not a full size dipole for either 80 or 160m...how does 30 feet sound?

Before getting into the DOG I want to remind you of the “Grasswire” antenna discussed in earlier issues of the Rag Chew. This antenna was 4-6 inches above ground and was a transmitting antenna with directivity...end fire in the direction opposite the connecting coax. The antenna exhibited a low angle rf radiation and fairly low noise on receive...but again it needed to be very long for best performance (just and FYI, that is the very basic theory of how a beverage antenna works for receiving).

So how does the DOG work and how is it made? The idea was presented by Matt Roberts KK5JY in an article published in 2018.

Phased Array of Dipole-on-Ground Antennas for HF Reception

Matt Roberts - matt-at-kk5jy-dot-net

Published: 2016-04-29

Updated: 2018-07-09

KK5JY.Net

Close-spaced phased arrays exhibit useful directivity characteristics for reception of skywave signals. The dipole antenna is a natural and simple element type for a phased array antenna, and the placement of untuned (nonresonant) horizontal antenna elements very close to the ground provides a pattern that is a useful building block for constructing such arrays. Combining the concepts developed in the [loop-on-ground](#) with those from the [small loop array](#), and substituting a nonresonant dipole for each array element, another type of space-efficient phased array can be realized. This array has a far-field pattern that is very similar to that of the array of small vertical loop antennas, combined with the space-efficiency and stealth of the Loop-on-Ground.

The loop-on-ground is not the only form factor for a ground-mounted horizontal antenna. A simple dipole has a nearly identical pattern when mounted on the surface (is a dipole-on-ground a DoG?), and realizes a different kind of space efficiency. The dipole-on-ground yields a similar electrical efficiency (peak gain) as a square loop when each leg of the dipole has the same length as each side of the loop. This means that the dipole's space distribution trades length for width. That is, a dipole is a thin line across the ground, but it is twice as long as any side of a square loop, and offers similar electrical performance.

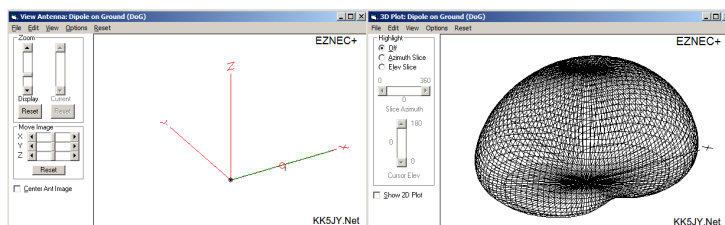


Figure 1 shows the EZNEC+ model and three-dimensional pattern of a single dipole-on-ground element

The main lobes of the dipole are off the ends of the wire, particularly at low elevation angles. The pattern is very similar to the [LoG antenna](#) pattern, or that of an electrically small vertical loop, mounted substantially less than $\lambda / 4$ above the ground. Like any of those antennas, the pattern is vertically polarized. Like the LoG, the elevation-plane gain in the main lobe is nearly uniform across all elevation angles, allowing the antenna to hear both high-angle ([NVIS](#)) and low-angle (DX) signals.

Note that the dipole-on-ground is not a "low dipole", such as those mounted a few feet above the ground and used as an NVIS transmitting antenna. Just as with the LoG antenna, this antenna element is deliberately mounted *on the surface*, which cancels the horizontal response of the antenna pattern.

The single dipole element, mounted on the ground, can by itself be an effective receive antenna, just like the ground-mounted loop. If significant directivity is not needed or desired, the ground-mounted element can still offer an improvement in received SNR over typical transmit antennas, especially on the longer wavelengths. The installation considerations are also very similar to the loop-on-ground, and the two antenna types can be interchanged with similar results.

The remainder of this article describes a phased array of ground-mounted dipole antennas, very similar to the phased array of vertical loop antennas. In fact, most of the material in [that article](#) related to feedlines and phasing is also applicable with DoG elements, so it will not be repeated here.

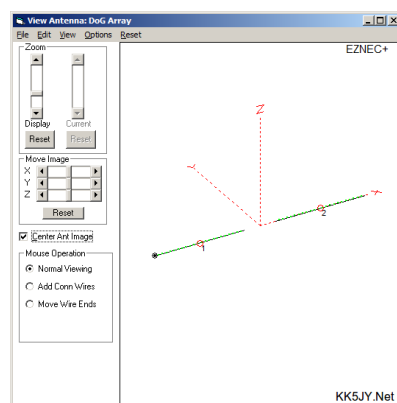


Figure 2: EZ-NEC Antenna Model End-fire Array

In order to use the dipole-on-ground in a phased array to obtain a unidirectional azimuth pattern, the elements are positioned end-to-end, in a straight line. **Figure 2** is an [EZ-NEC](#) model of a two-element endfire dipole-on-ground. The elements are each 180 inches long (15ft), with 60 inches (5ft) of separation between the elements at their closest point. The overall length of the antenna is 35 ft.

As with the [vertical loop array](#), the dipole array requires preamplifiers to isolate the antenna from the delay lines. Otherwise, the asymmetric reflections within the delay lines will spoil the front/back ratio of the pattern. Alternatively, the individual elements can be loaded with resistance to match them to the feedlines, but doing so decreases the element gain significantly, which causes even more preamplifier gain to be needed. So the simplest solution is to use equal feedline lengths between the untuned, unloaded elements and the preamplifiers, and then place the delay lines between the preamplifiers and the combiner.

When properly phased, the array can produce a pattern similar to the array of small vertical loops:

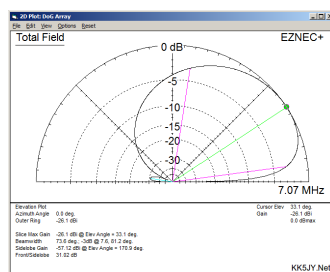


Figure 3: 40m Elevation Plane

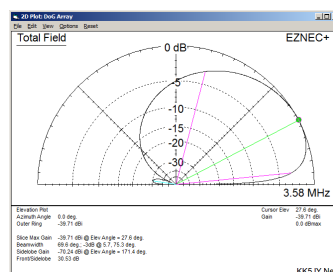


Figure 4: 80m Elevation Plane

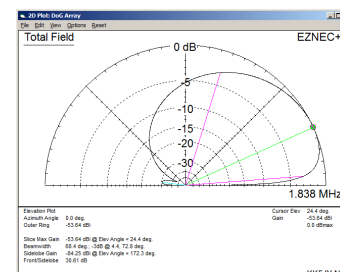


Figure 5: 160m Elevation Plane

The azimuth profile of this antenna is essentially the same as with the vertical loop array. Azimuth plots are shown here for 80m response, at the elevation of peak response ($\sim 27^\circ$) and at 10° elevation.

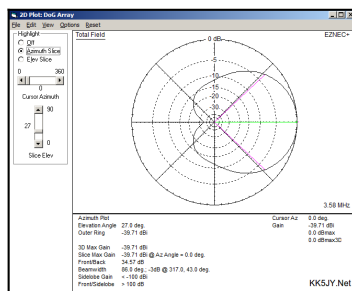


Figure 6: 80m Azimuth Plane 27° Elevation

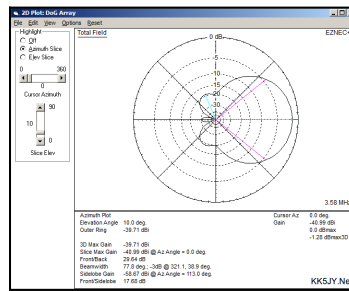


Figure 7: 80m Azimuth Plane 10° Elevation

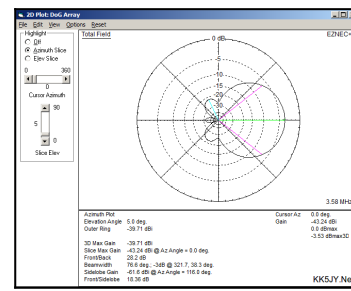


Figure 8: 80m Azimuth Plane 5° Elevation

The shape of the azimuth pattern is similar down practically to the horizon. This is the predicted azimuth at 5° :

The delay lines used in the model for 40m and 80m are 133° and 156° , respectively. As with the vertical loop array, the required delay is dependent upon the size of the elements, and the spacing between them.

The main feature distinguishing this design from the [vertical loop array](#) is its physical profile. The long, thin profile of this antenna makes it ideal for installation almost anywhere. The centerline of the antenna "points" in the direction of the main lobe, and the antenna direction can be electrically reversed by swapping the delay lines on the receiver side of the preamplifiers. This makes aiming the antenna much easier than an array built from the loop-on-ground elements. Otherwise, this antenna behaves similarly to the vertical loop array.

In fact, it should be trivial to construct an array like this with a spacing rope between the two elements to ensure a predictable gap between them as the array is moved. This rope and the two elements could be tied together so that they are one continuous line, which would make installation or relocation trivially easy. A temporary or portable version could be held to the ground by just two tent stakes, one at each end of such an assembly, and the spacing would be guaranteed as long as the array was pulled tight before staking it to the ground. This is a significant improvement over the *LoG*, which requires some care during layout, to maintain loop symmetry.

The calculated [RDF](#) for 40m and 80m is also similar to the vertical loop array, with values of **8.9dB** and **9.2dB**, respectively. This places it on par with a well-designed and constructed [Beverage antenna](#) that is several hundred feet long, yet this model fits in a space that is only 35' long.

A Note on Spacing

The spacing between the elements doesn't appear to be critical to producing a predictable pattern. In fact, the important measure is the distance between the current maxima of the two elements — that is, between the two feedpoints. The examples in this article assume a gap of several feet between the opposing ends of the elements, but this is not necessary. As long as the two ends are not touching, the array can produce the patterns shown above with appropriate phasing. So spacing distances from several feet down to a few inches are all appropriate for this type of phased array. This can be helpful if you are trying to squeeze an array into a small space.

The Antiphase Array

Another arrangement that can be accomplished with the array of two identical elements described above is an antiphase array. This design places the antennas 180° from each other electrically. Instead of using a delay line to achieve a specific angle, an antiphase array can use identical feedlines to place the two elements at opposite polarities from one another. This is accomplished by reversing the wiring of one element when connected to the feedline or isolation transformer. This also eliminates the need for buffer amplifiers that are required to prevent reflections with other phase angles.

The antiphase array produces a very unique pattern, that is quite different from the single element and the phased array patterns shown above. First, the antiphase array has a broad null overhead, suppressing NVIS signals. Second, the antiphase array produces two main lobes, in opposite directions, with the centerlines colinear with the array elements. The two lobes are slightly narrow in the azimuth plane, and much narrower in the elevation plane, than the other arrangements of the dipole-on-ground. For example, here is the antiphase array using the same elements as the antennas described above, on 80m:

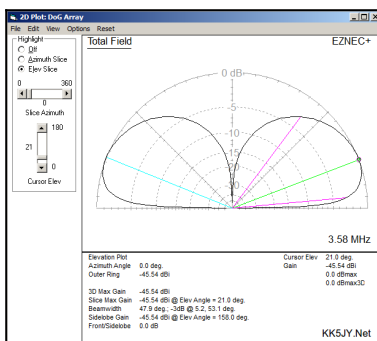


Figure 9: 80m Antiphase Array Elevation Plane

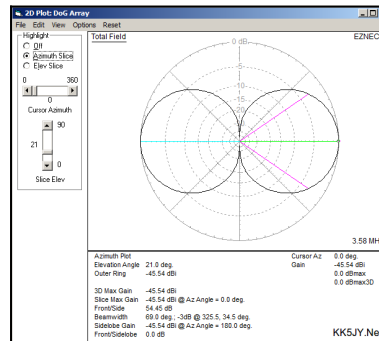


Figure 10: 80m Antiphase Array Azimuth Plane

As you can see, the elevation plane shape in the direction of the main lobes is very similar to that of a vertical antenna — large null overhead, and maximum reception gain at low angles. However, the azimuth plane pattern shows two deep nulls broadside to the antenna elements, with a reduced 3dB beamwidth in the main lobes, and a near-perfect figure-eight pattern. This makes the azimuth plane response

much more like an STL or a classic dipole antenna. This gives the antenna the directivity advantages of both a vertical and an STL, with a very nice "arc-shaped" null from horizon to horizon, broadside to the array.

For people who want to improve their DX reception, and are looking for a design that gives them bidirectional coverage (such as in the US, where most distant stations are located to the east and west), the antiphase arrangement can provide a pattern that is very competitive with an unterminated beverage. For example, the RDF of the 80m antiphase example shown above is **8.6dB**, making it quite competitive with an unterminated Beverage antenna, but with better elevation angle performance from a much shorter length of wire. The antiphase design has the added advantage that a simple [passive combiner](#) should be all that is needed to produce a reliable pattern.

More to come...

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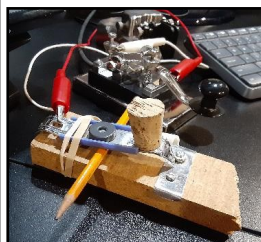
Editor.... Here at K8AQM the Antiphase system is used and oriented NE-SW. Testing continues and looking forward to winter activity and testing.

August WES 2020



Great Wes, plenty of loud signals on 80 and 40. Worked a few hours on Sat. and Sun.

Thanks to all the stations that participate and make it a fun weekend. I got a chance to use my home built cootie using a piece of hacksaw blade. I have a commercial Kungsimport cootie made in Sweden in the 80's. Only 200 were made and only 50 were imported into the US. This key works great but my HB one works just as good and cost much less. 73, Frank AA2XB



Thanks for the QSOs and putting up with the rough sound of my HB key. I call it the "church key key" because it's made of, well, a church key bottle opener. I felt this excessive explanation was necessary because some of the younger hams may not be familiar with the tool used to open beer cans before the era of the pop-top. 73, Jim AD0AB



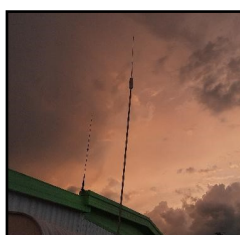
That was fun! My homebrew SK got a proper workout! Now back to the Speed-x...73, Ted AA4AZ



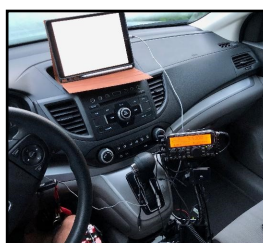
As always, so much fun! Operated about 5 hours in total, the early and late hours of each day. All contacts on 80 and 40m. Sunday night 80m noise level skyrocketed and it was impossible to make any contact on that band from my location. Thanks to all the participants! See you in the next SKCC event! Pictured here a sidesweeper I built a few months back. Didn't use it for WES because I am so bad at it and I didn't want to make anyone suffer with it, hi hi. Someday I'll think I am good enough and may give it a try. 73, Ruben AC2RJ



73, Orestes CL3OR



I'm not so active now and don't make many contacts but it was enjoyable to make a few. I especially like to work stations for the first time and help them on their quest for C, T, or S. Using FT450D at 100w to Hustler mobile antenna attached to our mobile home here in FL along with a Remler CRL26012 WW2 straight key. 73, Wes AA4XU



Thanks to all who were patient and worked me this weekend. A special thanks goes to my last contact, KC2EQA. Larry you are a great QRP OP. As always attached is a picture of my ever evolving operating position. This month the KX2 / KXPA500 (the amp is in the backseat) combo with a Little Tarheel HP antenna and if you look really close you can see the Whitebrook MK32 SS key strapped to my leg. To all making SKCC great, Thanks. 73, Brad AI6DS



Didn't have much time to make a key, so this was fast, lazy, easy. I did several left handed to see how it went (sorry to those qso's). Not quite sensitive enough for precise, quick sending. Works ok and is small and light. Will go in my pack as a backup SK for various activations. Thanks! Fun as always! 73, Mike AC0PR

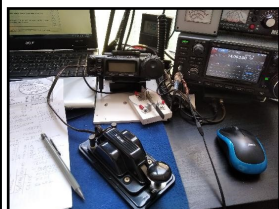


Fun time! Decided to make a "key" on Friday afternoon. Looked through a junk box of old furniture hardware... and grabbed a 'drawer pull' or handle. The design came from looking at the parts and turned out rather interesting, maybe unique. At first I thought I would key it by squeezing with my hand. In practice, it worked much better by putting in on my leg/knee and keying somewhat normally. So, I've nicknamed it the "Knee Slapper key." I used it all the way through and wore a hole in a pair of shorts before realizing I needed something under it ;-). You can see the picture here (being held upside down), and go to YouTube to see it in action: search for Jim AF3Z. I only have one video. If this gets through this system, here's the URL: <https://youtu.be/IG4ZFqCwQuY> Thanks all! 73, Jim AF3Z

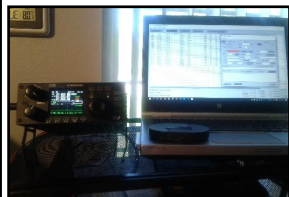
August WES 2020 II



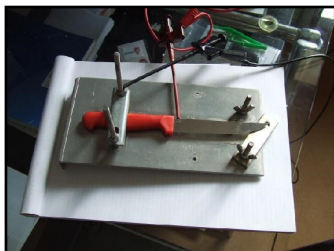
Did some QSOs Sunday on 40m. Rig is YouKits HB-1B with 4 watts to end-fed wire. Key is the ugly (but functional) contraption in the picture. Cobbled together from strap hanger, wood screws, a nut and bolt and some scrap wood. First time I've used a straight key in a couple of years (usually use a cootie). Thanks to those who put up with struggling fist. 73, Steve AI9IN



My first WES...it was fun. Thank you all. 73 Raz, IU1HCC



NEW G90 AND 18 WATTS...BETTER THAN I THOUGHT I'D DO...FUN AS USUAL. 73, Tom K7ROH



Not easy handling with this home made key. A lot of cleaning of the contacts and still a random operation. to improve for next year. Thanks for all these QSOs, hope for a better spread soon. Stay safe for all 73, Bob F6EJN



Set my goal of 50 contacts, and that is what I made. Started out using a home-made key, but had a lot of problems with it after 2 QSO's, so I gave up and switched back to the big Kent. Used my beloved 12 year old IC-7000 running 50 watts to a multiband vertical. Made contacts on 80m, 40m, 20m, 15m, and 10m. Worked the 'QRS Turtle' Key on 2 bands (hi hi). Always a fun event with many thanks to the WES Manager & associates. Curt K2CWM 3018S



Enjoyed the event - My first ham radio event I've entered for 20+ years. The bands were somewhat busy with signals from the WAE CW event but I enjoyed amassing my 7 QSOs. My thanks to the two stations that I managed to work "across-the-pond" who probably struggled more than most to get the QSO info through. Soapbox image shows my recent Ebay-bought mystery SK (used during the event) - arm and pivot support in steel, pivot and other fittings brass, with a light-weight wood base. No identifying mark. 73, Paul G0OXT



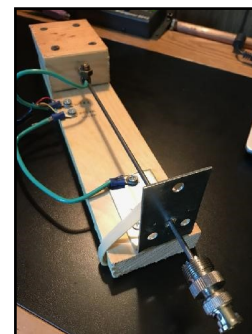
Last month, I wasn't here at all; radio overload, I think. This month, I had a relaxed approach, and sat down for an hour or three, now and again. It was extremely enjoyable, as well as relaxed. I'm sure I'll get back to trying for the top ten, again, some day, but only if it's fun! No HB key; but here are my cooties: home, top, and away, bottom. 73, Lloyd K3ESE



Good fun but conditions still poor, in fact Sunday was very quiet with just one QSO with Fer EA4BL on 20m. Saturday QSO's were with PG4I Jo, F6EJN Bob, KF6C Brian, and F5DE Bernard - all on 20m. 73, John G0RDO



Most of my antennas were on the ground, I made a few QSOs at the end with my 80 meter vertical, and a few on 40 before dropping the dipole to work on the tower. Hopefully in a week or two everything will be back up in the air. No time to build a key, which would have been fun. 73, Chas K3WW



Did 30 contacts on my HB junk, but late Sunday I needed another CW fix on the bug. Thanks to all who suffered through my junker experience. 73, Hank K5TSK

August WES 2020 III



Another enjoyable theme, using my homebrew hacksaw cootie key. I don't use it very much, so the first couple of QSOs were a little rough (my apologies to those on the other end), but it didn't take long for the rhythm to return, and I had a great time. Thanks to all 73, Frank K8FAC



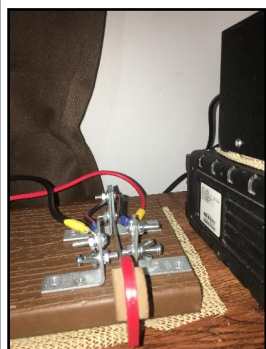
Another fun wes. Decided to use the home brew cootie w/cpo that I made a few years ago with Home Depot parts and hacksaw blade. It worked perfectly. Not a newly made cootie so I didn't claim any home brew points. 73, Randy K8ZAA



Another fun activity. 73,



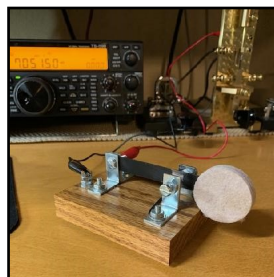
Thanks to all who participated. Band conditions were good on Saturday. I missed Sunday, due to family activities. My home brew key was a Bencher BY-1 paddles, converted for use as a cootie Key. It was not as smooth as my GHD model 501A, but it worked. 73, Ric KA3LOC



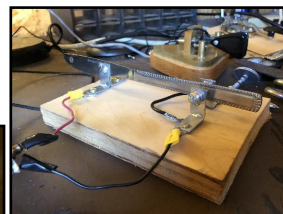
Key built from example on K4ICY Dennis's how to page. Works OK design good but needs constant cleaning with emery board. Needs contact points better than flat hacksaw blade and screws. 73, Randy KA8MNP



Well, learned much about the mechanics and mysteries of a single action cootie. Including that Saturday was not the day to start on it. When I finished the key Sunday morning, it made an excellent bug. Stiffening the arm eventually fixed that - it was a fun exercise. Thanks again to everyone struggling to copy me on a new SS. I'm almost done with Triple Key, and really starting to like the SS. 73, Scott ka9p



Thanks everyone for the great WES. I couldn't put a lot of time in but I did the best I could. I used my hacksaw cootie key. 73, Eric KB3NSK



It was really hard dodging all the other contests but it was still fun! Thanks to those that make this event possible. A picture of my Butter knife cootie! I call her "butterface". 73, Mark KB5RXL



First time for me. I look forward to next time. 73, John KM4CH



Backyard portable. Battery for power. 10 watts and Wolf River Coils TIA antenna. 73, Doug N3QW



Fired up the Icom IC-761 for the first part of the WES. It still performs, and no magic smoke! 73, Randal KG5IEE



Worked only for a few hours on Sunday from my favorite hilltop with 10 watts by my G90 manpack and homebrew portable vertical antenna. The weather was nice and hot in San Jose, CA. 73, Yoon KM6KJI

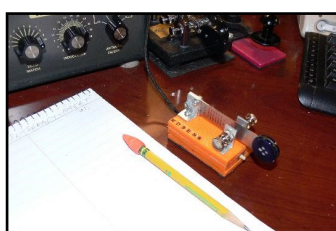
August WES 2020 IV



What fun! I was looking for wood in the basement to make a basic SK, and came across this hard rubber turtle, which my Dad probably got 40-50 years ago. It flexed just enough that I thought it might work, and boy does it! A thumbtack and wire in the base and one in the raised foot, plus a bit of museum putty to hold it down. It's almost as smooth as the J-38 I've used for 54 years. You can see it in action on YouTube if you search "Turtle Straight Key". 73, Steve KC5F



Still working with a lousy antenna at the new QTH in Colorado. Also, didn't have a lot of time to participate. But, had fun as usual. Best DX was AC1GF (Bob) in NH. Worst DX was N0TK (Dan), about 50 miles away. Nice groundwave signal. Rig was a Heathkit SB-101 (100w), dipole, and Navy flameproof key. 73, Steve KE4OH



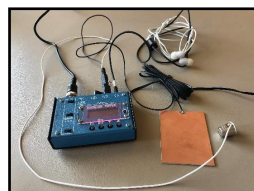
Greetings! Very interesting WES. Used my homemade sideswiper key. (On the Picture). I am happy with it's performance. Might have to improve the contacts. It has a small switch on the front. Can be used as single paddle key as well as cootie. Thank you all and 73, Sergey KD9EBS



I got a late start Saturday because I couldn't figure out what to build a key with. So, I took a ride to the local hardware to browse the isles. I ended up finding a few things, but was very interested in a putty knife! I screwed it down to a block of wood, added a screw as the contact, and wired it up. I don't think I would change a thing, maybe put a knob on it. I adjusted the contact screw with washers to make it just the way I wanted it. I think I will keep this little putty knife key around!! Thanks to all those out there having fun with CW!! See you all next month I hope! 73, Jason N3YUG



In my mind this started out using two 1/8-inch diameter titanium tubes that I have in a junk box somewhere! While searching for that, all I found was brass tubing used for making HF PA transformers. This worked ok, even if a little soft. My arm does not like a straight key, however; during WES I think the key being a little soft was good for the arm. Not so good for those having to put up with my lousy sending, thanks guys and gals. The key was held together by friction, over the course of WES the contact started to work loose and needed regular adjustment. The key is very light, so it has been glued to some tile as seen in the picture. The obvious improvements would be to find the titanium tubing and use some lock screws to prevent the contact sliding. My goal at the start was just to qualify for the straight key portion of the Triple key award. Taking this as the first 100 leaving the additional contacts to the cootie and bug. As the key was good to my arm, I think I have a good collection of contacts for this. The bands did not seem good during the day on Saturday except for working Europe, but, 80 was great in the evening. Usually I do not pay much attention to how many states I am working in the event. On Sunday I was looking to work more states and ended up working far less, not sure what I should learn from that? As always good fun. 73, Brian KF6C



Very busy weekend but made 1 QRP contact with MTR3B and homemade key. Bands very busy with DX contest and WES. 73, Terry KG5OWB



Limited time this weekend. No homebrew key. Just used my 1919 Vibroplex Original and my Nye straight key. Catch you all next month. 73, Jack KK0I



Was disappointed that the rules did not allow me to give out any points for my homebrew sideswiper. Had to stop and replace the dirty steel screw contacts, with brass screw contacts that stayed clean. 73, Brian N4API



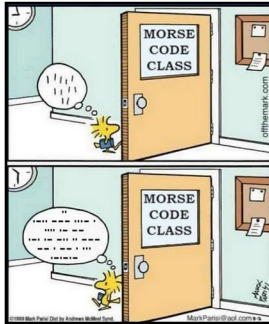
Fun WES. All contacts made with my HB SK shown here. Used magnets for resistance, which were just barely adequate. Will use stronger magnets next time. 73, Ed N4EWF

I've just heard a woodpecker call me paranoid in morse code.



Thanks everyone for the good ears. 73, Mike KK7H

August WES 2020 V



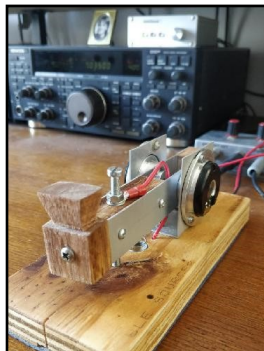
Saturday conditions were very spotty here, lots of quick QSB on 40 & 20. Sunday conditions improved with a nice opening on 15 around midday. Short lived but fun. Happy to add some new T's for my SX6. I might get it done before I go "SK", hi hi 73, AL, N4ow 11375s



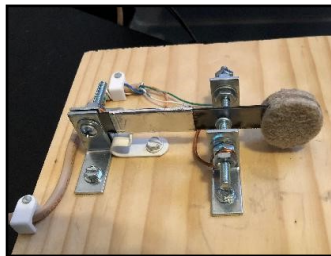
I wasn't planning to work the August WES because I had surgery 13 days ago but my recovery is going very well so I said why the heck not. Didn't spend as much time as I normally would but ended up doing OK. Made quite a few contacts on 15 meters early Sunday afternoon which is a good omen for cycle 25 I hope. Used my aging K3 and a Bencher RJ-2 key. Antennas used were an OCF dipole at 30', 43' vertical with a remote tuner and a 2 element 5 band quad at 40'. 73, Bill NZ0T



Very enjoyable WES. Lots of strong signals but lots of qsb, too. Operated about 30 minutes then watch episode of The Walking Dead. Repeat. So it was pretty laid back and I didn't stress out so much. HiHi. Had a great time using my homebrew cootie. Finally got somewhat of a handle on it Sunday morning. 73, Cec-



Propagation not very good but this was fun. The homebrew key behaved very well! It is made out of some scrap wood and metal and 2 bearings from a hard drive, a real jou to use. See <https://youtu.be/tFcCmtwRsTQ>. 73, Jo PG4I



Great fun! Used my home-made cootie (v 1.3) for the entirety and it held up well. As large as the wooden base is, I still need to hold it so it is a 2-handed operation. 73, Joe N8NDJ



I quickly made a new "ONE PIECE" plastic Cootie key on Friday before the WES. I used the lid of a CD box and some self-adhesive copper foil, 2 wires and a 3.5mm jack. Tools used: a soldering gun for cutting, another soldering iron for heating and bending, and soldering the two wires. See a video of my Cootie in action here <https://www.youtube.com/watch?v=412wlfOsd6s>

At the right you see the base of my previous cootie, a block of lead of 2.5kg (!), keeping the plastic cootie in its place. 73, Luc ON7DQ



Found some Circuit Board material in my junk box. The lever is 0.02 inches thick and the rest is 0.06 inch material. The knob is a couple of buttons from my wife's sewing box. And it weighs in at 0.6 OZ Very easy to use and would make a great key for portable QRP. Thanks for the fun theme and the QSO's. 73, Rick N8XI



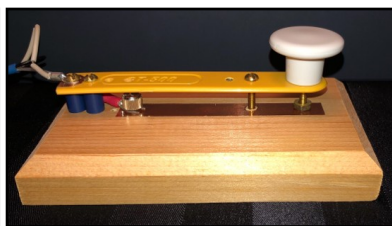
Kx2 10w g5rv..got my 20 qsos..used hb cootie..YUK... they shud be illegal..I need to tell Trump that so he can go to the FCC...haha.. I HATE cootie keys.. tnx to all board mbrs.. and tnx to all NEW SKCC MBRS, now 22884 mbrs..over 100 per month it seems.. super.. ha-just think, if we all donated 1 dollar, those board mbrs cud get new cars..haha.. takecare c u in September..time flies too fast.. my cootie keys will be at the curb, or in the BES (big estate sale)..ha. now have only 61 keys.. QRM makers.. ha.. if u need bug weights to slow yours down, contact me.. it's just a hobby.So, 7three, Dave Larsen

All QSOs on the 'wooden key' in the foreground. Any resemblance to the Kent key in the background is not entirely coincidental. Thanks for the QSOs. 73, Ben VE1AHX

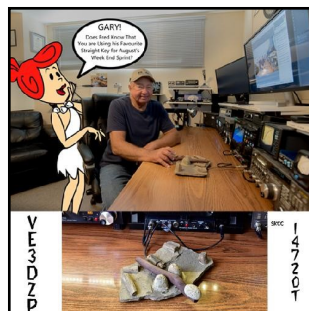
August WES 2020 VI



Being a congenital procrastinator, I was aghast when I checked out the WES theme late Friday night. Yeooow, what's this about a NEW homebrew key? I had just built my latest sideswiper less than a month ago, but the instructions fairly screamed "NEW" key, so a cootie build last month suddenly sounded so... well..."last month." Undaunted by this bit of news, I stayed up all night building this beau ... [Huh? Sorry, what did you say? Really? Uummmm...]. Okay Ladies and Gentlemen, the ARS NA5ET crack legal staff has just informed me that this station is subject to the "Truth in Sideswiper laws" and falsifying cootie construction times is a serious offense. So really, I just grabbed a wire shoe polish dauber, a scrap of oak, a few screws, a couple of finishing nails, and an ill-fated old Hanafuda card and spent 10 minutes out in the shed bangin' this baby together. Well actually, I spent 3 minutes actually bangin' it together and then 7 minutes perfecting the sophisticated contact micro-adjustment system. Hey, there are some serious bonus points at stake here--what's a guy to do? The design worked surprisingly well and was a blast to use. The only design improvement I would make is to use non-rusted finishing nails for future editions. 73, Arnie NA5ET



Great WES - my first one since February of this year. Good to be back. My homebrew key is called the "GT-500" named after the label on the plastic tongue depressor that I used as a lever arm. The length of the arm was set by trial and error to give a reasonable "springy" touch. The knob is for a cabinet drawer. The wooden base was from a scrap piece of wood. The brass screws and nuts were from my junk box. I used 1/4 inch wide copper tape strips to connect the contact points (directly under the knob) to the cable on the left side at the back. One copper strip runs under the yellow plastic arm and the other one is pressed onto the wooden base just below the arm. The brass screw just to the left of the knob adjusts the contact gap and also prevents the lever arm from springing up too far away from the base. The brass screw directly below the knob makes up one of the contact points and the other contact is the brass screw that secures the knob to the lever. The contact gap can also be adjusted with the screw below the knob - the screw is threaded into the base below the knob and can be adjusted from underneath the base. The lever arm tension can be adjusted by moving the brass screw on the left of the lever closer to the knob - several holes in the lever arm and base were drilled about 8 mm apart for adjustment purposes but the lever arm was just springy enough with the two screws shown in their final positions in the photo. My GT-500 SK worked OK but not great. The lever arm would twist if you pressed the knob on the extreme right or left side. It worked best with my index finger directly in the knob centre and thumb and middle finger gently grasping the knob edges. I also had to move the contact points directly under the knob because the plastic lever arm continued to bend when the points were located to the left of the knob (keying was too spongy). I sanded and filed the points slightly to clean them up but it's still brass-on-brass and I think silvered points would be best. Anyway I hope to learn from the experience and build a better key for next year. 73, Richard VE3RSA



Finally! I have waited two years for the opportunity to use my "Flintstone Key". Worked great but did not have enough free time to really stay at it. Here is a link to a video I made on my key thanks and enjoy. Gary <https://www.youtube.com/watch?v=jteQidUdndY&t=3s>. 73, Gary VE3DZP



In this WES I was trying a new endfed wire up a tree in the backyard (after management decided to reposition the gutter downspout "Marconi" to a more remote location...). This time I decided I would not to operate QRP but rather use the ICOM 706MKIIG, which almost never gets fired to operate CW. I was determined to at least get the three additional T/S contacts I needed to apply for the T-5 level. However, once the WES started I got carried away and not only succeeded in getting enough QSOs to apply for the T-5, but a dozen additional ones towards the T-6. Instead of homebrewing a new key, I decided to clean, oil and re-tune the old Bushwacker by Doug W6AME, which I then operated as a "cootie" by electrically connecting both sides of the paddle (with the black short wire shown in the picture) and setting the radio keyer to "off". However I am not claiming any bonus points since this can hardly be enough to argue in favour of it being a "home brewed" key... 73, Jose VE3DTI

August WES 2020 VII



Another enjoyable weekend sprintathon. Thanks to all for the QSOs. 73, Dave VE3KIU



Another great WES. Had some family things to do but this is a decent showing. I will be KS3KCC for next month's WES. Please come work us for the points. 73, Greg WA3GM



Didn't get the time in I wanted but still able to play and always have fun. Always a challenge with QRP so thanks for those who heard my 5w as well as answering all the other QRP stations out there. Pic is of me, my son and brother raising the new 2m/70cm vertical dipole. And it actually works!!! Of course, hf/cw comes first. 73, Bud WB8SDA



My first wes and i had a blast. I made my key for portable use and this was the first time I used it. It needs better contacts as i had to keep cleaning them to avoid sending stuttering code. If the key could be mounted to my clipboard it would help too. Thanks for helping a new guy get into cw :-) 73, Colin VE6YD



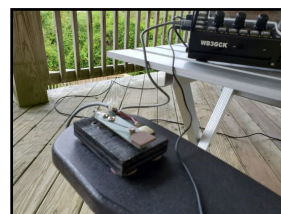
My home brew key entry was a cootie key that I built for the sole purpose of working for the Triple Key Award. I used it for the first 101 QSOs in the WES. I was truly ashamed of my lousy fist with that key and I switched to the 1930's vintage SpeedX bug for the rest of the WES. Cootie Keys are not for me!! I had a good time anyway, in spite of the band clutter caused by the WAE contest. 73, Jack, W9GT



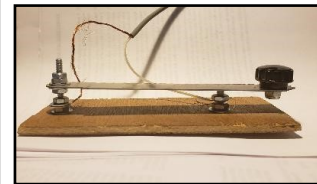
It was challenging operating between storms. The HB Cootie performed beyond my expectations. I like it and I'll use it again. I won't paint the next HB white, (I left fingerprints on it from holding it down!). A salute to all those who managed to interpret my HB Cootie. It was fun. 73, Blue W1BLU



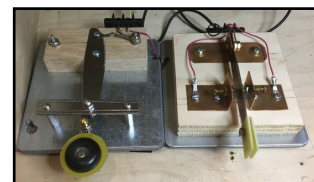
Had fun with my home brew sk. Took a switch box put a cover plate on it with a door contact switch. Few rubber bands, a ink pen and a wood wedge and on the air. Used the C-clamp to keep it from walking all over my desk. 73, Ray W9GHX



I operated for a couple of hours on Sunday while on vacation on the Outer Banks of North Carolina. Fortunately, I remembered to pack a homebrew key for WES. 73, Craig WB3GCK/4



Another fine relaxing WES as I cut through the RF with my Hack Saw Straight Key. Turned a broken Hack Saw Blade into a Morse Code Key. Knob is off of a Motorola mobile speaker. Required a very light touch due to only the metal memory returning the key after closing the contacts! 73, Jim W1RO

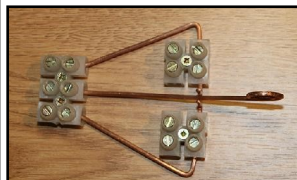


Used the two keys below for the entire contest. The straight key made most of the contacts, with the SS used for calling CQ...endlessly... Anyway, they are each made with a table knife from Walmart. Those knives are a bit thin, and springy. The base plates are stacks of electrical box covers. Had no problem with the SS, but the SK did develop contact problems during the lunch break on Sunday. I'll be happy to put both on a shelf, and go back to the regular keys! Thanks to all who participated - it was fun. 73, John W1TAG

August WES 2020 VIII



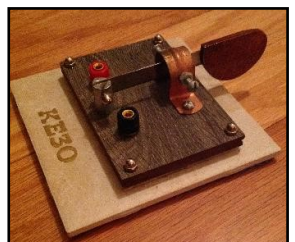
Really enjoyed my limited operating time this weekend and opportunity to try out my home brew wooden key crafted in the shop of fellow ham N2TSQ (Bob). After some adjustments it felt pretty comfortable and received good reports on my fist. It is a bit light so needed to use both hands to keep the key from jumping around the operating position. Some weight added to the base and an easier method to adjust lever tension other than replacing the tiny spring would be an improvement. Looking forward to better band conditions in the coming months. 73, Dave WB9EGZ



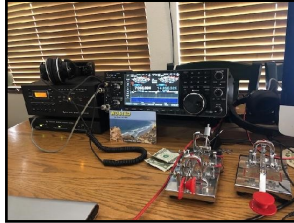
I intended to be on the air much longer than a couple of hours. The QRM from the WAE contest was a hudge CON. I have enjoyed the WES anyway and thank all the participants. I am attaching a photo of the home made cootie I used this time. 73, Carlos CT1BQH



I used a HB key my om Gil WB9TFH built for me. He used a strip of sheet metal that he smoothed on his grinder, a cabinet pull, a paperclip for the spring and a raised wooden base. It worked fine. I slowed my sending. After 50 q's it sounded ruff. Worked 40m and 20m Saturday and all bands Sunday. Thanks for the q's. It was a fun WES. 73, Donna WB9TFF



Played on both 20 and 40 meters for awhile this month using my homebrew 'cootie' key. Bands were very noisy during the daylight hours. And a number of contacts were made in spite of much QSB. Always fun though using a handkey creation of your own. 73, Bill KE3O



Another fun WES as always. Recently added to the station is a 500w amplifier. Definitely helps me get out from my corner of the country here in San Diego. Also made it a lot easier to reach AUS. This month was the most contacts I've made during a WES so the amp did the job! 73 to all and looking forward to next month! 73, Ted WD6TED

The key is made of 2 piece of metal (one steel ruler, one paper cutter), with strong mag to tie them together (with piece of paper as insulator). The "spring force" comes from the steel ruler bending, the mag just act as a construction connection. After the WES, each part can easily goes back to its original place. 73, Nian WU6P



Great fun as always. I append a photo of all my SKCC keys, including the two home-brewed for the WES, on the left. For more info on my home-brew keys see my message WES Aug keys-KF4AV on SKCC@groups.io. 73, Dan KF4AV



I need to read more about these in advance - i think a HB key would have been fun to design & use - oh, well ... next time! I had some planned events so couldnt spend as much time on the air as I would have liked. It was fun though - good conditions and lots of stations to work! RJ

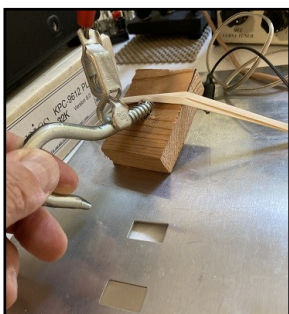


1st contacts with new radio and new key (Flex 6400 and TBCP) Fun time between work interruptions and Honey-Do List. 73, Brian WO9LF

August WES 2020 IX



I was tired after this one. Operated the full 24 hours allowed. Conditions Saturday on 20m were just plain awful. Poor propagation combined with another contest going on just killed it. 20M was better on Sunday, but still below average. 40M was the "go to" band as usual. Made a few contacts on 80M and 15M. Favorite contact was K3RTA on 40M. He was weak, but I was rewarded with a rare DELAWARE SPC. I was very impressed with the homebrew straight keys. We've have some very creative and talented SKCC members. I got a kick out of the door hinge straight key. I think I'm going to take it easy next month and give someone else a chance to win. Maybe I'll give 5 watts a try. Thanks or all the QSOs. Photo shows my shack. 73, Bob AC1GF



Made a real crappy key, it was kinda hard to work, but had lots of fun anyway. My first WES, surely not to be my last, Lord willing! Thanks to all that put up with the "hook". 73, Dave WA4NID



That was fun! The homebrew/junkbox key theme is one of my favorites. Bands were in pretty good shape stateside but short for our DX members. The only Atlantic crossing I could muster was Bill, F6EJN. Best surprise was Orestes, CL3OR. Best contact was my friend and neighbor David, WA4NID who was sounding great on his bug and and his HB key. My keys were a HB K2RFP design straight key and my homebrew Frankenstein sideswiper made from left over parts and pieces from past projects. The magnetic dampening on the sideswiper reminded me why I don't like working with rare earth magnets...dang things seem to have a mind of their own when in proximity of other magnets or small metal objects!!! Great fun and look forward to the next WES. 73, Randy

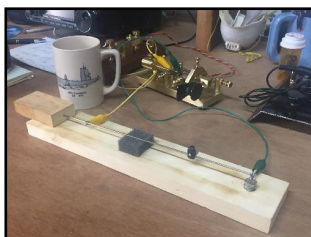


Not much time, & contests busy, that said, Always fun to work in the WES ! Thanks to everyone for good contacts. 73, Rich W4RQ



We are still locked up due the pandemic, so lot of time to spend in the workshop

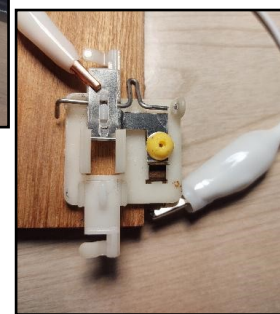
With surplus parts of other projects available in the junk box I designed and handcrafted a Double Speed Key (aka Sideswiper or Cootie), a simple tried-and-tested model using a saw blade as main lever. As a result a compact / heavy key, feels good and is fairly quiet... earned his place on the radio desk. RF Black Hole it's still up here... ruff PROP, but I had FUN TU everyone for the QSOs. BCNU 73, Walt LW3EX - ...- ZUT!



Thanks to everyone who put up with my home made key! My key was made from a bicycle spoke with a speed sensor as knob. It was comfortable to use one handed and produced some good sound. One problem was scratchiness in the contacts, I had to clean it every five contacts. Also, I could not work up any speed, but it was fun!! 73, Gene W9KMK

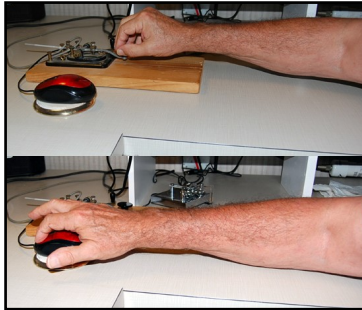


This was my second WES and it was better than the first. More contacts and more fun...could be partially because I used the Bud-dipole in the backyard instead of my indoor MFJ 1788 Loop. In any case though, thank you all for the experience and see you on the air as I keep working towards my Centurion! I used the Speed-X key on the clear acrylic base shown in the picture during this WES. Since most ham gear is black, I painted the key base and knob gold to make it more interesting...at least to me :-) I wish I would have realized this month's theme sooner as I have some ideas for home brew keys. Maybe next year! 73, Jacob N3VH



See IMG_20200810_101325 024.jpg for a picture of my home brew "limit switch" straight key. It was used for all of my WES QSOs. Yellow dot is for my index finger for pressing the key. 73, Joe WB9EAO

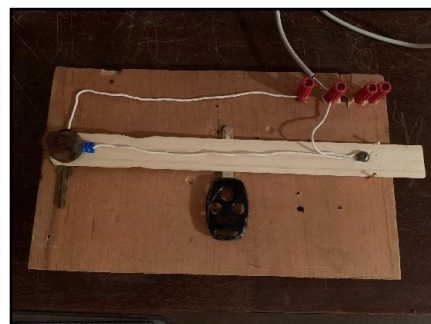
August WES 2020 X



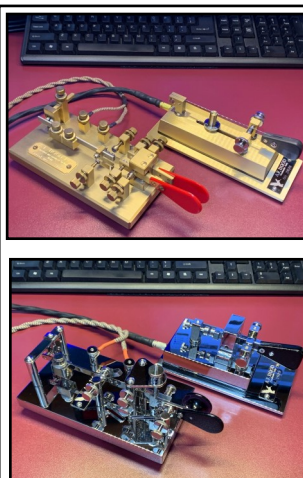
It's just a mouse glued to a paper weight. The circuit was modified to enable the Left Pad to be used as a key. Not original thinking! I feel like I'm cheating because the movement pattern and feel is identical to using my J38. I use 3 fingers on the J38 but only my index finger on the mouse key. In both cases my arm and wrist are suspended above the table. Motion comes from the wrist and arm. The fingers are motionless. My finger becomes a bit more fatigued because only one finger (not 3) is supporting the weight of my arm. I highly appreciated addition of my G5RV antenna. That antenna added 80M to the band list and gave performance improvement on 40M and 20M over my vertical. About 30% of my QSO's were on 80M on Saturday evening. Having fun! 73, Peter W2SKY



Set up my original Drake C-Line/SB-220 station (circa 1976) in the basement for the WES. The gear has been refurbished and updated over the years and ran fine. Key was the 1915 Vibroplex japaned original. Had a few contacts on the K3 upstairs but mostly stayed in the basement. Antenna: 160 meter horiz loop. Band condx ranged from pretty good to downright terrible. Of course there always seems to be a contest on .. ugh. Wrked a lot of newer members this time. 73, Dave W3NP



Big ideas-started with an interesting piece of door hardware imagining a camelback key-ended up with a paint stir stick double key-because I used two real keys. Lessons learned-pay attention to the way the contact surfaces meet, the sliding key made it somewhat comfortable as far as height vs. stiffness goes, and there definitely is an upper limit on speed. Fun anyhow-that's what it is all about but back to the Flameproof next time! 73, Greg WA1VIL



Here are four of my Alberto Frattini Bugs and Sideswipers that I thought you might enjoy seeing. 73, Mark KM4AHP



Got my KN4YB Bug. Hope to get a few SKS QSOs later. 73, Mike W4WVW

“Dirigibile Italia”

The last decades of the 19th century and the first 40 years of the 20th century were characterized by an enormous interest for the exploration of the last uncharted territories of our planet. At the same time, the interest was high in the application of radio science and technology to communications, as well as in the conquest of the air with airplanes and airships. More than 90 years have passed since the shipwreck of the airship “Dirigibile Italia,” occurred in the 1928 polar venture. Those facts gave rise to discussions and controversies that, besides stealing the main pages of the newspapers of that time, reverberate still today. Specifically, the topic related to the high-frequency (HF) loss during flares and geomagnetic storms has been again recently emphasized by Frissell et al. Accordingly, we undertake a reconstruction of the space weather conditions characterizing that epoch, to try to further explain or confirm the hypotheses made about the HF radio communications difficulties encountered by the survivors. This is done resorting to recent ionospheric models and to an improved knowledge of the polar environment.

The Historical Facts

Roald Amundsen, the Norwegian explorer who first reached the South Pole in 1912, overflowed the North Pole in 1926 on board the airship “Norge,” piloted in that venture by his designer Umberto Nobile, an Italian Air Force engineer. In those years, before the tragedy of the airship “Hindenburg” in 1937, the competition between airplanes and airships as media of transport was still a main issue. What motivated Umberto Nobile to plan a new expedition to the North Pole in 1928 was a mixture between the international competition in the new technologies and the possible exploration of unknown territories. The main targets were, however, the quest for potential unexplored emerged lands and the carrying out of several geophysical experiments, including a possibility to touch the iced surface of the Pole.

A new airship called “Italia,” built by Umberto Nobile, left Milan on 15 April 1928 and arrived at King's Bay at Svalbard Islands on 5 May. The plan was to perform several explorative flights over the Arctic region and finally overfly the North Pole. Figure 1 shows Umberto Nobile and the airship “Italia.” The “Dirigibile Italia” left NyAlesund, the small village close to King's Bay, on 23 May 1928, overflowed the North Pole on 24 May and then retraced the route to get back to Svalbard Islands. At 10:35 UT of 25 May, under difficult weather conditions and when it was at about 400 km northeast of NyAlesund, the airship shipwrecked on the sea ice surface. Part of the cabin with nine surviving remained on the ice-pack, while unfortunately a tenth member was killed on the impact with the ice. Subsequently, the rest of the airship took off again with the other six crew members and disappeared for ever. The nine survivors took cover under a red tent, so the “Red Tent” became the historical name used to identify the event.



Figure 1 The airship “Italia” at NyAlesund and Umberto Nobile (courtesy of Irene Schettino)

Luckily, an HF portable radio transmitter was available to the survivors of the Red Tent. The apparatus, called “Ondina 33,” was originally designed to be used only for communications between the airship and members of the expedition during explorations on the ice-pack. The Ondina 33 was a prototype of a simple HF apparatus built by the naval arsenal of the Italian Navy in La Spezia harbor. It was able to generate a 5 W output over a range between 30 and 50 m. It was based on a project similar to that of many other battery-powered small transmitters, very popular among the radio amateurs of that epoch. It was made up by a Hartley Oscillator, a small Philips TB 0410 triode, a 16-ring spiral, an air capacitor, two small fix capacitors, and a voltage transformer from 12 to 300 V .

Just after the shipwreck, the radio operator Giuseppe Biagi started sending SOS messages to the ship “Città di Milano” of the Italian Navy anchored at King's Bay through a really precarious antenna system by using the 9.1 MHz radio frequency. Then, he moved the frequency to 9.4 MHz, being this frequency the one through which he listened (using a HF radio receiver Burndept MK4) to the news from the radio broadcasting station located in Rome (41.8°N, 12.5° E). The attempts to send a distress message were all unsuccessful, except for one uncertain episode. In fact, the ship “Città di Milano” was not able to receive those messages. On the other hand, although sporadically, messages sent by the ship equipped with a 10 kW HF transmitter were received from the Red Tent.

On 3 June 1928, 9 days after the crash, a young Russian radio amateur, Nicolaj Schmidt, was able to receive the SOS signal sent by the survivors and launch the alarm. He received the signal on the 9.4 MHz frequency with his home-made radio receiver, located in a small village close to Arkhangelsk (64.3°N, 40.3°E), a little town 1,900 km far from the Red Tent. Left side of Figure 2 shows the geographical positions and relative distances between the Red Tent, just after the shipwreck at the end of May 1928, and the ship “Città di Milano,” the Russian town of Arkhangelsk, and Rome. Right side of Figure 2 shows both positions of the Red Tent at the end of May and at the end of June 1928 after drifting on the iced sea and the corresponding distances with the ship “Città di Milano.” After this first contact, the communication between NyAlesund and the Red Tent was first occasional and then firm, also thanks to a reduction in the transmission frequency due to a modification to the antenna. According to the memorial by Biagi the original antenna was a telescopic vertical oscillator. After damage due to the impact, the survivors rebuilt the antenna and subsequently lengthened it to reduce the frequency.

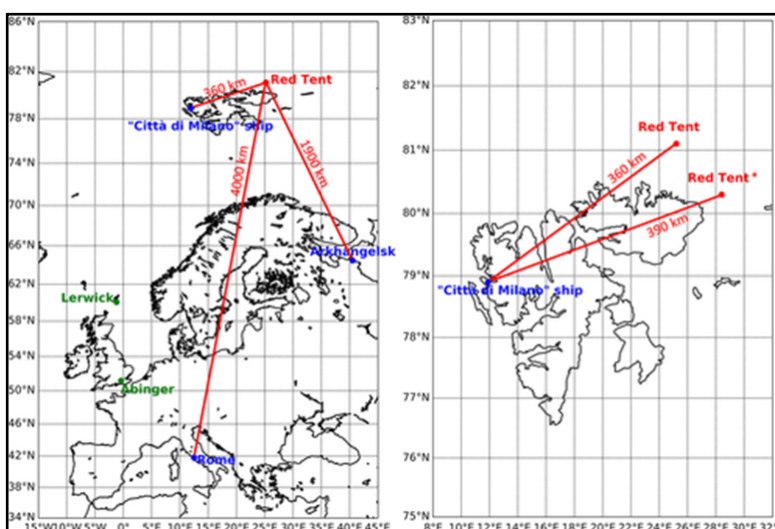


Figure 2

(Left) Geographical positions and relative distances between the Red Tent, just after the shipwreck at the end of May 1928, and the ship “Città di Milano,” the Russian town of Arkhangelsk, and Rome. The position of Lerwick and Abinger geomagnetic observatories are shown in green. (Right) The approximate position of the Red Tent at the end of May 1928 just after the shipwreck and that at the end of June 1928 (Red Tent*) after drifting on the sea ice and corresponding distances with the ship “Città di Milano.”

Time and frequency used Transmitter Receiver Quality of

Table 1. Concise Scheme of the Radio Links and Corresponding Radio Frequencies Characterizing the Red Tent Event

Time and frequency used	Transmitter	Receiver	Quality of reception	Geomagnetic condition
25–31 May 1928 9.1 MHz 9.4 MHz	Red Tent	Ship “Città di Milano,” NyAlesund	Only one uncertain radio link	Disturbed
25–31 May 1928 9.1 MHz	Ship “Città di Milano,” NyAlesund	Red Tent	Sporadic and very disturbed	Disturbed
25–31 May 1928 9.4 MHz	Rome	Red Tent	Clear	Disturbed
3 June 1928 9.4 MHz	Red Tent	Arkhangelsk	Clear but sporadic	Quiet
After 6 June 1928 9.4 MHz	Red Tent	Ship “Città di Milano,” NyAlesund	Clear but sporadic	Quiet
Early July 6.4 and 6.5 MHz (in transmission) 6.5 and 5.4 MHz (in reception)	Red Tent	Ship “Città di Milano,” NyAlesund	Clear	Quiet

Finally, on 12 July 1928, after 48 days on the ice, survivors were reached and saved by the Russian icebreaker “Krassin.” During the rescue operations, in a further tragedy, 15 rescuers died, among them the crew of a French airplane with the explorer Roald Amundsen onboard.

This story was taken with permission from:



The Shipwreck of the Airship “Dirigibile Italia” in the 1928 Polar Venture: A Retrospective Analysis of the Ionospheric and Geomagnetic Conditions

B. Zolesi M. Pezzopane C. Bianchi A. Meloni Lj. R. Cander R. Tozzi

First published: 08 June 2020

<https://doi.org/10.1029/2020SW002459>

Keys, Keys, Keys!

What key do you prefer? There are keys for everyone's preference. Here are some of the more common and some of the "exotic" keys available. Good CW, ease to the arm (no "glass arms" please!), what you can afford and of course, what "looks" good to you are the determining factors in choosing a straight key.



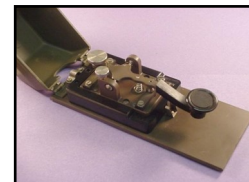
Lionel J-38



Navy Flameproof



Viz Key Camel Back



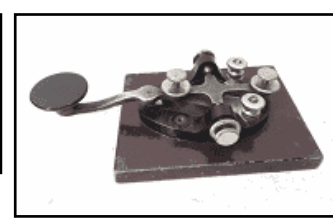
German Junker



Vibroplex



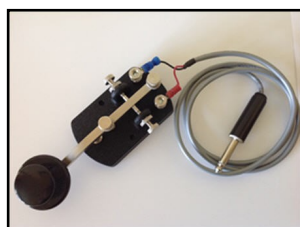
Brown Brothers



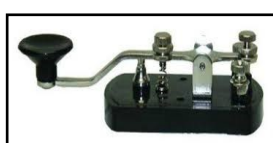
J-37



MacElroy Stream
key



Nye Viking Speed X



MFJ



Czech Army



LMR SKCC key



Bencher



Chinese Army

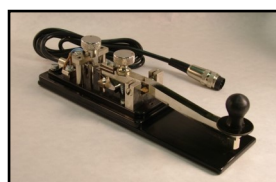


Japanese JJ-38



NT9K SKCC Pump

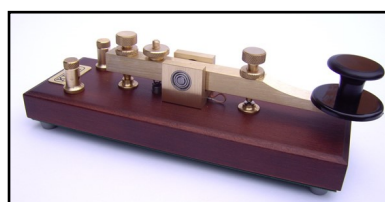
Here are a few more "exotic" keys used by SKCCers:



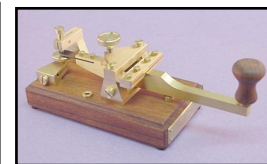
Danish Amplidan



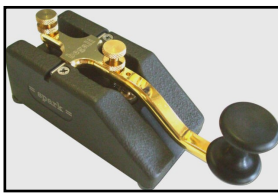
GHD



Kent



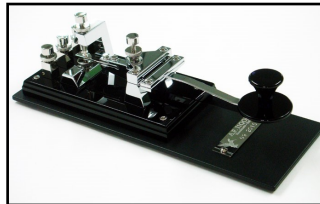
Swedish key



Begali Spark



I1QOD Marconi
copy



I1QOD Swedish copy



This is the “original”
SKCC key and very,
very rare!

The keys shown in this article are only a few of the many, many different straight keys used by SKCC members. There are probably as many different straight keys used by members as there are members (nearly 22,000)!

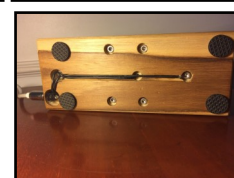
Next issue will illustrate “some” of the different bugs used by SKCC members.

“Some” Home Brew Keys from August WES 2020

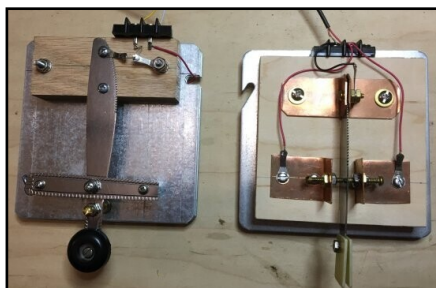
Here are just a few of the home-brew keys used in this year’s August WES:



A very fine key
made by Francis
PY2FRA



Cliff, KU4GW
used this key. Is
that a “cookie” or
“hamburger” for a
finger piece? Oh
well, if condx are
poor Cliff can al-
ways have a
“snack” with his
coffee!



John, W1TAG couldn’t decide to make
a straight key or a cootie for the event
so he made both!



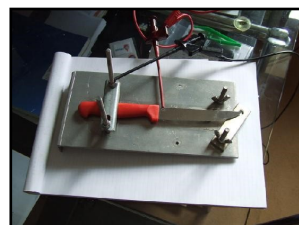
AA4AZ



AC2RJ



AI9IN



F6EJN



G0OXT



K8FAC

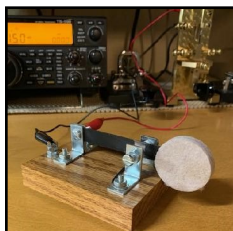
“Some” Home Brew Keys from August WES II



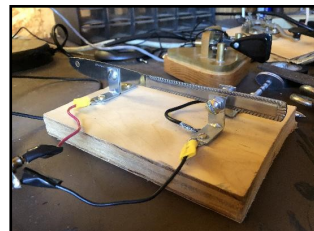
K8ZAA



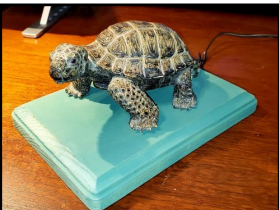
KA8MNP



KB3NSK



KB5RXL



KC5F



KD9EBS



KF6C



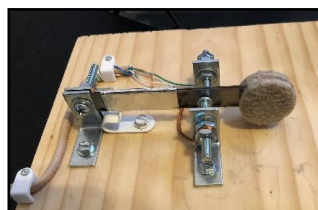
N3YUG



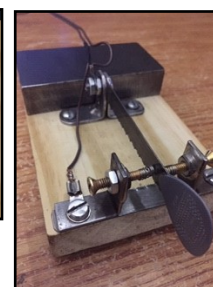
N4API



N4EWF



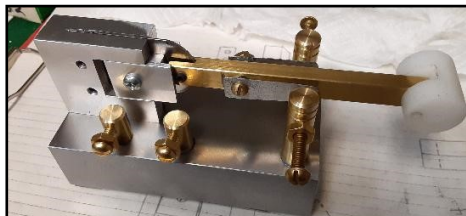
N8NDJ



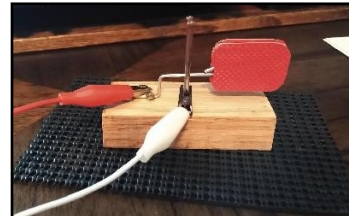
N5DR



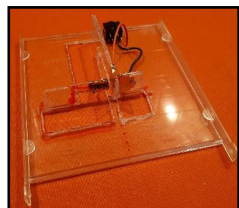
N8XI



N9ZXL



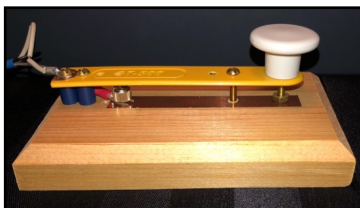
NA5ET



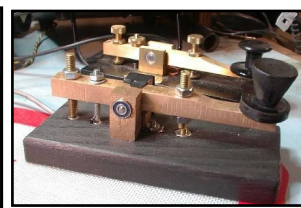
ON7DQ



PG4I



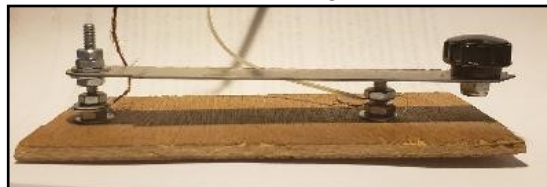
VA3RSA



VE1AHX



VE6YD



W1RO



W9GT

"Some" Home Brew Keys from August WES III



W1BLU



W9GHX



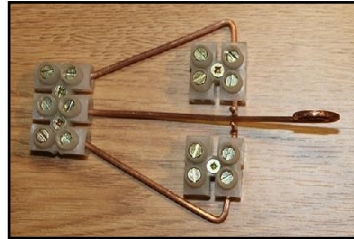
WB3GCK



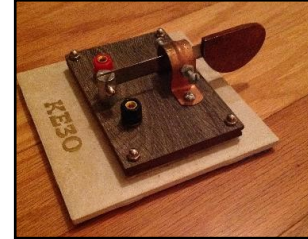
WB9TFF



WB9EGZ



CT1BQH



KE3O



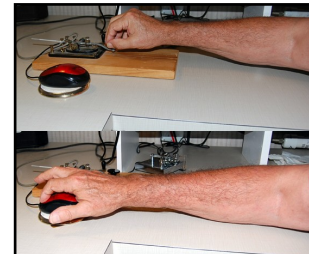
KB4QQJ



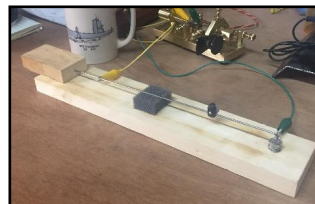
KF4AV



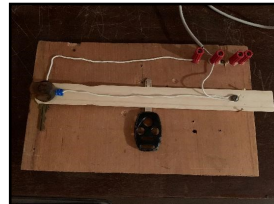
LW3EX



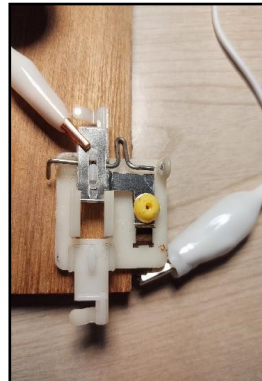
W2SKY



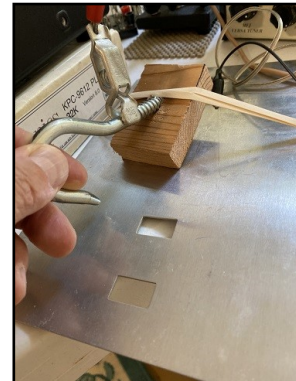
W9KMK



WA1VIL



WB9EAO



WA4NID



AC0PR

Precision Morse Keys

There are many fine straight keys available to SKCC members. From the "standard" J-38 to those beautiful keys from Begali, IIQOD, N3ZN, Kent, GHD and Viz Key. There are even more in a search on Google! Unfortunately one of the better precision straight key is no longer made. It is the German "Junker" (pronounced "yoonker") and can be found today (sometimes) on "ebay" and other trading sites.

Many SKCC members use Junker keys and have glowing reports about this key regarding its extremely smooth operation and its excellent construction. Cost of a used Junker can be quite startling, anywhere from \$50 to \$250 and even more! The history and development of the Junker is quite interesting. The following article is a history of the Junker.

German Junker Precision Morse Key

English Translation is provided by David J. Ring, Jr., N1EA of an article in Gregor Ul-samer's book, "Faszination Morsetasten." Greg's is DL1FBE and his email address is dl1bfe@web.de Contact Greg for book sales. This translation is unauthorized and is provided without warranty of any type. Use at your own risk.

After his career as a decorated radio officer of the Imperial Navy, Joseph Junker founded his Funktechnische Werkstätten in Berlin in 1926. In them he produced, among other things, banana plugs with expandable contact part (patented on 31.8.1929), later tube transmitters and receivers as well as test equipment for submarines, and his now famous straight key.)

For his Morse key, Joseph Junker received German Reich Patent No. 613176 issued 11.11.1931. This key, whose precision and innovation was unsurpassed, was and still is considered a top quality product by professional radio operators and radio amateurs all over the world. For Junker a robust and fixed key was important. For this reason, it was given a base plate made of drawn steel and an injection-molded base. To operate the transmitter unit type Lo1 UK35, Junker introduced a cover made of aluminium, for the operator's protection because the transmitter vacuum tube anode (plate) high voltage of the transmitter tube was directly keyed by this unit.)

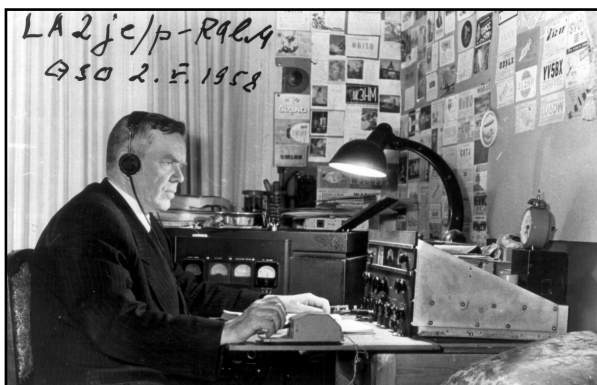


Photo of Ernst Krenkel, RAEM, at his Collins station with a Junker key with cover, QSL for LA2JE/p from 2.V.1958. [Mike Hewitt G4AYO]. Krenkel was given special authorization to use the ship radio call RAEM on the amateur bands.

A special feature of the Junker key was the screw that set the contact gap with markings and a locking device. It was initially produced with a special thread, the finest thread with the smallest pitch. Later keys were given a metric fine thread M7 x 0.3 for cost reasons. 1936 the first series also received a chrome-plated lever. An additional innovation was the spring tensioning screw, which was attached to the side of the lever and allowed each radio operator to individually adjust his keystroke spring tension during operation. Depending on requirements, the key was furnished with a suitable spark extinguishing and suppression circuit. The weight of the standard "M.T." key was 1 kg.

Up to the present day, the company has been producing several hundred pieces per year by hand, modified according to the customer's wishes, before the war they were marked "D.R.P." = "German Reich Patent," after the war without that inscription or with the indication: "D.B.G.M." = "Deutsches Bundes Gebrauchs Muster" or translated into English "German Federal Utility Model".

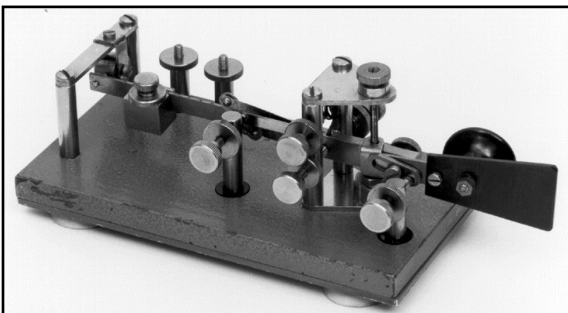
The lighter weight model with a knee clip, "M.T.1" the weight was only 400 grams, the Junker key was furnished with a plastic base plate and a special clip spring designed to hold the key securely to the operator's knee while he was sending. Variants were given a narrower injection-molded base, special terminals, a second, independent normally closed circuit and a custom colored enamel coating.

The "Junker" straight key is one of the most widely used keys on German radio transmitters. It was especially used in shipping and coastal radio stations - generally in light grey color. The German Armed Forces and the Federal Border Guard used it as a standard key according to NATO specifications.



Junker keys are reported to have been manufactured during the war under license by the company Wilhelm Johnson A/S, Amerikavej Street, Copenhagen, Denmark. Johnson manufactured and installed smaller marine radio stations for small craft like fishing boats and Auxiliary naval vessels.

The end of the Second World War led to a relocation of the Junker company from Berlin to Bad Honnef, where a branch factory had already been founded in 1934. Joseph Junker died in 1946, the company had to build up a new product range; the Morse key was the only one of the old products left.



The semi-automatic Junker Morse key, system "BUG", is little known. Although its use was not permitted, it was used by the Federal Border Guard in the 1950s by the radio operators. There it was known as "Bäg" (Rug beater?) or "Frequenzputzer" (English= vacuum cleaner?), because a string of dots could be used to generate attention and readiness to listen. Junker Semiautomatic key. With a thick hammered grey base plate, the "BUG" had a weight of 1.5 kg. In its

catalog no. 30 of 1974 the company Hannes Bauer offered the semi-automatic Morse key from Junker for 115 DM.

Junker keys can be found in various colors but according to Mr. Rolf Schoesser DK1ZH, who worked for Junker for many years, the only true Junker colors are:

" Light gray " (land station as "NORDDEICH RADIO", very old) .

" Sandy " (German Africa Corps / Army) --

" Light blue " (for the old Navy ((merchant navy)

"The " standard grey "are the JUNKER color's, nothing else. "

August SKS Eu 2020



Three fun QSO's and thanks to K2FW, VE3KZ & IT9QAU, all on 20m. Did try 40m and heard several SKCC'ers but they didn't hear me HI. Key pictured is a Mystery key, any ideas ? Rig - Yaesu FT100d 100w to a 20ft tall ground mounted vertical. 73, John G0RDO



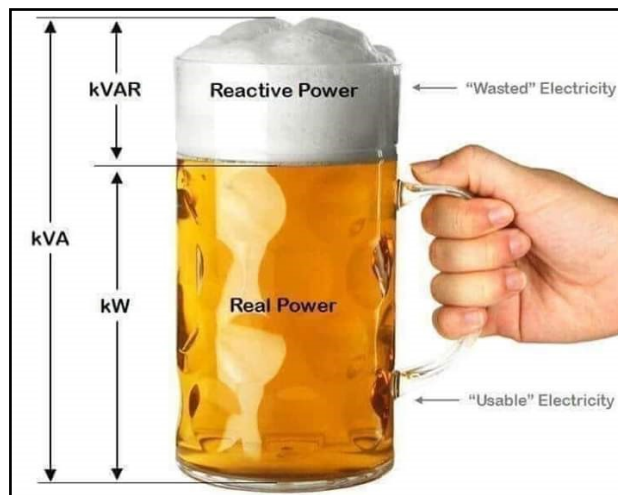
Only worked Europe using 20 nothing heard on 40. 73, Brian KF6C



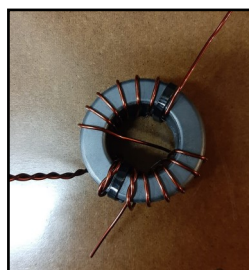
73, Leon OS0S



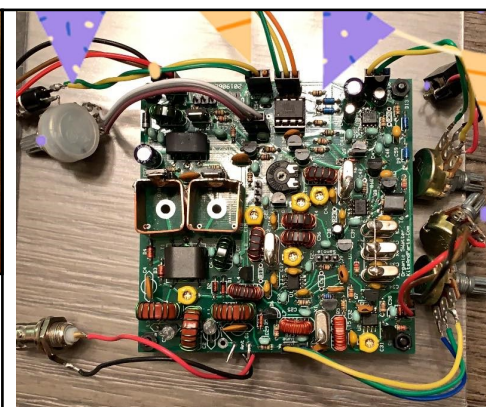
Thanks Bernard for nice 3 band QSO, very propagation and high noise level here. Using FT817nd 5W output into double Windom and Inv Vee antennas. Key is original WW2 Junker (with D.R.P. mark, new one in my collection). 73, Kare YU7AE / qrp



Very surprised to receive my 13 Colonies certificate in yesterday's mail. I don't recall ever getting it this quickly! Thank you to all the folks who help make that event happen each year! 73, Larry N1FG



Building some new antennas for some of the new upgrades in our club. 49:1 unun for a End Fed Half Wave. 73, Tony KD8BBK



Well the Organic 5 "Watter" is up and running! Big thanks to N5OLA for being my first contact on it! Now it's time to get it into an enclosure. 73, Josh KG5PFD

The following interesting article is copyright of the Radio Society of Great Britain and reproduced with their kind permission. Visit RSGB at: <https://rsgb.org/>

An Alternative to Encryption

Peter Davies, M0PJD
peterjdavies36@gmail.com

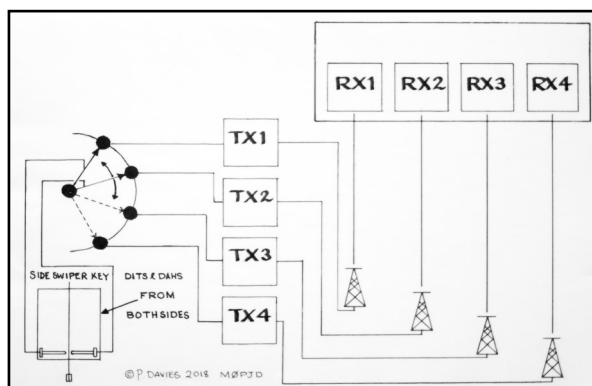
One day in 2017, whilst on duty in RSGB's National Radio Centre at Bletchley Park, I was asked if I had ever heard of a communication system that Germany may have trialled during WWII.

The system involved sending Morse code using two keys, one for each hand. This may seem a bit awkward but, with a little practice characters, can be split between the two keys therefore a different frequency for each key could be used. Anyone listening would only get a portion of the sent character and it would not be readable unless you knew and monitored both of the frequencies in use.

Such a system, used properly, would allow short classified messages to be sent in plain language safely, where the need for speed was paramount. Using the Enigma machine was a very slow and a labour-intensive process. This idea fascinated me, so I started to give the subject more thought.

Using this system with two keys would depend on the operator making sure he did not send a whole character on one key – enter the Side Swiper or Cootie key. This key was the forerunner of the bug key and was in use as early as the beginning of the twentieth century. The following explanation is just one method that I think may have worked. There are variables. Each side of the key is wired to a rotary switch that could be motor driven. There are four transmitters each on a different frequency, even a different band. Two of the transmitters would be in use at one time, one for each side of the Cootie key. As this type of key produces dits and dahs from either side, both signals transmitted would contain unreadable dits and dahs. When there is a pause in between words, a timer relay could rotate the transmitter selector and start using another pair of transmitters. The pause could be introduced by the operator. Anyone monitoring one of the frequencies would just hear the dits and dahs with long spacing, which would mean nothing.

At the receiver site there would be four wireless sets each monitoring the four prearranged frequencies. The operator would hear the complete signal from any two of the four receivers he/she was listening to. There are obvious shortcomings but none that could not be overcome. Tuning at the transmitter site and receiver site would be critical. The operator would have to be trained on the side swiper key and be security cleared to read the classified traffic. Propagation would play a part, but then it does in any HF transmission. The system would probably be best suited to a base station or large mobile unit, owing to the bulk of the equipment back then.



I have it on very good authority that the Abwehr (Germany's intelligence service during WWII) at one point were told to listen for strange Morse type signals. They were detected but they were not told of the origin of such signals. More research was made on 'frequency hopping'. The full title being 'Frequency Hopping Spread Spectrum'.

It turns out the first person to realise there was some potential in this was none other than Marconi himself. Tesla saw something in it and Hedy Lammar the Hollywood actress is said to have invented a system to prevent the jamming of allied radio controlled torpedoes, by frequency hopping, using a system similar to the pianola paper roll for switching purposes. The 'Jacquard loom' also uses the same method for patterned weaving.

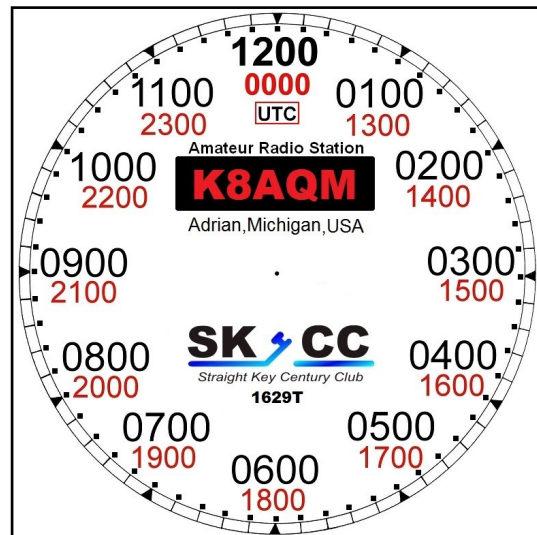
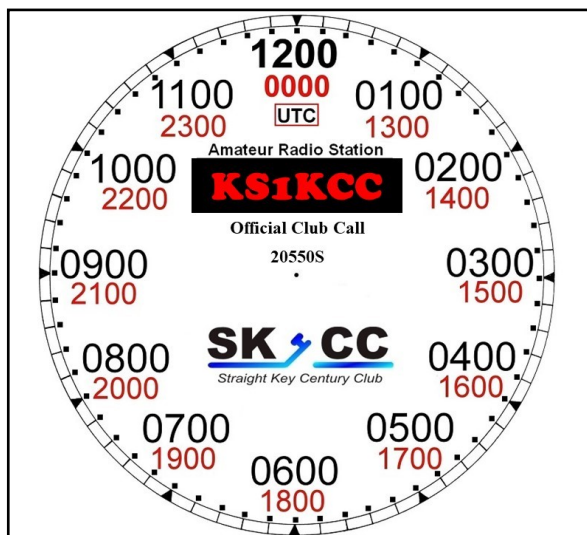
Indeed, a similar pianola type paper roll could be used to switch the Morse transmitters. At this point I thought of calling it a day on trying to find out if such a system was ever used. After all, if it had been thought of before World War One, this must be 'old hat'. But then using the Cootie Key just makes it a bit different.

If this was used during WWII, we are looking a seventy to eighty years ago. It would have been very difficult or if not impossible to monitor the HF spectrum to tie the complete signal together so to speak. Even today, with modern equipment SDR receivers and their fast scanning capability, it would surely be a difficult task?

One line of thought is that if one of the frequencies was recorded to say a period 'Inker' onto paper tape, the spaces could possibly be filled in. This would not work as the signal is being hand sent, therefore spacing would vary. Someone I spoke to with knowledge of modern systems said to me that this could easily be missed even today as the person monitoring would not know what they were looking at. And the signals are of short duration. My thoughts are that it may well have been trialled in Germany but was possibly dropped as Enigma was already in use and thought to be a secure system. Maybe there was no inclination, or the time to investigate further. Who knows?

Clock Face Project

For those who like projects why not make an SKCC clock face for your shack clock? Here are a couple of examples. It's just a matter of copy, paste and using the drawing tools in either Publisher or Power Point.



August SKS 2020



Got a late start because of a club meeting, but still Great fun tonight. Great to see bands really full. Always thank you all for answering my QRP and all the other QRP stations working. 73, Bud AA8CL



MY FIRST SPRINT. HUMBLING.. HIHI. I WILL HAVE TO PRACTICE UP BEFORE NEXT TIME. THANKS FOR THE CONTACTS. 73, JIM AC0E



What a fantastic SKS! Lots of activity on 40m, a little challenging to make contact at the beginning, but it got easier as the time went by. QRM on 80m, unusable in my location. Happy to contact the usual stations and very glad to contact the newer ones as well, thanks for the new numbers. Have to go up the SKCC ladder! :) Thank you so much everyone of you. See you in the next event! Already waiting! :) 73, AC2RJ, Ruben.



Lots of fun!!! Used my new to me Hi Mound Japanese Bug for most of the QSOs but managed to work in a couple with the old Vibroplex Lightning Bug and one or two with the cootie. Thanks for all the QSOs and the FUN!! 73, Kenny AF4QK



Antennas are back up after tower loss in early June. A few changes, and the 40 seems to work very well. Thanks for all that called. 73, Chas K3WW



Only had a short while to jump in, but, as always enjoyed the contacts and thanks for the reports! Take Care. Stay Safe. 73, Bob K3ZGA IC-7300 at 100 Watts into a Vertical 40M Delta Loop with the peak at 18 feet. Keys tonight were KN4YB's DL150 and Vibroplex Champion Bugs.



Decided to QRP tonite. Thanks for pulling out my qrp 4.8 watts.73, Hank K5TSK



Very disappointing, couldn't hold a frequency on 40m, no QSOs on 80..but called many stations and only a handful on 20, just 1 (N8KQ) on 160m. Even so we had fun and first time some of the gang were together since February! Back to yagis and dipoles next! 73, Ted K8AQM



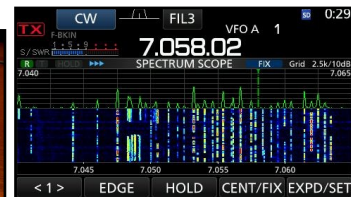
Sorry Ted but 40 was loaded & I could not hear you on the light bulb but I heard Ted WD6TED in San Diego just fine..Oh well worked mostly 40 & then went to 80 for a couple more K8ZAA very strong there as was Jim W4LRB in MA & Jack W9YY in IL. Jack I took the picture across from your old QTH on Exchange St in Vermilion so I thought you would enjoy it I will use the other one I have for next month.. 73, Larry K8TEZ



20m. was weak, 40m. & 80m. were good here in WNY this SKS. Didn't get even 1 Centurion! Rig: IC-7000 at 100w. into G5RV up 25 ft. w/ old WWI German Junkers straight Key. 73, Tom KA2KGP



More fun with the Turtle SK tonight, all on 40m. I thought the Turtle would be a novelty just for WES, but it really works well. I've even used it on POTA activations and the NAQCC Sprint. It was pretty hard tonight to not call CQ POTA! 73, Steve KC5F



Lots of activity into central Georgia on 40 meters. 73, Brian N4API

SKS August 2020 II



20 was super fun the first hour. Best it has been in a long time. West Coast stns were no problem. 40 was packed. Only K3EW on 80. Happy to work many new members, welcome to SKCC ! 73 de AL, N4ow



Nice event. Had planned on equal 40 minute slots on 20 then 40 then 80 - but started on 40 and it was non-stop, coast to coast so never moved! As I have remarked before - especially glad to see so many new members on the air. Good show to all! 73, Dave W1DV



Ran my newly built QRPLabs QCX+ 40M QRP transceiver (5W) into newly built 50W amp (also QRPLabs) with 45W out to a 40M Dipole at 35 FT. for all 40M contacts. Then the IC-746 Pro to work Larry (K8TEZ) on 80M es Ted (K8AQM "Bonus") on 160M.. Lots of fun when things work so gud after a build. Tnx everyone for the QSO's 73, Randy N8KQ



1ST time SKS event. A fun quick event. 73, Jim W1RO

I could only operate the first hour, but had fun! 73, Jack W9GT



First SKS since May. The KX2 and Palm straight key did a good job for me. 73, Mark NX1K



Good Fun as always! Hooked with Ted with his lightbulb antenna on 20, and spent 20 minutes looking for him on 160m, alas, No Joy there. Two nice contacts on 80 meters thanks to Phil K3EW in MD (always a pleasure to work Phil), and Larry WB0B in Iowa for a first contact. I had the pleasure of meeting a new Ham tonight, KE0ZAR. He's not a member of SKCC(yet) but I'm going to send him a QSL & SKCC info card. I hope to see him back next month as a new member! 73, Rich W4RQ



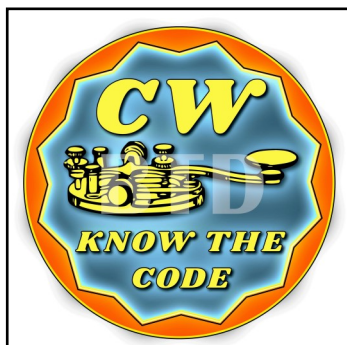
Started on 20 meters then switched to 40 after about 20 minutes and it was much better. Use my trusty old K3 with Bencher RJ-2 key. Only antenna I used was an OCF dipole at 30'.. Thanks all for another fun SKS! 73, Bill NZ0T



Only had one half hour, and a couple of long contacts, but it was fun, as usual ! Our favorite frequencies on 40M were really lit up. 73, Gene W9KMK



I only had a short time to work the Sprint but it was fun. 73, John W9WN



The fastest 2 hours in amateur radio! Lots of fun. Thanks everyone! 73, Ted WD6TED

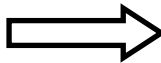


Ready for the SKCC Sprintathon! Oak Hills, CA. I'll see if I get anything in the log. 73, Dave KK6DH



Advantage of point-to-point wiring in the old days.

Off topic but so true!



The new QRP-Labs QCX+ is on the air. Received the kit yesterday morning and, of course, built it in one session. Running 4W on 20 meters with 13.8V power supply. Made my maiden QSO today with W2LUD in WA. Lots of QSB but got a decent 559 report. The CAT interface works great with SKCC Logger. Very cool little rig. 73, Randy K5HJ

How my dog sees himself when the doorbell rings



70 watts and a BuddyStick antenna at my apartment. Not a very potent setup but I'll be looking for SKCC QSOs during the August WES. 73 from



Morning CW operations this morning 73, Bob N1MHV

Proposed New Fees for Amateur Radio and Reduction in GMRS Fees

Section 8 of the RAY BAUM'S Act does not provide any kind of statutory exemption for filing fees in the Amateur Radio Service, which, historically has had no filing fees. Citing the costs involved in the automated processes, routine maintenance of the Commission's Universal Licensing System (ULS) and limited instances where staff needs to be involved in the application process, the FCC is proposing an across-the-board fee of \$50 for new and modified licenses in the personal radio services, which includes Amateur Radio and the General Mobile Radio Service (GMRS). For GMRS, this is a reduction of the current \$70 fee. The FCC also proposes these fees for license renewals and requests for vanity call signs, the latter which had its filing fee eliminated several years ago. The FCC is proposing to still not charge for administrative updates, such as mailing address changes on amateur or GMRS applications. Amateur Radio will remain exempt from annual regulatory fees under Section 9 of the RAY BAUM'S Act.

Lighting-up the Bands...No Joke!

By K8AQM/VE9AQM

Amateur radio is full of mysteries and especially in the theory of antennas. Why do circles of wire radiate, why do random length wire antennas work and especially in this article, why do lightbulbs radiate? The absolute answer is I don't really know except that any wire conductor will radiate "some." This is proven by the use of some folks having an antenna most amateurs should think wouldn't work but through the use of a tuner they do work! The following article is our adventure using lightbulbs as antennas.

For the past year here at K8AQM we have been experimenting with a "light bulb" for an antenna. At the present time we have "light bulb antennas" for 160, 80, 40, 20, 15 and 10 meters. Admittedly, they are used primarily for FT8 and FT4 operation but...I have used them twice in Straight Key Century Club, Straight Key Sprint (SKS) events with amazing success!

The light bulb was used back in my early Novice days (1960s) as a means of tuning a transmitter before connecting it to a "real antenna," my homebrew transmitter had no meter. The light bulb was considered a "dummy load" antenna. Back in those early days my childhood friend (also a ham) lived only two blocks away and quite by chance he "heard" me tuning up! Wow, the lightbulb really was an antenna! As "Generals" we used the dummy load light bulb antennas to talk (AM) late at night on 10m doing our physics homework. One night as we were trying to figure a problem determining the potential energy of some homework problems, a voice broke in and told us we had forgotten an important step and our answer was wrong... DEAD SILENCE...who was this and how could he have heard us? Would you believe it was our physics teacher all the way across town?!? He heard us by chance as he was tuning and hoping for a late night 10m band opening.

Years passed and there was no need for a lightbulb dummy load as the rigs now had meters and tuning was made much easier. An article announcing a "light bulb QSO" party caught the eye of my friend Jeremy, KD8VSQ. I don't know how he does it but he always manages to talk me into the craziest ideas! We started to think about building an "efficient light bulb antenna" (an oxymoron?). With the help of KE8CEW who is a mechanical shop wizard, we designed a fairly efficient dummy load lightbulb antenna.

No reason to re-invent the wheel, we decided not to wind our own loading coils and just use hamstick-type or similar mobile antennas as our loading coils. We used some old quad fiberglass poles and later some PVC pipe for mounting the antennas. Here is what we did: we took the "stinger" out of the hamstick and connected a wire from one of the light bulb socket screws to the where the stinger had been secured in the coil. No connection was (at this time) made to the other lug of the lightbulb socket. Figure 1. illustrates the connection.



Figure 1

Connecting the base of the hamstick was easy too, we just connected the base via a nut in the bottom of the hamstick. A wire attached around that bolt was connected to the center pin of the so-239. Figure 2 illustrates how this was done.

A bolt with a wing nut was added to the plexiglass mount which we used to attach the two "tuned elevated radials." A wire connected to the ground side from the mounted so-239 is connected to the wingnut.



Figure 2

light bulb socket to connect a hard-drawn aluminum wire (length determined by “guess-and-by-gosh”). We then just trimmed the top hat to the exact frequency needed using an MFJ antenna analyzer.

So what is the “theory” as to why this antenna system works? I believe the hamsticks are the “tuner” (loading coil) and the lightbulb is the “random wire” like any other random wire-tuner system. N6BV, who designed many commercial antennas once said, “anything can radiate...some.” I believe this to be true and my experiences with lightbulbs has proven this.

A note about our light bulbs...we use Satco s2431 bulbs. These bulbs have over 60 inches of filament (woven back-and-forth)! They are rated at 100 watts but we run them at 90 watts max. Under “most” CW and FT8 conditions they do not light but at FT4 operations they do glow! Figure 3 shows what the Satco s2431 bulbs are like.

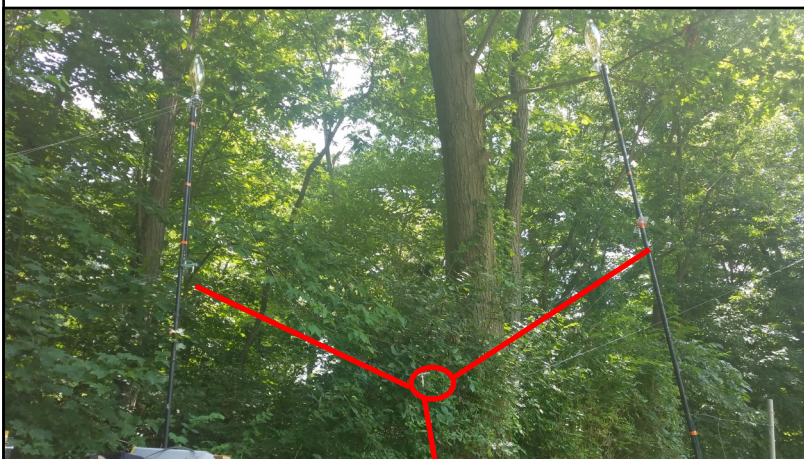
This year for the August SKS, “K8AQM” was the bonus station for the event and we really went crazy...we used “phased” light bulb verticals for 80, 40 and 20m!

Using a pair of bulbs (for each band) mounted on hamsticks and “phased” with quarter wave 75 ohm line, the antennas were positioned broadside E-W. Although a bit difficult to see, Figure 4 shows our 15m phased array.

For the August SKS if you worked us, Mark, NU8Z was the 40m op, Dave, N8DF operated 80m and Ted, K8AQM handled 20m and 160m (single bulb on 160m...



Figure 3



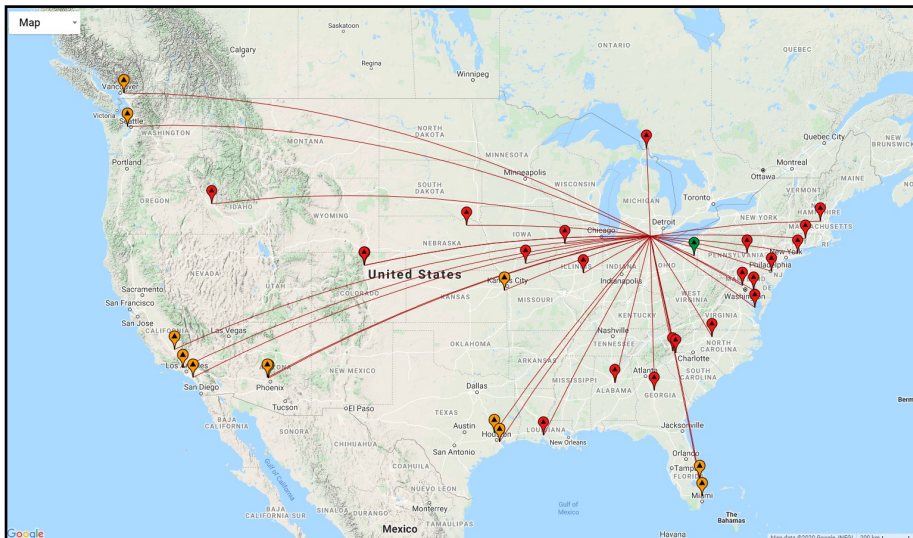
radials and coax are too long!).

So how did we do?

Check out our map of QSOs in Figure 5. Although we worked all over the country, we didn’t do as well as we hoped...nuts! Too many stations on 40m to hold a frequency, no stations on 80m heard us, only 1 station on 160m (N8KQ) and a handful on 20m, very disappointing! All said, it was fun and a

very good experience.

Figure 4



40m...21 Qs
20m...13 Qs
80m... 0 Qs
160m.. 1 Q

25 SPC
1255 points

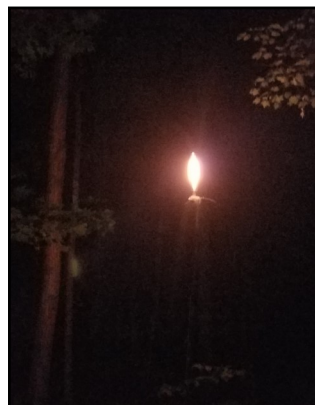
Lightbulb antennas
will never replace
good dipoles and a
yagi but it was “fun”
to experiment and
quite enjoyable as a
conversation topic!

We worked coast to coast and north to south, a
light bulb will radiate RF.

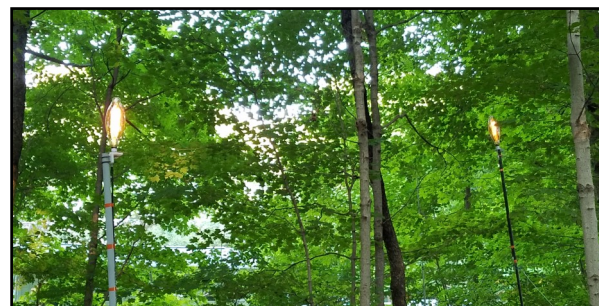
Green = 160m Red = 40m, Yellow/orange = 20m



Mark NU8Z, Dave N8DF and Ted K8AQM



Lighting up the bands and the woods!



40m lighting even in daylight



Due to SWR differences bulbs do not light the same



20m at dusk

What to Do With Your Time

So what do you do if you are "stuck at home" during this pandemic? One answer is you do what Jeff K9JP does...you build and restore. Just before I retired a wise "Elmer" told me, "buy at hamfests all those old rigs you always wanted so you can spend time restoring and rebuilding." Jeff must have had the same Elmer, he is building and restoring boat anchor rigs. Here are just three of his recent projects.



The 1st build is the gray 6V6 almost an AC-1 clone. Chassis is a little longer and not as deep. The Rectifier is 6X5 and MOPA is 6V6. There is a pl-259 on the back but the terminals on the right top are open line connectors. There are plug-in coils for 80 and 40. This one likes the smaller HC-49C crystals I put into the FT-243 and FT-241 crystal holders. Green power on lamp. output is about 4 watts .



The 2nd build is the yellow Bumble Bee - AC-1 Clone. It was originally a kit I purchased on ebay. At that time the chassis came bare metal. I had it power coated in T.C. Same 6X5 rectifier and MOPA is 6L6 because the plate voltage is higher on this one as compared to the gray chassis. Output is around



8 watts now on 40 and 80 and there are two plug-in coils as well.

I just finished my first and second QSO's with the 6L6 Bumble Bee transmitter on 40 meters this afternoon around 3 PM. Yes, not the best time to try for contacts, but two very kind SKCC members were able to hear my weak signal and I was able to hear them with my 60's vintage all original Drake 2B. I do give all the credit to two wonderful SKCC members Tom, N2KPJ in NY and Doug, N3QW in MD for their super stations and excellent antennas.

The 3rd I worked on today. The Viking Challenger had some dirt but I just used a paint brush to clean it up. I used a cleaner I have for plastic for the face and then used spray waxed "Pledge" on the face. Looks



O.K. Pair of 6DQ6 for the PA and a 6DQ6 for the oscillator driver as well. All I did underneath was replace the filter caps. Original were 80uF at 450 vdc. I paralleled two 150 uf 450 vdc caps for each of the old ones. I also added a new ground-

ed power cord and added a thermistor to the 120v input to create a soft start when power is first applied. I also added a fuse holder as there was none found in the original condition. Output is 80 watts on 40 meters and was heard by a number of RBN receivers with 15 to 28 dB SNR. Next is to find a close color paint to the original cabinet color and repaint the cabinet of the Challenger. One thing for sure, DTE will be making some money when I have one of these turned on. The Challenger is a real heat generator!