FIELD DAY 2020
Reno County Kansas Amateur Radio Association

A group of RCKARA operators – photo Todd Wilson

Sheriff Campbell listens in - photo Brian Shull

Come Find Out What Amateur Radio is All About – photo Todd Wilson

Antenna system used – photo Todd Wilson
There is a strong group of Visually Inconvenienced Hams in Wichita, quite active on all bands.

Their motto:

“My blindness is not a handicap, but rather I choose to see it as an inconvenience,” said my friend Russell to me and he is so right. An inconvenience can be overcome. In this Ham Radio group we will help each other overcome barriers to our ham radio fun. friend Russell to me and he is so right. An inconvenience can be overcome. In this Ham Radio group we will help each other overcome barriers to our ham radio fun.”

This group is about having fun... All are welcome. They operate on all bands, and have several nets they operate and have Net Control for. One can always depend on someone being on 52 simplex in the Wichita area. Especially at night, when the 52 Simp is alive with many operators, sighted and unsighted.
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**Century Class Solar Minimum**

Editors Note: Solar minimum is not a contact killer, it just adds to the challenge on the bands to use. This only happens every 100 years!


NOAA has released a new interactive tool to explore the solar cycle. It lets you scroll back through time, comparing sunspot counts now to peaks and valleys of the past. One thing is clear. Solar Minimum is here, and it’s one of the deepest in a century.

Click to explore almost 300 years of sunspot counts

Solar Minimum is a natural part of the solar cycle. Every ~11 years, the sun transitions from high to low activity and back again. Solar Maximum. Solar Minimum. Repeat. The cycle was discovered in
1843 by Samuel Heinrich Schwabe, who noticed the pattern after counting sunspots for 17 years. We are now exiting Solar Cycle 24 and entering Solar Cycle 25.

During Solar Minimum, the sun is usually blank—that is, without sunspots. The solar disk often looks like a big orange billiard ball:

In 2019, the sun went 281 days without sunspots, and 2020 is producing spotless suns at about the same rate. To find a year with fewer sunspots, you have to go all the way back to 1913, which had 311 spotless days. This makes 2019-2020 a century-class Solar Minimum; solar flares are rare, geomagnetic storms are almost non-existent, and Earth's upper atmosphere is cooling.

Some people worry that the sun could "get stuck" in Solar Minimum, producing a mini-Ice Age caused by low solar activity. There is no evidence this is happening. On the contrary, the next solar cycle (Solar Cycle 25) is showing unmistakable signs of life.

On May 29th, the sun unleashed the strongest solar flare in years—an M1-class eruption that just missed Earth. The blast came from an active region belonging to Solar Cycle 25.

Observers are also seeing a growing number of Solar Cycle 25 sunspots. So far in 2020, the sun has produced a dozen sunspots. Nine of them (75%) have the magnetic polarity of Solar Cycle 25. This compares to only 17% in 2019 and 0% in 2018. The sun is clearly tipping from one solar cycle to the next.


So far, so good.
### Links for Kansas Hams!

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<td>ARRL KS Section News Page</td>
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<tr>
<td>K-Link Repeater Network</td>
<td><a href="http://ks0lnk.net">http://ks0lnk.net</a></td>
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Links to all known Kansas Clubs can be found at the bottom of [https://ksarrl.org](https://ksarrl.org).

If you change your Clubs web address, please contact Kent at [kb0rwi@arrl.net](mailto:kb0rwi@arrl.net)

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### Net Reports provided by Richard, KØRCJ

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<tr>
<td>Wichita Amateur Radio Club (WARC)</td>
<td>WARC DMR Nets</td>
<td>4</td>
<td>145</td>
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<tr>
<td>WARC Fusion Nets</td>
<td></td>
<td>4</td>
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<tr>
<td>QCWA</td>
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<td>0</td>
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<tr>
<td>Reno County KS ARA (RCKARA)</td>
<td>KS SSB Nets</td>
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<td></td>
<td>KS Phone Nets</td>
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### Supporting Our Veterans - Honorably Discharged

**S*M*A*R*T - Special Military Active Retired Travel Club**

- **KCONDG** Sherwin  
  or **SARG**; EX-K102 1960 to 1987  
  or **TOP**, 1SG; Army USAR, Retired 1951 to 1987 --- final discharge 1994

God Bless those who have served this great country AMERICA  
Proud Military Veteran  
SEEING THE COUNTRY WE DEFEND  
SHERWIN & DOROTHY STIELOW

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### Western Kansas 160m Net. Tuesdays at 9:00PM Central Time

The Western Kansas 160m net is held every Tuesday evening at 9pm central time on 1.960 LSB. All general class and above stations are welcomed to join in.
Silent Keys

As a service to fellow hams across the state, I urge all individuals and Clubs to send me Silent Key notices. Please include a link to an obituary. I watch Larry’s List for announcements of hams from Kansas. If you are not on Larry’s List, I will forward the notice to him. He in turn notifies the ARRL. As Larry cannot include pictures, I do my best to find images so that a face can be put with the name and call. Thank you!

The planning for the Kansas QSO Party is moving along nicely. All our sponsors from last year are in once again which is amazing considering the economy. We’ve even picked up several new sponsors, so I’m feeling very appreciative as you might guess!

The web site is current with 60+ operators already committed, many more if you include club activities. We have four mobile routes posted including two new ops coming in from ID and WY. Western Kansas is already well-covered as you can see if you check the maps on the KSQP web site. It’s usually the hardest part of the state to cover, and to have it covered so early is a KSQP record! There are many more mobile and portable routes still pending which should fill in the rest of the state. Of course all this can change and we’ll keep monitoring the COVID-19 situation closely.

Like two years ago, we may have more ops wanting 1x1s than we have spelling words, so I might open up another call series to get more calls, or perhaps even a new spelling word. If you’re interested in operating, fill out the county activation form on the KSQP web site and I’ll be in touch.

The Kansas School category would have been difficult this year, so it’s been dropped in favor of a new Kansas Youth category and a Club category with distributed operations allowed. Several clubs have already expressed interest. We also have a new Kansas CW award. All awards including the new ones are already sponsored. We just need ops to enter!

Here are some suggestions:

Help your favorite Youth enter the new Kansas Youth category this year! This category allows multi-op, so perhaps a family event?

Consider the Kansas QRP category. Last year, N0JK won by submitting a log with just one contact since he was the only one to enter. This category has had very few entries in the past.

Check out the new Club category. You can use one call sign from multiple locations as long as you
coordinate the frequencies used. You don't want two stations on on the same band and mode with the same call sign at the same time. This category was used very successfully in the Florida QSO Party to take the place of mobile operations.

Don't forget to add Kansas Rookie to your entry if you're a first time KSQP participant. If you assisted a club operation in the past but have never turned in your own log, you would still be considered a Kansas Rookie and would be eligible for the award.

Remember that KSQP 2020 is the LAST weekend in August, August 29-30. We won't be sharing bandwidth with Ohio and Hawaii like we usually do, so let's fill the airwaves with Kansas stations! Judging by other state QSO parties, activity is way up, so it's a great year to get on and have some fun. Check out the KSQP web site for more details. See you on the air!

73, Bob, w0bh  
KSQP Coordinator

<table>
<thead>
<tr>
<th>Days</th>
<th>Time</th>
<th>Mgr</th>
<th>Freq</th>
<th>Net Name</th>
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<tr>
<td>M, W, F</td>
<td>6:45AM</td>
<td>K0RCJ</td>
<td>3920 KHz</td>
<td>Kansas Phone Net</td>
</tr>
<tr>
<td>Daily</td>
<td>7:00AM</td>
<td>WD0RWE</td>
<td>3920 KHz</td>
<td>Kansas AM Weather Net</td>
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<tr>
<td>Sat, Sun</td>
<td>8:00AM</td>
<td>K0RCJ</td>
<td>3920 KHz</td>
<td>Kansas Phone Net</td>
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<tr>
<td>Mon -Fri</td>
<td>12:30PM</td>
<td>KC5MP</td>
<td>7253.5 KHz</td>
<td>Central States Traffic Net</td>
</tr>
<tr>
<td>Daily</td>
<td>6:00PM</td>
<td>WD0RWE</td>
<td>3920 KHz</td>
<td>Kansas Weather Net</td>
</tr>
<tr>
<td>Daily</td>
<td>6:30PM</td>
<td>K0RCJ</td>
<td>3920 KHz</td>
<td>Kansas Sideband Net</td>
</tr>
<tr>
<td>Daily</td>
<td>7:00PM</td>
<td>NB0Z</td>
<td>3547 KHz</td>
<td>QKS CW NTS Traffic Net</td>
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<tr>
<td>Mon</td>
<td>7:30PM</td>
<td>WD0ESF</td>
<td>3547 KHz</td>
<td>QKS SS CW Traffic Net</td>
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<tr>
<td>Daily</td>
<td>10:00PM</td>
<td>NB0Z</td>
<td>3547 KHz</td>
<td>QKS CW NTS Traffic Net</td>
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I have posted public service nets on [https://ksarrl.org/traffic.php](https://ksarrl.org/traffic.php)
AMATEUR RADIO EMERGENCY SERVICE
MONTHLY EC REPORTS

◆ Zone 4A – Brian KCØBS

JUNE MONTHLY ARES REPORT TO DEC & SEC
Total of ACTIVE ARES members: 150 +0

Local Net Name: Johnson County ARES

Emergency Coordinator = Brian Short KC0BS 913-638-7373
Alternate Emergency Coordinator, Recruiting = Jim Andera K0NK 913-884-6613

Assistant Emergency Coordinators:
Herb Fiddick - ECS Liaison
George McCarville WB0CNK - Training, Drills
Matt May KC4WCG - IDs, MECC
Bill Gery KA2FNK - Recruiting, Technology
Darren Martin N0MZW - Net Manager
Brad Kelsey KU0FAN – Membership
Jesse Gonzalez KE0ECS – CERT
Chuck Simpson KC0NUG - Rapid Response
Jim Andera K0NK - KCHEART

NTS liaison is maintained with the KS SSB Net:
Jim Andera K0NK Terry Reim WA0DTH
George McCarville WB0CNK Jim Cordill KI0BK
Debbie Britain AB0UY Rich Britain N0ENO

Net Sessions: 43
QNI: 285
QTC: 0

4 nets - 2 Meter Voice
4 nets - 440 Voice
4 nets - 440 Fusion Digital
4 nets - 2 Meter SATERN Voice
4 nets – CW
4 nets - 6 Meter
4 nets - 2 Meter Voice Simplex
4 nets - PSK 31 SATERN
4 nets - APRS Packet
3 nets - 1.25 Meter
Forgive me if I’ve been here before, but ...nawwww, DON’T forgive me – what the heck.

It’s December of 1971, and I’ve just taken a job with the Pro-Industrial Division of the old Burstein-Applebee (yes, that is the CORRECT spelling of Burstein), and shortly thereafter, I wandered into the “ham shack” store, which was directly across the parking area & street from our building. A delightful guy named Ellis Eldred ran it, and although Ellis NEVER had a ham ticket; what he didn’t know about radios, really didn’t matter! He was a very nice guy and a very modest type, but as I once found out the hard way, don’t tap him on the shoulder from behind... he’d been a JUDO INSTRUCTOR in the Army, and it was quite skilled at providing “flying lessons” to the innocent.

So, I introduced myself and over the next couple of weeks, I’d visit during lunch hours. One day, he asks “So whaddya running for a rig?” I replied that I had a Central Electronics 20A exciter, and Central Electronics 458 VFO (actually, an “ARC-5 transmitter variant called a BC-458, but with a prettier box and an add-on dial), a Central Electronics 600L linear (should have been called a 6oo LB, as it’s net weight was 100 pounds and it FELT like 600 pounds!)... all sitting next to a 1941 Hammarlund SP-210 Super Pro (it had an external speaker AND external power supply). Yes boys and girls, it took up an ENTIRE heavy-duty dining room table in my 1 bedroom apartment, but it sure kept the place WARM!
So Ellis shook his head and said “Bring all that stuff in tomorrow and I’ll trade ya’ a nearly new SWAN 500-C with both power supplies (AC & DC mobile) and I’ll throw in a D-104 mike!” Hey, that was a heck of a deal, so early the next morning, I loaded my WHOLE SHACK into the belly of my ’65 Austin-Healey 3000 sports car, and drove to 31st and Mercier – now folks, the big Healey is NOT possessed of a large amount of ground clearance ANYWAY, so I heard violent scraping noises in numerous places along the way... When I arrived, he came out to help me unload and was laughing the whole time. IT was amazing how much HIGHER above the ground my car was, AFTER we’d unloaded all those boatanchors and as he’d promised, handed me a pristine SWAN 500C (in the original box w/packing) that a lady bought, and replaced with a Collins S-line her husband bought her... whooooah.

I had that radio from January of ’72, till the fall of ’86, and quite literally WORKED THE WORLD with it. All that on a HyGain 12AVS vertical (no, not a 14AVQ) that I got from Mr. Phil Glano (VP of B-A... and the ORIGINAL holder of WØEAJ, while I was WAØEAJ and working within 15 feet of him!). You should have seen me transporting a trapped vertical antenna back to my apartment in a 2-seat British car – shall we say “inventive”??

So kids... that got me on the SWAN subject. Recently, a guy I talk frequently with on the 3885 AM net, and our local 3820 Vintage Sideband [gear] net, had been speaking of a SWAN 500 “Charlie” that he had, and in that eternal quest to once again own the classic radios I’d once had, I decided to get it.

Like many radio-deals, I got the firm impression that it was in splendid condition and very nice looking... The “package” also came with the matching power-supply w/speaker, and the DD-76 digital display (pretty hot stuff for 1971!), PLUS the WM-2000 SWR & power meter. After staring at it a couple of days, I finally put it on the bench, and ran it up on the Variac. It turned on and lighted up alright, but turning up the AF gain control, it began to sound as if it was self-oscillating. Ultimately, I turned the RF gain down quite a bit, and the radio actually worked on receive... not WELL, but it did receive on all bands.

So, the first order of business was to go over the power supply, as there was an extra cable coming out of it, that had been CUT OFF.... I discovered that it was “tacked” onto the terminal strips, so took it off and tossed it. The p/s produced all the correct voltages, such as LOW B+ for receive, HIGH B+ for xmit, Bias, and filaments, so buttoned it back together AFTER straightening the mounting ears of the transformer, as the supply (heavy) had been dropped at some time, and the xfmr was leaning in the way of the circuit board.

Hmmm, what to do with the radio’s problem(s) – it wouldn’t key the T/R relay either.

So, having a power-supply I could count on, I finally decide to test the “valves” (tubes in proper English), and every one of ’em checked great - The 6LQ6 sweep-tube finals showed okay, but we all know that’s best done under a REAL load. I DID notice however, that the audio output tube (which is SUPPOSED TO BE a 6GK6) was actually a 12BY7, which is a driver tube in many all-tube and hybrid rigs. See, I remembered that a whole bunch of early SSB radios ALL use the 12BY7 as a driver, so my pea brain yells “Eureka” – I figure they’ve swapped the tubes.

Yep, I stuck ‘em back in the “right holes”, and presto... no audio...HUH? Digging around, I ultimately turned the lights down and notice the audio output tube isn’t lighting up. A check of it’s filament voltage at the proper pins is NOT 6.3+/-, it’s .27! Not even 2.7.. but POINT two seven. Okay, the V-
12 (audio output) filament is in series with V-3 the driver tube’s filament, so I decided to check voltage on the driver socket WITHOUT the audio tube being in and it’s 12vac+... huh?

Finally checking the schematic (and tube list) again... yes gentle reader, this is a variation on “let’s read the instructions; nothing else works”. and by golly it DOES use a 6GK6 as a driver... I know that SWAN had numerous variations along the way (there are 3 different configurations of the 500C that I know of), so checked the BAMA mirror site... yep. All of the 500 series radios (500, 500C, 500CX, etc) used the 6GK6 in both places, so finally the mystery gets near to being solved. I now get to dig through the tube inventory to see if I have one.

That all said, I can understand somebody choosing the wrong driver tube, 'cause once you're used to seeing one type used in SO MANY radios, you just assume... and we ALL KNOW how you dissect the word ASS/U/ME, don't we?

Interesting how SIMPLE stuff can take on a “face” of COMPLICATION, isn't it? Now, all I can hope for is that I’ll get audio output without overloading. There’s still ANOTHER PROBLEM... no activation of the T/R relay on key-down of the mic (which I normally use with the Swan 350, so I KNOW that it works.). It’s possible that the 12BY7 was dragging down the 12v that keys the relay (yes, testing the relay with a bench supply proved it’s fine – IF YOU CHECK A RELAY THAT HAS A REVERSE-BIASED DIODE ACROSS IT, BE SURE TO VERIFY CORRECT POLARITY SO YOU DON’T “ZORCH” THE DIODE, and maybe your power supply, in the process.

...and that’s life at the fixit bench – see what you’re missing with radios that ALWAYS WORK?

Dit dit – Tom

**HAPPY INDEPENDENCE DAY** – hope you PROUDLY flew the flag!

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**KAR**  kb0rwi@arrl.net  The Kansas Amateur Radio  kb0rwi@arrl.net  KAR