# County Hunter News

February 2021 Volume 17 Issue 2

Welcome to the On-Line County Hunter News, a monthly publication for those interested in ham radio county hunting, with an orientation toward CW operation. We also cover some park chasing activities these days. Contributions of articles, stories, letters, and pictures to the editor are welcomed, and may be included in future issues at the editor's discretion.

The County Hunter News will provide you with interesting, thought provoking articles, articles of county hunting history, or about county hunters or events, ham radio or electronics history, general ham radio interest, and provide news of upcoming operating events.

We hope you will enjoy the County Hunter News. Feel free to forward, or provide links. Permission is given for copying or quoting in part or all provided credit is given to the CHNews and to the author of article.

CW County Hunter Nets run on 14.0565, 10.124.5, and 7056.5, with activity occasionally on 3556.5 KHz. Also, there is SSB activity now is on 'friendly net' 7188 KHz. The CW folks are now pioneering 17M operation on 18.0915. (21.0565, 24.9155, and 28.0565 when sunspots better). Look around 18136 or for occasional 17M SSB runs usually after the run on 20M SSB. (21.336 and 28.336)

You can see live spots of county hunter activity at <a href="ch.W6RK.com">ch.W6RK.com</a>

For information on county hunting, check out the following resources:

The USACA award is sponsored by CQ Magazine. Rules and information are here:

http://countyhunter.com/cq.htm

For general information FAQ on County Hunting, check out:

http://countyhunter.com/whatis.htm

MARAC sponsors an award program for many other county hunting awards. You can

find information on these awards and the rules at:

http://marac.org/awards.pdf

There is a lot more information at <u>www.countyhunter.com</u>. Please check it out.

Back issues of the County Hunter News are available at www.CHNewsonline.com

De N4CD, Bob Voss, Editor (email: <u>telegraphy@verizon.net</u>)

## Notes from the Editor

#### **N4CD Rumblings**

1) Sunspots — We got sunspots! Then we didn't. The sun has finally come alive and the sunspot number was in the 30s.....but it faded during December, and at one point reaching ZERO. Now, in the New Year, the count has been at ZERO for a couple weeks. Solar Flux has dropped into the '80' region. Then early January, the sole sunspot that briefly appeared in late December, vanished - sunspots disappeared and we had mostly zero sunspots for days on end. Flux back in 70s and radio conditions 'fair'. Later in the month the sunspots kicked up into the 20 and 30 region. It's a bumpy ride so far on this solar cycle. End of the January at SFI-77 or so and Sunspots 30+.

#### 2) COVID worldwide and USA

The World Health Organization (WHO) has warned that social distancing measures will need to stay in place "for the rest of this year," even as vaccination rollouts get under way globally, because it takes time to build up herd immunity.

WHO's Chief Scientist Dr. Soumya Swaminathan said herd immunity -- a situation where the majority of a population becomes immune to the virus either because they have become infected and recovered, or through vaccination -- won't be achieved this year.

Speaking at a briefing on Monday(Jan 11), Swaminathan said:

Because even as vaccines start protecting the most vulnerable, we are not going to achieve any level of population immunity, or herd immunity in 2021 and even if it happens in a couple of pockets in a few countries, it's not going to protect people across the world."

Swaminathan added that until herd immunity is achieved, public health measures such as masks and social distancing will need to remain in place.

"The vaccines are going to come. They are going to go to all countries, but meanwhile we mustn't forget that there are measures that work and... it's really important to remind people, both governments as well as individuals, on the responsibilities and the measures that we continue to need to practice... for the next... well for the rest of this year at least," she said.

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de N4CD – In today's connected world, international travel, travel destinations, cruises, international air trips – are going to be problematic for probably two years. There are 5 billion people on the planet, requiring twice that amount in vaccine injections. There's likelihood of booster shots also being required after a year to handle reduced immunity and possibly new strains of the COVID-19.

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COVID reaches each and every US county – As of Jan 2021, there have been COVID-19 cases in every county in the US, including HI. In Dec, a resident of Kalawao – took a visit to Honolulu...and came back 'positive' for COVID. There are six aged Hansen Disease survivors there – average age 86. There are a total of 70 folks living there and they have had no visitors for a year. The famous mule ride and weekly airplane trips ended long ago. Still, it reached there. Loving County, TX, pop 139, had its first case in Nov 2020. Alaska COVID scoreboard reports cases in all census areas of that state.

There's no place to hide. More details later....

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### **CW Stats**

It's time to send your year end CW stats toward the next time around CW to Dennis, KK7X.

You can see last years page and status here

County Hunter CW Stats or find it off the main CountyHunter dot com site.

Just include your worked total toward your next time around – CW and send an email with the total to Dennis.

Likely around March 1, he'll update the spread sheet and it will be published...send your total in at the end of 2020. CW.

## On the Road with N4CD I

Another weekend rolled around – right after the Xmas Holiday. Snow storms and heavy rain raged across the eastern part of the country – either making for nice white xmas – or lots of rain. Millions of Americans hit the road for trips but not all that many stopped at parks or ran counties along the way. Hospitals were at capacity in many places and stay at home orders were in place in many states. Tens of millions traveled. COVID spread like wildfire.

However, that didn't deter N4CD from day trips – this one to a new ATNO just added to the POTA and WWFF systems – Blue River State Fishing and Hunting Area up in Johnston County, OK. Seems I'd just been in that county the week before hitting another 'new one'. Hmm. Guess not too many county hunters need that county any longer if they've been on the radio recently – hi hi. I must be a little nuts driving 250 miles on weekends to put out a few parks – and maybe get to one 'new one' for me, the rest along the way repeats.

So early - like 6:20 am - long before the sun came up, N4CD hit the road headed to OK

via the Tollway and US-75 - which is like an interstate with no traffic lights all the way to the OK border 70 miles later. It's 40 degrees F at home – and as I head north, the temp drops to the mid 20s. Brrr. I'm not a fan of driving early/late but the roads are well illuminated and familiar. Not too much traffic at that time, either! There's a few traffic lights in OK on 75/69 but it moves quickly. It took a bit over two hours to reach the first park. The last part is along rural roads – went 25 miles and saw two other cars in that distance.

You'll see signs for Fort Washita – could this be a new park? Some history – for the history buffs. From Wiki and other sources:

"Fort Washita is the former United States military post and National Historic Landmark located in Durant, OK. Established in 1842 by General (later President) Zachary Taylor to protect citizens of the Choctaw and Chickasaw Nations from the Plains Indians it was later abandoned by Federal forces at the beginning of the American Civil War. Confederate troops held the post until the end of the war when they burned the remaining structures. It was never reoccupied by the United States military. After years in private hands the Oklahoma Historical Society bought the fort grounds in 1962 and restored the site. Today the Fort Washita Historic Site and Museum is a tourist attraction and hosts several events throughout the year.

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The Chickasaws were removed to the Indian Territory in 1837. After removal to the Indian Territory the Chickasaws were reluctant to settle in their district, composed of the west and central area of the Choctaw lands. The area was not secure against the plains Indians, since the closest federal garrison, at Fort Towson, (southeast OK) was too far away to protect the area effectively. In 1838 the Superintendent of Indian Affairs for the Western Territory, William Armstrong, asked the War Department to build a military post near the mouth of the Washita River to secure the area so the Chickasaws could move into their assigned territory.

General Zachary Taylor, as commander of the Second Military Department in the Southwest, chose the site for Fort Washita in 1842 on high ground a mile and a half east of the Washita River and 18 miles north of its junction with the Red River. At the time the Red River was the southern border of the Indian Territory with new Republic of Texas. The fort was surrounded by rolling prairie.

Fort Washita sat at a strategic point on the frontier. In addition to being located near the Red and Washita rivers there existed an ancient north-south trail through the area. In the

Indian Territory this route was known as the Texas Road, leading from Missouri to Texas and beyond. This route was called the old Preston Trail after it crossed into Texas on the Red River near Preston Bend at Coffee's Trading Post and later Colbert's Ferry. Fort Washita became a major junction on this road. Later the Shawnee Cattle Trail used this north-south route and, just prior to the Civil War, the Butterfield Overland Stage crossed just east of Fort Washita.

Fort Washita was connected to Fort Towson and Fort Gibson by military roads constructed earlier. (both are POTA sites!). Later military roads connected Fort Washita with forts Arbuckle and Sill.

Construction at Fort Washita began in the spring of 1842

When the Mexican–American War began in May 1846 activity increased dramatically at Fort Washita. As a United States military post near Texas the fort served as a staging point for the war. Traffic on the Texas Road heading south increased during and after the war. During the war years the average garrison of 150 troops increased to almost 2000 troops. The Mexican–American War ended with the Treaty of Guadalupe Hidalgo, signed on February 2, 1848.

Beginning after the discovery of gold in California in 1849 many settlers bounds for California traveled through Fort Washita headed west. Many emigrants to California chose a more southern route to avoid the cold winters, the snow, and cholera outbreaks that plagued the northern routes. The major obstacle to using the southern route was the indigenous plains Indians that lived along this route. Travelers gathered in large groups for protection while crossing to California. "It was customary for the emigrating parties to rendezvous at Fort Washita, where detachments would consolidate, elect their officers and make their final preparations before crossing Red River into Texas and straightening out on their long southwestern tangent to El Paso.

Federal troops still occupied Fort Washita when the Confederates fired on Fort Sumter on April 12, 1861. Expecting war Colonel William Emory had concentrated all of his Federal troops from Forts Arbuckle and Cobb at Fort Washita. When news of Fort Sumter reached Emory on April 16 he led his forces to Fort Leavenworth, Kansas, pursued by 4000 Texas militia one day behind them. Afterwards the Confederate forces seized Fort Washita. Both the Choctaw and Chickasaw were allied with the Confederacy throughout the duration of the war. During the Civil War Fort Washita saw no action, though it was an important supply depot for the Confederates in the Indian Territory

Near the end of the war, Confederate forces burned the existing buildings and

abandoned the post. A confederate cemetery remains to this day on the fort grounds.

After the Civil War Fort Washita was never reoccupied by the United States military and the grounds fell into disuse.

In the 1960s there was a renewed interest in Oklahoma's Historical Sites. The Oklahoma Historical Society was able to determine that at the Fort Washita site there were 86 structures, 50 foundations and 2 structures still standing

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After the Civil War, the fort was granted to the Chickasaw Nation. Parcels of surrounding fort land were given out to tribe members.

The Oklahoma Historical Society acquired Fort Washita in 1962 and restored it as a historic site and museum. In 2016, the Chickasaw Nation partnered with the Oklahoma Historical Society to assume responsibility and management of Fort Washita. The site is listed on the National Register of Historic Places and is designed as a National Historic Landmark.

#### https://www.chickasaw.net/Our-Nation/Locations/Fort-Washita.aspx

Well, since it isn't run by a 'state' or federal agency – it doesn't qualify for a Park on the Air. Same as Boggy Creek (former state park) – which is now run by an Native American tribe. State 'Historic Sites' and a tourist attraction – but that's it. Another one that 'got away' and never made the list. Still interesting if you happen to be traveling route 199 in Johnston County OK. (ah, but stay tuned......things change!)

#### Blue River State Fishing/Hunting Area KFF-5560 and K-7684

It's a bit confusing. It's both a State Fishing and Hunting Area and a Wildlife Management Area. Lots of spots to park and fish in the stocked river. Excellent fishing. You can also primitive camp and there are miles of trails. Of course, there's hunting as well. It's advertised more for the FISHING and Hunting than anything else.

Blue River is 3,367 acres of Postoak and Blackjack timber and scattered openings. Located 8 miles northeast of Tishomingo

Fish Species at this Lake:

Bass, Largemouth Bass, Smallmouth Bass, Spotted Catfish, Channel Trout, Rainbow

### Game Species of Interest:

Quail: Bobwhite are present in fair numbers.

Deer: Whitetail are present in fair numbers.

Turkey: Rio Grande wild turkeys are present in low numbers.

Rabbit: Cottontail are found across the area.

Furbearers: Coyote, bobcat and raccoon are available.

Dove: Dove are present in fair numbers.

#### Nongame Species of Interest:

Bald Eagle: Eagles winter at Tishomingo NWR and can be sighted at Blue River on occasion.

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Pulled in at 1415z and got to work. Early enough I hoped to catch some EU's on 20M cw and half a dozen made it in the log. Bands good early in the morning. SFI in low 80s and sunspots at 20+ but propagation only rated 'fair' on the bands. Since this is both a POTA park and WWFF, could use the POTA spotter to attract the crowds and over 100 QSOs go in the log from Johnston County. There's a few new CW calls in the log, too, as more and more join the park chase (most are on SSB, though). Not much happening on 17M – only work two people!

Try 20M SSB but only a dozen in log. Tough to find a clear frequency on a Saturday and conditions not great for SSB from OK.

I'm satisfied for a first run on a never run park. More is better but can't complain about 100 QSOs! On to the next.

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Since I was in OK already – I could hit a few parks that I've run before for repeat credit. They count for POTA since they count 'activations'. For WWFF, once you've run it – you've run it and the only thing you get is more QSOs added to the total for the park and for your QSO count. There is a yearly count of parks activated – reaching 44Qs.

#### Tishomingo National Refuge – Johnston County – KFF/K-0491

Same county again and I ran this not more than 10 days ago it seems, but heck, it's a weekend and there are a few new chasers on the air. Lots of folks at home with travel restrictions and bad weather back east, too.

Have a good run with a few DX stations but not many. A few new CW calls in log. I catch a few "Park to Park' QSOs but not all that many are out, and I don't hear the SSB operations for the most part. Some are QRP and small antennas so hard to hear – others just not there due to not so great conditions on 20M SSB.

Finish with 68Qs in the log – not too bad. It's a nice place to run and I park right by the HQ building – shut down due to Covid. There are lots of other spots to park as well in this large NWR.

On to the next.....

#### Texoma Washita Arm WMA – KFF -4834/K-6378 – still Johnston County

A State WMA along the Washita River not far from the last one – adjoining. Pull in to a different spot than run last time. Find the big sign this time, too. I don't venture too far in – and passed by the rifle range. I'm half a mile a way but still hear the target practice from that rifle range – hi hi. Not a problem.



The conditions are not favorable. Mid day slump hits and contacts go down a bit in number. I work at it but only get 38 before I decide to call it a day. Catch three park to parks (one on SSB, two on CW). The weather is great – it's headed for 70 today. Weather good – radio conditions only 'fair'.

I'm headed south to home – down route 377. Just before you hit TX, there's a WWFF only park. I suspect soon it will be added to POTA – and that has no start date so I can upload these logs later to PotA.

#### Fobb Bottom WMA – Marshall County – KFF-5565

At the south end of OK – and adjoining the Red River/Lake Texoma – is the Fobb Bottom WMA. It's a couple thousand acres – and has those 'swamp rabbits' described last month! I venture a bit further in this time. Horrible road that you take at about 7 mph but a regular car can do.

Radio conditions aren't great and I can only spot on the WWFF page book page and DX summit. The window to EU is closed at this time. Work at it but only 17 go in the log. Wow! That's pretty miserable. Only been run once before – by N4CD or anyone else. Oh well. Anything over 10 is good for POTA activation but this isn't POTA park (yet).

I don't stick around. It's a bit frustrating but without the POTA crowd, the contacts don't come easily.

I head down 377 and the GPS lady says to head east on highway 82 the 17 miles to US 75, then south to home. Pass by Hagerman NWR but decide with current conditions and the fact I ran it a week ago – not worth the hour or more detour to get there, run it, and get back on the route home. Home by a bit after 3:30pm. 70F and sun at home. Can't complain about the weather. Even though the sunspot numbers are in the 20s or near 30, radio conditions don't reflect that! The K=2 doesn't help. Let's hope things change for the better soon!

Thanks for riding along.

# Sunspot News I

Similar to last month's article but worth repeating:

"A study of oppositely charged magnetic field bands, moving in the sun's northern and southern hemispheres, suggests the coming sunspot cycle – Cycle 25 – will be a particularly strong one. This result contradicts an earlier expert forecast, suggesting a weak Cycle 25.

The 11-year sunspot cycle that just ended, Cycle 24, was a noticeably weak one. Around the peak of the cycle in April 2014, there were substantially fewer sunspots – and fewer accompanying solar flares and coronal mass ejections – than at other recent solar cycles. Experts have predicted that Cycle 25, which was announced to have begun in September of this year, will be a weak sunspot cycle as well. But scientists led by the National Center for Atmospheric Research (NCAR) disagree. They announced on December 7, 2020, their prediction that Solar Cycle 25 will be one of the strongest on record. The article below, by Laura Snider, was originally published in NCAR & UCAR News. Reprinted here with permission.

In direct contradiction to the official forecast [from NOAA's Space Weather Prediction Center, the U.S. government's official source for space weather forecasts, watches,

warnings, and alerts], a team of scientists led by the National Center for Atmospheric Research in Boulder, Colorado is predicting that the sunspot cycle that started this fall could be one of the strongest since record-keeping began

In a new article published November 24, 2020, in the peer-reviewed journal Solar Physics, the research team predicts that Sunspot Cycle 25 will peak with a maximum sunspot number somewhere between approximately 210 and 260, which would put the new cycle in the company of the top few ever observed.

The cycle that just ended, Sunspot Cycle 24, peaked with a sunspot number of 116, and the consensus forecast from a panel of experts convened by NASA and the National Oceanic and Atmospheric Administration (NOAA) is predicting that Sunspot Cycle 25 will be similarly weak. The panel predicts a peak sunspot number of 115.

If the new NCAR-led forecast is borne out, it would lend support to the research team's unorthodox theory – detailed in a series of papers published over the last decade – that the sun has overlapping 22-year magnetic cycles that interact to produce the well-known, approximately 11-year sunspot cycle as a byproduct. The 22-year cycles repeat like clockwork and could be a key to finally making accurate predictions of the timing and nature of sunspot cycles, as well as many of the effects they produce, according to the study's authors.

NCAR Deputy Director Scott McIntosh is a solar physicist who led the study. He said:

Scientists have struggled to predict both the length and the strength of sunspot cycles because we lack a fundamental understanding of the mechanism that drives the cycle. If our forecast proves correct, we will have evidence that our framework for understanding the sun's internal magnetic machine is on the right path.

In McIntosh's previous work, he and his colleagues sketched the outline of a 22-year extended solar cycle using observations of coronal bright points, ephemeral flickers of extreme ultraviolet light in the solar atmosphere. These bright points can be seen marching from the sun's high latitudes to the equator over about 20 years. As they cross the mid-latitudes, the bright points coincide with the emergence of sunspot activity.

McIntosh believes the bright points mark the travel of magnetic field bands, which wrap around the sun. When the bands from the northern and southern hemispheres – which have oppositely charged magnetic fields – meet at the equator, they mutually annihilate one another leading to a "terminator" event. These terminators are crucial markers on the sun's 22-year clock, McIntosh says, because they flag the end of a magnetic cycle,

along with its corresponding sunspot cycle, and act as a trigger for the following magnetic cycle to begin.

While one set of oppositely charged bands is about halfway through its migration toward the equatorial meetup, a second set appears at high latitudes and begins its own migration. While these bands appear at high latitudes at a relatively consistent rate — every 11 years — they sometimes slow as they cross the mid-latitudes, which appears to weaken the strength of the upcoming solar cycle.

This happens because the slowdown acts to increase the amount of time that the oppositely charged sets of bands overlap and interfere with one another inside the sun. The slowdown extends the current solar cycle by pushing the terminator event out in time. Shifting the terminator out in time has the effect of eating away at the spot productivity of the next cycle.

Study co-author Bob Leamon is a researcher at the University of Maryland Baltimore County. He said:

When we look back over the 270-year long observational record of terminator events, we see that the longer the time between terminators, the weaker the next cycle. And, conversely, the shorter the time between terminators, the stronger the next solar cycle is.

This correlation has been difficult for scientists to see in the past because they have traditionally measured the length of a sunspot cycle from solar minimum to solar minimum, which is defined using an average rather than a precise event. In the new study, the researchers measured from terminator to terminator, which allows for much greater precision.

While terminator events occur approximately every 11 years and mark the beginning and end of the sunspot cycle, the time between terminators can vary by years. For example, Sunspot Cycle 4 began with a terminator in 1786 and ended with a terminator in 1801, an unprecedented 15 years later. The following cycle, 5, was incredibly weak with a peak amplitude of just 82 sunspots. That cycle would become known as the beginning of the Dalton Grand Minimum.

Similarly, Sunspot Cycle 23 began in 1998 and did not end until 2011, 13 years later. Sunspot Cycle 24, which is just ending, was quite weak as well, but it was also quite short – just shy of 10 years long – and that's the basis for the new study's bullish prediction that Sunspot Cycle 25 will be strong. McIntosh said:

Once you identify the terminators in the historical records, the pattern becomes obvious. A weak Sunspot Cycle 25, as the community is predicting, would be a complete departure from everything that the data has shown us up to this point.

Bottom line: Scientists led by the National Center for Atmospheric Research say their study of oppositely charged magnetic field bands, moving in the sun's northern and southern hemispheres, suggests the coming sunspot cycle – Cycle 25 – will be a particularly strong one. This result is in direct contradiction to an earlier expert forecast, suggesting Cycle 25 (like Cycle 24) would produce fewer-than-usual sunspots. "

from: https://earthsky.org/space/sunspot-cycle-25-among-strongest-on-record-says-ncar

# On the Trail of Regens I

An interesting regen from the wayback days showed up on Facebook Ham Radio Swap and Trade page. (there are tons of special interest 'groups' on Facebook). It's from the 1930s – probably 1935/1936 and is a 5 tube Radio Trading Company AC-5000 five tube set.

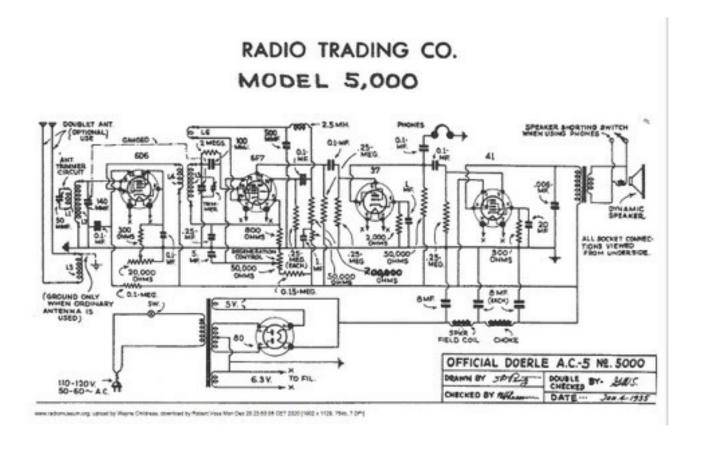
You'll see that it uses a 6D6 pentode RF stage, followed by a 6F7 pentode regen detector. Two audio amp stages follow driving an electrodynamic speaker. It uses plug in coils to cover fro 15M to 200M (1.5 to 21 Mhz). The rectifier is the ubiquitous Type 80 tube.



There's nothing remarkable about the front panel - controls aren't even marked. It was sold by a 'jobber' on Radio Row in NYC back in the hey-day of that area with dozens of radio outlets. Radio Trading Company put out a catalog for 12-15 years up till WW2 started – 100 pages of parts – half a dozen kits – other assembled radios, short wave converters,PA systems, and a thousand types of electronic parts and devices.



This sold for \$28 bucks around 1935 when the average yearly income was about \$1400. You'd spend more than a week's pay to buy it. The unemployment during the depression hit 25%.



Most of these regens, fueled by the 'shortwave craze' of the 1930s with the rise of high power international broadcast stations, hit the scrap pile shortly thereafter as superhet designs took over. But – in the 1930s, people went crazy trying to hear the 'latest news' from Europe direct (and a lot of propaganda) from the BBC in England, the Deutsche Welle out of Germany with Herr Hitler, etc.

A few of these were used by ham radio folks – mostly on the lower ham bands (160, 80M) where they did OK for CW and AM. There was no dial calibration – you just had logging scales of 0-100, and with a regen, controls interacted.

Many of theses were scavenged for parts – or for scrap metal drives in WW2 – or for other ham projects. No one needed 6D6s, 41s, etc, during WW2 and after. Or they were simply thrown away in town dumps. You'll find one or two of these a year, usually at hamfests or at antique wireless auctions, and rarely on Ebay or other markets.

It looks like Radio Trading Company sold about 10 models of radios under their own name – this being the most complicated. Others were simple one or two tube rigs, or a simple transmitter, or a shortwave converter.

You can find an early MTC 1932 100 page catalog on line here

#### Radio Trading Company Catalog 25 (stevenjohnson.com)

One source of information on ham rigs, old receives is the RadioMuseum site. You can get basic information on thousands of radios – and can pull down schematics and other pictures by 'joining' for a one time fee- I think about 20 bucks these days.

Antique Radios, 319 282 Antique Radios displayed (radiomuseum.org)

They actually have this radio, schematic, and pictures on the site. Cool!

Here's another 1935 on line catalog – for a snowy day browsing

Radio and Short Wave Treatise Catalog No. 28 | Hagley Digital Archives

### Ham Radio License Fees

The FCC has adopted a decision in the matter of Amateur Radio licensing fees — in a remarkably short time in comparison to other FCC NPRM proceedings.

The FCC, based on input from the ARRL and its Members, agreed to lower the "Personal License Application Fee" that applies to Amateur Radio licensees from \$50 to \$35. Unfortunately, it did not accept the ARRL and its Members' argument that due to the services provided by Amateur Radio that the fee should be \$0.00.

Go to <a href="https://tinyurl.com/y7mso3x4">https://tinyurl.com/y7mso3x4</a> for the FCC's complete Report &Order.

John Robert Stratton N5AUS West Gulf Division Director

# Trip Report - Rick, AI5P

On January 11th, I motored over to the Rocky Flats National Wildlife Refuge near Denver.



In the Parks on the Air program, it's K-0255. About 45 miles from my apartment. It has an interesting history. From their handout: The Refuge offers expensive views of the Front Range of the Rocky Mountains and rolling prairie grasslands, woodlands, and wetlands. This 5,237-acre Refuge has been managed by the U.S. Fish and Wildlife Service since 2007 to restore and preserve the native prairie ecosystems, provide habitat for migratory and resident wildlife, conserve and protect habitat for Preble's meadow jumping mouse, and provide research and educational opportunities.

The Refuge is home to 239 migratory and resident wildlife species, including the prairie falcons, deer, elk, coyotes, songbirds, and the federally threatened Preble's meadow jumping mouse. Over 630 species of plants and a variety wildflowers bloom here from spring through fall.



Native Americans intermittently occupied these lands prior to the 1800s. In 1868, the Scott family established a homestead here to raise cattle. Lindsay Ranch was built in the 1940s and today the barn and remnants of the house can be seen along the Lindsay Ranch trail. In 1951, the U.S. Atomic Energy Commission acquired the site to develop the Rocky Flats Plant to produce plutonium triggers for nuclear weapons. The plant was one of 13 nuclear weapon production sites to support national defense. Operated from 1952 to 1989, most of the site was undisturbed, preserving the different habitats now protected by the Refuge.

When the site was closed, the Environmental Protection Agency, Department of Energy, and Colorado Department of Public Health and Environment oversaw the \$7 billion cleanup of the site that was completed in 2005. Today, the Department of Energy maintains 1,300 acres as a Legacy Site to monitor for any outflow from the site.

You can see the Denver skyline from the main entrance to the site. Conditions weren't

too bad with 82 contacts in the log including several from Europe. Nice day to enjoy an unusual location and give out the park reference.

Note - Having never heard of such a thing as the Preble's meadow jumping mouse, I looked it up in Wikipedia: The Preble's meadow jumping mouse (Zapus hudonius preblei) (Preble's or PMJM) is a small mammal approximately 9-inches in length with large hind feet adapted for jumping, a long bicolor tail (which accounts for 60% of its length), and a distinct dark stripe down the middle of its back, bordered on either side by gray to orange-brown fur. This largely nocturnal mouse lives primarily in heavily vegetated, shrub dominated riparian (streamside) habitats and immediately adjacent upland habitats along the foothills of southeastern Wyoming south to Colorado Springs along the eastern edge of the Front Range of Colorado. The Preble's mouse enters hibernation in September or October and doesn't emerge until May. Its diet changes seasonally and consists of insects, seeds, fungus, fruit and more. Fascinating!

73 Rick AI5P

## **COVID-2021**

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Texas posted a record 26,990 new Covid-19 cases on Tuesday, shattering the previous all-time high established less than a week ago. It gets worse week by week.

The tally was 41% higher than the previous record reached on Dec. 23, state health department figures showed. The figure may include some cases that local health authorities failed to report over the holidays, the state said.

Hospitalizations, meanwhile, climbed to 11,775, breaking the record set a day earlier, according to the state's online dashboard.

Virus patients occupy more than 15% of hospital capacity in almost two-thirds of Texas's 22 trauma service areas. In hot spots such as Laredo, the figure is as high as 36%. Governor Greg Abbott set 15% as the threshold at which economic and social restrictions may be reimposed to control outbreaks."

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My county started a vaccination registration list. Within a few hours, over 50,000 had signed up. Missed out on the first few hours and I'm number 39,700 on the list. Hmm... and the county has had only 700 vaccination doses so far. This is going to take a miracle to resolve.

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Traverse City, MI cancels annual April Iron Man Competition .....

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Collin County starts mass vaccination site – plans for 6,000 people a day. Dallas County setting up 8 super vaccine injection sites, each starting at 1,000 per day ramping up to 1500 to 2000 a day. That's a million every -40 to 50 days – still months and months do to the local population of 4-5 million. If many decide to refuse, sooner.

Only problem is that the state is getting 300,000 doses and there are lots of counties in TX! Not enough to go around, nor for 6000 a day when the county gets ¼ of that.

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So far, 22 people in the US out of eight million have suffered 'serious side effects' - 17 of them carried 'epi-pens' for their super allergies that were life threatening. One of the 22 people died, a doctor, who died two days after getting a shot – cause still being investigated. You're odds of dying are less than being hit by lightning this year, and greatly less than being in a car accident this year (1 in 3000) or dying in a car accident (1 in 30,000). You've got a 1 in 103 chance of dying in your life in a car accident. If you're a senior over 80, you got about a one in 10 chance of dying from COVID if you get it! 40% of all COVID deaths have been to folks over 65. Stay safe. Get a vaccine as soon as possible.

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With 4 million Moderna vaccinations, the company reported a serious complication in 10 people receiving the vaccine. One in a half million. You've got a greater chance of being in a serious car accident on your way to get a shot and back home.

## On the Road with N4CD II

Soon, later in January, the Parks on the Air system will do another upload of new parks, bringing the total to over 8,000 parks! Unfortunately, not many/any in TX, a handful in OK, and lots back east. Stay tuned.

Meanwhile, not willing to do too many/any overnight trips these days, my trips have been mainly to the local Spring Creek State Forest Preserve park 20 some odd miles away. I head there one day a weekend, and on Wednesdays for the weekly 1900-2000z CWT-Test. That's an hour of working as many people, exchanging name and CWT number – usually at 25-35 wpm. I set my keyer for about 27-28 wpm – as fast as I'm comfortable sending by hand. Most use computers to both log and send.

Conditions haven't been great, with not too many EU stations even heard down here in TX. Do hear NL7V - 4<sup>th</sup> AK - most times I'm there if I put out the park, and usually work KH6/NA2U out in HI in the CWT. Think he's likely either remote at a big contest station or there in person. Probably work about 35 states in CWT and would add a few more if I wandered down to 40M. You can still work 50-60 people on SSB if you wander there in a park, or 30-40 on cw, even if the same park.

Caught K8ZZ, Ed, in a few. He's now roaming around in KY for days on end.

When they add some in OK parks, I'll be roaming up there – maybe even an overnight trip. We'll see.

## Dayton Hamventon 2021 Canceled

#### official press release:

Unfortunately, several setbacks in the recovery from the COVID-19 pandemic make necessary the difficult decision to cancel Hamvention 2021. Hundreds of volunteers have been working to do everything necessary to bring this Hamvention to the many amateur radio enthusiasts and vendors who support the Dayton Hamvention.

Vaccine distribution both in the United States and around the world is lagging behind

what was planned. In addition, the emergence of a more communicable form of the COVID-19 virus increases the potential for further public health problems in the next few months. We make this difficult decision for the safety of our guests and vendors.

Those who had their tickets, inside booths or flea market spaces deferred last year will be deferred again. Those who purchased 2021 tickets, inside booths or flea market spaces will also be deferred. If you desire a refund instead please email tickets@hamvention.org and we will contact you.

Stay tuned for information about a QSO party for the 2021 Hamvention weekend. We are looking forward to the 2022 Hamvention!!!

Executive Committee, Dayton Hamvention 2021

### On the Road with N4CD III

Headed out early yesterday, Monday the 11th to head to Paris, TX about 100 miles from the QTH in Collin County, TX, after the big snow in Dallas, TX. Just a trace at my QTH but to southwest about 100 miles, 8 inches. 150,000 without power. Luckily, none along the route to the northeast. Temps right around freezing but roads appeared clear.

First stop was Bonham State Park – very well activated but still some need it as they are new chasers. Fannin County TX. 28F outside. I pulled in – no one at the gate. Ranger came by later and asked for 'last name' and I showed him pass while in his vehicle. In TX, you register on line for park access. No problems getting access in winter time – especially on a Monday at freezing temps! No one picnicking or swimming today. That was it as far as 'contact' with anyone in the park – he 'checked me' in. In summer, parks are often 'full' and that is a lot less than actual capacity due to COVID.

Tried for the DX window at sunrise, but with SFI=74 and no sunspots, tough to work DX. WI2X back east was working Europe left and right from his park. In TX, I barely heard 20% of what he was working 599. Distance counts. Anyway, had 57Qs running 20,30 and 40m cw from here.

Headed on out to the metropolis of Paris, TX in Lamar County. They used to have a small hamfest here but it died out a few years ago. Main Trading Company, a big web

retailer of ham gear, is located here.

Next up was the Sam Bell Maxey Home Historic Site in urban Paris, TX - K-6600, Lamar County TX Only a few have wandered here before. You've got quite a bit of local QRN to work through. The site is closed on Monday, which is a good day to run it as there are only half a dozen parking spots in the small visitor parking lot. I've been here once before.

Then I stopped to get a COVID-19 shot. Had to drive 100 miles to find a place giving them out to seniors. My home county here has decided to get in gear and step up now. We'll see. Only problem my county has – No vaccine! I'll be inclined to do a bit more travel after the second shot. And tens of millions having theirs. None of the pharmacies here in my home county had any vaccine – all zeroes. Super sites ready to go – but just waiting for vax. So I headed far away from the Metroplex.

After, I headed to Pat Mayse WMA 25 miles north from there and pulled in to the primitive camping area. Half a dozen hunters there with tents in the 30 degree weather! One RV. They were enjoying some BBQ from a wood fired grill. Sat in the parking area and gave out the park from the warm mobile! Sunny but not warm outside! 57Q went in the log A few DX but not many. 3 park to park QSOs. Ran the bands including 9 on 17m cw. (20,30,40, 17). Conditions were not great with low SFI.

Headed on toward home with a stop at the Sam Rayburn Home Historic Site in Bonham, TX K-6601. QRN bad there from both power lines along the road and from one of the buildings. S3-5 QRN on the cw bands - a lot worse on SSB. Fannin County. Ran 20,30m cw with 43Q in the log. Been here before and likely will be there again. It's closed on Mondays so there is only a small area at the very front you can run it from. The main parking lot is blocked off. Rest of time there is a small regular parking lot for about 10 cars/buses. Usually not crowded at all. You might be the only visitor - especially now that schools are 'on line' and there are no bus loads of students out on day trips.

Trip 230 miles. Home by 4:15pm. Thanks for the Qs.

PS: Zero after effects from Moderna COVID-19 shot other than sore arm at injection site for two days.

### On the Road with N4CD IV

As usual for a Wednesday, headed on over to the local park 20 miles away – Spring Creek State Forest Preserve KFF-4423/K-4423 for the Wednesday CW-Test. The sunspots had been at zero since January began and SFI in the mid 70s area. Nothing great. I get there an hour early to hunt for park to park contacts and then participate in the CWT which zips along at 25+ WPM most days. Every now and then there's a slow day for 20WPM and under. Work mostly the same stations each week. I'm working at getting 100,000 QSOs uploaded to the POTA database. No one has reached that level. After the CWT, just headed home. Decent Jan weather but 31F at noon time.

# Mobile Activity in January

Ron, KB6UF, ran counties in MS at the beginning of the month.

K8ZZ, Ed, ran counties in OH and KY – lots of KY – he's working on MD, 3<sup>rd</sup> time USACA, and running all 3077 counties. Was out several days on the trip. Was in MS, MO, AR then in KS, Later, he made a quick trip to AZ via TX and NM.

Alan, W8OP, was out in WV.

W7EEC put out counties in OR

Kerri, KB3WAV, was running parks but occasionally spotted the county on W6RK

Seth,N3MRA, popped up a few times back MD and VA way. Also out in TX and OK. He's a Big Rig driver.

There were quite a few days with zero activities. Some spots for FT-8 and parks.

### On the Road with N4CD V

Saturday Jan 16 rolls around and there aren't too many new parks to head to within a day's drive so it's back over to my local park for a few hours. Ed, K8ZZ, is making a trip from KS to AZ and now in NM. Caught him in one. Look for park to park contacts – a few on CW, most on SSB and catch a few. Half that are spotted I hear nothing or at S1 so no hope. Some run QRP or WRC 'coils' with base loaded verticals. Others are just out of skip range for 20M. Catch two parks on 17m today – one in CA, one way back east. One sunspot has appeared but SFI still mid 70s. Stay 2.5 hours and work about 20 in the North American SSB QSO Party. Lots and lots of QRM! A zoo! Plus dozens calling each station. Supposedly it's limited to 100w output but some stations are 60 over S9. Hmmm.....

## On the Road with N4CD VI

Today is the MLK Holiday (Jan 18) so why not head to Cedar Hill State Park? I was there two months ago, but it's a new year for activations. Also, the stats page showed 99,980 N4CD QSOs uploaded to the database. With 20 more, I'd be the first to reach the 100K level.

The weather was decent for January. Temp 46F at 8am in Plano TX with heavy cloud cover and only occasional bursts of sun making it through. The route is right down through the DFW Metroplex on 6, 8 and 10 lane highways including \$10 in tolls on the Tollroad, around on the I-635 Beltway down to I-35 to 408 Spur to I-20 west a bit. Zillions of cars out today but traffic moved well and was there in an hour and 15 minutes.

Noted after I got home I found that W5KZJ had made 350 SSB contacts from there over the weekend. I suspect he was in the NA QP with a decent antenna! OK....not a rare park for sure. I ran CW mostly. Caught a few EU stations on 20M, however, 20m was only 'fair' despite SFI=77 and Sunspots 22. Back east, 40m was gangbusters with huge pileups. 40M SSB from TX not so great with a mobile antenna.

Noted also that WD5GRW went over to my closest park – KFF-4423 where I hang out

every Wednesday when I'm in town. We caught each other 3 times for 'park to park' contacts from about 35-40 miles apart on different bands/modes. Tried 17m CW but only caught two, including KM1CC (Special Event). The bands were better the last time I was here with over 40 worked on 17m SSB! Seems 'someone' is there every weekend. Too many park activators, not enough parks around this area – you've got to go 2 hours or more to find others.

Stayed 2 ½ hours and then headed home. 89 miles round trip. Temps up to 60F. Next few days are likely to be 3 days of rain/drizzle/gloom so we'll see where the N4CD heads next. Rumor has it a few more parks will be added in OK soon.

Thanks for the Qs. 85 in the log today.

# **COVID** Everywhere

Even America's leper colony has been hit by COVID: Coronavirus is in EVERY US county now - including a remote Hawaiian enclave established in the 1860s where thousands of people with leprosy were banished

All counties in the United States have now recorded coronavirus cases. Kalawao County, a remote island enclave in Hawaii established in the 1860s for people with leprosy was the last to fall

While Alaska doesn't have formal counties, its own data dashboard for the virus shows cases in all the state's boroughs and census areas

More than 24.5m Americans have been infected by COVID and 400k have died

Kalawao's first case was recorded on December 10 after one resident received a positive COVID result after returning back to the county from a trip to Honolulu.

Five leprosy patients, who are all elderly and considered high risk, still live in Kalawao.

However, the county has so far managed to avoid further spread, with the person who

tested positive immediately alerting authorities and quarantining themselves.

The discovery in Kalawao came just under 11 months after the first case of COVID-19 was recorded in Snohomish County, Washington, on January 20, 2020.

Since then, the virus has continued to ravage its way across the country, infecting more than 24 million Americans, and killing more than 400,000.

By November, the coronavirus had reached the country's second-smallest county of Loving County, in Texas, which boasts a population of just 169.

https://www.dailymail.co.uk/news/article-9174353/Coronavirus-county-including-remote-Hawaiian-enclave-leprosy-patients.html

### On the Road with N4CD VII

Another weekend rolls around, and N4CD has the urge to get out of the house and run some counties/parks. Probably a good time as some new parks are rumored to shortly appear in OKLA. I could do some scouting. Well, I could actually run the parks, but if they didn't have park numbers, I'd run them only as a county. Later, I could upload to POTA once a number was assigned as they have no 'start date' on the new parks.

These qualified because the Native American Nations are sovereign government agencies, with their own policing forces, taxing, zoning, tribal courts, etc. Equal to the federal government in most cases. There are two historic sites in OK that fit the bill.

I wrote about these two parks earlier – so I'll skip 99% of the detail.

So – about 7am on a drizzly Saturday, Jun 23, at 46F, I headed north up US75 to OK via the same boring interstate like road. A good hour and a half I arrived at Ft Washita Historic Site – which is now K-8142. It's a Frontier Fort built to try and keep the peace between various Native American factions. It just got a number today, but I wasn't aware of it so ran it as Bryan County OK. There was a DX contest going on so I worked a few of them, then spotted myself and put out the county. Without a park number, you don't attract the dozens and dozens of park chasers. For POTA, you only need 10 QSOs

for an activation, just like the NPOTA days. That's usually pretty easy during the day time.



The site is actually closed down due to COVID but there are inset gates so you can park your mobile 'on park property' and run it – which I did. You're up against a rock wall but RF seemed to get out OK. Put a couple dozen in the log.



Then headed to the county line of Johnston/Coal. I missed this on the last trip and didn't get to run Coal – so here it was. Then headed a bit southeast to Boggy Depot Historic Site in Atoka County. This was a state park, then wasn't, then was turned over to the sovereign Chickasaw Tribe (equal to a state/fed government so that's what allows it to be a park unit). The four- mile long road into it is not great – patch upon patch on the road, with potholes everywhere in between. Eventually you get there. Looks like it would be real nice in summer. Now, with the leaves gone, 55F and drizzle, it didn't look too inviting. Put a couple dozen in the log including half a dozen Park-to-Park QSOs with other parks around the country.



Today was a big 'Frozen TX Activate a Park' weekend. Over 15 TX parks were active. As I headed home, I took a quick stop at the Eisenhower Birthplace Home Historic Site in Dennison, TX (Grayson County)

Put 50+ in log from there. Then headed rest of way home.

Then I found out that the two parks I ran in OK had gotten numbers earlier in the day. Didn't check my email during the trip. Oh well. Could have had another 100+ contacts

with a park number. Also, other 3 WWFF parks which I've run just got POTA numbers, so I uploaded those runs to POTA – so if you chase parks, you might see another four parks show up in your 'worked' column for POTA. They are Arbuckle Springs, Stringtown WMA, Oklahoma City National Memorial (run in 2016 for NPOTA), Fobb WMA. There are another dozen or more I've got to get to in OK. No new parks added in TX but 300 new parks were added to the POTA system around the country.

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I reached 100,000 contacts uploaded to POTA – one goal met for 2020 but a month late. Now to get to 1000 different parks run – I'm up at 940 or so. The pandemic stopped reaching that goal in 2020 and I'm not sure when long trips will start again. There's nowhere to go. Orlando hamfest – not this year. Dayton Hamvention, either. Antique Wireless Conventions – not until fall at the earliest. Other hamfests? Maybe some swap meets outdoors but who knows? Maybe fall 2021. There won't be much this summer, and you can buy airline tickets for travel for \$100 and \$250 to just about anywhere in the US and Caribbean now. Through the fall. Airlines don't expect a pickup in travel anytime soon.

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Hope you caught me where you needed me! A few more trips possible, and once I manage to get the second COVID shot and wait the 2-3 weeks for things to get to work, I might be tempted to take a few overnight trips here and there for a two or three day trip. Unfortunately, most rural areas have a lot of folks who don't believe in masks or think that COVID will ever reach them and they are 100% dead wrong, and some suburbs are no better. Stay tuned. We've already lost a bunch of county hunters to COVID and I don't want to be among that group any time soon!

### On the Road with N4CD VIII

On Wednesday, Jan 20, did the usual trip to Spring Creek State Forest Preserve – park 4423. Ran the CWT.

Back there for Sunday Jan 24 to catch a few more. Sunspots up a bit and propagation seemed decent but only rated 'fair'. Sunspots back up to 30s level but flux only 77.

Wow – the park activators were out. On Saturday, Jan 23, there were 37 parks activated. 20M SSB was filled end to end with everyone trying to squeeze in to the already busy typical Saturday. Same thing on Sunday with two dozen or more activations. Some CW activity – a dozen parks. Did some 20M SSB and ran 20 and 17m cw. Finished with 232 QSOs for two days in the local park. Not bad. A bunch of new calls never worked before in the log, too. POTA is growing fast with thousands joining in. A few ventured up to 17m, some on 17m cw, just a very few tried 15M. With the long skip- only the coasts activators seem to get some contacts on 15M. Lots and lots of 40m SSB activity back east – filling up that band. Almost nothing heard of all that eastern activity in TX and nearly impossible to break through the pileups back east, too.

I'll be back there on Wednesdays. And some weekends if I don't go anywhere else! Hi hi. A few county hunters from way back stopped by today on SSB – WB4UHI and N7PIB – to say hello. Nice to hear from them.

### **Awards Issued**

| Master Platinum #31           | Lowell, KB0BA | 9/16/2020      |
|-------------------------------|---------------|----------------|
| USA-CA CW III #8              | Tom, K7REL    | 1 January 2021 |
|                               |               |                |
| YL Mobile Level 2000 #10      | Dennis, N6PDB | 11/9/2002      |
| YLOM Team Level 2000 #15      | Dennis, N6PDB | 12/6/2002      |
|                               |               |                |
| Single Band 20M Level 1000 #1 | Ken, AB4WL    | 6/5/2020       |
| Single Band 30M Level 1000 #1 | Ken, AB4WL    | 12/202/2020    |

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#### Single Band Awards to K0DEQ

10m Level 1000 #2 on 12/11/2020

15m Level 1000 #3 on 12/25/2020

17m Level 1000 #4 on 12/20/2020

20m Level 3000 #1 on 12/17/2020

30m Level 2000 on 12/27/2020

40m Level 3000 #4 on 10/25/2020

80m Level 1000 #6 on 12/30/2020

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#### USA-PA Combo Awards to K0DEQ:

1X2 Level 2000 #5 on 12/23/2020

1X3 Level 3000 #3 on 12/20/2020

2X1 Level 2000 #4 on 12/20/2020

2X2 Level 2000 #4 on 12/30/2020

2X3 Level 2000 #5 on 12/23/2020

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In addition, the following awards to Bill, K0DEQ:

Cliff Corne Jr/Polaris Level 250 #485 on 9/13/2020

Jack Scroggins/Gemini Level 160 #180 on 9/2/2020

King of the Road - Multiple States: K0DEQ attained a total 38 on 12/29/2020. He earned #861 to Callsign K8ZZ

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Single Band 17M Level 2000 #3 Dennis, N6PDB 2 January 2021

Single Band 15M Level 1000 #7 Dennis, N6PDB 2 January 2021

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Roadrunner 1650 LC's #2 Ron, KB6UF 17 December 2020

Roadrunner 925 LC/s #16 Ed, K8ZZ 23 December 2020

Roadrunner 950 LC #14 Ed, K8ZZ 17 January 2021

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#### Awards to Dave, W4YDY

Big Rig Level 1500 #3 30 September 2014

Call Combo 1X2 Level 3000 #3 21 July 2020.

Call Combo 2X1 Level 2000 #5 19 June 2020

Call Combo 2X2 Level 3000 #1 22 July 2020

Call Combo 2X3 Level 2000 #6 13 July 2020

Digital Level 2000 #6 31 December 2020

Mobile DX Level 2 #104 4/2/2016

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Single Band Awards to Dave, W4YDY

15m Level 1000 #8 12/19/2020

17m Level 1000 #5 12/20/2020.

30m Level 2000 #3 12/20/2020

40m Level 2000 #1 12/20/2020

80m Level 1000 #7 11/27/2020

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DX Mobile Level 1 #105 (38 countries) Alan, W8OP 5/1/2005

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RoadRunner LC 125 #201 Bob, KC6AWX 10 January 2021

Big Rig 3077 Counties #1 KA1JPR 1/22/2021

## **Events for County Hunters**

**Dayton Hamvention 2021** – canceled due to COVID concerns. No way tens of thousands can safely travel, with hundreds or more from overseas where things are no better and often worse, and be in close contact (especially vendors) with thousands of others, and be 'safe'. No way to have indoor forums DX dinners, hospitality rooms, etc. Mark your calendar for next year—May 20-22, 2022.

Will there be any indoor hamfests before fall 2021? There are some outdoor swap meets going on – in FL and elsewhere. Maybe around the country – IF local ordinances and state ones allow them.

**Tokyo Olympics – In Limbo** - maybe no visitors?

It's state QSO Party season! The crazy folks in MN likely will be out mobile

heading through the snow and ice to run the counties in the state! Same weekend as VT – which has most counties on the air with fixed stations. Lots of smaller contests in February too – see the ARRL Contest Corral. Hopefully the rules will allow mobiles in the state QSO parties. Some have not. MN is followed by NC later in the month and beware the DX contest weekend – or participate. Bad weekend for SSB park activators and mobiles out on SSB. The ARRL 10M contest was good. Maybe we'll have some sunspots to have another 10M good contest?

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Feb 6 0000z to 7 2359z Vermont QSO Party CW Ph Dig RS(T), county or SPC www.ranv.org/vtqso.html

Feb 6 0001z to 7 2359z 10-10 International Winter Contest, SSB Ph Name, mbr or "0," SPC www.ten-ten.org

Feb 6 1400z to 6 2359z Minnesota QSO Party CW Ph Dig Name, county or SPC www.w0aa.org/mnqp-rules

Feb 6 1600z to 7 2359z British Columbia QSO Party CW Ph Dig RS(T), VE7 District or SPC orcadxcc.org/bcqp\_rules.html

Feb 8 1300z to 12 2359z no WARC ARRL School Club Roundup CW Ph RS(T), class (I/C/S), SPC www.arrl.org/school-club-roundup

Feb 20 0000z to 21 2359z

1.8-28

ARRL International DX Contest, CW CW W/VE: RST, SP. Non-W/VE: RST, power www.arrl.org/arrl-dx

Feb 28 1500z to 1 0059z 3.5-144 North Carolina QSO Party CW Ph Dig County or SPC ncqsoparty.org/rules

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Y'all stay safe. That's all for this issue.