

County Hunter News

January 2020
Volume 16 Issue 1

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.

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 ch.W6RK.com

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 www.countyhunter.com . Please check it out.

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

De N4CD, Bob Voss, Editor (email: telegraphy@verizon.net)

Notes from the Editor

N4CD Rumblings

1) Sunspots – what sunspots – actually, the flux is up a bit to about 70 for most of December – a welcome change. Propagation not great but hanging in there. Record number of sunspot free days in the past year!

2) MARAC RoadRunner.....about the time you read this, the next issue of the MARAC RoadRunner should be distributed to the membership. Kerry, W4SIG, has taken over newsletter duties and the official monthly report will commence starting with the Jan 2020 issue.

3) Nothing New from ARRL - Another year passes and no new program from ARRL like National Parks on the Air or International Grid Square Challenge. Seems everyone is still working on FT-8 and now FT-4 awards there. No news from CQ Magazine on getting LoTW credits for counties for USACA.

4) Time for CW Stats to Dennis, KK7X

County Hunter CW Stats – 2019 – from W0GXQ

Dennis continues to post year end CW totals. There were only 26 submissions in 2018. I estimate there were 23 active CW ops who did not submit their totals!

There were 38 submissions for the year 2017, 44 submissions for the year 2016, and 60 submissions for the year 2015.

Many of those listed in 2015 elected to stop after CW 1st time, a couple are silent keys, some lost interest due to the poor band conditions.

Let's see if we can hit 40 this year!

De WØGXQ 12/12/2019

Mail yours in to Dennis, KK7X at Dennis@kk7x.us

Michigan Mini 2020

2020 MICHIGAN MINI is April 23 – 24 & 25th

The 2019 Michigan Mini will be hosted by Ed, K8ZZ and Doris, N8WRQ and held at the West Bay Beach – Holiday Inn Resort 615 East Front Street • Traverse City, Michigan 49686

Phone: (231) 947-3700 • Fax: (231) 947-0361 Toll Free: (800) 888-8020)

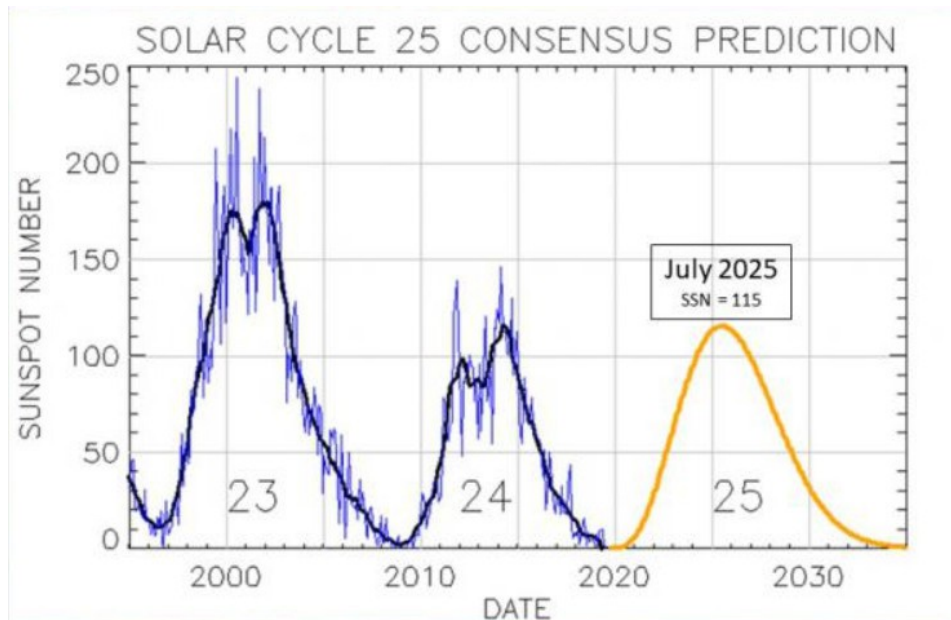
Room rates of: \$97.95 plus tax per night if reserved by March 23th, 2020.

Register at the MARAC events page and make your hotel reservations.

Solar Cycle 25 Prediction

The NOAA/NASA-co-chaired international Solar Cycle Prediction Panel has released its latest forecast for the coming Solar Cycle 25. The panel's consensus calls for a peak in July 2025 (± 8 months), with a smoothed sunspot number of 115. The panel agreed that Cycle 25 will be of average intensity and similar to Cycle 24. The panel additionally concurred that the solar minimum between Cycles 24 and 25 will occur in April 2020 (± 6 months). If the solar minimum prediction is correct, this would make Solar Cycle 24 the seventh longest on record at 11.4 years. In its preliminary forecast released last April, the scientists on the panel forecast that Solar Cycle 25 would likely be weak, much like the current Cycle 24.

"Solar Cycle 25 may have a slow start, but is anticipated to peak with solar maximum occurring between 2023 and 2026, and a sunspot range of 95 to 130. This is well below the average number of sunspots," the panel said last spring, adding with "high confidence" that Cycle 25 "should break the trend of weakening solar activity seen over the past four cycles." The panel said the expectation that Cycle 25 would be comparable in size to Cycle 24 suggests that the steady decline in solar cycle amplitude seen from Cycle 21 through Cycle 24 has ended and that there is no indication of an approaching "Maunder-type" minimum. Cycle 24 peaked in April 2014 with an average sunspot number of 82.



The Solar Cycle Prediction Panel forecasts the number of sunspots expected for solar maximum, along with the timing of the peak and minimum solar activity levels for the cycle. It is comprised of scientists representing NOAA, NASA, the International Space Environment Services, and other US and international scientists.

Source: ARRL Weekly Newsletter for December 12, 2019

On the Road with N4CD I

The annual trek to MD was planned to hit a few parks along the route northeast. I'd already done most along I-30 and I-40 so it would take some greater detours to get to ones that I had not run before and there is little incentive to repeat parks unless you fail to get to 44 the first time. However, occasionally I'd stop by a repeat park for activation credit – usually for a 'quickie' – in and out in not too many minutes.

The leaves were just beginning to fall in TX and trees turning brown. Not much color in TX for the leaf peeps – things go to brown and brown/red then drop slowly. It wouldn't be long along the route before things were much further along toward winter and in many cases, leaves already down on the ground. Fall had been mild so far in TX with just a few cold days. Now I'd pack the cold weather gear for the trip northeast to MD for Thanksgiving including the ski jacket.

Friday Nov 22

Bright and early on 11/22 at 6:20am I left headed to the colder northeast. Rain! Rain all day and not fun driving. Didn't run a lot that day as I zipped through the same old counties again – from Rockwall to Hunt to Hopkins, Franklin, Titus, Morris and Bowie to get to AR. It was early and not many around so I just drove. At 1817, KB6UF was noted in Del Norte, CA and he went in the log. Ran Franklin and Titus on the cw frequencies then most of AR as I moved along at the speed limit (75mph in TX, 70 in AR).

The first detour was off to Woodruff County, AR and Park KFF-0164. However, on the way, you run by the **Lower White River Museum State Park KFF-1098** in Des Arc,

AR – Prairie County. It ran a bell. Seems I'd only made 36Qs on my first trip here and I didn't reach the magic 44 number! I carry my run sheet of past parks so I can check if I've been there and had 'success' in getting to 44. During NPOTA, you only needed ten or more, so some of my activations back then only had a dozen or two, and even after, conditions some days (and times of day) are so rotten you can't get to 44. So today I could quickly add 10 or 20 and bug out quickly without spending too much time. Did that and put another 20 Qs in the log – all CW on 20 and 30M. A bit of QRN here which was worse the last time. Didn't stick around long. You can even work the same people – on different days for credit toward the 44Qs. Prairie County – a green stamper along the interstate.

From the AR State web page:

“Discover the role of Arkansas’s White River, with emphasis on the Lower White, as a vital transportation route for early settlers on the Arkansas frontier. Museum exhibits interpret the river’s influence on settlements during the steamboat era and the expansion of commerce from its roots in hunting and fishing into shelling, timber, agriculture, pearling, and button making. Life-sized figures of a steamboat captain, slave, schoolteacher, and land surveyor greet visitors, introducing themselves with dialog taken from oral histories and slave narratives for a truly interactive experience. Admission to the museum is free. “

Then on to the one that was 'new' in one that is off the interstate in a non-green stamp county. (interstate counties were referred to as 'green stamp' counties as so many ran them while zipping along the highways – usually easy to get). Of course, with fewer mobiles out these days, many still need the interstate counties, too! I'd bet half the US has never heard of Green Stamps (S&H Green Stamps).

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Well, some history: (from Wiki)

“S&H Green Stamps were a line of trading stamps popular in the United States from the 1930s until the late 1980s. They were distributed as part of a rewards program operated by the Sperry & Hutchinson company (S&H), founded in 1896 by Thomas Sperry and Shelley Byron Hutchinson. During the 1960s, the company promoted its rewards catalog as being the largest publication in the United States and boasted that it issued three times as many stamps as the U.S. Postal Service. Customers would receive stamps at the checkout counter of supermarkets, department stores, and gasoline stations among other retailers, which could be redeemed for products in the catalog.”

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I never got addicted to them but millions filled out albums to 'win' prizes (rewards). If you bought a lot of food, you could 'qualify' for a free toaster or waffle iron or record player, etc.

Next up.....

Cache River National Wildlife Refuge (NWR) KFF-0164. Only 4 activations and 162 QSOs had been made from here – and not a single one on CW. I'd fix that. It was new for me.



From the Fed Web Page:

“Cache River National Wildlife Refuge (NWR) was established in 1986 to protect significant wetland habitats and provide feeding and resting areas for migrating waterfowl.

As one of the few remaining areas in the Lower Mississippi River Valley not drastically altered by channelization and drainage, the Cache River basin contains a variety of wetland communities including some of the most intact and least disturbed bottomland hardwood forests in the Mississippi Valley region. These unique and valuable wetlands have been protected by the RAMSAR Convention as “Wetlands of International Importance”.

At present the refuge currently encompasses over 72,000 acres located in numerous non-contiguous tracts in Jackson, Woodruff, Monroe and Prairie counties in east central Arkansas. The boundary of this refuge changes frequently as land acquisition continues along the Cache River, White River and Bayou Devieu.”

Pulled in at 1942z and started on 20M CW. Seems W6OAT is working me both in parks and counties. The regular county hunters worked me along with a bunch of park chasers on cw – Over 50 on CW. Went to 40M SSB and another 40 went in the log quickly! It's nice to be 'wanted'. Hi hi. Caught two Park-to-Park contacts – one with ND9M in Park 1867 and the another with AB9CA/5 in KFF-2711.

(For the POTA fans, the POTA park is the same – just drop the FF out of KFF and you have K-2711, etc. I upload to both systems. After park 4464 or so, the numbers can be different for the same park and I'll list both numbers if that is the case. Some parks like the trails and state forests are only in POTA)

Headed on in to the Super 8 in West Memphis TX for the night. 494 miles driven the first day. Dinner was at the Iron Skillet next door at the truck stop. OK – not great but I like the buffet where at least you can get some salad and fruit and veggies. I've got a good start going east.

Saturday 11/23.

There's a state park right in Memphis (Shelby County) – so I head to **T.O. Fuller State Park KFF-2981** with only 144 ssb QSOs made so far. None on CW! Well, I could fix that. Hit 20M cw early in the morning at 1317 and the DX was rolling in during the DX contest. 9A7A, DF0AK, S57DX, LZ9W, 9A1A, IV4SKB, DJ5MW, YT8T, VP2MDW, DK3T, OL1C, OL3A, TM29CI, II22C, KDP7D.....well, I should mention it was right in

the middle of the big **CQ WW CW DX** contest – hi hi. Dropped down to 40m.....and even caught JA2GRX there! Also dozens of county hunters/park chasers. Added a few more on 30M reaching 45 CW contacts then hit 40M SSB for another two dozen. Left a happy mobile. Success.



From the state web site:

T.O. Fuller State Park was the first state park open for African Americans east of the Mississippi River. A Civilian Conservation Corps (CCC) camp in the area initiated construction of the park facilities in 1938. It was designated Shelby County Negro State Park in 1938 and was later changed to T.O. Fuller State Park in 1942 in honor of Dr. Thomas O. Fuller, a prominent African-American educator, pastor, politician, civic leader and author, who spent his life empowering and educating African Americans. Dr. Fuller served as principal of the Howe Institute, a precursor to Lemoyne-Owen College, for 27 years.

The park is a place that protects and showcases unique natural habitat while offering a wide range of outdoor recreational assets – including a new Interpretive Nature and Education Center, hiking trails, playgrounds, an Olympic-size pool and splash pad, ball fields, basketball and tennis courts, and terrific gathering spaces for families, churches, organizations and groups.

The 1,138-acre park is located within the southern city limits of Memphis - seven miles from Graceland, 10 miles from the Memphis International airport and 15 miles from downtown. Although the park is close to the city, the wooded area of the park allows for a natural and serene setting. Its diverse terrain, from the Mississippi flood plains to the high and overshadowing bluff ridges, makes the area an ideal place for birdwatchers and nature enthusiasts. Hiking trails range from moderate to rugged. The Discovery Trail is a four-mile loop where visitors have the opportunity to see the Chucalissa Indian Village and Wetlands.”

Sounds interesting. Didn't stick around too long. Headed east along I-40.

Next up was **Natchez Trace State Forest and Wildlife Management Area KFF-3957** in Henderson County. You can get here 0.1 mile off the interstate. I catch a few more DX stations on 20M to start things out – why not? Got to get up to 44 plus and I can work the loud ones with not too much trouble. They're already giving out contact numbers in the 500+ range. I'm at 20 or 30! DR4A, TM2R, ED1R, G6XX, EA5RS, G5O, PJ4K, PJ2T, F1ARC, LS3W, and a few US/Canadian DX ers, and only a handful of CH'ers on 20M. Bands full from 14.000 to 14.130 with CW signals. Hit 40M SSB and 3 dozen go in log. Try 20m cw way up high and work 10. Catch KA4RRU/m in Bath, VA

Got enough so head on out. Nearby is another park you can run – one mile the other way off the interstate – Natchez Trail State Park - 2961 - but N4CD had been there before – so I skipped it and had miles to make. With the winter hours – short days – there's not a whole lot of time to spare if you want to make progress heading east.

Next up was the **Camden NWR – KFF- 3930** - well, in Benton TN. Maybe parts are in Humphreys but the spot I found was in Benton. DX was still pounding in, so I worked a few more of them plus some US stations as well. 16 on 20M CW. Then hit 40M SS for another 40 and was soon heading out. The next would be in Humphreys.

Johnsonville Sate Park – KFF-2954 in Humphreys County TN was next up.



From the state site:

“Johnsonville State Historic Park is a day-use park named for former President Andrew Johnson who also served as the Union Military Governor of Tennessee during the Civil War. This 1,075-acre park located in Humphreys County commemorates the site of the Johnsonville Depot, the Battle of Johnsonville and the historic town site of Johnsonville that existed from 1864-1944 prior to the formation of Kentucky Lake.

During the Civil War, Johnsonville was the location of a Union supply depot that moved food, guns, uniforms and everything else needed to supply an army. Steamboats brought supplies up the Tennessee River to the Johnsonville Depot. The supplies were transferred on to railroad cars and transported along the 78 mile Nashville & Northwestern Military Railroad to Nashville, Tennessee and on to General William Tecumseh Sherman’s army in Georgia.

The Johnsonville Depot was attacked by Confederate forces under the command of General Nathan Bedford Forrest on November 4th of 1864. It is believed that a local Confederate sympathizer, Jack Hinson, guided Forrest and his troops so that they were able to position their artillery pieces right under the noses of the Union defenses without being detected. Union gunboats and soldiers from the 43rd Wisconsin Infantry, 1st Kansas Artillery, and the 12th, 13th, and 100th United States Colored Troops fought to defend the depot, but the battle was a Confederate victory. Following the Battle of Johnsonville, Forrest and his troops joined Confederate General John Bell Hood on his Tennessee Campaign which ended with the Battle of Franklin and the Battle of Nashville in the late autumn of 1864.

What remained of the Johnsonville Depot became the thriving railroad town of Johnsonville. The Tennessee Valley Authority (TVA) dammed the Tennessee River in the 1940s creating Kentucky Lake. The lake now covers much of the historic town of Johnsonville. Because of the area's historical significance to the State of Tennessee, the land became part of Johnsonville State Historic Park in 1971.

Surviving from the Civil War are two large earthen fortifications, the upper and lower redoubts of Fort Johnson that are open for visitors. Original Union breastworks (rifle pits), remnant railroad bed and railroad turntable are preserved throughout the park in various areas. The Crocket Cemetery serves as a final resting place for some of the former residents of Old Johnsonville. Interpretive wayside exhibits are found throughout the park and the reproduction soldier's huts similar to the type that Union soldiers stayed in who were once stationed at the Johnsonville Depot are not to be missed.

In 2012, the park opened a new welcome center which features a museum, theater and gift shop that offers visitors an opportunity to learn more about the Johnsonville Depot and the 1864 Battle of Johnsonville.”

Lots of action as no one had been here before. The actual park is a mile down the road from the visitor center, but I guess both would count. Went down to the park itself to run.

After this park, I headed into Hurricane Mills off I-40 more than half way to Nashville in TN for the Days Inn there. This is a big tourist trap for Loretta Lynn with her store and place to eat – and I did eat there– had the buffet which was OK – country food – fried chicken, mashed potatoes, green beans, and small salad bar to go along with it. Skipped the gee-jaw tourist stuff at the store.

Sunday 11/24

I head out from the motel. It's 31 F and foggy. Yuck driving conditions. I head east and get to Hickman County. Still foggy and misty an hour later. A 15 mile detour gets you to the next – south of I-40.

MTSU Wildlife Management Area K-3952

From the web:

“Primarily second growth oak-hickory hardwood forests cover the 995 acres of MTSU

WMA. Valleys have running water in wet times. The pavilion parking area is small, but provides access to a small stream that when flowing is quite lovely. When water levels are moderate, it is a quite a nice waterfall.”

It's off on a decent dirt road for the last couple miles and there are dozens of hunters there – every 300 feet along the road they're parked and into the woods! Several miles down the road you find a small pavilion with the only easily available parking.

The DX contest was still coming in strong on 20M CW so put some more DX stations in the log. Finally caught up with CN3A (Morocco) – who I've been trying to work for several years in the DX contests, for a 'new one'. Apparently he's got high noise there and things were just right to get heard. Finally! Yeah! I still need another 15 mobile DX countries in LoTW to get the ARRL Mobile DX award. Didn't hear any other new ones. Did work 4 new ones this trip.

After chasing a few DX stations, went down to 40M SSB and 30M CW then headed out. So many parks, so little time, There were only 41Qs previously – all on SSB, so I added some CW to the total with 57Qs for SSB and CW. The DX contest filled 20M from 14000 to 14140! Even 14113 had half a dozen Test de...CQ CQ de...etc all around it. Hopeless to operate on 20M CW during the contest from here.

Next up is **Radnor State Park in urban Nashville TN – Davidson County – KFF-3922.**



From the web:

“ Radnor Lake State Park is a 1,368-acre park and is protected as a Class II Natural Area. It is unique due to the abundance of wildlife viewing opportunities, environmental

education programs, hiking opportunities and its location in an urban area. The park is day-use only and the more than six miles of trail are strictly used for hiking, photography and wildlife observation. Pets, jogging, and bicycles are only allowed on the Otter Creek Road trail.

The park is perfect for nature enthusiasts to observe owls, herons, and water fowl as well as many species of amphibians, reptiles, and mammals such as mink and otter. Hundreds of species of wildflowers, mosses, fungi, ferns, and other plants, as well as trees, shrubs, and vines, add to the natural ecological diversity of the area. Several ranger-led programs are planned throughout the year including canoe floats, wildflower walks, astronomy night hikes, nature hikes, programs on snakes, off-trail land acquisition hikes and birds of prey”

The lake was formed when the LNR Railroad built a dam way back.

From here, it's off the interstate for over 150 miles headed through Fentress County over to Morgan County and **Park KFF-2948 – Frozen Head State Park**. Lots of small winding roads to get here and around in the county! The DX contest still raging so added a few of them in the log on 20M CW , then hit 30m CW and 40M SSB winding up with 99 QSOs from here. As you get further east, there are piles of park chasers that show up on SSB – giant pileups. I almost want to try a list type operation but I suspect most of them would be clueless. Remember the lists from the way back county hunting days when you could work 50 from a county line? I'll take a list.....and work on through it. And repeat again till the pile up gets small. It gets to be a madhouse with the park chasers – and of course, everyone is using phonetics so it goes slower and lots of new calls I've never heard or worked before!



From the web:

“Frozen Head State Park and Natural Area encompasses more than 24,000 acres of wilderness area and is named for a 3,324-foot peak in the Cumberland Mountains, the top of which is often shrouded in ice or snow in the winter months. The impressive entrance leads visitors into a vestige of densely forested, unspoiled mountain splendor — once common throughout the Cumberland Plateau.

There are 20 primitive tent campsites within the park. Fifty miles of backpacking and day-hiking trails provide wildlife viewing opportunity. Many of the trailheads are located near the park office, with lesser-used trailheads located at Arnes Gap and just off Highway 62 to the south. Most of the trails are open only to hiking, although mountain biking is allowed on the Lookout Tower Trail, which leads to the summit of Frozen Head.

In 2006, the park replaced the aging CCC fire tower at the summit of Frozen Head with an observation deck. There is scenic seven-mile trail leading to the observation deck. The observation deck rises just above the treeline and allows for a 360-degree view of the surrounding terrain. The Great Smoky Mountains and the Tennessee Valley span the eastern horizon. Walden Ridge— where the Tennessee Valley meets the Cumberland Plateau— is visible to the south.”

Wiki adds a bit more history to the park:

“What is now Frozen Head State Park was once part of the vast Cherokee hunting grounds that covered much of East Tennessee and southeastern Kentucky. The area was ceded to the United States government in 1805 with the signing of the Third Treaty of Tellico. The first Euro-American settlers arrived shortly thereafter.

Although businesses occasionally purchased the Frozen Head area for its natural resources throughout the 19th-century, the area remained largely undisturbed until the state of Tennessee purchased it in 1894 for the location of Brushy Mountain State Prison. The state hoped to use convict labor to mine the Cumberlands' ample coal resources, with the heavy forest providing wood for construction of mine shafts. In 1911, the Emory River Lumber Company purchased the Frozen Head area and cut most of the forest's commercial timber. Major logging operations in the forest commenced in 1925.

In 1933, Tennessee Governor Hill McAlister set aside a large part of Brushy Mountain State Prison's lands for the establishment of Morgan State Forest. The Civilian Conservation Corps arrived that same year to construct roads and facilities for forest maintenance. CCC operations continued in the forest until 1941, although rattlesnakes and prison escapes prevented the establishment of a camp within the forest until 1938.

A large part of Morgan State Forest burned in a forest fire in 1952, and the forestry division transferred the lands to the parks division 18 years later for the establishment of Frozen Head State Park. In 1988, most of park's acreage was classified as a state natural area, restricting development to a 330-acre area around the confluence of Flat Fork and Judge Branch”

You've got two dozen regular campsites, an amphitheater for a couple hundred and loads of hiking trails up the 14 different 3,000 foot high peaks.

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Next up was **Cove Lake State Park in Campbell County, KFF-2938**. It was getting late in the day so I did some DX on 20M, then 40M SSB and 30M for a total of 90Q. Whew! Big pileups on 40M SSB! CHN 20M CW was tough – stations were all the way up to 14.150 but sort of peaked out late in the day. Got most county hunters on 30 and 40M.

From the state site:

“Cove Lake’s 606 acres are situated in a beautiful mountain valley on the eastern edge of the Cumberland Plateau. Scenic nature trails lead through a diversity of wetlands and woodlands offering wildlife viewing for the nature enthusiast. A paved walking/bike trail provides easy access to all park facilities. Visitors can spend the day fishing or simply sitting back and capturing the picturesque vista Cove Lake offers.

The park has 106 campsites equipped with grills and picnic tables. There are also six large picnic pavilions available for rent.

In the 1920s, several groups began lobbying state and federal legislators for the construction of a dam at the confluence of the Clinch River and Cove Creek to control flooding and provide electricity to the area. The project was initially known as the Cove Creek Project, but after the Tennessee Valley Authority assumed control of the project in 1933, it became known as the Norris Project. The project was named for Nebraska senator George Norris, who had advocated the creation of TVA in the early 1930s. The construction of Norris Dam began in 1934 and the dam’s gates were closed in 1936, effectively creating the Norris Reservoir.

The Tennessee Valley Authority constructed Caryville Dam to protect the town of Caryville from the Norris Reservoir, which would extend for several miles up Cove Creek. Regardless, several of the town’s structures were condemned or moved, and two highways had to be rerouted. TVA planned Cove Lake State Park as one of the Norris Project’s three demonstration recreational areas, the other two being Norris Dam State Park and Big Ridge State Park along the main reservoir to the east.”

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It gets dark early this time of year, so I hotfooted it into Caryville for the night at the Super 8 motel there. Ate next door at Shoney's with the buffet – OK but not great. Cheap! Less than 9 bucks.

Monday – November 25

DX contest is over! Bands back to normal again. Weekenders back at work.

After breakfast at the motel (oatmeal, an apple, coffee) I head on out to **Norris Dam State Park KFF-2962** still in Campbell County. It was early in the day – but managed to put 50 in the log. Success. This park was part of the complex of the 3 parks created by the dam and lake with Cove Lake run yesterday the first one. Next up the 3rd in the set of 3 created by the dam and set aside area.



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Big Ridge State Park – KFF-2931 is located in Union County TN. A bit of winding road to get there – the road is fine till you get to the Union County border then it twists and winds at 35 mph after that for miles and miles.



Fog? You bet....

From the state web site:

“The heavily forested, 3,687-acre park is located in the Appalachian Ridge and Valley range, characterized by narrow ridges flanked by fertile stream valleys. Big Ridge State Park’s topography is dominated by three of these ridge systems giving the area its

beautiful lake and scenery.

The park is home to a variety of activities for the whole family. Big Ridge State Park consists of more than 15 miles of hiking trails ranging from easy to very rugged. You can hike along dry ridges, lush hollows, old roadbeds, lakeshores and beside cemeteries and remnants of early settlements. The park has 50 campsites on or near Norris Lake to accommodate RV's, trailers and tent campers."

67Q go into the log with half dozen EU DX park chasers, too!

Now it's 10 miles of twisty roads to get back out of here following the GPS lady to get south down to Knoxville, then east.

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At Knoxville, you have the **Forks of the River WMA – KFF-3939** in the metro city area. I arrive at 1555z and get to work. DX is rolling in with the usual loud DX stations – ON4VT, ON4ON, F1BLL, F2YT and xyl F5MVT, IW2NXI, F4HZR, DL8NDG, ON4BB. They must have fairly impressive stations. Then off to 30 CW and 40M CW and SSB with over 75Qs in the log.

This park connects with the 'greenway' and has miles and miles of trails.



Then it was zipping along I-40 to I-81 to get up to VA and the next park – which was the **Big Survey KFF-4005**.

You head off the interstate – the road gets narrower. Then you wind up on a one dirt road for about five miles as it enters the WMA (wildlife management area) and climbs and climbs. There is nowhere to stop or pull off- one lane road! So you go and go at 15-20 mph. It would help to have a high clearance vehicle here but the road is OK for cars. It looks like a long way to the top and a parking area for a trailhead. You can run the WMA here.

Wythe County.



From the state website:

“Big Survey Wildlife Management Area is in the earliest stages of development. Overlooking the southwestern Virginia town of Wytheville, this area is easily accessible from Interstates 81 and 77. Come see the colorful display of azaleas and rhododendrons in May, hike to the ridge tops for beautiful 360° views, or hunt for deer or turkey.

The Big Survey Wildlife Management Area rests atop four mountain ridges in the middle of Wythe County, Virginia. The property’s 7,500-acre woodland is just south of Wytheville and divides the Reed Creek and Cripple Creek watersheds in New River

Valley. Oaks, hickories, and yellow pines dominate the rugged landscape featuring unusual quartzite outcroppings. The sandy soils of the area support a variety of interesting plants, including abundant rhododendrons and azaleas.

Big Survey offers outdoor enthusiasts hiking, birding, and nature study opportunities. The display of rhododendrons and azaleas is best in late May. Birding is probably best at this time also, as neotropical migrants fill the deciduous woodland. Both the Towers Trail (1,271-foot climb in 1.8 miles) and the High Rocks Trail (520-foot climb in 1.3 miles) lead to spectacular views of the surrounding country.”

A good bunch of Qs go in the log. I see the only other one here previously is the super activator team Kerri, KB3WAV and Ray, KC3RW.

After the run, I head on into the Super 8 in Wytheville for the night.

Wednesday November 26 2019

There's frost on the car – lots of it. 32F outside. Have to wait to let the car defrost. Where is my scraper? Buried in the back of the car somewhere! Also fog, fog and more fog. Head on out to the next.

First up today is **Shot Tower State Park - KFF- 1317**. Have a good run even though it is very early in the morning. About a 15 mile detour off I-81 but fairly easy getting there and back.

From the web:

“Overlooking the New River, Shot Tower was built more than 200 years ago to make ammunition for the firearms of the early settlers. Lead from the nearby Austinville Mines was melted in a kettle atop the 75-foot tower and poured through a sieve, falling through the tower and an additional 75-foot shaft beneath the tower into a kettle of water. Guests may ascend the tower, which is on the National Register of Historic Places. Interpretive signs provide details on the tower. Grounds are open from dawn until dusk. The parking lot is open year-round. The tower is open on scheduled days in the summer. Admission to the tower is free, however the daily parking fee applies”



The shot tower is to the right in the above picture.

Wiki adds a bit of historical context here:

“As one of the few remaining shot towers in the United States, the Jackson Ferry tower was constructed by Thomas Jackson and is the centerpiece of the Shot Tower Historical State Park. Construction began on the tower shortly after the American Revolutionary War and was completed in 1807

Shot towers or shot factories were designed and constructed to manufacture lead shot for firearms. At the top of the tower, a firewood furnace melted lead with arsenic, which was poured through a sieve forming drops of lead corresponding to the size of the sieve. The lead droplets would fall 150 feet, become spherical, cool sufficiently to become rigid and drop into a large kettle of water at the bottom of the tower, completing the cooling process and providing a soft enough landing to keep the shot from deforming. The finished shot was then marketed to hunters, traders and merchants.

Welshman William Herbert, an expert ore smelter, and his extended family were living in Bristol, England when he accepted the offer to come to the Virginia wilderness and make the mines profitable. He designed the shot tower much like the Redcliffe shot tower he was familiar with in Bristol, built in 1753 by William Watts, his former employer. Watts later patented the method used to drip the molten lead from a considerable height into the body of water below, a process "for making small shot perfectly globular in form and without dimples, notches and imperfections which other shot hereto manufactured usually have on their surface".

The Wythe County Lead Mines was the main source of lead for the colonies during the American Revolutionary War. According to the Mary Kegley book, Wythe County, Virginia - A Bicentennial History 1989, William Herbert and wife, her maidservants, his parents David and Martha Herbert, his brother David, Jr. and his sister, Mary, all came to Wythe Co, Virginia at the request of John Chiswell and his business partners, William Byrd III and John Robinson (Chiswell's brother-in-law), from Wales because (William) Herbert was "knowledgeable in the art or mystery of smelting and refining ores and metals, for he had been brought up in that business. The Welsh miners came from Bristol, England to the wilderness of Virginia and had produced lead successfully ... it soon became apparent that the lead mines were vital to the War for Independence ... there was a great scarcity in this country ... the New River Lead Mines became the primary source of lead for the colonies

The Wythe County Shot Tower is unique for several reasons. Unlike most other shot towers, which were constructed of brick, this shot tower was built of limestone. The 2.5-foot-thick solid stone walls not only made the Shot Tower an extremely strong structure, but kept its interior temperature cool and consistent, improving the quality of the shot it produced. Since the lead needed to free-fall around 150 feet to form proper shaped shot, the designers decided to use the natural terrain to reduce the height of the tower they had to construct. They decided to build the tower on the edge of a cliff, and dig a vertical shaft 75 feet deep, which reduced the height required of the actual tower to 75 feet. Access to the bottom of the shaft was made by a horizontal adit that opened up near the shore of the New River. “

- - -

Yep, the parking lot is \$7 but there was no one around, so I skipped paying it. Ouch - \$7 for parking but free to go up the tower. Oh well. Had a good run with some 20M EU DX making it in the log. EU signals are quite a bit stronger back east!

You can do the next park right here. **The New River Trail State Park** – which is a long skinny trail that follows along an abandoned railway right of way along the New river, and it runs right through here in the state park! Serendipity. Move the car 50 feet to get to the next (really didn't have to) and start running KFF-1310. Not so many go in the log as county hunters already got the county and many were missing for the second park at the same site. I appreciate those who work me in the next park from the same county. Reached 49Qs and bugged out. Had miles to make before the day was out. I had originally planned on running it 30 miles down the road but this worked out fine! There are a dozen access points for the trail

from the web:

“New River Trail is a 57-mile linear park that follows an abandoned railroad right-of-way. The park parallels the scenic and historic New River for 39 miles and passes through four counties and the city of Galax. The trail's gentle slope makes it great for visitors of all ages to hike, bike and ride horseback. The park's Foster Falls area offers guided horseback trips; canoe and bike rentals; boat launches; gift shops; and a horse arena. Fishing is popular, and primitive campsites dot the trail. The park's Hoover Mountain Biking Area is also popular with those seeking extra adventure.

Features:

Two tunnels: 135 feet and 193 feet long

Three major bridges: Hiwassee - 951 feet; Ivanhoe - 670 feet; Fries Junction - 1,089 feet

Nearly 30 smaller bridges and trestles

A historic shot tower used more than 200 years ago to make ammunition

Five non-flush toilets are available along the trail”

- - - - -

I'm getting close to the final destination for this trip but another day and a half to go. I head on up I-81 and in Pulaski County, VA you will find **Claytor Lake State Park KFF-1295**. Arrive at 1515z and put it out. Half a dozen DX on 20M (easier to work from further east for sure) plus the usual county hunters/park chasers on 40M SSB, and 20/30/40 CW.



From the web:

“”Ideal for swimming, camping, hiking and picnicking, Claytor Lake is known for sport fishing and boating. The park has a full-service marina with docking slips, supplies, fuel, boat rentals and refreshments. The Water's Edge Meeting Facility is perfect for weddings, receptions and reunions, and wedding packages are available. Three lodges and 15 cabins overlook the 4,500-acre lake, offering visitors a scenic retreat. The historic Howe House has interactive exhibits describing the ecology of the lake and the surrounding areas. Guests can also rent bikes and enjoy a universally accessible fishing pier, picnic shelters, a seasonal snack bar and playgrounds. There are also two gift shops.

472 acres. Lake size, 4,500 acres; Lake is 21 miles long. The park has approximately three miles of lake frontage.”

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Near Roanoke VA in Roanoke County you'll find the **Havens WMA – KFF-3986**.

From the web:

“If you’re seeking a solitary high country outing for hunting, hiking, viewing wildlife, or reflecting on a bit of the past, the Havens Wildlife Management Area is for you. The earliest owned Department management area, the initial Haven’s purchase was in 1930 for nearly 6,000 acres at the astonishing cost of \$2.61 an acre.

Located in the Appalachian Highlands, this area has grown to 7,190 acres. Havens occupies a part of Fort Lewis Mountain, about five miles west of the Roanoke-Salem area. This is steep and generally inaccessible terrain except to the hardest hunter or nature enthusiast. Elevations range from 1,500 to 3,200 feet. There is very little water present, occurring only in small intermittent streams that flow through the area during wet periods and several water holes constructed for wildlife. Soils on the area are generally shallow and poor. Ninety-nine percent forested, the area grows a mix of oaks, hickories and pines. Prior to the Department’s purchase, the area’s primary use was for timber production and has been slow to recover from past practices.”

You really don't want to reach this by the route off I-81 on the web page. You find the Wildlife Management area – which is a one lane dirt road suitable for high clearance vehicles. There's a gate but no sign. The WMA starts right there. The fact the road gets bad fast is not immediately obvious as the road starts out OK and you enter the

WMA.....then it turns into two tracks with grass and a high mound in between the tracks. Rough rock strewn tracks. Steeply uphill with not great traction. Lots of slipping and sliding. I'm looking for a parking spot and not finding one – you bounce along at 15 mph going up, up, up steeply with the car bottoming out a few times. Well, many more than a few times. Finally after a couple miles of car pounding road (and not even room to turn around) you find a parking spot. Not the best as it is blocked to the west by a high ridge but it will do! I'm not going further!

Fortunately, I have a good run (44+Qs), then have to head on back down the horrible road not suitable for cars. From the 'other side' apparently you can find easier to access points – that's what a local park activator told me who had run it several times. Oh well. Fortunately the car seemed to have survived the really really rotten pickup type rocky, washed out road. Go in a SUV with high clearance like a Subaru Forester, Jeep, or pickup truck if you use this route to get there.

I zip on up the interstate – have to skip one today as I must make lots of road miles. I'll get it on the way back or next trip north.

Next up is **Natural Bridge State Park and Natural Area – KFF-3972** in Rockbridge County. This is an interesting park – been around for years and years as a tourist attraction. Goes back to 1870 as a tourist attraction and became a state park in the 1970s. . Before that, it was a National Landmark.



In late 2016, it became an 'Associated Area' of the National Park Service – and therefore on the list of NPOTA entities part way through the year. Oh, that caused a lot of people to want to head there and 'put it out' for everyone else. Turns out that several people headed there the first day that it would count. N4CD was on the way home from a trip to MD and stopped by. Several local folks from Roanoke and Lynchburg and others, showed up. We all gave it out. I made a bunch of contacts from there. As it turned

out, 'associated areas' were not included or carried over in the WWFF program so I got no credit for those contacts. State parks were added later.

From the state site:

“Once owned by Thomas Jefferson and listed on the National Register of Historic Places, the 215-foot tall Natural Bridge is a limestone gorge carved out by Cedar Creek. The park is more than just the bridge; beautiful forests and rolling meadows showcase the area’s karst terrain, and vistas of surrounding mountains and the James River valley display nature’s splendor. Access these via 6 miles of hiking trails, including the accessible Cedar Creek Trail that leads from the bridge to the Monacan Indian Village and Lace Falls with its 30-foot cascade. Living history programs connect you to the past and cover how people once used the area’s resources for survival and inspiration. Start at the visitor center where you will find exhibits and a gift shop.

A shuttle from the visitor center to the bridge trail is available for those not wishing to take the stairs.”

- - - -

So that needed 'fixin'. A repeat visit to the park was needed to get WWFF credit. It was only added recently in 2017 and it had a 'start date' that was later than 2016. I'd uploaded the associated area contacts(it was a state park then too) to POTA which has no start date and I'd add a bunch more. You've got a giant visitor here that goes way back. Also an old historic hotel.

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Hmmm....I read on the K3IMC forum that N9JF was down to ONE county for WBOW for second time. (For the non-county hunter readers, that is the last one of the 3077 needed to complete the USA-CA award – working all 3077 counties - a big deal – which can justify a special trip by someone to get it). In addition, there were 3 in KY that were 'in a row' that were 3 of his last five counties total for the Bingo Award. Well, maybe someone would head on down through eastern KY and catch those for him. For me, it wasn't on the short route home, was it? I'd wait and see if someone else closer volunteered to get those counties.

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That night I spent at the Ramada Inn in Strassburg, VA near the junction of I-81 and I-

66. From here it's a couple hours to the destination in Gaithersburg MD – and I want to arrive before 'rush hour' although on the Wednesday before Thanksgiving, it seems half the people take off early and the traffic is heavy from noon on. I'd have to deal with it.

There's still time, though. Dinner at the restaurant attached to the restaurant. Decent. It gets dark early this time of year and I don't wander far after dark to find a restaurant these days. Oh, and it was drizzling which didn't help.

Wednesday – Nov 27 2-19

Had to defrost the car in the morning. Cold and damp. Frost all around.

First up today is **Seven Bends State Park in Shenandoah County VA – KFF 1315** just off I-66. There's not much here. 1066 acre park. It's in the GPS so you can find your way there.



From the state web:

“The park is open to pedestrian traffic during daylight hours only; however, amenities and facilities are not yet available. It provides access to the geographically unique “seven bends” area of the North Fork of the Shenandoah River and supports water and land based outdoor recreation and educational opportunities”

Not a problem! As long as it's an official state park with parking lot, I'm happy. I pull in early in the morning – 1219Z and catch some DX on 20M CW then head to 40M CW. Some county hunters around. Go to 40M SSB and have a fair run, then 40m cw. Now it's 1300z and the weekly CW Test is in full swing. I put some EU QSOs in the log, then head to 40cw for more CWT contacts. Wind up on 20CW again, then finish on 30M CW.

All over VA, folks are out hunting – all the rural roads have pickup trucks parked every quarter mile where hunting is allowed.

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Nearby is **Sky Meadows State Park KFF-1318 in Fauquier County KFF-1318.**



From the web:

“Rich in history, this park provides recreational offerings that engage visitors and help connect them with farming practices that formed its unique pastoral landscape. This 1,860-acre park has scenic views, woodlands and the rolling pastures of a historic farm that captures the colonial through modern life of the Crooked Run Valley. Nature and history programs are offered year-round. Hiking, picnicking, fishing and primitive hike-in camping for families and groups are favorite activities in this peaceful getaway on the eastern side of the Blue Ridge Mountains. The park has 10.5 miles of bridle trails, 22 miles of hiking trails, 9 miles of bike trails and Appalachian Trail access.”

1866 acre park. GPS lady knows how to get there. For most of the parks, it was fine. However, NOT ALL Parks are in the GPS so always have written instructions on how to

get to the parks! Or at least the street address – which can usually get you there.

The state web sites are very good for the parks but not so good on WMAs – the federal/state website for the WMAs, SWAs, and similar often only show you a map so you might want to print that out if you can't find road directions. Sometimes you can find the answers on other links off Google for the entity – sometimes the best directions are off a hunting site to parking spots in the WMAs. I make up a page for the route with the park number, county, and instructions on how to get there off my route. Print out maps for the WMAs when directions are not provided or clear. Most of what I chose to run was 10-15 miles max off the interstate other than Frozen Head, Cove, Norton Dam, Big Ridge a bit north by 35 miles – but they were several all close to each other, and an easy exit down I-75 when done.

The run goes well – run the bands. Only a handful on 40M SSB as had enough on CW from here. Most of the activators are SSB types, so many parks have few or zero CW contacts from them. I'm working to change that! One park at a time!

Well, one more to go before Turkey Day. I see a sign for **G.R. Thompson WMA KFF-4008** and follow the sign off the highway near the state park. Probably should have hopped back on I-66 and gone west one exit. It takes 10-12 miles of rural 2 lane twisty windy road to get there – to a designated parking area for it – and trail access.



From the web

“Situated within a convenient distance of Northern Virginia’s large, urban population but far removed in its setting — against the quiet eastern slope of the Blue Ridge Mountains — the G. Richard Thompson Wildlife Management Area is among the most popular of Game Department lands. The opportunities to hunt, fish, view wildlife and spectacular displays of wildflowers, or hike a stretch of the famous Appalachian Trail, contribute to the area’s broad appeal.

The major portion of the management area’s two parcels, totaling nearly 4,000 acres, is located in Northwestern Fauquier County. Beginning at its lower reaches, the property rises in a series of steep inclines and benches to the crest of the Blue Ridge. The property’s long northwestern boundary closely follows the mountain crest, occasionally straying westward into Warren and Clarke Counties. Elevations range from 700 to 2200 feet. Though predominately a hardwood forest, there is some semi-open land at the lower elevations and at the top of the Davenport Tract. Terraced slopes on the lower portion of the area mark where rows of fruit trees once grew. Other physical features include numerous rock outcroppings, and several major streams and ecologically unique spring seeps.

By far the most popular springtime activity on the Thompson Wildlife Management Area is viewing wildflowers where, at the higher elevations, a remarkable display of large-flowered trillium occurs. Seven miles of the Appalachian Trail and the network of other trails and interior roads invite hiking. Semi-open, shrubby areas and open parking areas on the mountain crest provide bird watchers with the opportunity to watch the concentration of hawks that migrate across the area each fall. Adjoining Sky Meadows State Park offers additional mountain scenery, hiking and wildlife viewing.

Parking is provided in 11 designated parking areas”

After the park run, I get back on I-66 headed toward DC. The backup starts 15 miles west of the I-495 beltway but moves along at 30 mph. I hit the I-495 beltway and it is a 10 mph stop and go mess until you get to the bridge into MD. In VA, the road is four to five lanes wide each way dropping down a lane here and there with lots of traffic entering and exiting. Everyone is leaving early for the holiday on Wednesday afternoon. Takes 30 minutes to go 10 miles. Once you cross the bridge into MD, it's 8 lanes each way for a bit.....and traffic is back to 40-45 mph. After five miles you hit the I-270 exit and head north or 6 and 7 lane (each way) roads for 15 miles to Gaithersburg. I stop and gas up the car – ouch - \$2.65 a gallon at metro DC area stations. I'm used to about \$2.10 in TX and most of the way up other than VA and metro MD it was in the low \$2 range. Arrive late afternoon for turkey day and some rest. Lots of miles and

lots of parks and lots of contacts! Success in every park!

Time for some relaxation – and filling up on turkey and the fixin's on Thursday – and big dinner with my sister and her kids and grandkids now.

Continued Later.....somehow I've got to get home. I really didn't plan that other than a quick trip home along interstates with few detours. Usually trips home are 'express' – maybe just hitting 2 or 3 parks along the way that I missed on the way up – if that – and avoiding 'weather'. This time, I think I only bypassed one or two for lack of time.

MARAC Convention 2020 – Portland OR

MARAC Convention
October 25-27, 2020.

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Discounted rate is available for the convention dates, and for three days before and after.

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55" Flat Screen TVs in Guest Rooms

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Pets can stay for just \$30 a night

Registration will be open soon if not available by the time you read this!

NASA Parker Probe

NASA probe endures brutal 2,400F temperatures to get within just 15 million miles of the sun's surface and uncovers solar wind mysteries

The Parker Solar Probe launched on its mission for the Sun on August 12 2018

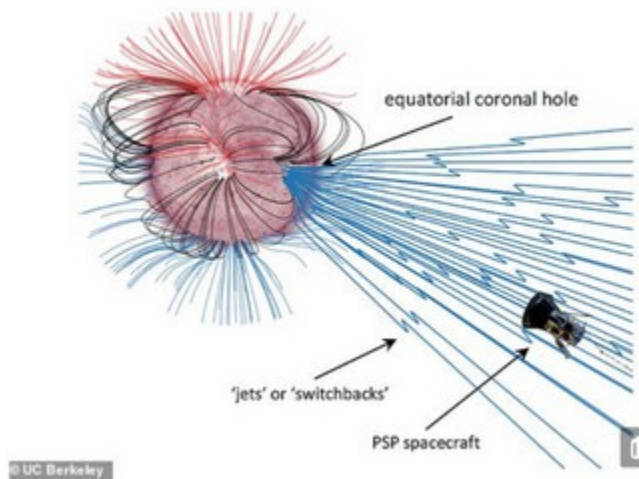
In 2024 it will make its closest approach - 3.9million miles away from the Sun

Researchers have been studying the data sent back to Earth by the probe

They have found that 'slow solar winds' come from holes in the Sun's corona

A NASA probe, which has ventured closer to the sun than any other human-made object, is sending back data that could help scientists learn more about solar winds.

The car-sized Parker Solar Probe, which blasted off from Earth on August 12, 2018, has made three solar orbits so far, and is around 15million miles away from the Sun.



Its mission is to help scientists unlock the mysteries of the Sun's scorching atmosphere and answer questions on solar winds and the corona's temperature.

Nour E. Raouafi, project scientist for Parker Solar Probe at the Johns Hopkins Applied Physics Laboratory in Laurel, Maryland, which built and manages the mission for NASA, said: 'The Sun has fascinated humanity for our entire existence.'

'We've learned a great deal about our star in the past several decades, but we really needed a mission like Parker Solar Probe to go into the Sun's atmosphere.'

'It's only there that we can really learn the details of these complex solar processes. And what we've learned in just these three solar orbits alone has changed a lot of what we know about the Sun.'

In a series of papers published in the journal Nature, researchers say the spacecraft has provided the closest view of the corona so far.



Previous missions have shown that solar wind - energetic particles that constantly stream away from the Sun - is accelerated as it leaves the corona, but it has not been clear how this happens.

These accelerated particles are also responsible for generating the Northern and Southern Lights when they come into contact with Earth's magnetic field.

In one of the new papers, scientists report that changes in the Sun's magnetic fields increase the speed of the solar wind flowing away from the star - higher than those predicted in previous studies.



Another paper focuses on the source of so-called 'slow' solar wind - with speeds less

than 310 miles per second - which until now has been poorly understood.

The researchers found that slow wind originates in holes in the corona found near the equator.

These holes, the scientists say, are cooler and less dense than the surrounding corona.

Justin Kasper, principal investigator for SWEAP — short for Solar Wind Electrons Alphas and Protons — at the University of Michigan in Ann Arbor, explained: 'Waves have been seen in the solar wind from the start of the space age, and we assumed that closer to the Sun the waves would get stronger, but we were not expecting to see them organize into these coherent structured velocity spikes.'

'We are detecting remnants of structures from the Sun being hurled into space and violently changing the organization of the flows and magnetic field. This will dramatically change our theories for how the corona and solar wind are being heated.'

The probe has been enduring some of the most brutal conditions.

Those include cosmic radiation 500 times more powerful than radiation on Earth and temperatures of 2,400°F.

Over the next five years the probe will continue to make new discoveries as it moves closer to the Sun, eventually making its closest approach in the year 2024, as it flies 3.9 million miles above the solar surface.

The last time a man-made object came close to the star's surface was in 1976 when Helios 2 achieved perihelion, point of the orbit at which it was closest to the Sun, at 27 million miles.

For comparison, the average distance between Mercury and the Sun is about 36 million miles.

One of the main goals of the Parker Solar Probe is to discover the source of the 'slow' solar wind and how it is accelerated in the hot atmosphere of the sun.

'The first three encounters of the solar probe have been spectacular', said Stuart Bale, a professor of physics at University of California, Berkeley.

The solar wind consists of charged particles, mostly protons and helium nuclei,

travelling along the sun's magnetic field lines.

The 'fast' solar wind, clocked at between 310 and 600 miles per second, is known to come from large holes in the solar corona at the sun's north and south poles.

The origin of the 'slow' solar wind, which is denser but about half the speed of the 'fast' solar wind, is more poorly understood.

'We can see the magnetic structure of the corona, which tells us that the solar wind is emerging from small coronal holes', said Dr Bale.

'We see impulsive activity, large jets or switchbacks which we think are related to the origin of the solar wind; we see instability -- the gas itself is unstable and is generating waves on its own.

'We are also surprised by the ferocity of the dust environment in the inner heliosphere.'

The more solar physicists understand about the magnetic environment of the sun and how it sends solar wind particles toward the planets, the better they will be able to predict events and prevent damage', according to Dr Bale.

'There was a major space weather event in 1859 that blew out telegraph networks on Earth and one in 1972 that set off naval mines in North Vietnam, just from the electrical currents generated by the solar storm.

'We're much more of a technological society than we were in 1972, the communications networks and the power grid on Earth are extraordinarily complex, so big disturbances from the sun are potentially a very serious thing.

'If we could predict space weather, we could shut down or isolate parts of the power grid, or shut down satellite systems that might be vulnerable.'

The way coronal plasma seems to rotate and the dynamics of near-sun solar wind are important pieces of information to come from the data, according to Gary Zank from the University of Alabama Huntsville.

'The first surprise is related to the co-rotation of the coronal plasma as the sun rotates,' says Dr Zank, who wrote one of four papers on the NASA data.

'The sun emits a supersonic wind and so some level of rotational flow has always been

expected in the solar wind near the sun.

'This is because the magnetic tension in the corona should force the plasma to rotate as the sun spins.'

The large rotational velocities measured by the probe greatly exceed the value expected from models of the solar wind, he says.

During its scorching journey, the probe will orbit the Sun 24 times while being subjected to extreme heat and radiation, with temperatures expected to reach 1,377C, nearly hot enough to melt steel.

As it gets closer to the Sun, the probe is expected to hurtle around the star at 430,000 miles an hour, which will make it faster than any spacecraft in history.

'Studying the solar wind from Earth is like studying the source of a waterfall from near the bottom, where the turbulence obscures what's happening at the top', said Dr Bale on why the Parker probe is so important to science.

'Now, with the Parker Solar Probe, we are getting closer and closer to the top of the waterfall, and we can see that there is underlying structure,' he said.

NASA released all of the data collected by the Parker probe's first two orbits of the Sun earlier in November, inviting anyone with an interest to study the information.

'Releasing this data to the public will allow them not only to contribute to the success of the mission, but also to raise the opportunity for new discoveries to the next level', said Parker Solar Probe Project Scientist Nour E. Raouafi.

The findings have been published in the journal Nature.

Source: <https://www.dailymail.co.uk/sciencetech/article-7755935/A-NASA-probe-studying-Sun-helps-scientists-discover-secrets-solar-winds.html>

On the Road with N4CD II

The day after Thanksgiving not much was going on – other than millions headed out for 'black Friday' sales which I avoid. The family had gathered and left after the big dinner on Thursday so I had a free day to do whatever I wanted – which was to run a bunch of parks just to the north up I-270. Traffic shouldn't be too bad on the 'holiday' where most of DC likely had it off (federal workers) and all the contractors, too. Just avoid the shopping centers. Anyway, if any had to work, they'd be going into DC and I'd be going the other way even if they were stuck going to work.

November 29 1019

So I headed off early up to **Gambrill State Park in Frederick County MD – KFF-1573** 40 miles up the road. Arrive at 1245Z and work a bunch(11 of 'em) of EU DX on 20M. Then head on down to 40 and 40m to finish off that park for me. Many, many others had been here with over 75 'activations'. Apparently not too many on CW!

From the web:

“Gambrill State Park is a beautiful mountain park, located on the ridge of the Catoctin Mountains in Frederick County. Its most popular feature is the 16 miles of trails for hiking, mountain biking, and horseback riding. The park is separated into two areas, the Rock Run area and the High Knob area. From the 1600-foot High Knob, three stone overlooks offer breathtaking views of the Frederick and Middletown Valleys then continue to the northern reaches of the Shenandoah Mountains. The High Knob area also offers wooded picnic areas, three picnic shelters, and a large stone lodge, called the Tea Room. The picnic shelters and the Tea Room are available for reservation. The Rock Run area offers a cozy family-style campground, a picnic area, and a small pond for fishing.”

Next up was the **Appalachian Trail**. There's a nice access point and parking area along the main highway – K-4556 only now in the POTA system. Trails were included in NPOTA but you had to run 'scenic' trails like this one 'portable' – no mobile. I had made a few QSOs but would add a few more now from the mobile since that restriction no longer applied in POTA. If I recall, both times I ran it, QRP portable with an Alex Loop antenna, I froze my butt off. (40F or colder). Not this time! Warm car!

At the close end of the parking lot, I snagged a parking spot within 50 feet of the trail head. Serendipity. From there I had a short run (thousands of QSOs have been made from along the trail) and moved on. Sixty Two activations listed in the POTA database so not the least bit rare and it's not a WWFF park. (trails and 'associated areas' were not carried over into WWFF – and not trails because WWFF limits entities to one state – and you'll recall the Appalachian Trail starts in GA and runs all the way up to Maine through main through a dozen states).



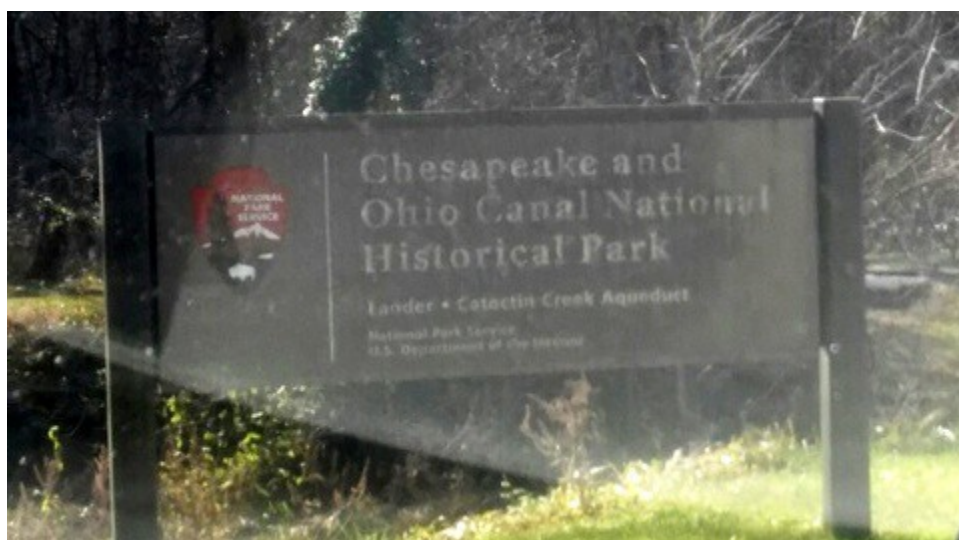
Close by is **Greenbrier State Park KFF-1575 in Washington County MD**. I pull in and start to work on 20M CW looking for DX. Find it and many US county hunters and park chasers. Slide down to 30M with about 40 in the log there! Hit 40M SSB with another 20 Qs winding up with over 100Qs from here with 81 on CW. Wow.



Well, let's try another State Park – South Mountain KFF-1598. Have a good run there of 49Qs. By now the DX has faded so it's all US. Don't stick around long – more parks to run today if I hustle.

To the south a bit, you can hit Gathland State Park (Frederick County) KFF-1574. Lots of previous Qs from here so no need to push it. Seems that Kerri, KB3WAV and OM KC3RW have been here more than a dozen times, and so has N3VOP. I add in 49Qs to the mix. It's a bit off the beaten path but good roads to get there.

There's time for one more today and I do a repeat of the **C& O Canal KFF-0015**. You can run this in a half a dozen counties as it winds from the start point in Washington DC out to Cumberland MD. It was one of my favorite spots to visit when I lived in VA back in the 1980s – nice and shaded in the summer time to escape the heat on a weekend. It's a 'historical park' run by the National Park Service and was very popular in the NPOTA days. I hadn't been back in 3 years so I could get another 'activation'. There are dozens of spots you can access it – or you can even walk along it for 185 miles on the footpath. Most of the marked easy to access parking spots are by 'lock houses' where there were locks that controlled the level in the canal and would allow canal boats to go up and down the canal as elevation changed.



My visit was at the lockhouse at 'Cactoctin Aqueduct'. The lockhouse was shut tight but probably open for special events. Further into DC, they have regular happenings along the canal and you can actually stay overnight in a few of the lockhouses- some primitive, some with full accessories like flush toilets and modern kitchens and electricity! (\$135-\$160/night for 2-8 depending on the location).

Some history from Wiki:

“The Chesapeake and Ohio Canal, abbreviated as the C&O Canal and occasionally called the "Grand Old Ditch, operated from 1831 until 1924 along the Potomac River from Washington, D.C., to Cumberland, Maryland. The canal's principal cargo was coal from the Allegheny Mountains.

Construction on the 184.5-mile canal began in 1828 and ended in 1850 with the completion of a 50-mile stretch to Cumberland. Rising and falling over an elevation change of 605 feet (184 meters), it required the construction of 74 canal locks, 11 aqueducts to cross major streams, more than 240 culverts to cross smaller streams, and the 3,118 ft Paw Paw Tunnel. A planned section to the Ohio River at Pittsburgh was never built.

The canal way is now maintained as the Chesapeake and Ohio Canal National Historical Park, with a trail that follows the old towpath.

The canal was opened for trade to Cumberland on Thursday, October 10, 1850. On the first day, five canal boats loaded with a total of 491 tons of coal, came down from Cumberland.

The trip from Cumberland to Georgetown generally took about seven days.”

At about the time the canal was finished, the B&O railroad completed a line to Cumberland. By 1870, better technology (bigger engines and better track) allowed the railroads to carry coal at even lower prices. The canal suffered many serious floods that caused millions in damages occasionally. It was finally taken over by the railroads and went out of business in 1924. It was a marvel of construction at the time, with a 3100 foot tunnel through a mountain- done by black powder blasting! That took two decades and nearly bankrupted the owners. Finally the tunnel was finished but there was no money to expand the canal to Pittsburgh PA as in the original plan.

Only part of the canal is 'watered' – actual water in the canal. Most of it is de-watered or dry. The tow path is now a nice pedestrian and bike path which many use and is really popular as you get closer to DC. When I lived there, you could rent a canoe and paddle along it for a couple miles – and even further if you 'portaged' around the next lock.



Paw Paw Tunnel

If you want to see the Paw Paw tunnel, it's about a half mile walk from the parking area for it.....and it's more than half a mile to walk through it. Went partly through it years ago and returned. Six million bricks to line it!

After that run, I headed back to my sister's house in Gaithersburg to get ready for

departure on Saturday. It looked like winter storm Ezekiel was making it's way east, after pounding the west coast and northern states with blizzards of snow – and would impact the mountains of WV and all of New England on Sunday. Time to be gone!

Mobile Activity in December

There were many days with NO mobiles out.

Mike, KA4RRU, spotted out in eastern VA counties. Another trip was up in WV and VA counties.

Ed, K8ZZ, headed out to NE to run counties there. On the road for a couple days.

Ed, KN4Y, hit the road in FL for some counties.

Rick, AI5P, hit a few parks in CO.

Mary, AB7NK and Neil, K7SEN, checked out the new mobile installation in the new car in AZ. Seems to work fine.

Kerry, W4SIG, hi the road and was busy in MS and LA. Ran a lot in LA. Ran a lot of counties in MS on the way home later.

KB0BA, Lowell, and N0XYL, Sandra, headed to WI for the holidays. Later back home.

Otherwise, it was a pretty quiet month for mobile activity!

End date 12/24/19

Parks on the Air

When the mobiles aren't out running, or when you need some other incentive to head out on trips, or just turn the radio on, the two programs – Parks on the Air (POTA) – and World Wide Flora and Fauna (WWFF) can provide some relief. I checked the stats as of early December to see what's going on for the 'activators' – those that go out and 'put out the parks' and the Hunters – those that chase the parks trying to work them.

The two different systems work a bit differently. To show up in WWFF, all you need to do is work the parks and you will be in the database. For POTA to show up in the stats, you must first do a simple registration. Otherwise, your contacts will be in there but not part of the stats. So I checked both systems.

From Parks on the Air Database and Stats at

<https://stats.parksontheair.com/leaderboard/hunterLeaderboard.php>

Top Activators listed – for calls you might recognize from county hunting or articles in the CHNews OnLine. The first section is 'all time' going back as far as the database goes. The second section is just 2019 activations.

call/ park activations/ total parks - all time

N4CD 1128 812

KB3WAV 1093 415 YL operator - usually 'portable' – occasionally 'mobile'

KC3RW 443 268 the OM of the YL/OM team

K0BAK 426 325

AI5P 187 154

WA2USA 121 112

N9JF 118 102

AB4WL 229 90

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Year 2019 activations/parks

N4CD 372 285

KB3WAV 491 269

K4CAE 264 240

K0BAK 172 147

AI5P 68 66

- - - - -

Now for the Hunters - all time for North America

W8ZST 2813

KO4SB 2611

VE3ZN 2511

K8HQ 2213

W9AV 1877

KD1CT 1846 (former MARAC member)

WA9LEY 1051

AB4WL 582 (MARAC member)

N4CD 580

- - - - -

From WWFF site – where 'everyone' is listed whether registered or not

Hunters

W6LEN 1778 parks worked

KD1CT 1577

K7SEN 1457

W9AV 1195

KA9JAC 1121

N8II 633

AB4WL 583

NF0N 539

K8TE 532 parks worked

You can watch spots for POTA at <https://pota.us/#/>

Most of the activity is SSB with a lot of it on 40M SSB – concentrated on the east half of the country. Some are easy to work – 100W and decent antenna. Others are a challenge.

The numbers will differ between the two systems since POTA has 1,000 more parks to work! (historic and scenic trails, state forests, etc).

Remember, all those parks are in counties!

Here's the cross reference list

<http://countyhunter.com/Toplist/KFF-County.htm>

On the Road with N4CD III

Headed home.....via Kentucky! Aha – I actually packed my Kentucky map in my map bag for the trip so I was set. No WV map and I'd have to head through WV to get to KY for the 3 counties there that N9JF needed using the Atlas map. I could quickly hit a few parks along the way – but not too many as I had miles and miles to go to be on schedule to avoid bad weather. The forecast was for SNOW in the higher elevations of WV in one more day, and I'd have to go through that area on my way west. I've seen more than enough snow in WV on my previous trips!

Saturday November 30

There were a few parks not far off the interstates so I could do 'quickies' there – try to be done in less than an hour. I had a bunch of miles (400) to make the first day – up I-270 to I-70 west to I-68 across the panhandle of MD, then into WV, down I-79 to Charleston, and then across I-64 to Huntington. I'd have room for just a couple quick park runs.

First up was **Fort Frederick in Washington County MD – KFF-1570**. I arrived early and got to work on 40M cw, then 40M SSB. Then more 40m cw, and a few on 30M. The 30M resonator was not happy. Too many days of rain and it got to the Hustler 30M resonator. They don't do well in rain – move down in frequency, but usually return to normal after they dry out. This one didn't – it was only low power. It will need to be replaced as they never seem to work well again. I was probably running a few watts ERP on 30M. In and out of the park in 35 minutes with 54 Qs.



Some history from the web – this one goes way back.....from the state web site:

“The centerpiece of the Fort Frederick State Park is a unique stone fort that served as Maryland’s frontier defense during the French and Indian War. Built in 1756, the Fort's stone wall and two barracks have been restored to their 1758 appearance. Historic exhibits are in the Fort, barracks, Civilian Conservation Corps (CCC) Museum and Visitor Center. The fort barracks are open seven days a week from Memorial Day to Labor Day and on the weekends in the spring and fall, when staff and volunteers dress in period clothing and occupy the fort, demonstrating daily life in the 18th century. The 585-acre park borders the Potomac River and The Chesapeake and Ohio Canal passes through the park. The park also features a boat launch, campsites, camp store, fishing, flat water canoeing, hiking trails, a playground, a picnic area and large pavilion. “

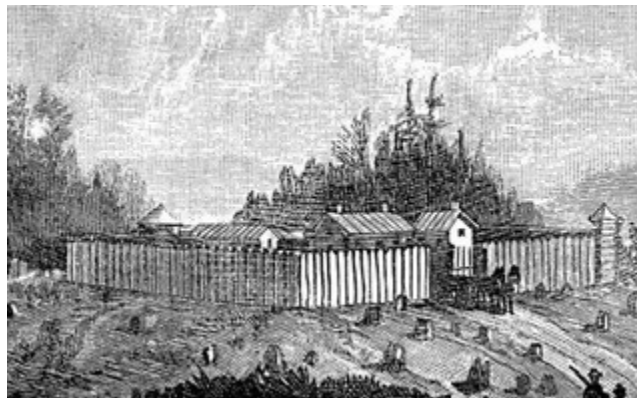
The stone fort built in 1756 protected Maryland’s frontier settlers during the French and Indian War. The fort saw service during the American Revolution as a prison for British soldiers. During the Civil War, Union troops were often stationed near the fort to guard the C & O Canal.

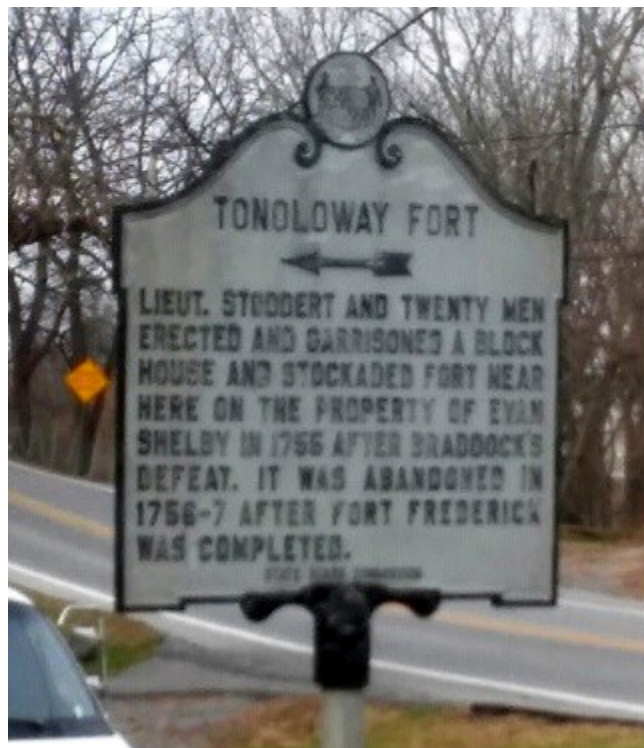
In 1922, the State of Maryland acquired the fort and in the 1930's, the Civilian Conservation Corps restored the fort walls and began development of the state park. Not too far away “

“Fort Tonoloway (aka Fort Stoddert) KFF-1571 is located near Hancock, Maryland. The fort was built quickly in the summer of 1755 by the retreating expeditionary force of the defeated British General Edward Braddock. The retreating forces had attempted to capture the French Fort Duquesne (modern day Pittsburgh) during the French and Indian War. George Washington, then age 23, was the volunteer aide-de-camp to General Braddock. Fort Tonoloway was constructed on the north side of the Potomac River by order of Maryland Governor Horatio Sharpe and protected by 20 men under the command of Lieutenant Thomas Stoddert. When it was built, the fort contained a block house and stockade. Soldiers reported gruesome massacres on the road to Fort Tonoloway – houses were burned, livestock was slaughtered, and men were killed. The fort was abandoned in August 1756-7 in favor of Fort Frederick in Maryland. Fort Frederick was also located on the north side of the Potomac River and approximately thirteen miles to the east.”

The site of the historic fort is believed within the boundaries of Fort Tonoloway State Park.

Here's an artist rendition of what Ft Tonoloway probably looked like for the few years it was in service.





You've got to use Google maps to get you there. There was a gated road into the park that crosses some private property it seems, and today the gate was open so I could wander in. You see only paper signs on trees for the state park boundary. They are doing archaeological work at the site, trying to find out exactly where the fort was located. I suspect using modern ground penetrating radar, they'll find out where the fence posts were dug into the soil – over 240 years after. This wasn't a significant fort and lasted less than 2 years. Likely locals carried away the remains long, long, long ago, if the troops didn't take most of it with them initially when they departed or burned it down so others couldn't use it.

I missed one along the way – forgot to exit – but had another on the list to run – **Rocky Gap State Park KFF-1593 in Allegany County MD.**



From the state website:

“Rocky Gap State Park is located in Western Maryland’s Allegany County. The park encompasses over 3,000 acres of public land for visitors to enjoy. Rugged mountains surround the park. The 243-acre Lake Habeeb is known for having the "bluest water in the state." The lake is fed by Rocky Gap Run, which winds its way through an impressive mile-long gorge, displaying sheer cliffs, overlooks and a hemlock forest dense with rhododendron and mountain laurel. “

I have a quick run and am out in an hour.

Now it's time for pedal to the metal and zipping along the interstates to Huntington WV Days Inn East. I remember the interstate northeast of Charleston. There's nothing there for sixty miles. A few exits with no services – no gas, no stores, no nothing! One December I was headed north and figured I'd stop on the far side of Charleston to avoid rush hour. There is no 'far side' of Charleston. It ends and there's no motel for sixty miles. As you head out of Charleston you quickly climb in elevation. It was snowing – and blowing – with speed down to 10-15 mph and just tracks in the road and slippery. I figured there had to be an exit and motel soon. Nope! Two hours and no motel. Horrible driving with snow clogging the wipers. That was NOT a fun trip. Finally a motel showed up. I made sure this year no repeat by beating the forecasted snow storm.

I arrive at sunset after long hours of driving. Dinner at the Golden Corral across the

street. About 400 miles driven today plus park stops.

Sunday December 1

I'm up early but the sun isn't. Still I've got to be heading west – but no contacts for first two counties as no one seems to be around or listening. I'm headed to the counties needed by Jim, N9JF in KY. He needs 3 that are in a line. With an early start I can stop in Carter County at **Grayson Lake State Park KFF-1258** until propagation on 40m gets short enough to reach IL from KY. Arrive at 1308z (8am local time) and have a good run with over 20 DX stations in the log on 20M. OK...there's N9JF on 40M CW....his first needed county is 5 miles to the south. While the web says that part of Grayson State Park is in Elliot County, I could find no road on the map inside the park that would get you there. Most of the park (campground) was shut down for the winter months and blocked off, too.



I head on down route 7 to Elliot – and immediately hook up with N9JF. He's got to get to church services – he's there for two of them. Hopefully I can work around his schedule. One down, two to go for him.

I'm busy following route 7 south but miss a turn in a town.....oops , takes me 3-4 miles before I realize I'm not on route 7....backtrack to the town and get on the right road to Morgan County. Dang, wasted 10-12 minutes! Get to Morgan and hook up with N9JF/m for the second he needed, and also the LC WBOW for Second Time! Yippee.

Lots of others in the log – many calls that are seldom on the county hunter net, but rare counties bring them out!

I'm now headed to his third need– Breathitt County – 30 miles south through Wolfe County first. I get there better part of an hour later and Jim and I make a quick contact from Breathitt. Third one down. He now needs justtwo2 for Bingo (way west) and just two for all CW(also out west).



The above picture is why you can't plan on running county lines in Kentucky – or WV. The line is in a deep cut – solid rock both sides and signals might squirt out in two narrow directions but not anywhere else. I'd say about half the lines in east KY and 1/3rd of WV are like this. Found another one down the road with about 200 feet in Harlan KY but similar situation with solid rock blocking signals to the west and no place to park on east side of road. Needless to say that didn't work well! (one contact).

Now I had to figure out how to get home! I had two choices – backtrack to Lexington KY and home from there, or head a bit south and across the parkways to the west. I elect to do the rarer counties along the parkways which are good 50-55 mph roads.

Along the way I hit **Daniel Boone National Forest – hmm.....OK...it's got numbers K-4484 in POTA and KFF-4511 in WWFF system.** Different numbers for the same park. Not ideal but I run it after finding a spot. This is a humongous forest.

From the web:

The Daniel Boone National Forest embraces some of the most rugged terrain west of the Appalachian Mountains. Steep forested slopes, sandstone cliffs and narrow ravines characterize the land.

Visitors come here to hike, camp, picnic, rockclimb, boat, hunt, fish, ride, target shoot and relax. The forest contains three large lakes (Cave Run Lake, Laurel River Lake and Lake Cumberland), many rivers and streams, Clifty Wilderness, Beaver Creek Wilderness, Red River Gorge and the Shelton Trace National Recreation Trail that extends across the length of the forest.

Spread across 21 counties of southern and eastern Kentucky, more than 708,000 acres of national forest system lands are managed within a 2.1 million-acre proclamation boundary”

- -

You drive along for miles and miles with few spots to turn off along the parkway. Did finally find a spot to run it using Google Maps and Mapquest. As noted above, only 1/3 the “forest land” is national forest – the rest being in-holdings and privately held forest land. You've got to find something that is officially in the forest.

That night was spent at the Super 8 South in Bowling Green, KY. Dinner at the Jumbo Chinese Buffet with some teriyaki squid! Different. Oh, they had the regular items, too, and I ate heartily.

Tomorrow it will be down the interstate to Nashville, then across I-40 to Little Rock, AR, then I-30 toward Dallas. I could be home in 12 hours of driving according to the GPS lady. Gotta make some tracks!

Monday Dec 2

It's time to get on home – but I can make a QUICK visit to **Natchez Trace State Park (run before) KFF-2961** in TN – Henderson County. In and out in 15 minutes. Across the highway is Natchez Trace State Forest – K-3957 only in POTA. Another quickie and out in 15 minutes. I zip on down the road for hours and hours and decide to stop in Hope, AR at the Super 8 about dinner time. It's been a long day and I'm coming down

with a head cold – caught from the family I guess – two infants, 4 adults, one child. Sis was 'just getting over a cold' , too.

But wait! There's still a bit of daylight left in Hope, AR, so I zip on up the road to **Historic Washington KFF-1106**. Along the way, you can stop and run the Trail of Tears (POTA only- K-3791) for a quick 10, then hit KFF-1106 in Historic Washington for another quick 20. That 'town' goes back 200 years and is a tourist attraction – a mini-mini-Jamestown at lunch time with costumed docents through half a dozen restored buildings – plus a nice 'lunch' at an olde tyme restaurant in a historic inn. I'm back at the motel before the sun sets. Dinner at Dos Locos Gringos – a 'Kind of Big Dilla' quesadilla. Always good. I've been there a dozen times before.

Tuesday Dec 3

From here, there's four hours of interstate to home. This Super 8 has a great breakfast – eggs, sausage, fruit, oatmeal, (plus waffles and biscuits and gravy and sticky buns and muffins). I fill up and hit the road to home. That's a good reason to stop here!

The trucks almost outnumber the cars on I-30. Once you hit TX, it moves along at 75 mph until the Dallas area population center. The route is through the 'green stamp' counties I've run many times before -Bowie, Morris (short) , Titus, Franklin, Hopkins, Hunt, I put out Rockwall and make a quick stop in Dallas County with a one mile detour at my local park KFF-4423 for another quickie. 25Q in the log and I'm home 20 minutes later by lunchtime. Whew!

Thanks for riding along

FCC to Revise RF Exposure Rules

The FCC is amending its Part 97 Amateur Service rules relating to RF exposure safety. In a lengthy document in ET Docket 19-226 released on December 4 and addressing a broad range of RF safety issues, the FCC said current amateur radio RF exposure safety limits will remain unchanged, but that the amateur-specific exemption from having to conduct an RF exposure evaluation will be replaced by the FCC's general exemption

criteria. Radio amateurs have always had to comply with RF exposure limits, but certain stations have been exempt from having to conduct evaluations based only upon power and frequency. The Commission indicated that, by and large, if an RF source was "categorically excluded" from routine evaluation under the old rules, it will most likely still be exempt under the new rules, which are expected to take effect in the next couple of months.

"For applicants and licensees in the Amateur Radio Service, we substitute our general exemption criteria for the specific exemption from routine evaluation based on power alone in Section 97.13(c)(1) and specify the use of occupational/controlled limits for amateurs where appropriate," the FCC said.

"The sky is not falling here," ARRL Lab Manager Ed Hare, W1RFL, commented. "The major aspects of the rules will not impose major new burdens on the Amateur Radio Service. As in all regulatory matters, though, the devil may be in the details, so the ARRL technical staff, legal staff, and the experts on the ARRL RF Safety Committee are carefully evaluating this FCC document."

Under the revised Section 97.13(c)(1), "In lieu of evaluation with the general population/uncontrolled exposure limits, amateur licensees may evaluate their operation with respect to members of his or her immediate household using the occupational/controlled exposure limits in Section 1.1310, provided appropriate training and information has been accessed by the amateur licensee and members of his/her household," the amended rule says.

An FCC OET Bulletin 65 illustration of how to determine exposure distances. "RF exposure of other nearby persons who are not members of the amateur licensee's household must be evaluated with respect to the general population/uncontrolled exposure limits. Appropriate methodologies and guidance for evaluating Amateur Radio Service operation is described in the Office of Engineering and Technology (OET) Bulletin 65, Supplement B," the revised rule concludes.

The FCC said it was not persuaded by ARRL's argument in its comments that the routine evaluation exemption for amateur radio stations operating below a certain power threshold should be maintained. "Amateur radio licensees operate a variety of installations of different size, power, and frequency, which can be located in close proximity to people, giving rise to various RF exposure concerns," the FCC noted. In a meeting with FCC OET Chief Julius Knapp and senior staff in early November, ARRL asked the FCC to make available on the internet a calculator to facilitate making the correct calculations the rules require. ARRL said that would be preferable to

unofficial third-party calculators, the results from which might not be accorded the same degree of deference in local disputes. Several software programs were suggested as models.

The FCC did not single out amateur radio in drafting its latest RF exposure rules. The rules affect multiple services, and exemptions for many other services were also deleted as part of a broader policy driven by a proliferation of RF devices, some resulting in situations where gain antennas are sited much closer to people than was expected in 1996 when the rules were last revised.

Source: ARRL WEEKLY NEWSLETTER for December 12, 2019

On the Road with N4CD IV

The ARRL 10M contest weekend was in mid-December. On Saturday I was busy most of the day and didn't get out mobile. The home R5 Vertical went kaput 2 years ago and hasn't been replaced. Too much noise in the neighborhood to hear much, anyway.

On Sunday, December 15, I dug out an old 10M Hustler resonator from way back when. Let's see...the trip to HI in 2000 had some 10M contacts from the counties and that might be the last time I used it! Not that much county hunting on 10M for sure. I drove over to the local park – Spring Creek State Forest Preserve KFF-4423- and figured maybe I could work a few locals. Last year I managed 3 or 4 QSOs including 2 DX stations by using a base loaded vertical from Cedar Hill State Park. I figured the Hustler 10M resonator on a 52 inch Hustler mast might work a bit better. You never know.

So after an early lunch salad, I headed over to the park about 25 miles away on a nice sunny 70F Dallas day. Tuesday will likely be 40F with a cold front coming through.

Had to tweak the resonator to get it right.....and it seemed to be taking full power with low SWR so I was set. In the next 20 minutes, I worked - all of southern FL (from Orlando south). I was looking for KN4Y in 'northern FL' but it was not to be where I was. He was probably working things further west, or maybe southwest TX. Everyone seemed to be on 28031- 3 or 4 stations on top of each other and that's where Ed said

he'd be. Sorry , Gator – never heard a peep from you or anything west of the very east coast of FL.

30 QSOs on 10 meters – with most in FL and some TX (locals). A few nice DX in the log including PX2, C6, CE, LU, PJ2. Snagged 3 'park-to-park' contacts on other cw bands but nothing on SSB. Most parks that day were on 40M SSB and 'back east' or up in MI.....and that isn't going to work mid-day from TX.

Some of the DX stations (who give serial numbers) were up at 300-400 and one was at over 600.....so some folks had a lot of fun in the 10M contest. Five years ago, folks were churning out 1500 QSOs in the states. Maybe the FL folks worked a couple hundred. N4BP – always with a big signal, was catching dozens in TX but not much else on Sunday while I was listening. Nothing other than TX and FL heard – not even backscatter from the giant testers – not a peep. However, you'd got to spend hours and hours as the band can pop open for 30M to 'somewhere' and you can work 75 stations in one of those openings. We'll see how the results turn out!

The Hustler 54 inch mast with the 10M resonator on top seemed to work decently for a 'dead band'. Dropped down to 17, 20 and 30 for giving out park contacts and left with 56 Qs, the majority on 10 meters!

Spend 2 hours enjoying the 70F weather in the park – not many there which is a bit strange. They're probably all out shopping!

ARRL 10M Contest

PX2A Brazil - MultiOp (PY2BK PY2LED PY2PT)

CW: 442 86

SSB: 89 26

Total: 531 112

NX5M Texas MultiOp (KJ5T KU5B N5DUW N5XJ NX5M)

CW: 343 50

SSB: 93 24
Total: 436 74

Brutal, painful, horrible, slow....words to describe the weekend. Only bright spot was a decent opening to Florida Sunday afternoon for an hour or so and, of course, having the regulars over. The food was in full supply as well. Most qsos were a struggle. The dedicated South American antenna started failing Saturday afternoon so it was taken out of the equation. I think that covers it.

K1TO - Florida

CW: 885 60

First four hours were better than expected. Saturday was steady most of the day, trailing off around 1930Z. Saturday evening and Sunday were a slog, except starting at 1630Z when the band suddenly opened well for a few hours with some very strong signals.

After working just 3 TX through Sunday AM, dozens poured in today. Only worked a couple of AZ and NV in W7 and three in CA. In fact, KH6 called in before I worked CA. VK was a nice surprise a little later. Two EU on Saturday - DL and CT. Zero AF. Neat spotlight opening to MN later on, then just 3 QSOs in the last 2.5 hours.

Only mult heard and not worked was a VP8 who I heard calling another South American.

Have a strong S8 noise from the south that affected SA signals quite a bit. Very few other signals are S from here, but the noise affected all directions at least a little bit.

Even December contests are sometimes affected by lightning in FL. A front moved through Saturday morning, necessitating a half-hour off time.

This weekend reminded me a lot of the contest weekends I've spent on 6M in recent years where the audience is largely limited by the range of one-hop E-skip. It also seemed like activity was muted with many opting to skip a 10M contest in the sunspot minimum.

Thanks for the QSOs and hope everyone has a terrific holiday season and a healthy and happy 2020!

vy 73, Dan

LW8DQ 704 QSOs

This was our third consecutive ARRL-10M M/S from LosProfes station.

We had very nice runs with NAs on Saturday and Sunday afternoons.

Only one JA station logged.

Southern Europe provided us only a few mults on Sunday.

Many thanks to all you who answered our calls. Specially those who needed to repeat calls and exchanges several times, due to heavy QSB.

Hope to see you in ARRL-10M again next year.

LW8DQ LW7DX LU2DX

- -

K4BAI - fixed - GA 371 QSO

Worked most states east of the Mississippi River and only TX to the west (and part of LA I guess). Heard no signals west of TX and MN. Called a lot of CQs and hope I copied most of the callers. Only DX were 2 PY and one CE station. I heard and called CX4SS with no success. Thanks for all QSOs and Happy Holidays to all.

73, John, K4BAI.

KN4Y - fixed FL - 189 QSO

Just sat and called and drank coffee, shack heater went out but found one in the someday discard area it got me though unfrozen.

W0AIH - fixed MN contest station 889 QSO

Wasn't sure I was going to be able to go out to "The Farm" this year, At last minute things came together and got to play at the W0AIH QTH....

Friday night started out gangbusters with 331 QSO's in the log (143 ahead of last year)...things went downhill from there...

Saturday worked 444 qso's (down from 629 last year)

Sunday only worked 111 qso's (compared to 235 last year)

I don't think an E-cloud ever made it to western Wisconsin/Minnesota....all my qso's were meteors and plain old scatter. Lotsa ESP qso's.

Thanks to all who made the log!

NS2N - fixed NY - 112 QSO

Propagation Sat. much better than Sun.

K6YK - fixed - CA 73 QSO

Glad I got on Friday night or it would have been a complete bust!

N8II - fixed - WV 297 QSO

With conditions expected to be very poor, I throttled back on this one and spent Saturday afternoon until 2127Z off the radio which cost me at least 5-8 mults. The F2 opening to the south was much better Saturday. The Geminid meteor shower did coincide with the contest year which saved the day especially for the big guns.

Friday, Saturday morning and evening, and Sunday morning I was able to work meteor scatter on CW in all directions and there was some activity from most of the states/provinces within the approximate 1500 mile MS range. For example, I worked all W1 except RI and all of eastern Canada except NL, PE and NU. I worked 4 NB stations, about 1-2 via brief sporadic E.

Activity on SSB was pretty dreadful with over half of my 62 Q's with local range

stations. There was a good Es opening to AL, the western panhandle of FL,MS,LA, TX(weak),AR,eastern KS,MO,IL,IA,MN, and WI on Saturday morning and still it was unproductive to CQ. I missed FL on phone for first time ever in my many years of participation, worked 11 on CW. I checked into a 10-X net in Baton Rouge, LA for about 5 easy Q's.

I would say it is time to rethink the scoring of 2 times the SSB point value for CW Q's. There is plenty of CW activity and CW Q's are easier to make under poor conditions. Suggest 4 points for both CW and SSB Q's.

There was a short sporadic E opening late Sunday around 2127-2205Z to TX,AR,IA but again activity was low. Sunday was a real grinder with most stations already worked. The meteor scatter died out around 16Z Sunday. F2 was limited to Brazil and Chile here from 2016-2057Z. It was difficult to work PY even when above S5 here; I guess many locations in PY have high noise levels.

Surprisingly about 90-95% of the stations I heard on CW heard me calling and we completed a Q. Not bad for LP and poor conditions. It pays to be very fast on MS Q's which most ops were. Thanks for the Q's and digging me out of the noise. Next year should be better; I hope to see you then.

Happy Holidays and 73, Jeff

- - -

Noted that several other county hunters reported scores but had no comments so they are not included above. Several others operated at multi-op stations.

ARRL 160M Contest

If you are hunting 'band-counties', this is one of the best times of year to hunt for them. Several county hunters reported scores to the 3830 contest reflector (most without comments). The 'big guns' and super contest stations made over 1300 QSOs and some worked 60-70 countries along with all US 'sections'.

N8II - fixed - WV 297 QSO

It never ceases to amaze me how low activity is normally on 160 vs. the high level of CW contest activity. Possibly some of the allure is being able to work so many stations fairly easily. There seems to be more stations active than ever before.

I got off to a roaring start, running 170 stations in the first hour. For at least half of that 1810.4 was absolutely clear and even when there was QRM, it was no real impediment. After helping the XYL with dinner, the band was so full of signals that running was much more difficult and less productive. I did work over 100 Q's in the 01Z hour. For some reason I was just not motivated to keep going, so I never ended up back in the shack after 0210Z Friday evening. It was very difficult to hear any EU Friday.

Saturday morning sunrise and after conditions did not sound that good; several western USA stations well above my noise level could not hear me. But there were plenty of stations out to about MN to work. Saturday evening, there was a very pronounced sunset peak into EU. I tried running around 1833 with decent NA results, but only a weak RL3A and very loud TM6M answered CQ's.

I kept a decent QSO rate through the evening with a combination of S&P and running. It started getting tough around 0220Z to find new Q's, but starting again from 0330Z-0450Z the rate picked up with more western NA stations finding me. I was surprised when LU8DPM actually heard me for best DX of test. Quite often he is louder and does not hear me outside of contests. A very few EU stations answered my CQ's as well and I found some more. Searching for western NA mults and EU was difficult due to the very crowded band.

Top sections worked were OH and VA with 47 Q's, EPA 40, IL & MD 32, MI & MN 27, and WNY 26. Several mults heard were not attempted seriously due to either being under a loud NA station or having a big pile up. Loud CQ'ers were everywhere!

Thanks for all of the Q's. Another 10 hours worth of operating would have been much less fun. My half sloper performed pretty well as did most all of the ops worked.

73, Jeff

CW Stats to Dennis, KK7X

County Hunter CW Stats - 2019

Dennis continues to post year end CW totals. There were only 26 submissions in 2018. I estimate there were 23 active CW ops who did not submit their totals!

There were 38 submissions for the year 2017, 44 submissions for the year 2016, and 60 submissions for the year 2015.

Many of those listed in 2015 elected to stop after CW 1st time, a couple are silent keys, some lost interest due to the poor band conditions.

Let's see if we can hit 40 this year!

DE WØGXQ 12/12/2019

Send your year end totals to Dennis at Dennis@kk7x.us

Sunspots II

Dec 17 2019

SUNSPOTS BREAK A SPACE AGE RECORD: Solar Minimum is becoming very deep indeed. Over the weekend, the sun set a Space Age record for spotlessness. So far in 2019, the sun has been without sunspots for more than 271 days, including the last 34 days in a row. Since the Space Age began, no other year has had this many blank suns.

The previous record-holder was the year 2008, when the sun was blank for 268 days.

That was during the epic Solar Minimum of 2008-2009, formerly the deepest of the Space Age. Now 2019 has moved into first place.

Solar Minimum is a normal part of the 11-year sunspot cycle. The past two (2008-2009 and 2018-2019) have been long and deep, making them "century-class" Minima. To find a year with more blank suns, you have to go back to 1913, which had 311 spotless days.

Last week, the NOAA/NASA Solar Cycle Prediction Panel issued a new forecast. Based on a variety of predictive techniques, they believe that the current Solar Minimum will reach its deepest point in April 2020 (+/- 6 months) followed by a new Solar Maximum in July 2025. This means that low sunspot counts and weak solar activity could continue for some time to come.

https://spaceweather.com/?fbclid=IwAR0It_HbOAK8-I3yWNVHbWvPvBoECXFpnQwIXtXBtGPoTnp3vr-bnVzxB4

Solar News III

NASA spots a new type of magnetic explosion in the Sun's atmosphere that could help space scientists predict solar weather

The new eruption type on the Sun is known as a forced magnetic reconnection
Scientists believe they are very common but have not been observed before
They are triggered by nearby eruptions rather than happening spontaneously
NASA says the forced reconnections could help scientists predict solar weather

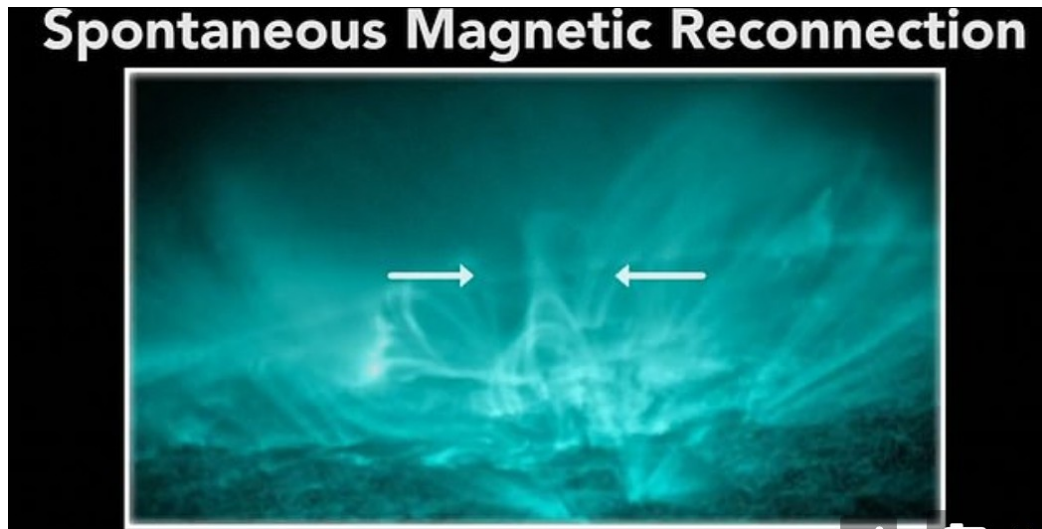
A previously unseen type of explosion has been spotted in the Sun's upper atmosphere for the first time, and it could lead to better solar weather predictions, NASA says.

The Sun's surface is constantly moving. The super-hot plasma creates magnetic fields that twist together and, as the star rotates, they snap apart and join together again.

Spontaneously occurring versions of this process - known as magnetic reconnection - are regularly observed, but nobody has seen it happen under forced conditions.

Now, data from the NASA Solar Dynamics Observatory spacecraft has enabled astronomers to observe a 'forced magnetic reconnection' for the first time.

This event was brought about by a nearby eruption of hot plasma, rather than by material exploding up from the surface of the star.



The observation may help explain why the upper layers of the Sun's atmosphere appears to be much hotter than areas closer to the surface, according to NASA.

The American space agency said it may also lead to breakthroughs in the controlled fusion and lab plasma experiments happening around the world.

This was the first observation of an external driver of magnetic reconnection,' said Abhishek Srivastava, solar scientist at Indian Institute of Technology (BHU).

'This could be useful for understanding other systems. For example, Earth's and planetary magnetospheres, other magnetized plasma sources, including experiments at lab scales where plasma is highly diffusive and hard to control.'



This graphic from NASA shows the way the magnetic field lines come together and create an explosion. This happens both spontaneously and under forced conditions

This new type of explosion was first theorized 15 years ago but had not been directly seen until these new observations.

The new type - forced reconnection - can happen in a wider range of places, such as in plasma that has even lower resistance to conducting electric current.

'It can only occur if there is some type of eruption to trigger it. The eruption squeezes the plasma and magnetic fields, causing them to reconnect', NASA says.

'In a series of images taken over an hour, a prominence in the corona could be seen falling back into the photosphere', NASA confirmed.

'En route, the prominence ran into a snarl of magnetic field lines, causing them to reconnect in a distinct X shape.'

NASA says this could offer an explanation of why the solar atmosphere is millions of degrees hotter than lower regions of the Star.

'Our thought is that forced reconnection is everywhere,' Mr Srivastava said.

'But we have to continue to observe it, to quantify it, if we want prove that.'

The new observations have just been published in the Astrophysical Journal.

Source: <https://www.dailymail.co.uk/sciencetech/article-7809173/NASA-spots-new-type-magnetic-explosion-suns-atmosphere.html>

FCC Steals 3.3 GHz Hamband

FCC Formally Adopts Proposals to Remove Amateur 3 GHz Band,

Invites Comments

The FCC's plan to remove "existing non-federal secondary radiolocation and amateur allocations" in the 3.3 - 3.55 GHz band and relocate incumbent non-federal operations already has begun drawing fire. The Commission formally adopted the Notice of Proposed Rulemaking (NPRM) in WT Docket 19-348 on December 12 and invited comments on appropriate "transition mechanisms" to make the spectrum available for mobile and fixed wireless broadband use. ARRL plans to oppose the move. The amateur 9-centimeter allocation is 3.3 - 3.5 GHz.

"By proposing to delete the existing non-federal secondary allocations from the 3.3 - 3.55 GHz band, we are taking an important initial step towards satisfying Congress's directives and making as much as 250 megahertz of spectrum potentially available for advanced wireless services, including 5G," the FCC said in the Introduction to its NPRM.

Some comments arrived before formal adoption of the NPRM, which was circulated ahead of the December meeting. Kevin Milner, KD0MA, the secretary/treasurer of the Ski Country Amateur Radio Club in Colorado, argued that the club's equipment cannot be re-channeled below 3.4 GHz, and the club is seeking relocation costs. Devin Ulibarri, W7ND, told the FCC that amateur networks in the current band cannot move easily into other amateur allocations because there is no readily available commercial equipment to support the bandwidth, the FCC said in a footnote.

Currently, the entire 3.1 - 3.55 GHz band is allocated for both federal and non-federal radiolocation services, with non-federal users operating on a secondary basis to federal radiolocation services.

With respect to amateur operations, the FCC invited comments on whether sufficient amateur spectrum exists in other bands that can support the operations currently conducted at 3.3 - 3.5 GHz. The 3.40 - 3.41 GHz segment is earmarked for amateur satellite communication. The FCC said if non-federal licensees are relocated to the 3.1 - 3.3 GHz band, it proposes to have them continue to operate on a secondary basis to federal operations, consistent with current band allocations.

Also at its December 12 meeting, the FCC considered another NPRM in WT Docket 19-138 that would "take a fresh and comprehensive look" at the rules for the 5.9 GHz band and propose, among other things, to make the lower 45 MHz of the band available for unlicensed operations and to permit "cellular vehicle-to-everything" (C-V2X) operations in the upper 20 MHz of the band.

The FCC is not proposing to delete or otherwise amend the 5-centimeter amateur 5.650 - 5.925 GHz allocation, which would continue as secondary. The NPRM, if approved, would address the top 75 MHz of that amateur secondary band. Although no changes are proposed to the amateur allocation, an anticipated increase in primary use could restrict secondary amateur use.

The Amateur Radio Emergency Data Network (AREDN) has offered its voice in challenging the FCC proposals on both 9 and 5 centimeters, saying their adoption would "eliminate our use of the most-effective resource hams have to build its networks." "The AREDN Project is able to leverage low-cost commercial devices solely because they are designed to operate on adjacent allocations," AREDN said on its website. "Moving to other allocations would be difficult if not impossible without a complete redesign, manufacture, purchase, and installation of new custom amateur hardware and software...raising the price out of reach for the typical ham."

Source: ARRL Weekly Newsletter for 12/20/19

Birth of DX Anniversary

Volunteers Celebrate 98th Anniversary of ARRL Transatlantic Tests at W1AW

A group of radio amateurs gathered on December 11 at W1AW to mark the 98th anniversary of the successful ARRL Transatlantic Tests. On December 11, 1921, a message transmitted by a group of Radio Club of America members at 1BCG in

Greenwich, Connecticut, was copied by Paul Godley, 2ZE, in Scotland. Reporting on the accomplishment, ARRL Secretary Kenneth B. Warner, 1EH, declared "Excelsior!" Clark Burgard, N1BCG -- who lives in Greenwich and styles his call sign as "n1BCG" to honor the original 1BCG -- was among those on hand at the Maxim Memorial Station.

"We completed a successful special event yesterday at W1AW commemorating the 98th anniversary of the Transatlantic Tests," Burgard recounted. "This was particularly important historically to amateur radio as it was originally organized by ARRL in 1921 to determine if low-power amateur radio stations using shortwave frequencies could actually be heard in Europe. Until then, it was thought impossible."

Burgard pointed out that the 1921 event changed radio history, was covered in three issues of QST, and opened the door to the first two-way transatlantic tests a couple of years later. The 1921 transatlantic success marked the beginning of what would become routine communication between US radio amateurs and those in other parts of the world -- literally the birth of DX.

Source: ARRL Weekly Newsletter of December 20, 2019

On the Road with N4CD III

The end of the year was coming up - but still time for a trip or two before the New Year. Many folks would have days off and be on the radio – or so I thought. We're still bouncing along the bottom of the sunspot cycle with zero sunspots and the solar flux under 70 most days with 'fair' conditions at best and an 'occasional' good on 40M. The weather was going to be decent for late December.

I checked the needs page on K3IMC and there were a dozen 'needs for the counties in east TX. Hmmmm.....well, I could get a bunch of them, and I needed to run Rains County for myself – and others - needed that one and 'self credit' would work on that. It's about 70 air miles from the house so not so easy to work it these days even if a mobile heads there.

Day 1 Sunday December 22

The weather was a bit foggy as I grabbed the three pound 3 inch thick Sunday Newspaper at the local convenience store and headed to the Waffle House for Sunday morning breakfast at 6:30 am. Read the paper end to end and on the road headed east at 7:15 am just after sunrise this time of year. Days would be short so I'd stop by 4 or 4:30 this afternoon – time enough to find the motel, gas up the car, grab some dinner – before it got real dark. Sunset now is just after 5pm in this neck of the woods. Up north there are even shorter days. We've just passed the Winter Solstice so days will creep up in length till June.

The first up to run was Rains County – an hour and a half later via tollroads and interstate, then a 15 mile detour there. Not all the folks needing it showed up but put a dozen in the log. It was back to the interstate and heading to Lake Bob Sandlin State Park KFF-3023 in Titus County. Passed through Camp and put that county out.

Over 1400 contacts have been made from this park. Folks head here and camp for a few days. While there put up some decent antennas and give out the contacts. I just pull in and operate mobile.



This park lies on a good size lake – 9000 acres, and has 75 campsites, lots of hiking trails, and 641 acres of park. It's in the Piney Woods area of TX – with a million acres of 'woods'. Before oil was discovered, logging was the number one industry in TX.

95 QSOs go in the log – there are dozens and dozens of new park chasers in the hunt these days.

I head to **Daingerfield State Park KFF-3002** in Morris County next. From here, 71Q go in the log between 20/30/40 cw and 40m SSB. Before, only 131 QSOs had been

made from here. It's not so popular a park for campers.



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This area was the 'iron industry ' of Texas. Back in the 1850s, the iron deposits in Marion County were exploited and several furnaces set up. During the Civil War, gun barrels were made by the Confederate army here – TX was one of those Confederate States. That industry kept going till the 1910s when the ore deposits ran out and other locations around the country were more abundant and lower cost.

Then during WW2, with newer technology, and high demand for steel, more furnaces were installed and iron ore mining continued. By the 1960s, 4 foundries were in operation with over 5,000 employed. With lower cost imports in the 1990s, most of the Texas industry went into bankruptcy and now only a few specialized mills continue and iron ore mining has vanished.

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Daingerfield SP is 500 acres or so with a small 80 acre lake inside. Improvements to the park were done by the CCC back in the 1930s. Camping, slow boating under 5 mph, canoe/boat rentals, hiking trails, etc can be found there.

I have to skip one – having too much fun, so head on down to Caddo Lake State Park in Harrison County. Along the way pass through Cass and Marion Counties – on the needs list – and put them out. I have to stop to spot – and usually only spot one band...but if you see N4CD in a new county, I'm going to be running all three cw bands. You might not see spots for the other bands but I run them.

Caddo Lakes State Park – KFF-2994 – has over 500 contacts with 34 activations. I'd been there before but add in 49 more on a repeat activation. The park itself is 470 acres with the usual campsites, boating access, etc,. However, in this neck of the woods, watch out for ALLIGATORS!



Speculation is that Caddo Lake (28,000 acres) was formed by a giant log jam on the Red River – that existed for a decade – and a natural dam formed. Most of Caddo Lake is only 8-10 feet deep and the state park lies within the Natural Wildlife Area that expands over a large portion of this area. The park land was donated in the 1930s and the CCC folks made the improvements to the park. Others think that the land sank as an aftermath of the New Madrid earthquake of 1812. No one knows. The lake contains 71 species of fish – a fisher's paradise.

There's time for one more today – Caddo Lakes National Wildlife Area – 8,000 acres and not far away!

Surrounding the park and mostly to the east, **Caddo National Wildlife Area – KFF-0633**, can be accessed by a road in from Karnak, TX.

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During WW2, the Longarm Ammunition Plant was at this location.

In 1942, during the war, the Longarm Plant (8000 acres) was established to make TNT. It grew to 451 buildings. Later, in the 1960s, it made rocket motors and pyrotechnic devices. During the cold war and the SALT treaties, this site was where the US missiles were publicly de-activated as part of that treaty. Slowly the facility was moth-balled bit by bit.

In 1990, the wetlands surrounding this lake was one of 13 in the US recognized internationally as 'significant' by the RAMSAR Convention.

By 1997, the plant and grounds were declared 'surplus' and turned over to the US Fish and Wildlife Department and is now a National Wildlife Refuge.



Only 66 QSOs had been made here previously – by N4CD. Not hard to find! If you can find Caddo Lakes SP, it's five minutes away! But nothing there but wildlife – no camping or activities. You go in through a gate that allowed access to the ammo plant. There's a convenient equestrian vehicle parking lot wide open to operate from. I added in another 77 QSOs.

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Time to head to Marshall TX – along I-20 – for the Days Inn there. Not much else out this way other than locations on the interstates – everything is rural. Arrive at 4:15pm. Gas up the car and clean the windshield, then head to dinner at the nearby Golden Corral. By the time I'm done, the sun is headed down – sunset about 5:10 here this time of year in east TX. I hunker down for the night. It's been a good day with lots of contacts.

A few county hunters from way back show up to give holiday greetings during the trip. Good to hear them on the air. During the day, KB0BA/N0XYL were on the road to WI. I heard N8OYY mobile out in Preston WV. Otherwise it was quiet on the county hunter mobile front.

Day 2 – Monday Dec 23

I headed out from the motel at sunrise – 7:15 or so in east TX and hit the interstate after a nice breakfast at the Days Inn. Omelet patty, sausage, hot oatmeal, a small orange, two cups coffee filled me up. Temperature outside was 41F and it would head up to 67 today with lots of sun.

Interstate 20 moves along quickly at 75 mph with a fair number of trucks all headed toward Dallas and points beyond. A few county hunters needed Gregg County which came up next and ran that 'on the run'. K2MF, Barry, spotted it on 30m but saw no other spots later when I checked, even though I ran 3 bands. Maybe no one needed it?

A bit further west you can stop at **Tyler State Park in Smith County – KFF- 3059** – built by the CCC back in the early 1930s. Nice lake, camping, picnicking, etc. Only a few miles off the interstate, too! I checked in using my TX State Parks pass – otherwise, it's \$4 or \$5 a park to get in.(or \$70 annual pass). Half a mile down the road is a small parking lot that's fine to run the park. Over 100 QSOs go in the log in 90 minutes – lots of county hunters and lots and lots of park chasers – who hang out mostly on 40m SSB. Probably a dozen or more 'activators' were out today, and some reported working 25+ parks on the Saturday/Sunday weekend! Activity was down a bit on Monday but not much. A few DX stations made it in the log but the A index was 13 and K was 2 to 3 for the trip – not great.

Had a good run and decided to head to **Lake Tawakoni State Park – KFF-3031** in Hunt County. Along the way I ran Van Zandt for the county hunters. Caught 9Z4Y on 20m cw while zipping along – took a few minutes to remember how to go split. He was working lots of EU. Didn't remember what 9Z was – when I got home, I found out it

was Trinidad and Tobago – in the Caribbean. Haven't worked too many of them before – hi hi. This is a nice park on a large lake – camping, hiking trails, swimming, etc.

Filled the log then headed on home via **Spring Creek State Forest Preserve KFF-4423** in Dallas County – a mile off the route home. Put 25 in the log for a fast 'quickie' activation. I've run this a whole bunch of times but there were a few that it was 'new' to on SSB– I run mostly cw there for the weekly CWT on Wednesdays. Seldom on SSB. It's a bit noisy at this park.

Home at 2:40pm. Ran out to the food store to get some food and now have a bunch of logging and the County Hunter News to get done! Whew. Time flies when you're having fun.

New WWFF Parks in OKLA

Norm, N9MM, has added new parks in OK – 44 of them! They are scattered all over the state – many to the central and north part – some far, far west. Dang...well, I've run all the parks in OK that were there. Now I've got 44 more to 'activate' so you can plan on N4CD mobile headed to OK (and trying to avoid snow, ice storms, tornadoes!) in the near future.

Winter can be wicked in OK. What was it, about 7 years ago, W0RRY – Charlie, had 2 inches of ice come down near Tulsa at this QTH. Wiped out every tree within miles, caused a 10 day power failure, and needless to say caused hundreds of traffic accidents. I've seen bad weather early in January myself having almost been stranded on a day trip just 50 miles up into OK in the winter. It took 3 hours to go 50 miles to get back home. But these parks are calling! Someone has to be first to run them. They are NOT in the POTA system at this point.

They should be 'good to go' by January 1, 2020. The administrative wheels are turning and soon they will be official. Check out all the parks at:

<http://countyhunter.com/Toplist/KFF-County.htm>

KFF-4794 Atoka Wildlife Management Area

Atoka

KFF-4795	Beaver River	Wildlife Management Area	Beaver
KFF-4796	Black Kettle	Wildlife Management Area	Roger Mills
KFF-4797	Broken Bow	Wildlife Management Area	McCurtain
KFF-4798	Camp Gruber	Wildlife Management Area	Muskogee
KFF-4799	Canton	Wildlife Management Area	Blaine, Dewey, Major
KFF-4800	Cherokee	Wildlife Management Area	Cherokee
KFF-4801	Cookson	Wildlife Management Area	Cherokee, Adair
KFF-4802	Hal and Fern Cooper	Wildlife Management Area	Woodward,
	Harper		
KFF-4803	Copan	Wildlife Management Area	Washington
KFF-4804	Cross Timbers	Wildlife Management Area	Love
KFF-4805	Deep Fork	Wildlife Management Area	Creek, Okfuskee
KFF-4806	Eufaula	Wildlife Management Area	Latimer, MvIntosh,
	Okmulgee		
KFF-4807	Fort Gibson	Wildlife Management Area	Woodward
KFF-4808	Hackberry Flat	Wildlife Management Area	Love
KFF-4809	Honobia Creek	Wildlife Management Area	Pushmataha, Le
	Flore, McCurtain		
KFF-4810	Hugo	Wildlife Management Area	Osage
KFF-4811	James Collins	Wildlife Management Area	Pittsburg, Latimer
KFF-4812	Kaw	Wildlife Management Area	Kay, Osage
KFF-4813	Keystone	Wildlife Management Area	Creek, Osage, Pawnee
KFF-4814	Lexington	Wildlife Management Area	Cleveland
KFF-4815	Love Valley	Wildlife Management Area	Love
KFF-4816	McClellan-Kerr	Wildlife Management Area	Wagoner,
	Muskogee, Haskell, Sequoyah		
KFF-4817	McCurtain County Wilderness Area	Wildlife Management Area	
	McCurtain		
KFF-4818	McGee Creek	Wildlife Management Area	Atoka
KFF-4819	Mountain Park	Wildlife Management Area	Kiowa
KFF-4820	Okmulgee	Wildlife Management Area	Okmulgee
KFF-4821	Oologah	Wildlife Management Area	Nowata
KFF-4822	Osage	Wildlife Management Area	Osage
KFF-4823	Ouachita Leflore Unit	Wildlife Management Area	Le Flore

KFF-4824	Ouachita	McCurtain Unit	Wildlife Management Area	
	McCurtain			
KFF-4825	Packsaddle	Wildlife Management Area	Ellis	
KFF-4826	Pine Creek	Wildlife Management Area	Pushmataha, McCurtain	
KFF-4827	Pushmataha	Wildlife Management Area	Pushmataha	
KFF-4828	Red Slough	Wildlife Management Area	McCurtain	
KFF-4829	Rita Blanca	Wildlife Management Area	Cimmarron	
KFF-4830	Robbers Cave	Wildlife Management Area	Latimer	
KFF-4831	Sandy Sanders	Wildlife Management Area	Greer, Becham	
KFF-4832	Skiatook	Wildlife Management Area	Osage	
KFF-4833	Spavinaw	Wildlife Management Area	Delaware, Mayes	
KFF-4834	Texoma Washita Arm	Wildlife Management Area	Johnson	
KFF-4835	Three Rivers	Wildlife Management Area	McCurtain,	
	Pushmataha			
KFF-4836	Waurika	Wildlife Management Area	Cotton, Stephens	
KFF-4837	Wister	Wildlife Management Area	Le Flore, Latimer	

All of these are 5,000 acres or greater. There are another 20 WMA's in OK that are under 5,000 acres but Norm, N9MM, set this size as the limit.

In addition, he's added a bunch in MD, UT, NM and other states! State Recreation Areas, National Forests, bits of National Parks that spill over into other states, etc. Some of these, too, are not in POTA (yet). POTA has a 'freeze' on adding new parks. However, it's likely they'll be added in the future.

After number 4644 or so, numbers divulge between the two systems. In addition, 'trails' are not included in the WWFF system.

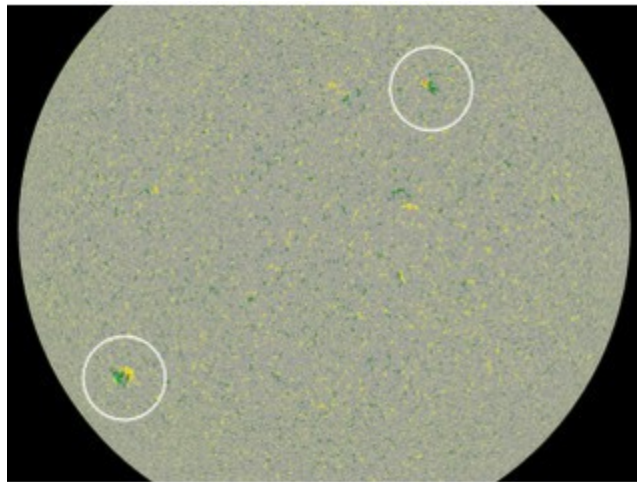
Stay tuned! He's working on adding more WMAs to Texas! More incentive to go run counties!

Note: Most states like you to have a 'permit' to enter and 'use' the Wildlife Management areas. In most cases, you can probably get away with just going in and making a few radio contacts. TX asks you either have a valid hunting or fishing license or buy a Wildlife Permit for \$15/yr. OK is the same way. They'd like to get some revenue to

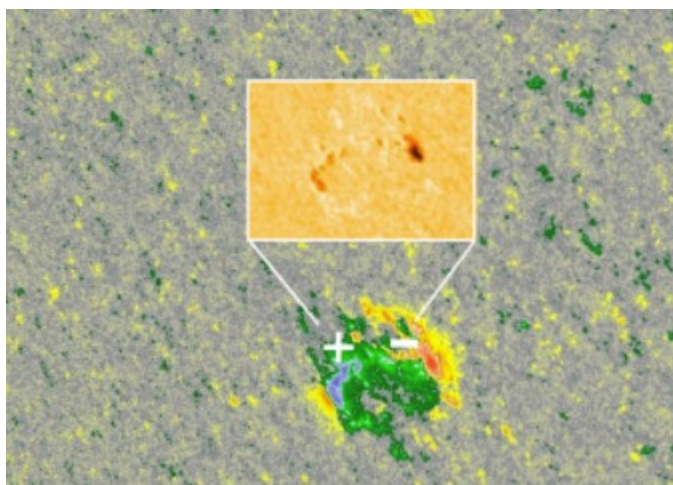
help pay for the maintenance of the areas. Same true in VA but their permit is more bucks. Haven't done it before, but with 44 new WMAs in OK, I paid a few bucks for a permit. Same in TX. Otherwise, they ask for some dollars when you enter (Self pay – no one around) to use them.

Holiday Present from Old Sol?

Solar Cycle 25 really is coming. Today, for the first time, there are two new-cycle sunspots on the solar disk--one in each hemisphere. This map of solar magnetic fields from NASA's Solar Dynamics Observatory shows their location:



We know these sunspots belong to the next solar cycle because of their magnetic polarity. Simply put, they are backwards. According to Hale's Law, sunspot polarities flip-flop from one solar cycle to the next. During old Solar Cycle 24, we grew accustomed to sunspots in the sun's southern hemisphere having a -/+ pattern. However, look at today's southern sunspot:



We know these sunspots belong to the next solar cycle because of their magnetic polarity. Simply put, they are backwards. According to Hale's Law, sunspot polarities flip-flop from one solar cycle to the next. During old Solar Cycle 24, we grew accustomed to sunspots in the sun's southern hemisphere having a -/+ pattern. However, look at today's southern sunspot:

It is the opposite: +/- . This identifies it as a member of new Solar Cycle 25.

Likewise, today's northern sunspot has a reversed polarity compared to northern spots from old Solar Cycle 24. It, too, therefore, belongs to Solar Cycle 25.

The sun is currently in Solar Minimum--the nadir of the 11-year sunspot cycle. It's a deep Minimum, century-class according to sunspot counts. The scarcity of sunspots has been so remarkable that it has prompted discussion of a possible "extended Minimum" akin to the Maunder Minimum of the 17th century when sunspots were absent for decades. Such an event could have implications for terrestrial climate.

Today's new-cycle sunspots (along with isolated new-cycle spots earlier this year) suggest that the solar cycle is, in fact, unfolding normally. A new Maunder Minimum does not appear to be in the offing. Forecasters expect Solar Cycle 25 to slowly gain strength in the years ahead and reach a peak in July 2025.

https://spaceweather.com/?fbclid=IwAR2zq16-9WVpdGJKu_zny9wCk27Orli3dWdUMJ8HKbJ9uX8MOeXl_98tkXY

Awards Issued

None announced at press time.

Events for County Hunters

2020 MICHIGAN MINI is April 23 – 24 & 25th

The 2019 Michigan Mini will be hosted by Ed, K8ZZ and Doris, N8WRQ and held at the West Bay Beach – Holiday Inn Resort 615 East Front Street • Traverse City, Michigan 49686

Phone: (231) 947-3700 • Fax: (231) 947-0361 Toll Free: (800) 888-8020)

Room rates of: \$97.95 plus tax per night if reserved by March 23th, 2020.

Registration for event is on-line at MARAC Events.

JANUARY / FEBRUARY CW EVENTS

North American QSO Party, CW

1800Z, Jan 12 to 0559Z, Jan 13

<http://www.ncjweb.com/NAQP-Rules.pdf>

North American Sprint, CW

0000Z-0400Z, Feb 3

<http://ncjweb.com/Sprint-Rules.pdf>

CQ 160-Meter Contest, CW
2200Z, Jan 25 to 2200Z, Jan 27
<http://www.cq160.com/rules.htm>ARRL

School Club Roundup 1300Z, Feb 11 to 2359Z, Feb 15
<http://www.arrl.org/school-club-roundup>

ARRL Inter. DX Contest, CW
0000Z, Feb 16 to 2400Z, Feb 17
<http://www.arrl.org/arrl-dx>

Jan 4 1800z to Jan 5 2359z
ARRL RTTY Roundup Dig W/VE: RST, SP; non-W/VE:
RST, serial
www.arrl.org/rtty-roundup

Jan 25 1900z to Jan 26 1900z
Winter Field Day CW Ph Dig
Category, ARRL Section or “DX”
www.winterfieldday.com

Jan 18 1900z to Jan 20 0359z
ARRL January VHF Contest CW Ph Dig
4-char grid square
www.arrl.org/january-vhf

That's all folks! C U next month.