County Hunter News

December 2018
Volume 14 Issue 12

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

The CW net procedure is written up at:

http://www.wd3p.net/ch/netproc/netproc.htm

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) Wow- it's already 'winter' in many parts of the country with snow, freezing temps, blizzards, ice and other nasty weather. November wasn't too bad in north TX but we hit the 20s a few times already. Up north folks are raking leaves like crazy. Down here – not quite yet.

2) Mobile activity is down a bit - between bad weather and holiday activities, not much going on. Not a lot of QSO Parties to report on, either. There were a few contests to keep your rig exercised if you felt like participating.

3) New 30M frequency is 10.124.5 to get away from the WA4SZE/b digital beacon spewing crap on the old net frequency.

4) In this issue – a few more pictures from the convention, half a dozen trip reports, and lots of misc. A special needs section on those getting close to finishing up. So on to the newsletter.

On the Road with N4CD I

The seemingly endless rain finally stopped so it was time to get out and enjoy a sunny weekend with temps 'above normal' for this time of year in TX. I missed getting to the Texoma hamfest – too many things going on on Friday, October 26, so I'd make a park run instead. I put on my shorts and tee-shirt for the weekend expecting high 70s and 80s.

First up was Bonham State Park – a bit over an hour up the road – KFF-2991 in Fannin County. This park has been run a lot since Gary, N5PHT, used to camp there in his RV for days at a time and make contacts. Over 800 QSOs already have been made from this fairly small state park. Well, I'd add in a few more – a 'hit and run' type deal on the way to others. There's good internet there so I could spot myself and that makes a big difference. There was no one at the gate – so I sailed in – but my TX State Parks pass is still good. There's a nice lake here – camping – with many there – hiking trails, etc.

Right off the bat, I caught KD4CB in a park in North Carolina. Nice. Another couple dozen went in the log. It was the weekend of the big DX SSB contest – the phone bands were a total mess. One or two folks tried fighting the QRM on phone to activate a park but that was a losing proposition. All CW here. Two dozen went in the log. Not many county hunters around and few park hunters were out there.. I suspect many were off chasing DX or just kicked back. One county hunter mobile was out - K2UPT in KY. Later in the day, ,AB7NK/K7SEN wound resume their trek in KY.

That went well, so it was off to the Caddo National Grasslands another 35 miles to the northeast. This is a “wildlife management area”. When you get there, you are supposed to 'self register' and pay the daily use fee. The State Park pass doesn't work here. There are half a dozen places you can run this in the north part – which is most of it. . I've stopped at the first area I've come to before – a boat launch area, and did again. No internet here. It was tough to get noted – caught some DX as someone spotted me and half a dozen DX stations went in the log, and a half dozen park hunters. Not a single county hunter was noted – and the 20M CW net frequency was occupied by a SKCC rag chewer type – so no luck there. 30M and 40M resulted in zero contacts. Since I've run this before, no sweat, but it's hard to justify burning gas to get all of 14 contacts. Still enough for a POTA 'activation' but I'd be really hurting if this was a new park for me. After an hour of trying more – I gave up. Listened to the mess on SSB – no strong stations to work there. Headed east – and passed by another 4 or 5 places where you could run this at a couple 'campground' areas. Pulled into 3 of them to check for internet

signal. Nope – this is the boonies. You've got cellphone but no AT&T or Verizon internet service. Had a trace of internet out on the main road at the last one but as soon as you pull into the woods – no signal. It's all forested in the campground areas. Someday I'll find a spot with internet!

It was still early in the day so I headed over to Lake Texoma State Park in Marshall County OK for another quick visit. An hour and a half away. KFF-2791/K-2791. A long time ago, we had minis here at the lodge building – that had at least 100 rooms and could host a mini or the local hamfest each year. That lodge was torn down 8 years ago after the state park was sold to a private developer. There's still a camping/boating/swimming area and this is one of those disappearing OK state parks. It sort of disappeared (was sold off) then got resurrected as the buyer went bankrupt two years later. Folks always seem to need Marshall County – not run all that much – except in the OK QSO party most years. Here I had a pretty good run – I could spot myself. Merv, K9FD came through from Molokai, HI. Ed, K8ZZ, made it in the log from KFF-2347 – a park in KS. He's activating parks now. Thirty folks made it in the log. Spotting makes all the difference. Again, no need to sweat 44 here since I've run it a couple times before. It was still fairly early in the day. SSB was still a big mess – a zoo. (The hamfest is now held up in Ardmore OK at a nice convention center).

The GPS lady says I could get to Tishomingo NWR in about 45 minutes from there – OK – enough time to get there, run it, then head on home to arrive before sunset. I head off. This NWR has half a dozen locations where you can access it. I'm headed north on 377 following the GPS lady. I see a sign – Tishomingo NWR – 5 miles this way. Hmm...not the main HQ, but another access point. I head down the road. Five miles later, I haven't found it. I either missed the turn off (sometimes hidden just like a driveway) or I've messed up. Well back to Plan A – head to the HQ further north. The GPS lady seems to know where she is going. Wrong! 20 miles later, I arrive back at the same point I started from after a half dozen turns. I thought she knew how to get there without total backtrack. I'm getting less and less trusting of her these days. Nearly an hour wasted.

If you check a site like

https://naturalatlas.com/wildlife-reserves/tishomingo-national-wildlife-refuge-1709392

you'll see there's at least half a dozen access points to 'camps' and boat launch ramps. I usually check ahead of time, but have been there before at the main entrance location before. I just got carried away by the signs and should have printed off a good map of the NWR. The government site only shows the main location, duh! Be careful – a lot

of these refuges are CLOSED during hunting seasons!

There's less than 50Q on the POTA activity page ever made from here. Maybe more but folks didn't upload their logs to POTA. Just WWFF. No stats are currently available on WWFF for QSOs from parks – they're working on it.

I head north. I see another sign – Tishomingo NWR – 2 miles. KFF-0491/K-0491. Should I trust the sign again? Hmmm....Well, I do and head two miles down a small paved road. Not much on it or along it. Two miles later I come to a gate and sign for the NWR. The road goes downhill to one lane sort of gravel/dirt. I make a quick check – internet at the entrance. I go down about half a mile – it's all continuing downhill and forested – not a good radio location and internet is fading away. I find a spot to turn around a bit further down and do – and head back to the entrance and park right inside. A car might get by me if one comes along. Looks really deserted.

I start putting out the county – Johnston, OK – and park – not much going on – mid -day slump. Well, why not look around for some DX on SSB. I manage to work 4M1K through the pile up of stations calling him.(That's Venezuela prefix). By late afternoon, the Caribbean is coming through. EU is still not strong and has massive pile ups. I crack the ZF1A Cayman Island pileup and that's 2 in the log. I catch another dozen on 20M CW with mostly park hunters. The CW bands are fairly empty.

There's only 70Qs ever listed on the POTA activity page so it should be 'desirable' but few are showing up. Wow...this place is LOADED with bugs – by the zillions – mostly lady bugs. If you get out of the car you are inundated with them landing on you – thousands – on your head, arms, body, legs – and some of them BITE! Every cubic foot of air has at least 100 of them flying around. Keep your mouth shut or it too will be filled with bugs.

Then, along comes a young fellow looking for some help. Seems he got a flat tire and is half a mile down the road off on a side road – and tried to change his tire. He heard my car on the road. He's looking for a ride to get an air compressor. I've got a little one in the trunk. I tell him I'll head down the road in a few minutes – got to finish the run first – and a few minutes later, find a place just up the road to turn around and head back down the road into the park. He's off on a side road off the one lane gravel road and I follow him in as he walks in on foot – narrow one lane dirt road with giant puddles on one track or the other. Will I ever get back out of here? He's been stranded two days already! He notes that few come here because there is no camping, no hunting and no fishing in this boondocks NWR section. That's enough to discourage anyone – plus the BUGS! You can't be outdoors unless you like the bugs!

Oops...low hanging branches down to six feet off the road– I get out and twist off a few low hangers that would snag the antenna. This is 'deep forest'. Another couple hundred feet down the road is his old van and it is in sad shape. I suspect he's living in his van these days. He's missing half his teeth and I suspect 'meth' has done a job on them. (meth rots your teeth after a few years of use). His van is jacked up - barely – and he got a front tire off. There is mud everywhere where his tire is. He's trying to change a tire and put a different one on the rim. Not just 'change a tire' in the normal sense Not successfully. He's been there for two days stranded and no one has come by on the road before me. He works to get the tire on the rim another for 15 minutes and I can see this isn't going to work. All he has is a little pry bar and a long screwdriver. It helps to have the right tire mounting tool which he doesn't have.

I suggest we take the tire and rim to a tire place or a friend for help and he agrees. He puts the tire in the back of my car on a tarp. I have to take out the radio so he can sit on the front seat and off we go. I manage to turn around with help – not many spots on this road without trees on both sides or mud. I'd never go on this road by myself but we manage to get out of there and back to the main road.

Turns out all the tire places in Madill and Tishomingo are closed on Saturday when we call them or check on the web. Duh! 2 pm on Saturday and shut! So it's Plan B to his friend's house about 20 miles away. We get there – his friend lives off in the boonies on a dirt road, too – with about 20 cars in front of a big rambling trailer type home or two or three on acres of land or more. It looks like it will be a while before things get fixed – so I ask if he can get a friend to take him back later. He agrees so I can take off and get back to Dallas before dark. I have no idea how long it will take him to get that van going again. Hope it's soon. Think part of the problem is he might have a bad rim and no tire will seat. Probably why he got the 'flat' in the first place. Who knows? I'm not sure how he gets by. Maybe on welfare or disability?

So I head south...but my car deviates the two miles back to the NWR to add in some more QSOs. Hit 30m and 40m for more Qs late afternoon, then make a beeline toward home. It's already way past my planned departure time. Next time I'll head direct to the NWR HQ and probably a lot better road! I won't be temped by other entry points like this one! I've run this once before and it seems that time it was at the NWR main HQ and main entrance. Don't know about the bugs, though. They seems to be everywhere up there! My windshield took a couple hundred hits and it's dead-bug splat city on the glass. Probably just the time of year for lady bugs and mating season. The inside of the car was full of them, and I was finding them inside for the next 3 days after I got home.

It's been an adventure. 300 miles driven. Not even 1 QSO per mile in the log but the day has been great weather wise. It's 82 degrees as I hit the TX border. The road is 70-75 mph from here to home. Made it to the home town by 6:30 pm and I head directly to the Boston Market for a nice chicken dinner before pulling in the driveway. The sun is down – it's dark. Definitely 'shorter days' and it will progress till Dec 21 – the shortest daylight of the year. One somewhat different trip for the books.

Camp Nelson National Monument

Presidential Proclamation on the Establishment of the Camp Nelson National Monument

Initially established as a Union Army supply depot and hospital, Camp Nelson, located in Jessamine County, Kentucky, was a key site of emancipation for African American soldiers and a refugee camp for their families during the Civil War. Camp Nelson was one of the largest Union Army recruitment centers for African American Union soldiers, then known as United States Colored Troops. During the war, thousands of enslaved African Americans risked their lives escaping to Camp Nelson, out of a deep desire for freedom and the right of self-determination. Today, the site is one of the best-preserved landscapes and archeological sites associated with United States Colored Troops recruitment and the refugee experiences of African American slaves seeking freedom during the Civil War.

Between 1863 and 1865, Camp Nelson served as a bustling Union Army encampment, hospital, and supply depot. From it, the Union Army dispatched soldiers, horses, and other supplies to support military operations at the Cumberland Gap and the frontlines in Tennessee and Virginia. During this time, enslaved individuals sought to gain their freedom by fleeing to Camp Nelson and other Union military installations in Kentucky. They placed their hope in places like Camp Nelson even though slavery was then legal in Kentucky. The Emancipation Proclamation, issued by President Abraham Lincoln on January 1, 1863, to free slaves from bondage, applied only to jurisdictions in which the people were in rebellion against the United States. As a strategically important border State, Kentucky had remained loyal to the Union and, therefore, was not within the proclamation’s scope.

Kentucky was the last State in the Union to allow the enlistment of African American men. Beginning in April of 1864, however, the State allowed free African American men and enslaved men who had the express permission of their owners to enlist. Notwithstanding these limited avenues to enlistment, hundreds of enslaved men risked their lives fleeing slavery and arrived at Camp Nelson during the spring of 1864, with the goal of enlisting in the Union Army in order to gain their freedom and to fight for the freedom of others.

As the pressure to meet recruitment demands grew, the Union Army was forced to allow all able-bodied men who were of age to join the Army. Kentucky, in particular, was unable to meet its draft quotas with only white soldiers. In the summer after enslaved men began to arrive at Camp Nelson, in June of 1864, more than 500 United States Colored Troops were mustered into service. In July, a record 1,370 new African American troops enlisted in the Union Army. On the single biggest recruitment day — July 25, 1864 — 322 African American men enlisted at Camp Nelson. By the end of the Civil War, more than 23,000 African Americans had joined the Union Army in Kentucky, making it the second largest contributor of United States Colored Troops of any State. More than 10,000 of these troops enlisted or were trained at Camp Nelson. Eight United States Colored Troop regiments were founded at Camp Nelson and five other such regiments were stationed there during the war.

Many enslaved men who arrived at Camp Nelson in 1864 were accompanied by their families. Although enlisting in the Union Army allowed men to gain their own freedom, it did not have the same effect for their family members, who often remained slaves in the eyes of the law and struggled to support and defend themselves. African Americans at Camp Nelson who did not enlist built refugee encampments. And as United States Colored Troop recruitment continued to climb, so did the population of freedom-seeking refugees at Camp Nelson, despite efforts by the Union Army to break them up and return the enslaved individuals to their owners.

The Union Army's efforts to remove refugees from Camp Nelson culminated in the tragic, forced expulsion of approximately 400 African American women and children during frigid weather in November of 1864, causing the deaths of 102 refugees. That tragedy brought national attention and public support to the plight of the refugees at Camp Nelson. In response, the Union Army established the Camp Nelson Home for Colored Refugees in January 1865, creating a safe haven for the wives and children of enlisted African American soldiers in Jessamine County, Kentucky. Influenced by these events, the Congress took action in March of 1865 by emancipating the wives and children of any enlisted member of the United States Colored Troops. This law protected the refugees at Camp Nelson. It also provided an additional incentive for African

American men to enlist in the Union Army, and caused recruitment to steadily climb through the end of the war. In fact, as of the spring of 1865, Camp Nelson and the refugee home were at their largest, with thousands of new recruits, Union troops, refugees, and civilians working and living in hundreds of structures.

In 1865, after the end of the war, the Department of War began the process of closing Camp Nelson. It took inventory of existing buildings and equipment and prepared to dismantle and abandon the camp. Many of Camp Nelson's military buildings, all of which were built as temporary structures to be used during wartime, were either sold and moved, or dismantled. Only a few structures, like the Oliver Perry house, which predated the camp's establishment, and the Camp Nelson Home for Colored Refugees, were left intact following the closure.

The Bureau of Refugees, Freedmen, and Abandoned Lands, more commonly referred to as the "Freedmen's Bureau," assumed management of the Camp Nelson Home for Colored Refugees during the post-war transition. Many of the African Americans who lived at Camp Nelson had envisioned that the refugee home would be a center for a thriving post-war African American community. The policy of the Freedmen's Bureau, however, was to remove all refugees from military installations. By October of 1865, all of the former Civil War refugee camps in Kentucky and Tennessee had been closed, with the exception of Camp Nelson. While the refugee home officially closed in 1866, approximately 250 individuals stayed and sustained a community there, which today is known as Hall, Kentucky. And although no original buildings remain from the Camp Nelson Home for Colored Refugees, the descendants of refugees and soldiers maintain connections to Camp Nelson, and some still live in the Hall community.

The history of Camp Nelson is now told primarily through archival and military records, as well as rich archeological evidence from the site. The well-preserved in situ archeological resources associated with the military installation, recruitment camp, and refugee home provide robust opportunities for researchers to understand the African American experience during the Civil War. The broader Camp Nelson archeological record also provides opportunities for research and scholarship related to military history, race, identity, and gender during the Civil War — a pivotal chapter of the Nation's history. The preserved archeological resources at the sites of Camp Nelson and the Camp Nelson Home for Colored Refugees provide insight into what was once a place where formerly enslaved individuals experienced freedom and self-determination, and struggled to create a sense of home, amidst the chaos of war. Camp Nelson reminds us of the courage and determination possessed by formerly enslaved African Americans as they fought for their freedom.

Source: https://www.whitehouse.gov/presidential-actions/presidential-proclamation-establishment-camp-nelson-national-monument/

More info here

https://www.nps.gov/cane/index.htm

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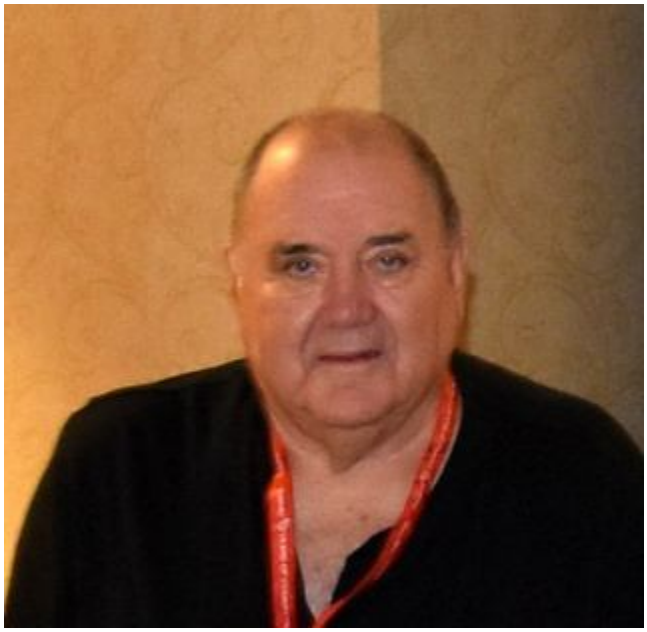
Note de N4CD: This is not on the Parks list – (yet) – or ever may be. Still, if you are on a quest to visit all the National Parks, Monuments, Memorials, etc, this is a new one on the list to visit. Stay tuned. W3AAX, Jason, said this likely will be added to the Parks on the Air (POTA) database in the future.

At this point, POTA was over 5600 parks and NWR type listings – and no more are likely to be added until at least half of them have been activated according to the latest gossip. So –help out – activate some parks! Hi hi

More Convention Pictures

I teased out a few more pics from the group pictures of many people at a time. Not everyone was photo-genic or caught at a good time, though so we can't find pictures for all who were there. You'll just have to attend the next one to meet them all!

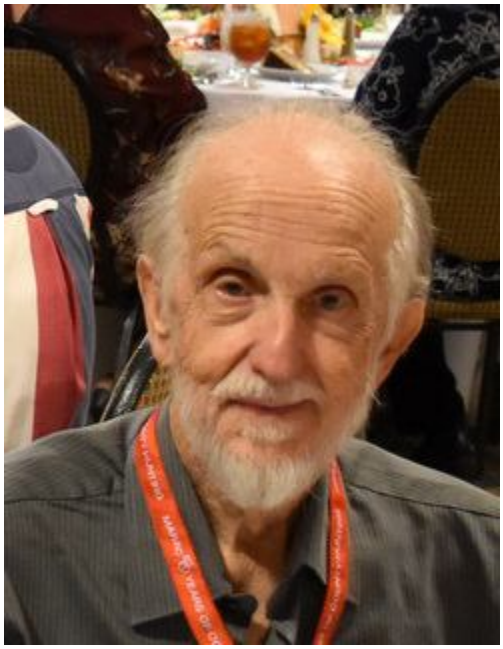


W9GUY Don

Randy AJ5ZX

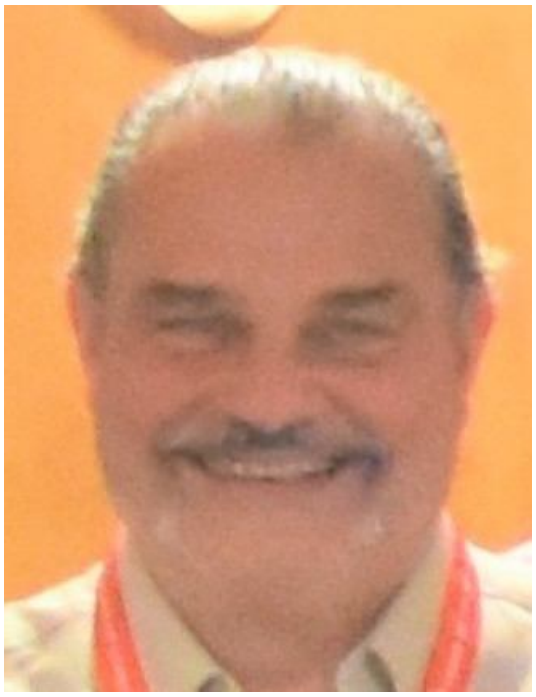
Janet, KC5QCB

KC3X Hollis



K5OH Troy

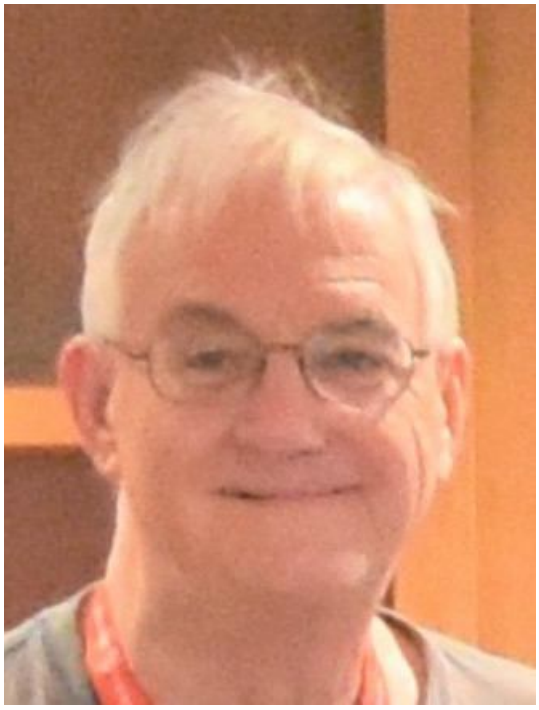
Pete, NN9K



Barry, K2MF

K3IMC Don

Darl, NA8W



N4CD Bob

AB2LS Carol-Ann

On the Road with N4CD II

There were no QSO Parties to hunt for counties – but the CW Sweepstakes was raging on NOV 4. This is a very popular activity with hundreds, if not thousands, participating and QSO serial numbers for many approaching 1000Q or more.

Propagation was horrible. SFI was 67 - bouncing along the bottom and during the weekend, we had a geomagnetic storm driving the K index up to 4 (A=4, too). Not good. Well, there are lots of loud stations to work in SS and each year I usually make at least 100Q in the SS. This was CW weekend and SSB weekend follows shortly

The clock had gone from Daylight Saving Time back to regular time on Sunday morning.

The contest starts Saturday evening. Sunday morning after breakfast I head to Spring Creek Forest Preserve (KFF-4423) 25 miles away and sit there for 2 hours. Over 100Q go in the log from New England and eastern Canada to HI and the west coast. 40M works for a while – and then I switch to 20M. You can only work stations once regardless of band. It's a more complicated exchange than QSO parties, with serial number and power designator, the year you were first licensed and your ARRL section. For example, my exchange in working W9RE would be:

W9RE 104 A N4CD 63 NTX

That's QSO number 104, A is under 150w output, first licensed in 1963 and in the North Texas Section. Helps to have a computer for check logging so you don't try work the same station twice.....and to send all the exchanges. Did it all by hand, and after 100Q or so, my memory bank overflows and I don't recall who I've worked already and who I haven't – hi hi. At home, I can use a paper dupe log but sitting in the mobile that's harder.

At 9am Sunday, some stations are already up at 700+ QSOs. The contest runs to early Monday morning GMT.

So after 2 hours of sending it all by hand, I headed back home. 48 F in the park and sunny so a nice day to be there. 2018 is another year when I've made my 100Q for CW SS.

CNOPTA

"Canadian National Parks On The Air"

Well hello hams from all over the world. Welcome to the Canadian version of working Parks and Historic Sites managed by Parks Canada. This is the brainchild of a small dedicated group of Hams in the Halifax, Nova Scotia area. We are all volunteers and we have a $0.00 budget to make all this happen.

We needed and received moral support from Radio Amateurs of Canada (RAC) and Parks Canada to welcome hams to come and operate at Historic Sites and Parks as listed elsewhere on this site. It is also very important to have Hams from all over the world

chasing these adventurous operators while operating in these Parks & Historic Sites.

We encourage you to consider vacationing in one of Canada's beautiful Parks and visiting a Historic Site as Canada is blessed with a magnificent diversity of units managed by Parks Canada.

https://cnpota.ca/?fbclid=IwAR0CEheulEdud530E4nsvd3NnGApzClAkd_Vy3l_2EZyXbLPvwAslwJ1EKc

On the Road with N4CD III

Wednesday rolled around, and sure enough, at 1 am the thunderstorms started as the latest cold front moved through. Seems to happen every Tuesday night/Wednesday morning this fall. (weather fronts here tend to move through every 7 days like clockwork). It was a gray, totally clouded over sky – 60F – with chilly north wind – with zero sun. Before noon, I headed out the 65 miles to the Caddo Grasslands – KFF-4370 trying to find a spot with internet access. Also, on Wednesdays, the weekly CWT (CW Open Test) occurs at 1900z (1pm CST), so you can rack up a few QSOs that way while in a park. Anyone can partake of that weekly 'test' from home, mobile, DX, or wherever.

Reached the park a bit late – missed it – was expecting it to be on the south side of highway 34 between Wolf City and Ladonia in southern Fannin County. That's where MapQuest showed it. Nope – was on the north side and I drove right on by it the first time. So missed 15 minutes of the hour long CWT then got to work. It's just a closed off road into the NWR area – but the gates are recessed 30-40 feet so you can be 'in the park' – if the mud isn't too bad on the entrance road that day. If you are not looking for it, you likely will drive right on by it without a glance.

Band conditions – wow – they had been really miserable with A=35 and K=5 on Monday and Tuesday, and today had settled down to A=10, K=1. SFI only 68. The

banner said “poor” for 20/30m and 'fair' on 40m. It was mid-day slump time too.

30 Q went in the log for CWT – a bit under good condition count, and 20 Q for park/county chasers. Skip was 'long'. 40M was not good from TX. Stayed 1.5 hours and figured I had worked all that were going to show up after spots on Facebook, DXsummit, and W6RK,. Headed back home the hour and 20 minute drive. Barely worth the gas to drive that far but did learn about a spot with barely there internet access in KFF-4370 in the south part. The north part has none currently.

On the Road with N4CD IV

Friday Nov 9 2018

There was a small hamfest scheduled for Kilgore TX on Saturday Nov 10 over in Gregg County, TX, which is about 150 miles east from the QTH. Following it was going to be an auction of some surplus donations to the American Broadcast Museum there in town – which so far I've managed to miss seeing. So it would be a triple header – hamfest, auction/museum visit, and running some repeat parks.

I dawdled a bit of Friday before I managed to convince myself to go – despite the horrible radio conditions. The hamfest was a tiny one, there didn't appear to be anything in the auction I had to have, and I could always visit the museum some other time. Finally I decided to go, made a motel reservation for Friday night in Longview, TX, and headed out about 11 am local time.

First up was a repeat visit to Lake Tawakoni State Park – which is in Hunt County right at the border with Van Zandt County. Conditions weren't too bad and some DX went into the log along with many park and county chasers. It was chilly in the morning and didn't get over 50F that day. Ran the bands - no need for making '44' as this was a repeat activation – so all I needed was 10 but wound up with many more.

Lake Tawakoni is a 37,000 acre lake and the state park is 376 acres on the south central shore. It's man made so it has lots of fingers and coves. Lots of camp sites, miles of beach front, an amphitheater and lots of day use areas are available. Found a spot to sit

for an hour or two and there was internet access for spotting.

Afterwards, ran Van Zandt on the run headed to the next county.

Next up was Tyler Sate Park in Smith County. It's a thousand acre park with a 54 acre lake inside it. Some campgrounds, beach, picnic areas. It's open for day use during the day – only nights for campers already in the park. Pulled in - used my park pass at all the gates on this trip – otherwise 3-6 bucks to get in. Had a decent run later in the day but the DX window was shut.

Band conditions not great – SFI 68, A=10, K=1, but 30/20M rated 'poor' on the propagation banners. 40M only 'fair'.

Headed to the Super 8 Motel in Longview – Gregg County for the night before it gets dark. Sunset now in east TX is around 6pm. Dinner at a Mexican restaurant down the road from it a bit. No buffet places close by. Deja Vue all over again. I've stayed at this motel before. So said my tablet that automatically logged onto the internet without any need to intervene. Hmmm.....it's smarter than I am – I didn't recall staying here but so many look alike! Hi hi. I've roamed all over TX for years and years – well, up to 28 now. Some you remember because they are different from the 'normal' standard arrangement. Others by their location/driveway to get in. Slept well.

Saturday Nov 10 2018

Had breakfast at the motel then headed over to the 'East Texas Tailgate' sale which is held in the parking lot for the Broadcast Museum. I arrive about 7:30 – and there are 20 cars in the lot with folks selling things. It's a bit chilly at 36. Well, a lot bit chilly at 36F! Folks are dressed warmly. This is 'cold' for TX. I wander around. I see a few VHF rigs for sale. An FT-847 Yaesu is up for sale and a bunch of mobile antennas. One ham has three different varieties of base loaded HF antennas. A 'Comet' and a 'Diamond' system for 80-10 which has to be horribly bad. A shorty MFJ screwdriver, and some other base loaded vertical system. Nope, that's the wrong way to get on HF and radiate a decent signal. One guy is selling a bunch of Hustler resonators – they look old – all the print is gone. He's got a pile of 20 and 40m ones and a single 30m one. Well, heck – he wants $5 for the 30M one. I pick it up, look at it, ask him if it works. He says 'you realize that's for 30M?".....and I said yes.....he comments most folks won't touch a 30m one – hi hi. 'Most folks' are stuck on SSB. Give him 5 bucks. New ones are $30 or so these days.

I wander around more. One guy has a Comet 'shorty dipole set-up'. It's got a mast adapter, and two 4 foot heavy duty mast sections that extend out horizontal from a plate which holds a KW balun. At the ends of the 4 foot heavy duty mast sections (maybe an inch in diameter) you screw in resonators – from 10 through 80m. About the same as a buddy pole but even shorter resonators. Interesting to look at – but don't buy. It will take high power – several hundred watts easily. It's heavy duty and sells for over $300 new. He's also got a 'portable Hex-beam' in a bag for 20-10m. Great if you camp out for a while or have some help to get it up. Probably good for IOTA folks - where most of them are in EU and you need to get a big signal to work a lot of them from an island. Again, I looked but I run mobile although these days a beam would be nice – especially if you head to AK or HI! Or west of the Rocky Mountains it seems! Otherwise, it's just something I"ll never use.

It only took 20 minutes to see everything. No regens but you never know. Walked inside the Broadcast Museum and wandered around a bit checking it out. The auction stuff was in the back on several large tables - about 250 items.

https://texasbroadcastmuseum.com/

The Texas Museum of Broadcasting covers the era of radio and television entertainment. They've got hundreds of radios and radio memorabilia, some Victrolas, radio and TV studios and equipment on display, interactive displays for kids, video and

sound presentations, a mobile TV broadcast bus from the early 50s, loads of radios and TVs from history. It's well worth a stop! Old working black and white TVs, a working TV and radio studio where kids can go 'live' on TV – one of the best museums in the country for Radio and TV History, and hundreds of examples of radio and TV and studio equipment. Just a handful of ham radio items on display.

Nice video of museum/history here

https://www.youtube.com/watch?v=pU20l2pDQy8&feature=youtu.be

I took the tour of the museum while there – self guided tour with the booklet.

Here are some of the items up for sale at the auction. Older hams probably recognize these items – maybe wished they could afford them 'back in the day'.

SBE 34 Mobile Transceiver
Solid State with 2 tubes in TX

Drake 2C Receiver

I didn't need either and likely they'd go for a high price. Other similar items, but not many, up for bid. Skipped the auction.

N2CX Activation Report

Recap: N2CX Delaware Parks Rove Nov 11

Whew, yet another hectic but fun day.

The primary goal was to do four parks in four hours to inject some insanity into activations, now that most of the local sites have visited several times. But there was a secondary impetus as well. Most of the N2CX jaunts have used car mounted vertical antenna, which works well but is not totally universal. The trial here was to instead check the usability of a magnetic loop antenna, which is can be done with or without a vehicle.

The antenna in question is a W4OP loop tuned remotely via a control head and 25 foot cable. For quick setup and teardown, the loop was attached to its tuning base ahead of time. Thus at each site setup and dismantling attaching/detaching a tripod and the coax feedline and control cables.

Sites fairly close to each other were picked to minimize travel time and only a half hour of operating time was allotted at each site.

All went well at stop one, Alapocas Run SP, KFF-1730. Due to cool temps operating was done from the car and the loop was set up 5 feet way on a grassy area. As walkers and joggers passed by and an Ultimate Frisbee competition raged in the background all went pretty well netting 20 Q's in a half hour. 40 was so hot that it took most of the time there was time for only a single contact on 20.

Then off to Auburn Heights SP, KFF-4366, elevated to that status from its previous name of Auburn Valley Preserve. Some travel time was lost locating the prime part of the park used earlier so the schedule slipped a tad. This place is a prime hilltop spot with good cell coverage and draws numerous trail users who set off to explore the wilds with their eager four-legged friends. It does have nearby power lines but using a mag loop eliminates most of the attendant RF noise. On air 40 was again the hottest band though brief sojourns were made to 20 and 30 to pick up folks west of the Mississippi, including the ever-present W6LEN.

Back to the city of Wilmington for stop number three, Wilmington SP, KFF-1744 at

Rockwood Tower. Yet another hilltop park its wide open fields were filled with - you guessed it - canines. As when previously visited folks let their dogs run free, chasing Frisbees and each other. Ever see a dog who wouldn't play fetch? Well there was one. A poodle freed from its leash dove into a humongous pile of leaves and frolicked around in them like a youngster enjoying seaside waves. Afternoon hunter doldrums reduces the number of takers at this site to only 15 in the scheduled half hour, though W6LEN once more graced the log as 20 poised to slide into late day somnolence.

Schedule slippage meant that the original fourth target site would close before arrival so we chose another one than had no gates to keep us out, First State NHP, KFF-0733, along the Brandywine Creek. As the air cooled and the sun was setting, it was almost deserted, except for what may have been an avid amorous couple probably "watching the submarine races" in their steamy windowed vehicle. Oncoming darkness made it tough to see the scenery though it seems that most of the leaves have already fallen leaving the creekside rather dull and drab. But on the air it was anything but dull. 40 m really picked up at this later time offsetting oncoming fatigue and failing light. A foray to 20 was stymied by inability to get the danged loop to tune up. But 30 was not bad yielding several contacts including a P2P with KR7RK. Contacts kept coming filling the log page so that we had to cram a couple of the last contacts outside the lines, so to speak.

All in all it was a great day. Four hours of travel and operating slipped into 5 hours but it was worth it. Business OTA was mostly brisk and hunters plentiful, several of whom, VE2GT and W0PHX, made the grade at each site. Using the loop was very practical in spite of its lowered efficiency as compared to full size antennas. The mysterious non-tuning on 20 needs to be checked out before the next trip. Sanity will prevail and only three sites will be tackled next time around.

The Thermosphere

Lack of sunspots to bring record cold, warns NASA scientist

“It could happen in a matter of months,” says Martin Mlynczak of NASA’s Langley Research Center.

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“The sun is entering one of the deepest Solar Minima of the Space Age,” wrote Dr Tony Phillips just six weeks ago, on 27 Sep 2018.

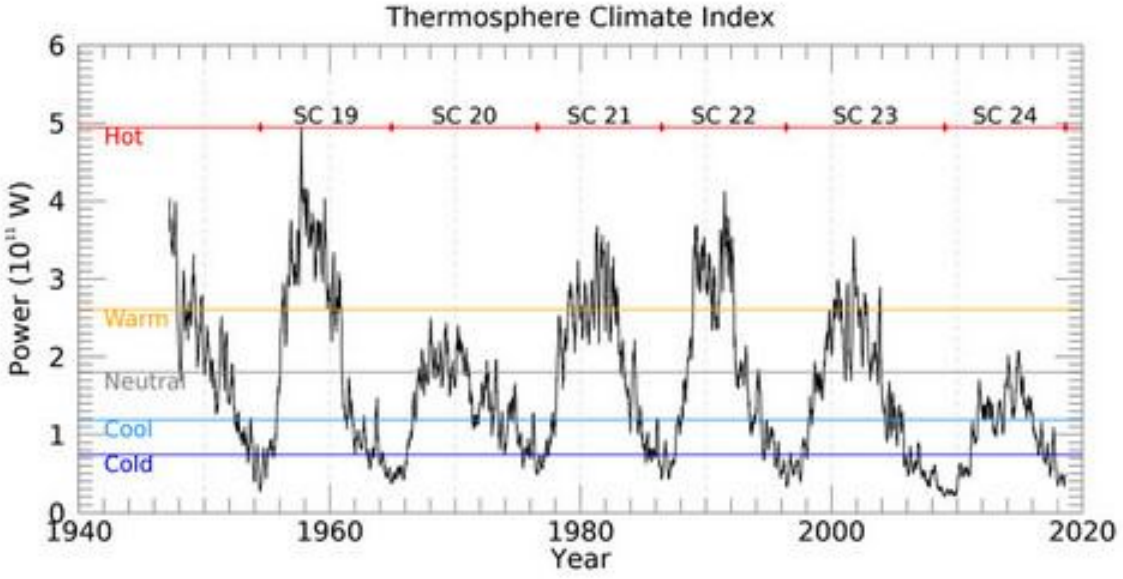
Sunspots have been absent for most of 2018 and Earth’s upper atmosphere is responding, says Phillips, editor of spaceweather.com.

Data from NASA’s TIMED satellite show that the thermosphere (the uppermost layer of air around our planet) is cooling and shrinking, literally decreasing the radius of the atmosphere.

To help track the latest developments, Martin Mlynczak of NASA’s Langley Research Center and his colleagues recently introduced the “Thermosphere Climate Index.”

The Thermosphere Climate Index (TCI) tells how much heat nitric oxide (NO) molecules are dumping into space. During Solar Maximum, TCI is high (meaning “Hot”); during Solar Minimum, it is low (meaning “Cold”).

“Right now, it is very low indeed … 10 times smaller than we see during more active phases of the solar cycle,” says Mlynczak



These results come from the SABER instrument onboard NASA's TIMED satellite. SABER monitors infrared emissions from carbon dioxide (CO_2) and nitric oxide (NO), two substances that play a key role in the energy balance of air 100 to 300 kilometers above our planet's surface. By measuring the infrared glow of these molecules, SABER can assess the thermal state of gas at the very top of the atmosphere–a layer researchers call "the thermosphere."

"The thermosphere always cools off during Solar Minimum. It's one of the most important ways the solar cycle affects our planet," explains Mlynczak, who is the associate principal investigator for SABER.

When the thermosphere cools, it shrinks, literally decreasing the radius of Earth's atmosphere. This shrinkage decreases aerodynamic drag on satellites in low-Earth orbit, extending their lifetimes. That's the good news. The bad news is, it also delays the natural decay of space junk, resulting in a more cluttered environment around Earth.

To help keep track of what's happening in the thermosphere, Mlynczak and colleagues recently introduced the "Thermosphere Climate Index" (TCI)–a number expressed in Watts that tells how much heat NO molecules are dumping into space. During Solar Maximum, TCI is high ("Hot"); during Solar Minimum, it is low ("Cold").

"Right now, it is very low indeed," says Mlynczak. "SABER is currently measuring 33 billion Watts of infrared power from NO. That's 10 times smaller than we see during more active phases of the solar cycle."

Although SABER has been in orbit for only 17 years, Mlynczak and colleagues recently calculated TCI going all the way back to the 1940s. "SABER taught us to do this by revealing how TCI depends on other variables such as geomagnetic activity and the sun's UV output–things that have been measured for decades," he explains.

As 2018 comes to an end, the Thermosphere Climate Index is on the verge of setting a Space Age record for Cold. "We're not there quite yet," says Mlynczak, "but it could happen in a matter of months."

"We are especially pleased that SABER is gathering information so important for tracking the effect of the Sun on our atmosphere," says James Russell, SABER's Principal Investigator at Hampton University. "A more than 16-year record of long-term

changes in the thermal condition of the atmosphere more than 70 miles above the surface is something we did not expect for an instrument designed to last only 3-years in-orbit."

Soon, the Thermosphere Climate Index will be added to Spaceweather.com as a regular data feed, so our readers can monitor the state of the upper atmosphere just as researchers do.

https://www.iceagenow.info/lack-of-sunspots-to-bring-record-cold-warns-nasa-scientist/

On the Road with N4CD IV

A cold Wednesday rolled around with very chilly temps during the week. A nasty cold front brought the first 'hard freeze' of the season with official temps of 25F at the airport, cooler elsewhere. So.....despite the chill, I headed out the 25 miles to the Spring Creek Forest preserve at 12:30 pm to arrive there by 1pm local time.

During the spring and fall, the CWO group sponsors the CW academy which brings people to CW and through three levels brings them up to 20 wpm. You are aware of the CW Academy?

From the CWO Newsletter:

"Student signups to our popular and unique service for teaching CW continue to roll in at a record pace. We have had approximately 1,500 new signups since the beginning of this year and have already exceeded the previous record for student signups in one calendar year.

Our CW Academy program continues to grow. Many aspiring CW operators sign up for our programs after hearing the positive results and success stories that others had

experienced using our proven methods. The Academy s personal and interactive approach to teaching is unique.

There are many web sites that offer advice to aspiring CW students, but the Academy goes several steps further by placing students in a classroom setting – paddle in hand, evaluating the students CW strengths and weaknesses in real time and then tailoring the 16 sessions in the semester to help each student build confidence and overcome CW obstacles. The student who stays the course emerges as a competent CW operator.

Our 8 week Internet based classroom instruction for Level 1, Level 2, and Level 3 courses offers an opportunity to work with some of the most accomplished CW operators serving as Advisors. These advisors make themselves available to our students because they love CW and want to pass on their passion for our great hobby. What better way is there to ensure that CW continues to be heard on the bands well into the future?"

https://cwops.org/wp-content/uploads/2018/11/solid-copy-201811-1-2.pdf

So...this was a SLOW DAY – no more than 20 wpm to encourage new grads to get on the air and work others. Otherwise, things zip along at 25 to 35 wpm.

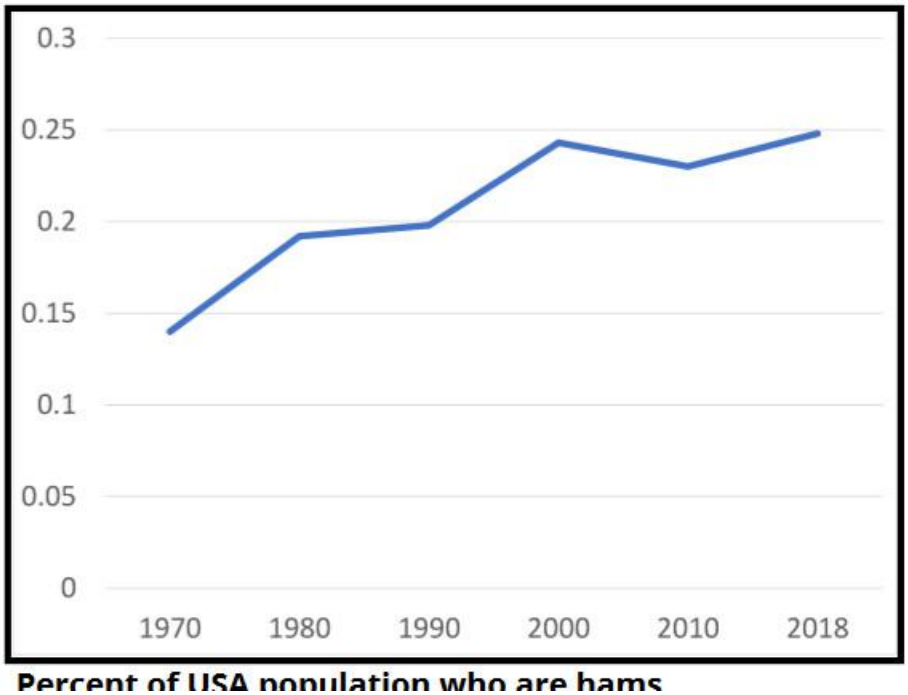
When I got to the park, I checked the internet for other park activations – one spotted and one worked on 20m with KC1AOE on SSB in VT. Woodford State Park, KFF-3132 in Bennington County. Then it was 1900z and CWT time.

The sun was out and it was warm in the car despite the 46F outside temp. I sat there 90 minutes and put 77 QSOs in the log from Dallas County. Then headed home.

Amateur Radio by the Numbers

Carl Davis W8WZ

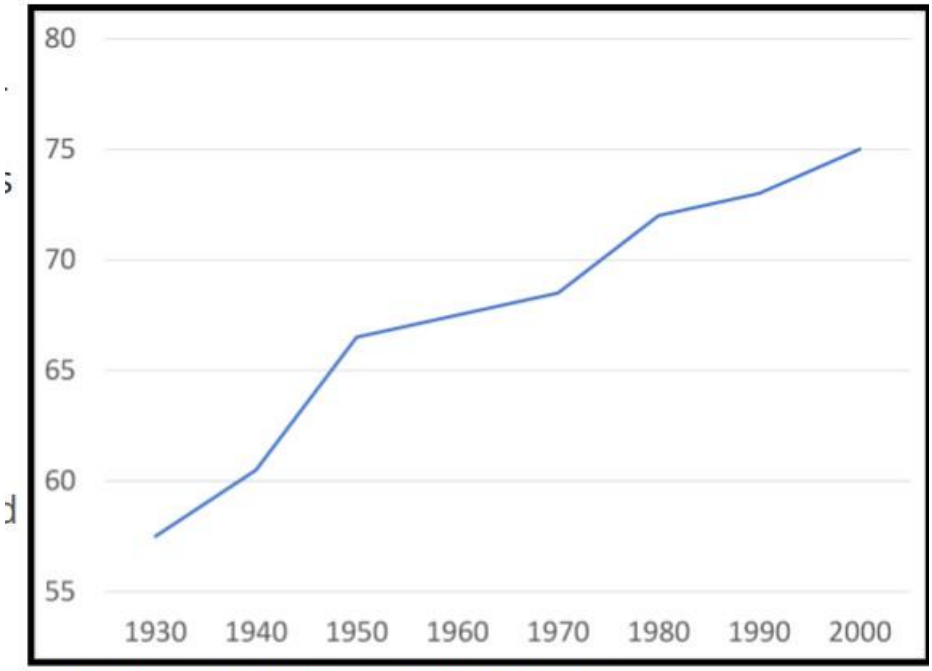
There are more licensed Amateur Radio Operators in the United States now than at any other time in history! Wikipedia reports that there are currently 801,424 hams in the United States. That means 0.248% of the national population are hams. It is good to look at the total number of hams, but it is even better to consider what percentage of the population are hams over a period of years. Looking at that trend is important because it will show us if the number of hams is simply growing because our population is growing or if a higher percentage of the population is interested in our hobby than before. So to answer that question let us look at the following data for the past 48 years which can be found at www.clearskyinstitute.com on arrl.org and curtesy of the US Census. This is very good news for Amateur Radio. Not only are our absolute numbers rising but market share is also increasing. In 1970 only 0.14% of Americans were hams. Today 0.248% of Americans are hams. That is an increase of 77.14%. The chart also shows that many people became hams in the 1970s and in the 1990s. That makes sense because in the 1970s many people entered the ham radio hobby after being introduced to radio through the CB craze of that era and in the 1990s many people entered ham radio when the Morse Code requirements were relaxed. In addition to that, our hobby has continued to grow since then. I think the lower cost of ham radio gear available today is helping to fuel that growth.



Percent of USA population who are hams

Doubtless there are many factors coming together to result in the growth of our hobby

from 285,000 hams in 1970 to 801,424 hams today. The 48 - year history shows a very healthy rate of growth that any company would be happy to have.
I was unable to find good data about the age that hams are when they are first licensed. However, I observe anecdotally that the average age of new hams today is higher than it used to be. When I was licensed as a teenager, many other hams were my age. Today it seems rare to find teenagers in our hobby and most of the people in our club 's licensing classes are adults. Of course, without good data to analyze, that is just one person's observation and may be inaccurate. That said, I think it is safe to say that the average age of a ham is higher now than it used to be. That observation can lead to doom and gloom thinking. However, it is also important to realize that the average life expectancy has also increased drastically over the years. Consider that when The Social Security Act was signed by President Roosevelt on 14 August 1935 the life expectancy for men in the United States was 59.3 years. President Roosevelt himself died at age 63 and was not considered to have died young. Today the life expectancy for a male in the United States is 77 years.



Life Expectancy in the United States

That is a 29.85% increase. Therefore, an older ham today may actually have more years of hamming in front of him than a younger ham did a generation ago! Rising life expectancy can negate the otherwise negative impact of an aging ham radio population. This is especially true since we are gaining many new hams each year. The hobby is not

in danger of dying out. Also, as new hams enter our hobby as adults it is reasonable to suppose that they will have more money to spend on radios than new teenage hams did in years past and since ham radio gear is less expensive now that means that financial restraints on participation in our hobby by new hams can be reasonably supposed to be at an all -time low. Let us consider the cost of new entry level HF radios. In 1970 a Heathkit HW101 kit cost $399.00. Adjusted for inflation that cost is equivalent to $1,993.38 in 2018 dollars. Today a brand new fully built Yaesu FT 450 can be had for $739.00. That illustrates that ham radio gear is 63% cheaper today and the quality is higher today when you compare the specs on the HW101 to those of the FT450.
All these trends combine to make me very bullish about Amateur Radio. There is one trend that is concerning however. That is the urbanization of our society. In 2010 (our most recent census) 80.7% of Americans lived in an urban setting. In 1970 that number was only 73.6%. I suspect the 2020 census will show that number even higher.
This is concerning because it is harder to operate a ham radio in an urban setting than it is in a rural or even suburban one. Lack of antenna space and higher RF noise floors make urban operating hard. To see how ham radio will likely look in an era of increased urbanization we would do well to look at how Amateur Radio already looks in the highly urbanized countries of Europe and Asia. In those markets much, if not most, ham radio operation is conducted at club stations rather than at home stations. I think we will see that trend develop in our country as well. I also think that an increased number of American hams will take advantage of the miniaturization of our transceivers and power supplies and chiefly operate their stations as portable stations while on picnics or campouts instead of from home.

Therefore, if Ham Radio was a sector I could invest in, I would do so. If I was looking to pick specific winners within that sector I would invest in Ham Radio clubs in urban areas (where the population growth is strongest) that either have or are working on plans for a club station to allow their members who live in apartments, condos or homes controlled by HOAs to operate easily and in clubs that are investing in remote stations in areas with low noise floors that their members can access remotely from their urban homes. I would also invest in companies that create gear used for portable operation more than I would in companies that create gear for giant home stations because I think more ham radio stations in the future will be portable and fewer will be giant home stations.

I also think it is worthy to note that as the number of hams facing RF noise floor issues increases that will create a stronger market for a technological solution to RF noise. Historically, technology is developed to fix problems when there is a market strong enough to pay for the technological solution. When the number of hams (and other RF users) who are willing to pay for a technological solution to our urban RF noise floor

issues grows strong enough, I have faith that Digital Signal Processing will advance to the point of offering solutions to us that do not currently exist.

While I cannot imagine how antennas could be improved to work better in urban spaces, I have faith that technological advancements in the world of antenna design may also help solve these issues once there is a market willing to pay for that solution as well. Consider the rising popularity of magnetic loop antennas made practical by lower cost vacuum variable capacitors entering the market place and the fact that the newest offering from SteppIR is the “Urban Beam”.

It is worth remembering that our thinking around antennas has not changed drastically since the end of WW2. What other technology has remained so stagnant? I think we will see amazing technological innovation in that area once demand rises more. If I was looking to make riskier investments in the Amateur Radio sector I would invest in companies doing research around advanced DSP and antenna design.

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So, the next time you hear all the “doom and gloom” talk about the best days of ham radio being behind us (work 75 phone, much?), take time to think about the stories that the numbers are telling us. Look at Ham Radio from the perspective of an investor and be “long” on our hobby. There is good reason to be!

Source: CWO Newsletter – Solid Copy Nov 2018

On the Road with N4CD V

This time each year, the Antique Wireless Association group – the Vintage Radio and Phonograph Society, holds their annual convention in the Dallas Area. It lasts two days starting on Friday.

Friday November 16 2018

The first day consists of two auctions. First up is the 'Tube and Paper' Auction – old tubes by the hundreds, maybe thousands, and books, catalogs, advertising, posters, signs, magazines, etc. You can buy tubes in bulk for just about any radio – or TV – and

sometimes loads of transmitting tubes. Folks always need 01A tubes (201A), and WD12 and 199s. Some other rare ones are the 1L6 that goes in a Zenith Transoceanic set – which can sell for $35/tube. Everything from boxes of 'pulls' to tube caddies full of NOS (new old stock) items, handful of rare tubes, and in some cases, just an individual tube like a 1920s 500w power tube. I didn't buy anything.

Following that after a short break comes the '$10 and up' items. This can be anything from boxes of junker BC sets from the 1950s, wood table radios, plastic table radios, novelty and transistor sets, test equipment from signal generators, VTVMs, Simpson 260 type meters, Signal Tracers, power supplies. Some test equipment, one IC-22S two meter FM transceiver, boxes of parts, cabinets of parts, radios missing parts, knobs, speakers, etc. Several hundred lots were sold from $10 to $150. You never show what will show up, but this year, almost zero ham gear or evens surplus radio stuff.

Most of the valuable stuff is saved for Saturday.

Saturday Nov 17 2018

The day starts out with a silent auction where 5-10 dollar items are up for bid. A few books, some phono needles, and things like that. Didn't find anything to buy. Most of the morning is spent watching folks check in items for the big Saturday auction that starts at 11am and runs till 5pm. Hundreds of wood table radios, cathedral sets, some parts and pieces, some test equipment like scopes, a Geiger counter, quack medical devices, radio lamps, neon rimmed clocks, and so forth. Most went for $20-$60, but some items went for hundreds and hundreds with the top radio going over $800 for a large restored Atwater Kent early cathedral set. Fifty large floor model consoles were sold – some for $20, some for $500, about half of them restored and working.

Over $29,000 in sales occurred between Friday and Saturday auctions.

During the day, there's a contest display room where folks enter radios into 18 separate categories from 'battery radios' to pre 1960 TV, military and ham gear, a/c table top radios. A collector brought in an SCR-68 aircraft transceiver from the early 1920s...used VT-1 tubes.

- –

I never heard of the SCR-68 – an early WW1 type set used on airplanes. From Wiki

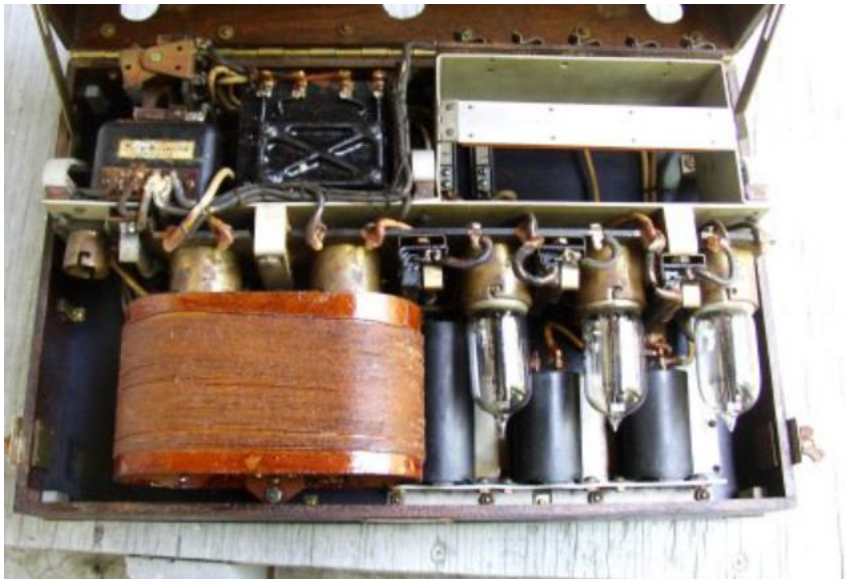
The SCR-68 (SCR was a military term meaning Set, Complete, Radio) was a military radiotelephone used by the US Army Signal Corps as an aircraft radio in the waning months of World War I.

The SCR-68 operated at 750 kHz (400 meter wavelength), using a long wire antenna reeled out behind the aircraft. It could receive and transmit messages over a maximum range of eighteen miles. The artillery observer (navigator) managed the SCR-68, receiving and relaying messages for the pilot. During World War I, most planes were two-person open-cockpit aircraft. Instead of communicating between themselves in the air, the pilot and the observer sent messages through the SCR-68 where the headphones would eliminate most outside noises. Like a private telephone line, the pilot and observer could communicate with each other; however, this action prevented the SCR-68 from receiving any transmissions

The SCR-68 range was reliable within a five-mile radius, a serious issue when the airplane needed to travel long distances. Another issue with the SCR-68 was the static noise that came from the “ripples” in the generator commutation. The noise was faint and was only considered a problem when receiving messages that exceeded 5 miles

The US Army pushed for better technology to gain an advantage in World War I. The US

Army asked private American companies to build a device that would establish better communication between military aircraft and themselves. Western Electric developed the SCR-68 that met qualifications: the radio was condensed to a size that could fit inside the airplane, simple for an Observer to use in flight, and the antenna would not drastically affect the movements of the aircraft. Another problem in the past included a communication device that eliminated the most disturbances from engine noise; the SCR-68 provided that by including a microphone and a sound-proof helmet.[By the summer of 1918, approximately 3,000 units were manufactured and distributed to the US Army.



The dimensions of the box were 17 inches by 10 inches by 7 inches and weighed 21 pounds. The A-21 retractable antenna was located in the rear of the aircraft and was expanded by the air observer while in flight. It could reel out to 300 feet in length, was made out of two copper wires and weighed 19.5 pounds. Depending on the amount of antenna allowed behind the airplane, the antenna functioned at a wavelength of 750 kHz

The GN-1 wind-powered generator was located on the braces of the landing gear, to gather adequate wind power and not hinder any other parts of the aircraft. The generator, as well as three 22.5 volt batteries located in the BC-11, provided a plate voltage at 300 volts and a filament voltage at 30 volts. The wind-powered generator was not very efficient, requiring the airplane to travel at fast speeds in order for the generator to work properly.”

Generator under plane

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In the evening there's an awards banquet catered by Spring Creek BBQ. The Comfort Inn, where the event is held, has no restaurant on site.

Sunday there's a flea market. You can find a knob for any radio there – the original correct one. (some knobs sell for $15 or $25! - most a few bucks).

Peak Oil Book Review/Update

Thoughts on the Future of World Oil Production

By Jean Laherrère, with Richard Heinberg

I have spent my professional career as a geologist-geophysicist involved in oil and gas exploration on every continent and have been an active participant in the peak oil debate during the past quarter century (petroleum geologist Colin Campbell and I were instrumental in initiating that debate via our article, “The End of Cheap Oil” published in Scientific American, March 1998). The story of oil is in my blood. I would like to

state a few observations that came to mind as I was reading Matthieu Auzanneau's excellent new book, Oil, Power, and War: A Dark History.

Oil and economic growth

Auzanneau reminds us that the story of oil is also the story of the modern industrial era, in which politicians of every stripe have enshrined economic growth as the goal of policy. Every government promises economic growth, without saying where it will come from. Growth is assumed to be GDP growth, and for a long time GDP was supposed to come from capital and labor. But economists Reiner Kummel and Robert Ayres have shown that energy consumption, in particular oil, is the main force behind GDP growth. These economists conclude that our consumer society is based on cheap energy. And the close historic correlation between growth in energy, especially oil, and growth in the global economy supports their conclusion.

The "thirty glorious years," as it is called in France, covered the period 1945-1973—from the end of the Second World War to the first oil shock—when world oil production growth averaged 7.5 percent per year. Compare that to 1.1 percent average growth (excluding extra-heavy oil) for the period 1983-2017, which could be called the "thirty laborious years." GDP growth has become harder to achieve, and economists now fret over what they call "secular stagnation," often without any understanding of the underlying shifts in the oil industry. The maintenance of growth has become highly dependent on quantitative easing, low-interest rates, and tax cuts, all of which are problematic over the long run.

The United States as an energy, economic, and military superpower

Auzanneau tells the story of how, since its beginning, the global petroleum industry has been dominated by the United States; his book also recalls and explains the turbulent dynamics resulting from a continuous fight between the oil companies and oil-producing countries—especially between the "seven sisters" oil companies (six American and one British) and the members of OPEC.

The United States' continued dominance of the industry is demonstrated by the fact that world oil is still mainly priced in US dollars per barrel (an antiquated volumetric unit defined as "42 US gallons"). Every energy investor knows the current oil price in dollars per barrel, but few know it in dollars per ton or in rubles per ton. Further, while every non-US country (except Liberia and Myanmar) uses the International Unit System (called SI or the metric system), many oil companies use US units and symbols. For example, Rosneft, a Russian oil company, follows the US custom of using mm or MM

for million instead of M (short for "mega-" as used in the world computer business in reference to frequency, as in MHz or megahertz), because Rosneft is listed on the US stock exchanges and is therefore required to follow SEC rules.

The US also has the largest number of oil-producing companies with over 18,000 upstream firms (IPAA 2017) against one in Saudi Arabia and three main oil producers in Russia.

The power of the US oil industry is somewhat explained by the fact that the United States' share of historic world oil production is the highest of all countries. US cumulative crude oil production to date represents 16 percent of all oil ever produced (for Russia, the figure is 13 percent; for Saudi Arabia, 11 percent). Of course, the United States' share of world production has evolved over time. As of 2017, the US was responsible for 13 percent of total world crude oil production, while Russia provided 13 percent and Saudi Arabia 13 percent.

Finally, despite generally falling production in the years 1972-2011, the US has seen its production recover in recent years due to light tight oil (LTO) produced by horizontal drilling and hydrofracturing ("fracking"), which I'll discuss at greater length below. As a result of this resurgence, since roughly 2010, American LTO has been the key factor preventing a stagnation or decline in overall world oil production.

Unreliable data

Before delving further into the subject of fracking, it's important to note that there are some big problems with the reliability of oil data. The first problem is that there are several definitions of "oil," including crude oil; crude oil plus condensate; crude oil plus natural gas liquids; and crude oil plus other liquids, refinery gain, and biofuels. In 2016 the Energy Information Administration (EIA) at the US Department of Energy listed average world oil production as 80.6 million barrels per day (Mb/d) for crude only, and 97.2 Mb/d for all liquids, implying a 20 percent uncertainty when "oil" is not explicitly defined.

For US oil production, that uncertainty is even greater. In 2017, US production according to EIA was 9.4 Mb/d for crude, and 13.1 Mb/d for crude plus natural liquids; adding refinery gain (1.1) and biofuels (1.2) we arrive at a figure for all liquids of 15.4 Mb/d, which is 6 Mb/d more than for crude alone!

The energy content of oil is variable, but despite the importance of this fact (oil, after all, is used primarily as an energy source and it is the world's foremost single source of

energy), official agencies pay little attention to it. The energy content of LTO, which is often inaccurately called "shale oil," per volumetric unit is less than that of conventional crude oil; so, as LTO has come to take up a larger proportion of overall US oil production, the overall energy value of the country's oil production has grown less than its volumetric increase would suggest.

The monthly quantity of crude oil produced in the US comes from EIA estimates. These estimates change over time but are finalized two years after the oil was first drilled. That's because, in Texas, operators can wait two years before reporting precise values, due to a confidentiality clause in the reporting rules.

Further, production reports from some other countries are often unreliable (though frequently specified down to four decimal points, despite their discrepancies). OPEC's monthly oil market report from July 2018 gives OPEC members' oil production in Table 5-9 based on secondary sources, where Nigeria in 2017 has produced 1.658 Mb/d; whereas in table 5-10, based on direct communication, Nigeria claims to have produced 1.536 Mb/d—or 7.5 percent less. For Venezuela in 2016 the difference between self-reported production and secondary reports was 9 percent. In general, direct communication from OPEC reports higher production values than secondary sources. In effect, this means that OPEC members lie about their production.

They also exaggerate their reserves. Since the 1986 oil price counter-shock (when oil prices collapsed), OPEC member production has been subject to quotas, which are based primarily on oil reserves (this is not the case for condensate or natural gas liquids). Between 1985 and 1989 OPEC members added 300 Mb of oil reserves, presumably as a way of each separately increasing their production quotas. In 2007, at the London Oil and Money conference, Sadad al-Husseini, former vice president of Aramco, described these as "speculative resources."

In sum, everybody in the oil industry is lying, reporting wrong data or no data, except for a few countries like the United Kingdom and Norway that report precise field production and reserves. As a result of these data problems, it is difficult even for energy analysts, much less the general public, to understand current and future trends in the industry.

When "peak oil" peaked

The final chapter of Oil, Power, and War is titled "Winter, Tomorrow?" and describes the arrival of both peak oil (the point when the rate of world oil production reaches its maximum and begins to decline) and the fracking revolution. As noted above, US tight

oil has changed everything. Certainly, it served to torpedo the peak oil discussion.

When Colin Campbell and I wrote "The End of Cheap Oil" in 1998, the price of West Texas Intermediate-grade crude (WTI) stood at $11 per barrel. The price then declined to $8 per barrel in January 1999; at that time, the title of our article appeared foolish. In 2000 Colin introduced the term "peak oil" and with Kjell Aleklett (of Uppsala University) created the Association for the Study of Peak Oil and Gas, or ASPO. We began organizing ASPO conferences in Europe. Meanwhile, the price of oil rebounded. As oil prices soared, so did interest in peak oil.

At the 2007 ASPO conference in Cork, it was decided to allow the creation of national ASPO chapters. Many countries soon created nonprofit organizations to study oil depletion, including Argentina, Australia, Belgium, China, France, Germany, Ireland, Israel, Italy, the Netherlands, New Zealand, Portugal, South Africa, Spain, Sweden, Switzerland, and the US (only ASPO USA had a permanent staff).

Colin Campbell issued 100 ASPO monthly newsletters from January 2001 to April 2009, writing in many of them about the geology, historical production, and future prospects of individual oil-producing countries. These country-by-country profiles were collected and republished in his book, The Essence of Oil & Gas Depletion.

At the Cork conference, the former US Energy secretary James Schlesinger said, "The debate on peak oil is over; the peakists have won." Schlesinger repeated his message in October 2010 at the ASPO USA conference in Washington D.C., telling the audience, "The peak oil debate is over." In fact, the debate was about to shift decidedly against us peakists.

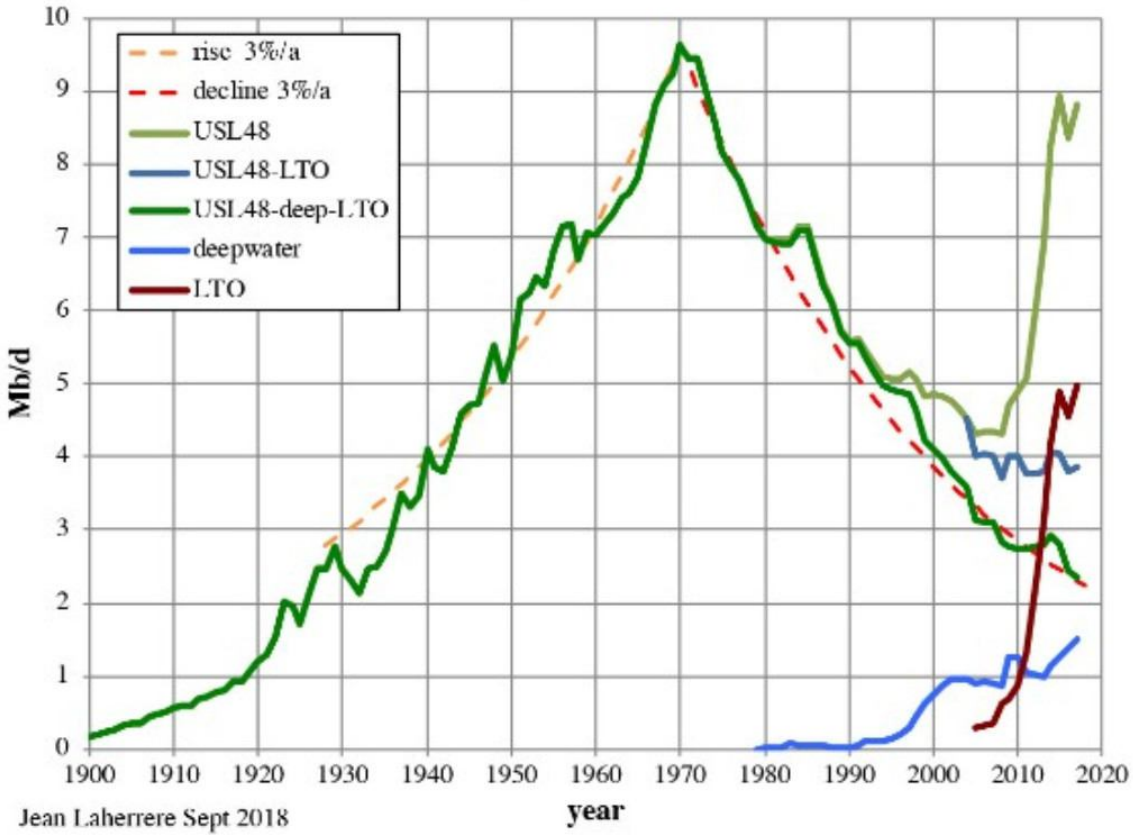
The last ASPO international conferences took place in Brussels in 2011 and Vienna in 2012. In 2011, thanks to horizontal drilling and hydrofracturing, US tight oil production had risen to over 1 Mb/d. In 2015, US LTO production rates reached 4.7 Mb/d but declined to a low of 4.1 Mb/d in 2016 due to low oil prices. Production is presently a little over 6 Mb/d.

In 2017 Kjell Aleklett retired from the University of Uppsala. By this time ASPO had become inactive in many nations, including the US. Today only ASPO France is active and growing (with three meetings per year and a website that continues to publish new papers). It is clear that ASPO (and the peak oil discussion generally) peaked around 2010 and has been in decline ever since.

In 2007, when the notion of peak oil was becoming generally accepted, and the public started to respond with efforts to conserve oil, the sport utility vehicle (SUV) became an object of scorn—at least in some circles. At the time, SUVs represented only 8 percent of car sales in China and 5 percent in France. In 2017, with oil considered plentiful again as a result of the US fracking industry, SUVs represented 42 percent of light vehicle sales in China and 31 percent of those in France.

Now many energy commentators argue that oil is abundant and that any decline in world oil production should be interpreted as a peak in demand and not a geology-driven peak in supply. But this interpretation ignores the fact that for each deal where oil is sold, price is dependent on both supply and demand, and the price is often confidential. Commentators are also confused because oil is also sold in futures contracts, which change hands many times. For me, geology is still the key, and the debate on peak demand versus peak supply is mostly wrong-headed.

There are only a few countries that have not yet reached their peak of production, namely Brazil, Canada (with its oil sands), Iraq, Kazakhstan, Malaysia, UAE, and Venezuela. In the cases of Saudi Arabia and the US, crude oil may be presently peaking. For the US, natural gas liquids production was 40 percent of crude oil production in 2017, when it was only 33 percent in 2000 and 9 percent in 1950. It is important to check whether “oil” is crude oil or crude plus natural gas liquids because values and trends are quite different.



Before being produced, oil has to be found—so exploration is the first chapter of the story. Discovery of oil has been declining since the 1960s. Discoveries in 2017 were the lowest since the 1940s. For this reason alone, the oil industry is in trouble over the long term.

US tight oil—the last domino to fall?

The big question is when the production of LTO in the US will peak. Within the US, the Permian Basin in Texas will likely turn the tide. As of 2006, that region had already produced up to 32 billion barrels (Gb) of conventional oil; then, from 2007 to 2017, an additional 5.5 Gb of conventional and unconventional oil was extracted. Of the LTO plays in the country, the Permian is currently seeing the highest rate of growth in production and will probably be the last to peak.

Soaring US tight oil production was largely responsible for a fall in global oil prices in 2015; with lower prices, LTO production was unprofitable, and drilling was scaled back,

which in turn led to a fall in production. But as oil prices have gradually recovered, so have drilling and production.

Official forecasts of LTO future production are based on a certain number of wells multiplied by the estimated ultimate recovery per well, without bothering to check whether there is enough room to drill all the wells needed. LTO is often described as a continuous petroleum accumulation covering an entire geological region, when in fact only small parts of the region are economically productive; those parts are typically called the "sweet spots." In the Bakken and Eagle Ford plays, the sweet spots have been almost completely drilled. The Permian basin, with several sub-basins and many reservoirs, is less drilled. Production during the first month increases when operators drill longer lateral well segments, and when they inject more sand (a record amount of 22,000 tons was injected in one well in Louisiana) to prop open the rock fractures. However, with these technological "improvements" it appears that the ultimate recovery per well may decrease and that new wells diminish the production from surrounding wells.

Reserves estimates for LTO that are made using the same approach as for conventional oil are completely unreliable. The best approach for forecasting future production is the extrapolation of past production (called Hubbert linearization). For Eagle Ford, the trend can be extrapolated toward an ultimate quantity of 3 Gb. This is more than double the 2016 proven remaining reserves plus cumulative production. Extrapolation of past US LTO production leads me to guess that LTO will peak again soon and decline definitively so that production will be negligible by 2040, though this is admittedly at odds with what some other analysts are saying.

I am even more pessimistic about LTO production outside the US. In June 2013 the EIA published a report written by the consulting firm ARI, "Technically Recoverable Shale Oil and Shale Gas Resources: An Assessment of 137 Shale Formations in 41 Countries Outside the United States." The authors estimated there to be 287 billion barrels of global shale oil "unproved resources," of which 75 Gb is in Russia, 58 Gb in the US, 32 Gb in China, 27 Gb in Argentina, 26 Gb in Libya, 18 Gb in Australia, 13 Gb in Venezuela, 13.1 Gb in Mexico, 4.7 Gb in France, and 3.3 Gb in Poland.

From the perspective of a few years later it is obvious that this report was mainly wishful thinking. Russia has the world's largest shale play with the Bazhenov. In the 1960s the government set off three underground nuclear explosions there to free oil from the tight rocks in which it is embedded; this extreme intervention met with no success: the reservoir was vitrified, and natural gas that was subsequently extracted was radioactive. More recently, Gazprom has launched a Bazhenov fracking project, hoping

for commercial oil production in 2025. One has to wonder: why is this taking so long, if the existence of the oil has been known for decades? It appears that Gazprom has not yet found the sweet spots (if they exist)!

Shale oil exploration in Poland was a failure, and the operators left. In Argentina the Vaca Muerta is mainly a shale gas play; China has drilled hundreds of wells there, but production levels are well below target (one trillion cubic feet by 2020). This is also the case for the UK, where Cuadrilla has drilled two shale gas wells in England but has not yet fracked them (the practice is now forbidden in Scotland, Wales, and Northern Ireland). Approval for fracking the Cuadrilla wells was finally granted on 24 July 2018.

The main problem with LTO globally is that the US cannot be taken as an example for the rest of the world. This is first because the US is the only country where underground mineral rights (including oil) often belong to owners of the land. Landowners thus receive a huge bonus for signing a deal with an oil operator, plus royalties on the production. LTO drilling, fracking, and producing causes many nuisances (including several hundred truck trips for one fracking job) as well as pollution. Landowners accept these nuisances in the US, but in the rest of the world, landowners have only the nuisances and no money; it is why the NIMBY (not in my backyard) reaction is so strong elsewhere. Many places, including France and even the US state of New York, have forbidden shale oil and shale gas activities. It appears that US LTO production will decline soon while significant production of tight oil in the rest of the world has not yet started—and may never really get off the ground.

The end of an era

Meanwhile, more nations are reaching their peaks and going into decline: Algeria 2015, Angola 2016, Australia 2000, Azerbaijan 2009, Canada crude oil 2014, China 2015, Ecuador 2014, Equatorial Guinea 2005, Indonesia 2016, Mexico 2013, Netherlands 1987, Oman 2016. Only Brazil, Canadian oil sands, Iraq, Kazakhstan, UAE, and Venezuela's Orinoco have not yet reached a peak. Many countries will decline at an annual rate of 5 percent, as Algeria has done since 2015, Australia since 2000, and the Netherlands since 1987.

It is likely that in the coming years world oil production will decline (at around 5 percent per year) and that LTO will decline more sharply. This will come as a shock because it is contrary to the official forecasts, which see oil production rising to 2040.

Nature is complex and human behavior is irrational; only the past explains the future. Matthieu Auzanneau's book, Oil, Power, and War: A Dark History, helps us understand

the oil industry's past, which in turn helps us envision the future of not only petroleum but also the global industrial economy.

Source: https://mailchi.mp/50afc1ec7acb/peak-oil-review-13-february-47913?e=1f61e69e31

On the Road with N4CD VI

The annual trek back to MD occurred via jet plane this year. With the Antique Radio convention just a few days before Thanksgiving, there wasn't really enough time – would have been a 3 ½ day mad dash to go the 1350 miles or so to MD from TX up the boring interstates without much opportunity for putting out parks or counties off the interstate. So I elected to fly up there – which, itself is somewhat of a hassle these days. Headed off to Love Field (DAL) near downtown Dallas on Monday, parked the car, grabbed my winter jacket and hat and small suitcase, rode the Parking Spot shuttle to Southwest Airlines – hoofed it around the airport (why is my gate always the furthest away?) and it was off to DC. Nice in TX all week during turkey day with 70 deg temps. It was 32 in the DC area the whole week – cold and cold. Landed at Ronald Reagan Washington DC airport (formerly National Airport), rode the Metro subway out to the end of the line at Shady Grove, and sister picked me up there. No radio – missed it but I'll make up for it with trips in DC to somewhere more interesting than I-30, I-40, I-81 and I-66. Hi Hi. Repeated the process on the way home on Friday. Still have the hassle of TSA, removing shoes and belt through security, etc. 25 years ago, flying was a whole lot hassle, but then again we didn't have terrorists hijacking planes to contend with either.

Well, now that I was back home, during the CQ WW CW DX Test, headed over on Sunday to the local park to see if I could add a few countries to the 'mobile DX' list. Made 130Q in a few hours chasing what I could hear/work on 20M. Should have had a 15M antenna as even with 'no antenna' could hear HI stations booming in on 15m.....

Did catch AL7LO in AK.....3rd District and a HI station. Conditions seemed pretty good with low A and K indexes and lots of stations heard/worked. Can't complain – over 100 DX contacts in the log. I'll check soon to see how I'm doing toward the ARRL Mobile

DX Award for 100 countries worked and confirmed from the mobile. Checked the stats and only a handful of folks have applied for it, including county hunter K6YK.

You do remember the fairly new ARRL Mobile DX Award?

From ARRL Website:

Mobile DXCC Award

This award is available to amateurs who have contacted at least 100 DXCC entities from a vehicle, capable of moving itself, using only power and antennas that may also be moved with the vehicle (read the definition of the mobile station and mobile operation below). Contacts made any time in the past count and proof of contact (QSL cards or LoTW) is required, but do not need to be submitted with your application. ARRL may ask for proof of contact if there are any questions about the claimed QSO. The MOBILE DXCC is a one-time award and is non-endorsable. You do not have to be an ARRL member to qualify.

To apply for the Mobile DXCC, just send a list of your contacts including call signs, countries/entities and contact dates. Do not send QSLs. The list must also carry a signed statement from you that all of the contacts were made from a mobile station as described above.

Along with your contact list, include $16 for US certificate shipments or $18 for international certificate shipments. Please include your fee in the form of a check or money order in US funds. Make sure to indicate your mailing address and your name as you want it to appear on the certificate. Mail everything to: Mobile DXCC, ARRL, 225 Main Street, Newington, CT 06111.

- - ------
de N4CD:

So far I've got 70 countries confirmed in the past 3 years on LoTW (started with NPOTA and now park contacts) and I'll have to check the QSL file for /m QSL cards – probably got a few in there from 'new' countries. Other than this DX contest – from a park, haven't worked much on working DX – and a lot of DX you work is not on LoTW. Which other county hunters have applied for this award?

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MARAC also offers the DX Award. From the MARAC web page:

To make contacts with amateur radio operators in DXCC countries while operating mobile.

SPECIAL RULES: The ARRL DXCC List in effect at the time the award application is received by MARAC is used to determine valid DXCC entities for this award. The applicant's home DXCC country cannot be used for this award unless the applicant makes the contact while mobile in a different DXCC entity. For example, a German applicant could count a contact with Germany if the contact was made while the German ham was mobile in Italy. Valid Contacts with Alaska or Hawaii can be counted by applicants from the "lower 48" United States because Alaska and Hawaii are different DXCC entities.

Aeronautical or maritime mobiles must be within the territorial limits of the country for which a contact is claimed.

AWARD LEVELS: Basic Certificate for 25 DXCC entities. New Certificates for 50, 75, and 100 DXCC entities. Plaque for 150 or more DXCC entities

APPLICATION AND FEES: Standard application, logs, and fees. The standard certificate fees also apply to seals for each level. List contacts alphabetically by DXCC entity call sign.
- ----

de N4CD:

For MARAC you can start at 25 counties and get awards at 25, 50, 75, 100 and 150 countries. No confirmations needed, just log data. To count the US, you need to have been mobile in AK, HI, or Canada or another country.

On the Trail of Regens

Not much has happened in the past six months in this area- I've been looking but not finding anything interesting! Some of the same old stuff from the 1950/1960s shows up on Ebay like the Philmore, Lafayette and Knight Kits from that era of Short Wave

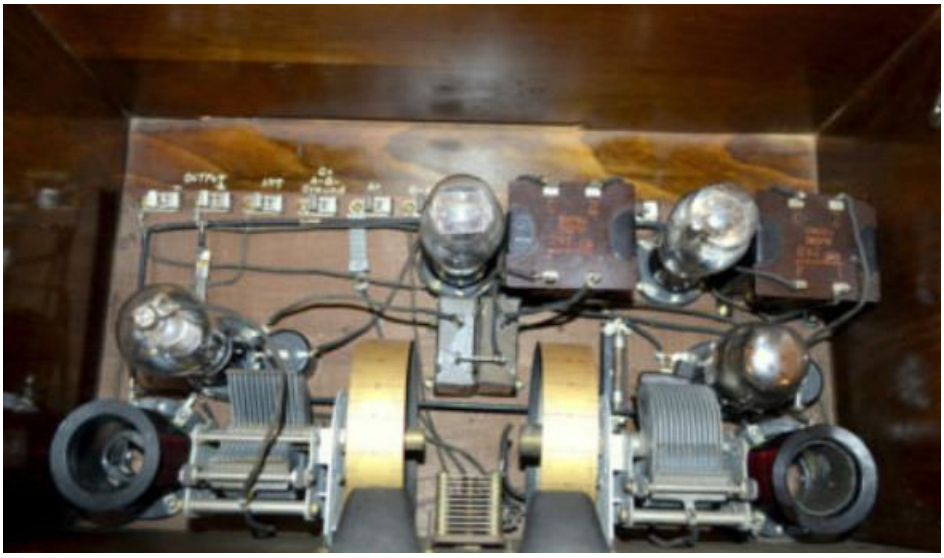
Listening but seldom much else other than newly built one or two tube sets. There's not much value in those 'new' sets and even less for resale if you fork out cash to buy them.

So.....this month a nice goodie radio from the 1920s shows up on Ebay. It's a Silver Marshall All-Wave Tuner Model 644SG – what they called it. Silver Marshall was a major seller of top end radios – aiming for the high end of the market. He also sold parts and pieces and kits during the 1920s, having gotten his start from that, then moving into high end radios.

Here's what we are talking about:

The Ebay seller wrote:

“I am selling a very rare 1927 Silver Marshall Universal All Wave Tuner~Model 644SG. Along with the radio comes an also rare 1925 Tele-Tone speaker. Both are in very good non tested condition. Chassis looks clean and unmolested. Speaker looks great with a few minor scratches. Radio case is in VG shape with no cracks, a few minor scratches. All knobs turn freely, and tuning dials work as they should. This radio also comes with two additional tube coils not pictured. “



Most of these radios were sold as kits, not in a cabinet. This one appears to be a factory made unit. The set uses 4 tubes – with the RF amplifier a new 'Screen Grid' (aka Tetrode) tube which allowed higher gain. A 644SG kit sold for $46.25 in 1928. Quite a bit of money – many hundreds of dollars in today's dollars. You could get coils to cover from 30 to 3000 meters from 10 MHz down to the below 100 KHz area.

On the short wave bands, you bypassed the RF amp and just used the regen stage followed by the two audio stages. (probably lack of shielding!).

Mobile Activity in November

At the beginning of the month:

AB7NK/K7SEN were completing the final leg of their log trip east. Now in OK and headed back to AZ.

Kerry, W4SIG, was noted down in MS

Ray, WB0PYF noted in KS headed down to NM, ran a lot there, then headed to south TX

Jack, K0MAF, spotted in WV

Team KC5QCB/AJ5JX noted out and about in TX.

Jim, N9JF, spotted in IL

Ed, N8OYY spotted in eastern KY – ran many counties there. Then back into WV for more there. He noted on the K3IMC forum:

"Thanks to everyone who road along over the weekend. I under estimated the amount of time it takes to drive between counties in Kentucky. Thus, I didn't get to run all the counties on my planned list. Was able to run 50 in Kentucky and 13 in West Virginia. I had a great time and plan on another trip soon! De N8OYY"

WE8J was spotted in GA on 40M

Rick, AI5P, spotted in NM running parks

Ron, KB6UF, headed west from LA to CA.

KB9AIT/N9OAT headed from WI to IN putting them out.

Gerry, AE7KI ran counties in TN

Jack, WD4OIN, ran some in VA. Later in month was in NC putting them out.

N0SM, Steve, ran a few in IA

KB0BA/N0XYL ran counties in WI

Kraig, KA2LHO, was busy running parks/counties in FL toward the end of the month.

There were one or two days with NO spotted mobiles!

N9JF was spotted in south TX running counties around Galveston.

Special Needs

There are some here working on first time. Let's see if we can get them finished off! Hope someone good for MG, better yet, MP, even better MD, heads to AK next summer. Lots of needs in Second AK.

Hints: If you need 3rd AK for Bingo – get ahold of KL7D...the "D" as in 3rd district. Need Kauai HI? Hunt for just about any HI station there – a 2x1 or 2x2 will work fine if a KH6 type call for Bingo.

Needs all over the country, but quite a few in OR (for east coast stations), many in KY still.....plus the usual MT, ID and other less run states. As usual, Nantucket is on the most needed list for some.

See what you can do to help out. These are selected needs. Many others close for prefixes, specific bands, YL's, etc, but too many to list. Some very close to finishing. Check out the whole list at

http://countyhunterweb.org/DisplayNeeds.php

- -------

N1API - for CW 1

AR: Lincoln
GA: Quitman
KY: Lewis, Mccreary
MA: Suffolk Another Tough One
MD: St. Mary's, Talbot
MT: Garfield
NC: Burke, Gates
ND: Walsh
NJ: Camden, Cape May, Cumberland, Somerset
NY: Allegany, Clinton, Essex, Hamilton, Herkimer, Lewis, Madison, Montgomery, Washington
OR: Crook
PA: Blair, Cameron, Lebanon, Mifflin, Montour, Tioga, Union, Wayne,

Wyoming
VA: Buchanan, Lancaster
WV: Lincoln, Monroe, Randolph

N1API 5th Time

CO: San Juan
GA: Washington
IN: Parke
KY: Allen, Cumberland, Grant, Monroe, Owen, Spencer
MA: Nantucket, Suffolk
ME: Franklin
MT: Petroleum, Sanders
NH: Belknap
NY: Bronx, Queens
OH: Morgan
PA: Juniata, Mifflin, Montour
VA: Buchanan, Craig, Sussex
VT: Addison
WV: Hardy, Morgan, Pocahontas, Wyoming

K2MF - 3rd Time

CA: Madera, Siskiyou
GA: Elbert
ID: Adams, Boise, Cassia, Clearwater, Gem, Valley, Washington
KS: Graham, Mcpherson
MS: Calhoun
MT: Cascade, Daniels, Fergus, Judith Basin, Lake, Petroleum
ND: Griggs, Kidder, Mclean, Oliver
NV: Lincoln
NY: Clinton, New York
OR: Crook, Lane, Lincoln, Wheeler, Yamhill
SD: Lake, Spink
UT: Utah
WA: San Juan
WI: Dunn, Menominee

PA3ARM - USACA - first time - cw only

AL: Covington
AZ: Santa Cruz
CO: Clear Creek, Grant, Jackson, Mineral, Pitkin, Routt, Summit
HI: Kalawao
ID: Clearwater
IN: Shelby
KS: Grant, Jefferson, Pottawatomie, Stanton
KY: Casey, Green, Hancock, Knox, Perry
LA: Beauregard, East Feliciana, Pointe Coupee, Washington, West Feliciana
MT: Broadwater, Deer Lodge, Treasure
NE: Box Butte, Cass, Johnson, Scotts Bluff, Sioux
OR: Benton, Columbia, Crook, Grant, Josephine, Lake, Lincoln, Tillamook, Wheeler
SD: Brule
TX: Calhoun, Comanche, Ector, Hutchinson, Jeff Davis, Kimble, Lamb, Lampasas, Nolan, Upton
UT: Tooele
WA: Wahkiakum

W3CR - 9th time - SSB only

AK: Second J. D. N W
OR: Wallowa

WA3QNT - fifth time

CA: San Joaquin, Trinity
KY: Greenup
MT: Teton
NC: Pamlico
OH: Washington
WA: Wahkiakum

WA3QNT - mobile to mobile

AL: Wilcox
MS: Greene
RI: Kent
UT: Morgan

N4RS - 4th time - cw only

CA: San Francisco
IA: Black Hawk, Buena Vista, Cerro Gordo, Cherokee, Emmet, Pocahontas, Shelby, Van Buren
IN: Lawrence, Washington
KS: Clay, Ottawa
KY: Cumberland, Mccreary, Wayne
MN: Carver, Faribault, Isanti
MS: Jefferson Davis
NE: Dundy, Madison
OR: Benton, Lincoln
SC: Williamsburg
TX: Red River, Waller, Wilson
WA: Jefferson
WY: Sublette

W4SIG - 4th time

CA: Napa, San Benito
GA: Warren
HI: Kalawao
ID: Blaine
TX: Llano
WV: Logan

W4YDY - Second Time using CW

GA: Long
IL: Lawrence
IN: Lawrence
MT: Mineral
OR: Crook,Wheeler

K4YFH - USACA using CW only

CO: Otero,San Juan.
MS: Greene,Leake.
NE: Grant,Wayne.
OR: Clackmas,Crook.

UT: Duchesne,Piute,Sanpete.

KC5P - USCA using CW only

GA: Atkinson, Clarke, Polk
IA: Hardin
IN: Hamilton,In
LA: East Feliciana, Red River
MA: Nantucket
MN: Sherburne
MS: Attala, George
NJ: Hudson
TN: Macon, Meigs

KD5YUK - third time - SSB

AK: Second J. D. N W
FL: Liberty
KY: Lincoln
PA: Monroe
VA: Sussex
WA: Stevens

AJ5ZX - Bingo II

GA: Barrow, Polk
OR: Tillamook

AJ5ZX - Master GOld

GA: Barrow, Bulloch, Douglas, Madison, Montgomery, Polk, Toombs, Treutlen
MA: Franklin, Hampshire
NJ: Union
OR: Tillamook
PA: Fayette, Greene, Wyoming
VA: Clarke

WY8I - Bingo II

HI: Kauai
MN: Chisago, Isanti
NC: Carteret
PA: Juniata, Mifflin, Perry
WA: Pacific, Wahkiakum

KA9JAC Mster Platinum

ID: Clark
KY: Union
MI: Cass, Lenawee, Tuscola
TN: Union
VA: Bath, Floyd
WI: Taylor

N9JF - USA- CW

IA: Kossuth, Wayne, Winnebago
IN: Greene
KY: Breathitt, Elliott, Morgan
TX: Medina, Starr

N9JF - Second time

IN: Owen
KY: Morgan
TX: Medina, Washington

W9MSE - 6th time

KY: Campbell
OR: Tillamook
WI: Crawford

WY0A - 2nd Time

GA: Madison

ID: Clark, Lemhi, Minidoka
KY: Spencer
MN: Big Stone, Murray, Yellow Medicine
MT: Judith Basin, Petroleum, Sheridan
ND: Wells
NE: Butler
NY: Essex
OH: Crawford, Gallia, Lawrence
VA: Charlotte, Wise
WV: Wyoming

WY0A bingo

CA: Del Norte, Humboldt
IA: Buchanan
MN: Stevens
OH: Belmont
OR: Douglas, Washington
VA: Wise

K0DEQ - 2nd time

ID: Custer
LA: Catahoula
MS: Issaquena, Scott
SC: Williamsburg
TX: Bailey, Bee, Lamb, Mcmullen

N0KV - first time CW

GA: Greene, Jenkins, Warren
ID: Madison, Owyhee
IN: Switzerland
KY: Boyle, Knott, Mason, Menifee
LA: Iberville, West Carroll
NC: Graham, Madison, Mcdowell, Mitchell
SC: Allendale
SD: Buffalo, Jackson
WI: Rusk

N0KV - mobile to mobile

GA: Hall, Talbot, Wheeler
KY: Knott, Larue, Letcher, Menifee
NC: Catawba, Lee
VA: Lunenburg, Mathews

K0MAF - First Time!!

IA: Cherokee, Emmet
KY: McCreary, McLean, Monroe, Owsley, Wayne
MN: Pennington
MO: Grundy
MS: Bolivar
OK: Pushmataha
TX: Goliad, Hamilton

NF0N - Fifth time

CA: Kings
CO: Gilpin
GA: Clarke
MI: Cass
MN: Faribault
NE: Knox, Webster

NF0N -- Bingo III

OR: Coos

NU0Q - BIngo II

MN: Mower
NC: Washington
OH: Darke, Jefferson
PA: Potter
WA: Ferry, Okanogan
WI: Buffalo, Pepin

Awards Issued

K7SEN earned 250 Last Counties. He received #95 on October 30, 2018

AB7NK earned 800 Last Counties. She received #19 on 22 October 2018

N8HAM earned Ran All KS #33 – issued Sept 30, 2018

N8HAM earned Ran All IL #32 - issued Sept 30, 2018

Upcoming Events for County Hunters

Not much going on this month. State QSO Party season is over and other contest activity winding down with the holidays.

We'll see what 10M can do – a few contacts were made in the CQ CW DX test at the end of November but not many unless you were a super contest station. EF8R worked 70Q in 42 countries on 10M. P33W made 81Q in 28 countries. KC1XX made only 10Q. KH6LC made only 11 – out of 6000 total Q. Most mainland US stations made one or two or zero QSOs on 10M. So....you never know. The band could pop open on E-skip or other modes for an hour or two.

Dec 8 0000z to Dec 9 2359z
ARRL 10-Meter Contest
CW Ph RST, state/province (DX: serial)
www.arrl.org/10-meter

Otherwise, you can look for the 'rookies' on cw here – slower speed.

Dec 16 1800z to Dec 16 2359z
3.5-50 MHz.

ARRL Rookie Roundup, CW
Name, 2-digit year first licensed, SPC
www.arrl.org/rookie-roundup

There are many foreign contests, rtty contests and other QRP type events during the month. - you'll likely hear them the top end of the CW band, often on the CHN net frequencies.

That's all this month! CU next month. Happy Holidays.