County Hunter News

October 1, 2012
Volume 8, Issue 10

Welcome to the On-Line County Hunter News, a monthly publication for those interested in 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.

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CW County Hunter Nets run on 14.0565, 10.122.5, and 7056.5, with activity occasionally on 3556.5 KHz. Also, there is SSB activity now is on 'friendly net' 7188/7185 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 generhttp://www.wd3p.net/ch/netproc/netproc.htmal 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://countyhunter.com/marac_information_package.htm

The CW net procedure is written up at:

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

Want county lines on your Garmin GPS?

http://pages.suddenlink.net/w4ydy/hamlinks.html#County

Download the file to a flash card that fits in your GPS unit, turn it on, and the county lines should appear!

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

Notes from the Editor

It's now officially fall with shorter daylight and the beginning of cooler weather. The summer travel season is over, and it's back to school, back to work, and the routine of club meetings and activities. The hamfest season is almost over for most, with a few exceptions like the Frostfest in VA in January and a few other mid winter indoor ones. October has a few in TX, still, and there is the one in Orlando in Feb. Other than that, it's time to get out of the leaf rake, snow shovel, check out the snowblower, or think about heading south for the winter time! Jack Frost is just around the corner.

The 100 degree days have ended in Texas for a nice change. It was a hot, mostly dry summer here, but the fall storms continue to hit the east coast. There's been a few county hunter events planned that brought about some big trips by mobiles – coast to coast - at the end of September and into October. It's approaching 'fall foliage' season in New England and Colorado.

Band conditions have not been great – the long hoped for 'sunspot peak' is still elusive with weeks where the sunspot count and flux numbers increase, only to be followed by drops in the flux numbers. We've had our share of CMEs and flares that don't help either. The DX can be worked on 15 and 10m (occasionally) but those bands haven't produced the favorable conditions for lots of US to US contacts as in the past on big sunspot cycles – yet. Keep your fingers crossed – next year should be the peak of this cycle. In the Salmon Run, ten meters

popped open for a few hours and many contacts were made.

Scottie, N4AAT, had his home station hit by lightning again (fourth time?) and wiped out a bunch of equipment-again). Worse, his wife 'cleaned out the mess' under the seat in his truck, and yanked out all the power and other wiring, leaving it non-functional until he got most of it repaired. He hasn't been on cw for a month now. So you thought you had problems?

There's no N4CD trips to write about – the car sat for the last couple weeks after a summer of major trips – but we've included some others travel reports and lots of state QSO reports and mobile trip reports – so enjoy.

MARAC has reduced the cost of LC awards from $2 down to $1.50. (per announcement on the MARAC site).

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Mobile Activity in September

Starting in late August

Mike, NF0N, and Jerry, W0GXQ, took a day trip around NE and into the bottom of SD running on SSB and CW

Paul, WD9EJK, was out and about in IL on SSB.

Bob, WA3QNT ran a few in PA on cw.

Bill, K2HVN started in MN and slowly worked his way back east via a big loop. Put out a lot of SD and ND counties.

Mike, NT7R was out in MT putting them out on CW

Jim, K9JVW was out in UT on CW. Ran Lincoln, NV a few times, too.

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KC7YE reported:

K7A special event operation successful

We had a blast, set up field day style on flight line @ Paine Field, new type of QRM, airplane

noise. Several CH's in log, tnx for helping make event a success. Steady flow of visitors and QSO's, couple of hams stopped by when saw antennas. Just north of 100 Q's, best DX JA & PY. several /M including /AM @ 41000 ft over CO(don't know his county) Good PR, museum & county airport honcho's impressed.

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Ron, N5MLP, made a nice trip to AR and LA to finish off those states and run up his total for Mobile Platinum where it takes putting out 500 separate counties to qualify for the award (as well as getting all the counties worked).

Fred, K0FG, was out and about in MO on SSB and CW.

Tony, WA9DLB, was up in WI putting them out for more than a week. SSB only. Then into IA.

Mike, KA4RRU, took a short trip up to WV.

Team K8OOK, N8IPG, were out and about in IL and WI - only

Team KB0BA/N0XYL took a trip to KY - SSB

Greg, NM2L, took a trip north running them on cw.

Kark, K4YT, spotted in a few in PA.

K5KDG ran counties in AR.

Doug, WA4UNS, was putting them out in NC on 40M SSB.

Joyce, N9STL, headed out for a two day trip in IN to run up her MD transmitted county total by another 35 or so.. Ran on 40M and 20m SSB with a few contacts on CW arranged before hand.

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Darl, NA8W reported on his trip"

I decided to try and finish my Ohio transmits Thursday, Friday and Saturday September 13, 14 and 15. I had to take a carburetor to get repaired and it was my reason to put 820 miles on my truck county hunting.

My needed transmits were almost all in southern Ohio and it proved an interesting trip through many areas I had never been.

Starting Thursday I headed out at 1100 Z to make my appointment time. I didn't make a contact until I reached Morrow County, too early I guess. While my carb was being rebuilt I ran the counties around Knox County and then went to Holmes County for the night. My wife likes staying in Amish country as they call Holmes County here. I ran 9 counties for 95 contacts on Thursday with a lot of them on 40 meters SSB. I could not hear the net on 20 and several times I could not get anyone to relay that I was ready to run. No problem on 40 all day as Hollis, KC3X was around all weekend and was always helping me.

Friday was all in southern hilly curvy roads and I ran 13 counties for 145 contacts. Again I had the majority of my contacts on 40 meters since 20 meters was almost the same as Thursday. I could not hear net control at all either day but AB7NK, Mary, was able to pick me up and made it much better for the day. We ran until the bands started changing and we got near a town big enough to have a motel. Never was in one all day until we got to Jackson County and we stayed there for the night.

On Saturday I finally hit 60 mph and put out 17 counties for 252 contacts. Mostly freeways except for near Cincinnati where the four lane roads were like city streets. Lots of noise there also and I know I missed several contacts due to that.

Over all I transmitted from 39 counties for a total of 492 contacts with 279 contacts on 40 meters and 213 contacts on 20 meters. My wife knitted two hats for our daughter-in-law's sister that is undergoing chemotherapy so she was very happy also to be on the trip. My wife is also a ham with a General license but I have not been able to talk her into being a team yet so in the mean time I will work on getting my cw speed back up to what it was in 1980.

Another good thing on the trip is that I got a smart phone about a month ago. I was able to watch the spots when I was in tower range, which was rare. I also spotted myself once. For the first time I used the phone to look for a motel and it asked for my location and I allowed it and it told me what motels were around Jackson Ohio and with one touch of a button I called them and got a reservation for the night. Between the GPS and smart phone and radio I was in heaven this weekend

After I got home I was checking and found that I think I missed a county so I may be heading out again soon, my wife thinks I did it on purpose but I really did miss it, that's my story and I'm sticking to it since I am a county hunter now.

Now to enter all the contacts in Logger. Until next trip sometime soon or distant 73 Darl NA8W

NA8W mobile, Gallia/Jackson, OH

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K5WAF put out counties from the PT Cruiser with more than 200,000 miles on it- 20 and 40M CW on a dozen C/Ls in TX.

W3DQT was out in some WV counties on a few days

Jeffrey, AF3X, took a trip up to New England and back.

Gene, K5GE, headed out east the 'county hunter way' to the 3M get together in TN via MS, AL, GA, KY, WV, PA. Ran 'em on SSB including 17M and 40M.

WY4D headed back from his trip to home.

Larry, W7FEN, headed out on a big trip to the east. Stopped and visited a few hams along the way including K5KDG in AR. Occasionally ran on cw.

KB0BA/N0XYL spent a lot of days putting out KY counties for the folks.

W3ZUH headed east from CA running on 20M cw.

NT7R put out counties in MT.

W5QP put out some AR counties on cw

Jim, N9JF, has the radio in the new vehicle and spotted out and about in MO

Ron, KB6UF, made a quick trip back from CA to home in LA.

KC7YE was seen out and about in WA. He also was in the Salmon Run (separate report for that)

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N9STL, Joyce, reported on her trip to Indiana:

N9STL Parke/Vermilion, IN

"Have you noticed that I am taking several trips lately? I am working on getting my 500 transmits done for the Mobile Diamond award. On my first trip I went to KS and had a ball putting out most of the eastern side of KS.

After I was home for two weeks I embarked on another adventure. I went to IN to try and finish

up the needs of several of my fellow “Mud Dabbers”. Six o’clock in the morning is awfully early to start out on a trip but I have to drive 3 hours just to get to Indiana.

The first day I ran 19 counties in Indiana. My goal was to make it to the eastern corner of IN before I called it a day. I made it! I ran my last county for the day, Noble, around 5:30.

As I pulled in to the first town in Noble County, I spotted a Wal Mart and a motel so I got my room and took off for a walk to the Wal Mart. I just walked up and down each aisle to get some exercise after sitting all day. Then I headed to one of my favorite restaurants for supper-Applebee’s.

The second day I did not start out as early-doesn’t do much good to run before 8 A.M. so I took my time and drove to a county line.

That day I transmitted from 15 counties.

The best county that I was in was White, Indiana. They have mile after mile of wind turbines. I read that there are currently 330 wind turbines with plans to eventually have 600. It is being billed as the world’s largest wind turbine facility in the world. Read all about it by googling Meadow Lake Wind Farm.

My plans were to head for home but I started feeling tired and decided that I would not make the 4 ½ drive so I checked into a motel. I laid down for an hour or so and decided to check my iPad and see if anybody was still running. Alas, K2HVN was in Golden Valley, ND, my last for cw in the state. I had been waiting for this county for over a week. So I hurriedly put on my shoes, grabbed my keys, found the clip to put on the resonator, ran outside, put the clip on the resonator , started the truck and found that he was still running. I got him on the first try so that made me a very happy camper.-Only 344 more to go for 2nd time CW.

So the next morning I woke up feeling refreshed and decided now that I have finished up the needs for 4 people in IN I would go get my last three.

Poor Ted! He wakes up , at home, only to discover that I am going east, not west. But I quickly assured him that I was only going to go get 3 counties that I needed to finish Indiana and then I would head home.

I spent 30 minutes on one county line waiting to get my 6 contacts that I needed but eventually I had enough and moved on.

I ran a total of 48 counties on this trip. I had 982 SSB contacts, 159 CW contacts, 328 contacts on 20 and 813 on 40. And who said 40 was dead?

I am very fortunate that Ted stays home with the dog and the Macaw and lets me going out

running all over. He is still recuperating from spinal surgery on June 18 for 2 compression fractures. He had kyphoplasty of 3 vertebra and is slowing recuperating but still in a lot of pain each day.

So where will the next trip be? Not sure but I still need 133 more counties so you will be hearing a lot from me in the next few months. KY and TN next week, a fishing trip to the Ozarks the middle of Oct and our annual trek to FL for the winter. That should help get my numbers down and your numbers up.

I would also like to thank each and every one of you that work me. It is sometimes difficult to get the three contacts on each of two bands so if you hear any of us out there please give us a call.

Joyce
N9STL

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N0KV, Barry, and Pat, N0DXE made a trip to western CO and back. Up and over lots of 10,000+ foot mountain passes to get to the rare ones.

KS QSO Party – Additional

The newsletter had to go to press before all the mobiles compiled their scores and filed on the 3830 contest reflector. So we include some reports not included last month from some of the 'big mobiles' who send in nice travelogues of their trips. It's nice when folks file lots of 'soapbox comments' on the 3830 contest reflector to share with the rest of the county hunting community.

N5NA/NO5W as N0R

It's about midnight and we (N5NA and NO5W) just got back to El Dorado, AR after a six hour drive from southeast Kansas where we went to play mobile contesting as N0R in the Kansas QSO Party.

If you're the least bit curious you might wonder how/why a couple of five-landers from locations as diverse and distant as New Orleans, LA and Midland, TX would decide to meet up in El Dorado, AR and motor up to Kansas for

a total drive of about 1700+ round trip miles (not including the drive from New Orleans and Midland!)to help put thirty-six counties on the air in the Kansas QSO Party.

Well you might say it started with each of us finding Kansas maps in our mail boxes a couple of years ago along with an invitation from W0BH, complete with lodging, to come up to the Sunflower State and spend a weekend helping create some noise and activate a few of the 105 counties during the KS QP. Or you might also say it started even before that with W0BH and Lorna coming down a number years from Kansas to cover the Texas Panhandle in the Texas QSO Party and in the process creating a lot of excitement in that event. Even one of those years Bob, unfortunately, got an opportunity to operate tow-truck mobile when their aging van decided to balk somewhere in the Panhandle â?" now that's commitment!. Those things coupled with an extreme, some might even say insane, enthusiasm for mobile contesting on the part of the five-landers sealed the deal and meant that it would be only a matter of time before we would decide to stop cutting bait and actually go fishing. And of course there was also the attraction of operating behind the mask of a 1x1 callsign.

So this was the year, and hopefully the start of an annual thing, if those pesky fuel prices don't rise to a point that would make a trip like this prohibitive. And it was a good year with pretty good propagation and participation although you can never have enough of either of those. Operations went well in N5NA's truck which was virtually free of any vehicle noise (the same could not be said about many of the small towns we went through where the power line noise was off the charts), an excellent setup of a K3/100 strapped down to the console, a really fine Scorpion antenna mounted in the truck bed, and a laptop running GPS-enabled mobile contesting software, CQ/X. Switching operator and driver positions about every 2-3 hours we managed to keep a fresh operator in the chair resulting in the following statistics.

Thanks to the following stations for contributing more than half the QSOs:
N6MU(39), N5DO(38), NT2A(34), W4UCZ(32), WA2VYA(26), W4UT(25), K5WAF(25), WA6KHK(22), ND3R(22), NS5J(21), WA8REI(21), NN4K(20), KN4Y(19), AC0BH(19), N4UF(19), DL3GA(19), N3KR(18), W4GDG(17), DK2OY(17), K4AMC(17), YV5OIE(17), N4NX(16), K4YT(16), OE5KE(15), VE2KOT(15), VA3XOV(15), KC0DEB(15), W2CVW(14), VE6BMX(14), K1TKL(13), N4PN(13), KS4X(13), W1END(12), W8CAG(12), VE3KZ(12), DL8USA(12), VE7CV(12), KO1U(11)

Along with all those good stats there were disappointments, lessons learned, and things that didn't work exactly as designed.

1. On the disappointment side the logistics of our route and the need to enter and exit KS from the southeast meant that we were not able to take W0BH up on the lodging invitation. That would have been fun and hopefully at some point in the future will actually happen.

2. On the potentially disastrous side there was the matter of the loosening of the large bolt attaching the Scorpion to the truck bed/fender. Fortunately N5NA noticed the swaying antenna in the rear-view mirror and, fortunately for our continued operation, had a tool along which allowed the problem to be addressed.

3. Regarding lessons learned we discovered, by experience, that when you're down to the last county, and you're the only station activating that county, and there are less than 10-15 minutes remaining, and you're approaching a town do not, under any circumstances, enter that town but stay well on the out skirts until the party's over. Otherwise you might lose 20-30 Qs to the noise.

Thanks to all those that called us, especially to those that called a bit off frequency or in some way distinguished themselves from the thundering pile, and to those that waited patiently when we were trying to complete a QSO with another station. And of course a big thank you to the organizers and especially to Bob W0BH for coordinating the event.

Finally we hope to hear you in the Texas QSO Party September 29-30. Will this be the year that a sweep of all 254 counties is possible?

W0BH – mobile

After last year's Sesquicentennial QSO Party success with 1x1 calls, we had a number of requests from both sides of the Kansas border to do it again. The spelling of KANSAS and SUNFLOWER to earn a stamp and a certificate seemed to be a big hit. This year, we added two additional antique radio stamps to the mix : the 1965 Int'l Telecommunications Union stamp and the 1940 Samuel F.B. Morse stamp to go along with the 1964 Amateur Radio stamp from last year.

Lorna/k0why and I headed west to 32 counties on the same route as last year, minus two counties already well-covered by other mobiles. Because the forecast

was for cooler temperatures, we were able to take the Chevy Astro with no A/C. The Astro has a great roof for mag mounts and Hustler antennas, and is my RF vehicle of choice for QSO parties. The only new piece of equipment was an N8XJK power booster which performed flawlessly and kept the radio at full output with the engine on or off.

Saturday

My home QTH is only 3 miles from a three-county line, so I headed there for the 9:00 am start. It had rained an inch the night before (you don't know how much I enjoy writing that :-), but things had been so dry that the roads were fine. Right on schedule, I CQed on 7038. WB0TEV came back followed by N6MU .. and we were off. Both 40m and 20m CW were really loud, so I ran off a bunch of contacts on both bands before switching to 40SSB where I found a high SWR waiting for me. I tried the tuner with no luck. I normally don't run the tuner at all since the Hustlers are all tuned for my operating frequencies. Everything had checked out perfectly the night before, so what happened? I couldn't make it work, so I replaced my 80m CW coil on a different mag mount with another 40m SSB coil. It worked with a tuner, but it was too close to the 40CW coil to work properly. To make that long story short, the entire day was basically a bust on 40m even though I tried from each county. It seemed like those that did hear me were having trouble. Many apologies to those who needed me on 40m. Another coil is on order.

While I was at the line, Lorna stayed at home because it gave her an extra 45 minutes to pack the cooler and finish getting ready to go. I headed home to pick up Lorna and my forgotten coffee mug, then we headed west into the cool morning air. Along the way, we ran into rain showers, but cloudy, cool weather sure beats typical August in Kansas, so no complaints. The day actually went really smoothly after that. Fortunately, 20m had a never-ending supply of contacts, and band conditions stayed loud the entire day. I tried 15m from time to time, but no takers when I CQed, and no luck whenever someone wanted me to try there. I was able to work a number of Kansas stations on 40m including four mobiles, but again, they couldn't seem to hear me very well even though many of them were booming in.

The most non-radio excitement on Saturday came when I started swatting thistle seeds blowing through the window on their fluffy white "parachutes." I thought they were mosquitoes at first because I was concentrating on the computer! Needless to say, Lorna got a good chuckle out of that. She kept us on schedule the entire day, but that occasionally meant some fast driving on some muddy roads. It was never dangerous, but when I got out of the van to stretch, the right side was plastered with mud and I got really dirty trying to get back in.

At a gas stop later in the day, I used the windshield scraper to clean my door handles! We got to the KS/CO in northwest Kansas with 9 minutes to spare, so Lorna stopped and let me work out the final minutes before we headed 10 miles into Colorado for our overnight stop at Lorna's cousin's house in Burlington, CO. We had 1382 Qs in the log.

Sunday

Sunday morning was cool and clear as I went out to the van to fire up the equipment. When I plugged in the accessory power for the voice keyer (rarely used), CW keyer, band decoder and logging computer, I didn't hear the familiar --- -.- in Morse code sent by the K3 keyer. I plugged and unplugged it several times with no luck. My K5 keyer is occasionally a bit voltage sensitive, but never my K3 keyer. This time I couldn't get it to come up, so I pulled out my box of spare stuff and substituted the K5 keyer. It worked. Because of that, we got off a little late, but luckily it wasn't far to the border and the first Q on Sunday morning came in only a few minutes late.

A little further down the road, John/n6mu reported my SSB audio breaking up when I used the foot switch. It was fine with the Heil headset switch or the hand mike, so I figured the skinny wire MFJ uses on their foot switch must have broken from me stepping on it all the time. I had just purchased another Heil foot switch with a nice thick cable as a backup, so I dug into my spares box once again and the problem went away. You can never have too much spare stuff along on a mobile QSO party run!

John/n6mu also reported getting close to another 105 county Sweep. It was fun to follow his progress and of course give him new counties along the way. We all celebrated when he did it with about 30 minutes to go. Congratulations once again, John! That's two years in a row.

We finished the run back in our home county, less than 30 minutes away from Connie/k5cm and Pam/n5kw operating N0U/m, who finished their run at the three-county line close to our farm. We had a great meal and very much enjoyed our visit with them before they headed for home on Monday.

Stats

We operated 16.3 hours, 2084 combined Qs, 539 unique calls, 9 dupes. Lorna ended up with 67 contacts in her log.

Special thanks to the following ops for 10 or (way) more contacts:

67: N6MU - another Kansas Sweep !
39: NT2A
33: WA6KHK
27: W4UCZ
26: K5WAF
22: K4AMC
21: N4UF WA2VYA
20: N8II
18: NS5J VE6BMX YV5OIE
17: VE1WT W7OXB WA8REI
16: N4CD/M N4NX VA3XOV VE3KZ
15: KN4Y WB8FSV
14: N4PN W0PAN WA5TRX
13: K1TKL NT5O OE5KE W2RR W7KQZ
12: DL3GA K4BAI N3KN W7OM
10: AC0BH K4YT KT4SS N2YBB N3KR VA3GKO W6KC

Afterwords

We have lots of people to thank for another successful KSQP. First, I'd like to thank Randy/n0ld who left his mark on the KSQP the past three years with his unique organizational talent. Randy's job moved him to St. Louis, but he got on the phone Saturday evening from St. Louis and rallied the troops when we needed more presence from one of our bonus stations. Thunderstorms on Saturday kept a number of ops off the air, but K0A was easy to find on Sunday!

All our 33 1x1 call operators including a number of multi-op stations deserve a big thank you for lighting up the airways all weekend. They were joined by a number of other Kansas stations and our two bonus stations : the BEARS operating K0A and the Sante Fe Trail ARC operating KS0KS. We had four out-of-state mobiles active : N0U from OK, N0R from TX, W0O from MN, and NU0Q from IA. Thanks Connie/k5cm and Pam/n5kw, Chuck/no5w and Alan/n5na, Jon/w0zq, and Bill/nu0q for visiting our state. Thanks to all the mobiles for burning up gas on the highways and dirt roads, and the fixed stations for putting all 105 Kansas counties on the air. Led by John/n6mu who once again reported a County Sweep, I know we were appreciated beyond the Kansas borders. New this year was our customized spotting network link which allowed a number of you to find that

last letter needed to spell KANSAS or SUNFLOWER and grab a stamp for your certificate. Thanks to Richard/k0rcj for his work on the spotting network, and thanks to Bruce for his help with the stamps.

73, Bob/w0bh/k0s with Lorna/k0why

Nanotech Update

Researchers have learned how to mass produce tiny mechanical devices that could mean the end of dropped calls and slow download speeds on mobile phones.

The tiny filters are designed to ease congestion over the airwaves.

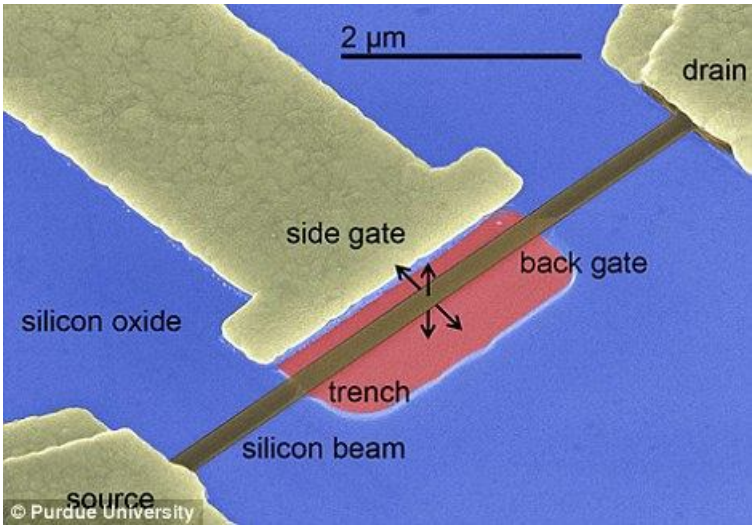
'There is not enough radio spectrum to account for everybody's handheld portable device,' said Jeffrey Rhoads of Purdue University, who led the research

The overcrowding results in dropped calls, busy signals, poor call quality and slower downloads.

To solve the problem, the mobile phone industry is trying to build systems that operate with more sharply defined channels so that more of them can fit within the available bandwidth.

'To do that you need more precise filters for cell phones and other radio devices, systems that reject noise and allow signals only near a given frequency to pass,' said Saeed Mohammadi, who is also working on the project.

The Purdue team has created devices called nanoelectromechanical resonators, which contain a tiny beam of silicon that vibrates when voltage is applied.



The heart of the device is a silicon beam attached at two ends.

The beam, which vibrates in the center like a skipping rope, is about two microns long and 130 nanometers wide, or about 1,000 times thinner than a human hair.

Applying alternating current to the beam causes it to selectively vibrate side-to-side or up and down and also allows the beam to be finely adjusted, or tuned.

The nanoresonators were shown to control their vibration frequencies better than other resonators.

The devices might replace electronic parts to achieve higher performance and lower power consumption

Researchers have shown that the new devices are produced with a nearly 100 percent yield, meaning nearly all of the devices created on silicon wafers were found to function properly.

In addition to their use as future cell phone filters, the nanoresonators also could be used for advanced chemical and biological sensors in medical and homeland-defense applications and possibly as components in computers and electronics.

The devices are created using silicon-on-insulator, or SOI, fabrication—the same method used by industry to manufacture other electronic devices. Because SOI is compatible with complementary metal–oxide–semiconductor technology, or CMOS, another mainstay of electronics manufacturing used to manufacture computer chips, the resonators can be readily integrated into electronic circuits and systems. The resonators are in a class of devices called nanoelectromechanical systems, or NEMS.

The new device is said to be "highly tunable," which means it could enable researchers to overcome manufacturing inconsistencies that are common in nanoscale devices. "Because of

manufacturing differences, no two nanoscale devices perform the same rolling off of the assembly line," Rhoads said. "You must be able to tune them after processing, which we can do with these devices."

The beam vibrates in the center like a jump rope. Applying alternating current to the beam causes it to selectively vibrate side-to-side or up and down and also allows the beam to be finely adjusted, or tuned. The nanoresonators were shown to control their vibration frequencies better than other resonators. The devices might replace electronic parts to achieve higher performance and lower power consumption. "A vivid example is a tunable filter," Mohammadi said. "It is very difficult to make a good tunable filter with transistors, inductors, and other electronic components, but a simple nanomechanical resonator can do the job with much better performance and at a fraction of the power." Not only are they more efficient than their electronic counterparts, he said, but they also are more compact. "Because the devices are tiny and the fabrication has almost a 100 percent yield, we can pack millions of these devices in a small chip if we need to," Mohammadi said. "It's too early to know exactly how these will find application in computing, but since we can make these tiny mechanical devices as easily as transistors, we should be able to mix and match them with each other and also with transistors in order to achieve specific functions. Not only can you put them side-by-side with standard computer and electronic chips, but they tend to work with near 100 percent reliability." The new resonators could provide higher performance than previous MEMS, or microelectromechanical systems.

Source: UK Daily Mail and Phys.org news

September 22 2012 - 100th Year Anniversary

On this date, September 22, in 1912, Edwin Howard Armstrong, an undergraduate student at Columbia University, in his attic lab at his home in Yonkers, NY, invented the regenerative circuit.

This circuit, also known as the Armstrong oscillator, became the building block of modern electronic communications.

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He was issued a patent but ended up spending a large part of his life in court fighting Lee de Forest for the rights. de Forest won the final battle in the Supreme Court many years later although the scientific and engineering community always sided with Armstrong.

Colorado QSO Party

Wow...it started out slow at 7am central time (6am in CO) with nary a station on the air. Then a few fixed stations showed up, and then the mobiles appeared.

Dozens of counties were run on SSB by half a dozen mobiles. Then the cw mobiles appeared and a good portion of the state was put out on CW. It was a good event with most, if not all, of the counties making it on the air. Quite a few counties were activated by portable operations.

From TX, propagation didn't always cooperate, with 20M the 'bread and butter' band, but fading in late afternoon to the closest parts of CO. Then there was a lot of spots but no signals from half of CO as the skip lengthened out. Later, 40M would snag some of the counties. Mobiles kept running to right before quitting time at 9pm CO time so you had a long day of catching CO counties!

Some stations reported working 40 multipliers (CO counties) on SSB and 36 on CW.

From the 3830 reflector:

K0EU mobile with K0MF

K0MF joined me in an adventure through the Rockies of Colorado. We started in Silt Colorado at the QTH of Phil, N0KE at 6AM. We finished in a parking lot north of Denver in Adams county, 16 hours later. Got to see some incredible scenery along the way, and we were pleasantly surprised at how good the propagation could be from down deep in some of the mountain canyons.

Because of the way scoring is calculated for mobiles that cover a bunch of counties, our score will seem really low, but rules are rules. Our goal was to activate a lot of counties, and provide a good balance of CW and SSB QSO's. If we calculate our score as if we were a fixed station, it would be 156,904 points!

VE7CV gets the top QSO award with 24, closely followed by KI0I at 23, and N0KE and W7GKS tied at 22. Thanks also to WA6KHK with 16 and N6MU who worked us 17 times all on CW and from all 13 counties. You guys that rode along with us on our journey made it all the more fun for us.

Only a few glitches.

First, the Toshiba laptop had it's disk drive protection setting on maximum sensitivity, which meant that it would shut down at the slightest of bumps. I have since learned how to change the setting so it won't be a problem for next year. We had a ton of QLF moments due to the computer freezing up on us anytime we were mobile in motion. We finally gave up and used paper logging for about 220 of the QSO's, mostly on SSB.

Secondly, the charge line I had hooked up via the 12V accessory plug in the truck quit working about 3 hours in. Turns out that there was an internal fuse that blew. I didn't know there was a fuse inside the thing, so I gerry rigged a direct line to the 12V RV battery we were using as the power source. That took about 30 minutes of time.

The most exciting time of the trip happened when we were finishing up in Adams county. I closed the door of the truck, and the door somehow sliced through the gerry rigged 12V line. The wire burned to a crisp in a matter of seconds, creating a nice puff of white smoke! I had told Mike that if the wire shorted, it would act as a fuse and burn up...fortunately, I was right. A dumb move on my part...I don't recommend doing what I did, but it was all I could come up with in the heat of the contest.

Other than that, the K-3 worked great, and the two roof mounted with mag mounts MFJ hamsticks for 40 and 20 meters kicked butt. We also made use of a third trailer hitch mounted hustler for 15 meters.

Thanks for all the QSO's. Hope to see you next year, and hopefully the conflict with CW Ops open will be solved by then. There was a noticeable slow down in QSO's during the two four hour CW Ops sessions.

KF0UR - fixed CO

Only a part-time morning and late afternoon effort due to competing events for the weekend. Started out on CW, but found it too much work as there was another CW contest going on at the same time, and folks were confused. Took too much time to explain, in CW, that I didn't need a serial number but did need their name. Went to SSB as a result, and enjoyed my time there.

Found the bands pretty slow, but steady nonetheless, and with propagation in all directions in North America.

N6MU – CA – 104 QSOs

Thanks to the four mobiles for keeping it somewhat interesting. The afternoon/evening was spent just waiting for the mobiles to change counties. Not much other action. Top mobile for me was K0EU with 17 Qs followed by W0HXB(16), W0ETT(13) and W0ZA(8).

N5ZGT portable Conejos 571 SSB QSO

"Activated Conejos (CON) county as a portable station. Spud-gun launched dipole high in the trees, cool temps, and lots of fun. Taking a break from flyfishing the Conejos and Los Pinos rivers for a little contesting...that's living the dream. Band conditions were weird early on, but improved as the day progressed. Worked about 20 Colorado counties. Many thanks to everyone in CO who activated their respective counties,"

K9MWM – portable Gunnison 306 SSB QSO

Just camping near the top of McClure pass in Gunnison County. Dipoles in a spruce tree, IC-735, and a battery. Nice hearing in-state stations and a bit of rag chewing! 73 Bob - K9MWM

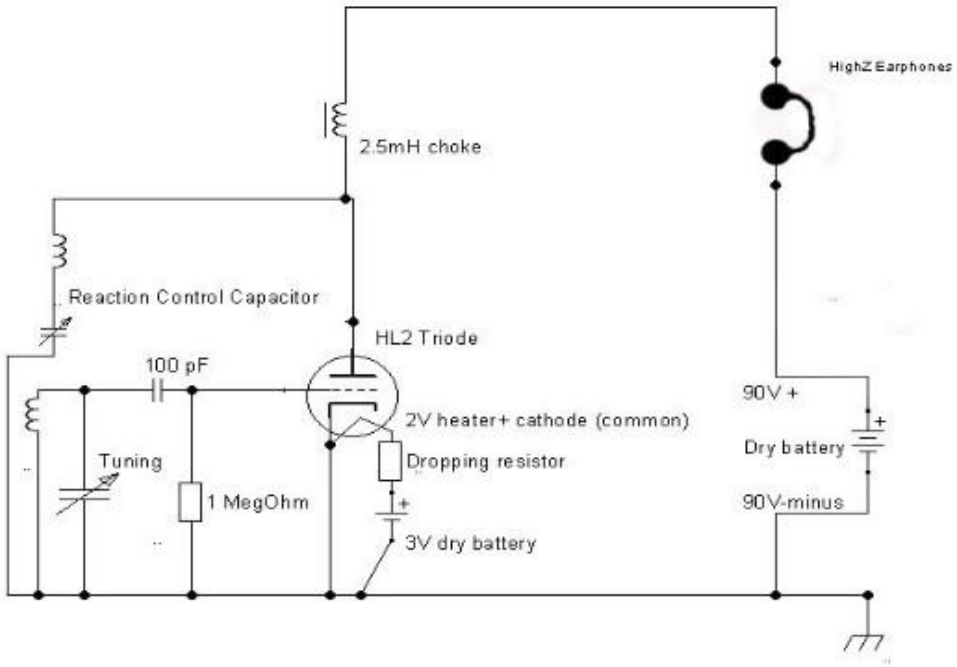
On the Regen Trail

This month on Ebay, an interesting item appeared from an internationally seller. There's an Ebay in the UK, one in Germany, one in Australia – but only some of the sellers are willing to ship to the US. We've mentioned HAC units before – they are kits by H.A.C. In England. (H.A.C. Stood for 'Hear All Continents"). They were a outfit that offered a series of kits for many years – 3 or 4 different models in the back ads of their shortwave listener magazines. It was being sold by a UK seller – postage just to get it to the USA would be $32! It seems

almost none of them was sold to US buyers (between the price and postage it wasn't a deal – you could buy better Knight Kits for less).

This is a one tube set – with paperwork indicating it was sold in 1969 – about the middle of the Knight Kit and Heathkit era. It used a British HL2 tube - which appears to be a 2v filament triode from the way-back days of the 201A (01A) original consumer radio tubes of the 1920s. The schematic looks like a very simple regen set with a main tune and bandspread capacitor and regen capacitor (throttle) and not much more!

The HAC kits used small plug in coils wound on a ferrite or iron bobbin. They plugged into an 8 pin octal socket (Later versions used a 7 or 9 pin miniature tube socket).



Schematic HAC HL2 One Tube set circa 1969

Here's some advertisements from H.A.C. Over the years

http://wftw.nl/hac/hac.html

another web page devoted to HAC receivers

http://vintageradio.me.uk/kits/hac_dx.htm

http://vintageradio.me.uk/kits/hac_k.htm

HAC also offered a transistor based 'shortwave radio' regen set

http://www.mds975.co.uk/Content/hac_instruction_booklet.pdf

This radio sold for $180 (122 British Pounds) on Ebay! Ouch!

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Hendricks Scout Regen Kit

In addition, the latest issue of QST arrived – October 2012. It had a nice review of the QRP kits Scout Regen receiver on page 59 by Steve, WB8IMY. If you get QST, be sure to read the nice article on the solid state simple to build regen kit. This is an N1TEV design – one of the best to build.

Here's the web page on them. You can download the entire manual to peruse.

http://www.qrpkits.com/scoutregen.html

If you get the digital edition of QST, you can also listen to a segment of audio from the receiver in action!

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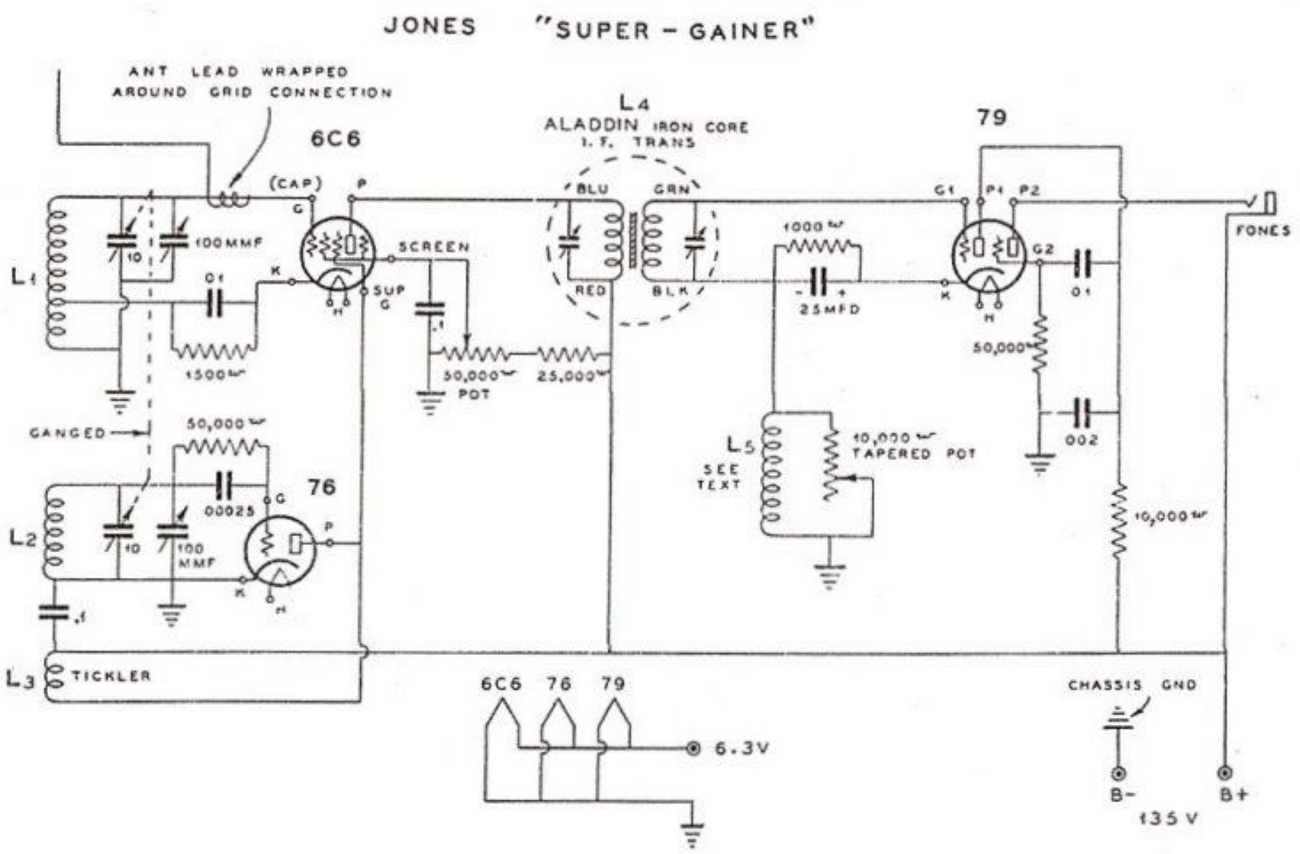
Jones Super Gainer

Also in the new October 2012 QST was a nice article about the Jones Super Gainer circuit employed in a McMurdo Silver radio – if you enjoy old radio technology, be sure to check it out. Page 97 by John Kilks, K2TQN

Here's some additional information on the Super Gainer circuit, which first came out in about 1935. It featured – hold on to your hats – a double regen design.

The circuit uses only 3 vacuum tubes to provide a 'regen-superhet' – sometimes folks call them 'regenerodes' or audodynes. The front end is an electron coupled regenerative mixer – it looks somewhat like a superhet in that you have a 6C6 tube – that is set up as a regenerative stage – and an oscillator tube (type 76) that operates at roughly 460 KHz above the incoming signal. You mix down to an IF of 460 KHz plus or minus. Like a superhet, your main and oscillator tuning are ganged together. It used plug in coils.



The output of the mixer is fed to a single IF transformer. There are no IF amplifiers! The secondary feeds a regenerative detector – in this case, a type 79 pentode tube. It's output is coupled to a single triode audio amp, and then to high impedance headphones.

L5 is a home made RF choke , shunted to control the regen.

In operation, the first stage is run at a point below oscillation (before the 'squeal'of a regen) sets in. This gives you increased gain, and provides the front end selectivity to keep the image frequency out. You don't have to run the gain up most of the time. You want some gain and you want the image frequency rejection. (Modern receivers often have a bandpass filter in front of the first mixer). The image frequency for an IF of 460 KHz would be the other side of the desired frequency. If you were listening to, say, 2500 KHz, you'd have your oscillator running at 2500 plus 460 (2960) , to mix down to the IF frequency. The mixer would also produce a spurious response – at 2960 plus 460, or 3420 KHz. . (and any harmonics of the oscillator would also mix and give you other signals that you didn't want). Your RF front end/mixer has to reject the 2960 plus 460 frequency otherwise you'll hear it just as well as the desired signal.

The second stage provides the 'selectivity to narrow down the receiver response'. Along with an iron core IF transformer (more selective), with the narrower bandwidth of a regen detector, it outperforms most of the 4 and 5 tube simple superhets with much less complexity. In addition, if you go beyond the point of oscillation, you can copy cw.

With the low frequency IF – around 460 Khz, you get very good selectivity in the detector stage.

Here's some pics from a guy who actually built one from scratch recently

http://home.comcast.net/~btse1/vintrad/hb/dr.htm

Here's another interesting regenode. This one uses crystals in the local oscillator – you just tune the antenna tuned circuit of the RF mixer stage.

http://www.qsl.net/w/wd4nka//TEXTS/REGENf~1.HTM

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ARP Kit Regen

You never know what will show up on Ebay. As part of a lot of misc stuff, including 2 Elenco AM radio kits (unbuilt superhets), a Radio Shack nice 40 ch CB radio, and old Radio Shack 60 in 1 experimenter kit, 3 old vidicon tubes...was a 2 tube regenerative radio kit.

The Ebay ad read:

Vacuum Tube & 2 Solid State Radio kits, Breadboard kit, Vidicon tubes, and a CB!

Did you 'see' to a “2 tube regen kit” in the ad? Me neither. I found it with a day to go.....didn't show up in the usual searches for 'regens'. Didn't realize what was being offered till I really looked hard at the pictures.

The tube radio kit consists on about 25 parts including a PC board, the two triode subminiature tubes – 5676s, a parts layout and a schematic diagram. Nothing unusual. You wind the coil for the BC band on a 40MM diameter piece of plastic pipe (not included) – about 1.5 inch diameter. Or maybe a 35MM film can? It looks like it was from about 1985 or so. Simple classic detector with tickler coil followed by one stage of amplification. The filaments are

1.2v – they recommend you run it off a NiCad cell – about 1.25v nominal for those. If you use a 1.5v dry cell or alkaline battery, you'll fry the filaments. Poof!

ARP Electronics in the Netherlands sold the kit according to the paperwork. I found a web site for them but I don't think they are still in the business of selling kits. Someone bought this kit and never built it 25 years ago. B+ is 14-30V so some 9v batteries in series should work fine.

The tube is in the bottom of the picture. It has 4 leads coming out the base.

They note you can put in a 'shortwave coil' but there is no 'bandspread' so it would be near impossible to tune in much without adding one to the circuit.

Well, the price was right.(very reasonable)...You can't give away old CB's. Or untested vidicon tubes. Or Radio Shack 60 in one transistor breadboards from the 1970s. The old vidicon tubes went in the trash, and one of these winter nights when the bands are dead, or days when no mobiles are running, I might get around to putting it together!.....and if anyone wants an Elenco AM radio kit (current model sells for $30 on the web) for $10 ....I'm open for trade!

Hi hi The CB looks like it was never used – still had the original strap around the folded up power cord. Out the only time a county hunter needs a CB radio is if you drive up the haul road to the Second District of AK....then you can talk to the truckers as they whiz by, or let them know you are going to pass them if they are slow going up the hill, etc.

You never know what you will find on Ebay. If you had a novice rig way back when, there is probably one just like yours up for sale on Ebay this week! Regen kits like this unbuilt tube one show up rarely.

Nanotech Update II

Nano-thin sheets of metal can be used to build a tiny high-definition display, according to University of Michigan researchers. They built a 9-micron-high image of their logo to prove it. The pixels in the display are an order of magnitude smaller than those on a typical computer screen. They are roughly eight times smaller than the pixels on the iPhone 4.

The display involves sheets of metal with precisely spaced slits that act as resonators, trapping and transmitting light at different wavelengths. It consists of two metal sheets sandwiching a dialectric (non-conducting) material. This eliminates the multiple polarizers, color filters, chemicals, glass and liquid crystals required to make an LCD, according to Jay Guo, an associate electrical engineering professor at the University of Michigan.

The nano-pixels could be handy for projection displays, tiny displays and wearable, bendy displays, Guo says. They waste less light than an LCD, which could make them energy-efficient to boot.

White light can be rendered into any color in the spectrum simply by changing the space between the slits, Guo says. Red light emanates from slits set 360 nanometers apart, and green from slits about 270 nanometers apart, for instance.

Apparently, its favorite color is Big Blue.

Tennessee QSO Party

It starts after noon – but you had to stay up to 11 pm eastern time to catch the last counties the mobiles were running. Wow...it was nearly 10pm in TX, and new counties were showing up!

Big storms hit part of TN, and some mobile operations were slowed down a bit, but it seems that most of the counties made it on the air if you used SSB and CW.

from the 3830 Contest Reflector:

N2WN mobile

Put a couple counties on that were unaccounted for, the route was HAWK, HANC, CLAI, UNIO, KNOX and GRAI. Conditions seemed a bit punk and depending on which weather report you wanted to buy into it was to be an OK day or horrible. Turns out it was ummm "variable". More later on the Wx.

Checked out 10 and 15 from our perch on the Hawkins side of the line atop rt 131, high but power lines and other obstructions, but it seemed like the best spot. Worked KV8Q, who missed us (my wife Rita tagged along) in GRAI, before the start and W4SK, both gave good signal reports, so I was upbeat. The contest started and it seemed like folks had a tough time hearing me, go figure!

40 was the only band where I could get any action going. 20 was disappointing.

K8MFO was the only station who worked me in all the counties. K4BAI missed KNOX. The best ears on the TN mobile side goes to N5WR, who pulled me through every time I called in (one time was a bit of a fight getting the county exchanged). I had a hard time with most of the TN guys and SSB was a total bust. Considering the conditions, I guess it was to be expected.

OK, the weather was all over the place from breezy Autumn-like to gnarly sweltering July to torrential downpour. HAWK/HANC was breezy and comfortable. CLAI started out cool and breezy then rapidly went to uber windy and we watched the sheet of rain rolling west until we were in the middle of it. The truck bounced around in the wind for a bit, 'twas interesting. The rest of the counties were just sweltering. The spot where I stop in Union has a lot of high tension lines close by and you could tell there was a lot of static in the air by the frequent sporadic clicking of the pole suppressors.

The K3 takes up too much room and is hard to access easily, but then again a Toyota Tacoma is not the optimum mobile contesting platform either.

Missed a lot of the "regulars" but was happy to see some new calls end up in the log.

W4NZ Multi-Op Mobile

That was maximum fun in spite of thunderstorms, rain or solar flares. Mark K0EJ persuaded his daughter Maegan to join our W4NZ/m team as chief navigator. She did a super job of keeping us on the right highway and in the right county.

The mobile setup consisted of a Chevy Astro van with 2 Hustler antennas mounted on the roof-top luggage rack, one forward and one aft. With 2 antenna ports on the Icom Pro III this gave us an instant band change capability. We started with 40/20m antennas and after sundown replaced 20m with 80m. A Dell laptop computer running N1MM Logger software kept track of the QSO's.

We had pouring rain leaving Hamilton County but quickly ran out of it, ran in and out of light rain showers most all day. Band conditions were not that great with constantly changing skip on 20M even though European stations were pretty consistently Q5 all day. 20m was always good for a short high-rate burst and we worked a whole bunch of the Thursday night NS Sprint gang there-thanks!! Things improved later in the day when 40m began to come alive. Pileups were huge at times and we appreciate your patience as we sorted 'em out. 40M again was the money band but there was good rate for short periods on 80M late. We did not include an antenna for 15M this year, sorry we couldn't accommodate the QSY requests. Maybe next time.

In the evening when we were traveling through Rhea, Meigs and Roane county there was quite an impressive cloud-to-cloud lightning display. Fortunately, most of it stayed in the clouds. Our route covered about 485 miles and included 24 counties.

Most QSO'd station was AA3B with 39(!) Q's. Thanks, Bud! Others: NT2A(27), KV8Q(26), VE3KZ(25), K8MFO(25), KN4Y(21), N1EN(21). Most often worked DX was OE5KE.

Thanks to everyone for all the QSO's and making this so much fun.

73 and good contesting from the W4NZ/m team:

Ted W4NZ, Mark K0EJ and Maegan Speck

N5WR Mobile

Since moving to Joplin from Chattanooga this summer I have been quite busy with my new job and haven't had a lot of time for radio. So, when I saw I had the weekend free for the TnQP I started making plans to make a mobile run. I planned out a route in the western half of the state through many counties I haven't been to before.

I added another antenna to my setup as well, a Hi-Q 3/80, installed on the passenger side quarter panel, to go along with my Hi-Q 4/80 which on the drivers side. Both have 102" whips and both are excellent antennas. I also have a ball mount on the hatchback trunk lid which had a 15 meter Hamstick during the day and a 20 meter Hamstick in the evening. This allowed me to switch between 3 bands easily. Once again I used a digital voice recorder to record the contest and generated the log post contest. I tried calling CQ several times on 15 meters but never made a single QSO. Conditions and activity both seemed to be down a bit this year.

I drove down Saturday night and stayed in a Holiday Inn near Memphis, and there was a monster truck convention going on at the hotel, so when I arrived at 1am the parking lot was full of guys with big trucks drinking beer, and they all stared at my little Hyundai with big antennas as I parked between two trucks with tires taller than my car. I slept well despite the big party. The next morning I realized I had forgotten my road atlas, so I went to 4 different gas stations trying to find a map. It seems that nobody sells maps anymore, I suppose because everyone has a GPS. I have my entire route entered into the GPS, each county crossing is plotted out by latitude and longitude, but I still like to have an old fashioned map just in case. Thankfully Wal-Mart still sells maps, and it is a good thing they do because I would end up needing it later in the day.

Started out in Shelby county and headed west for most of the afternoon. The weather was nice with mostly overcast skies and temperatures in the low 80s, there was occasional rain but for the most part I dodged the big storms. 40 meters was open the whole contest and was the most productive band as usual, 20 was open during the day to the west coast, New England, and parts of Canada, but I was never able to get much of a run going on 20. I was cruising along through McNairy county when I realized my GPS was trying to take me the wrong

direction. It occasionally does this when my planned route designed to hit a county line is not necessarily the shortest path.

So I had to stop and get out the road atlas, and when I turned the car around my Winkeyer flew off and hit the console. When I started sending CW again something was wrong. Somehow the paddles were reversed and I was sending dits instead of dahs and vice versa. I remembered the Winkeyer command to reverse paddles, so was able to correct this without too much trouble.

So I started moving working stations again, but was still making lots of CW sending mistakes. I finally figured out that the Keyer was no longer in Iambic mode, which is the mode I prefer. I did not know the Winkeyer command for this. I stopped the car and tried to get on the internet on my phone, but being out in the middle of nowhere there was no internet. I could have just plugged the Key directly into the rig, but I like to have the Keyer to send CQ and TU messages so that I am not sending 100% of everything by hand. I played around with the paddle a bit and got to where I could send reasonably well so decided to just carry on, Iambic mode or not. So I apologize if your call had a Q or a Y in it because those seemed to be the hardest to send and ended up being an O on first attempt several times.

I stopped for gas about half way through the contest in Lewis county, replaced the 15 meter Hamstick with a 20, and moved the Hi-Q 4/80 from 20 to 80, and kept that configuration the rest of the way. When I got to the Maury county line, I discovered a bridge on the Natchez Parkway was completely out being under construction, so once again I had to find a new route. I had to backtrack a bit to make it onward to Hickman and Dickson county. It was pretty smooth sailing for the remainder of the contest as I headed north then back east towards the northwest corner of the state, with 100+ rates the last 4 hours, culminating with a 142 hour the final hour of the contest, when 40 and 80 were both very productive and the pileups were pretty good on 40. Was able to hit all of my planned counties except for Maury.

Thanks for all the QSOs and hope to see everyone in the next contest, not sure which one for me but maybe Sweepstakes in November.

Most QSOs: AA3B (36), K8MFO (29), KV8Q (28), VE3KZ (23), NT2A (22), N4GG (20), K4BAI (18), K5WE (18), W1END (17)

N6ZFO CA 70 QSO

“Got a kick out of working the counties "LOUD" once and "WEAK" twice. The latter

pretty well described the contest from CA. . most signals were near ESP.

Activity was low on 15m, which was open much of the day. I moved 3 stns from 20 to 15 and worked all three plus N4VV who was CQ'ing on his own. The band mults was a good idea. Other state QSO parties might want to consider.

In the last hour 80 meters had better conditions than 40. Tried 160 in the last five minutes, but nothing heard.

Appreciate the superb effort of the various mobiles, especially W4NZ (11 Q's), N5WR (10 Q's) and NY4N (7 Q's). Each time I heard W4NZ it seemed as if his rate was around 200 or more."

K8MFO OH 146 CW

"What a nice way to take frequent breaks from a CHORE DAY. Finished closing down a swimming pool, changed oil on a tractor, entertained a visitor, and cooked dinner, all while trying not to miss any mobiles.

Speaking of mobiles, each and every one did a super job. Great signals and first rate operating. Mobile QSOs as follows N5WR - 30, W4NZ - 25, NY4N - 17, W4OQG - 6, N2WN - 6, W4QO - 5, and W6UB -2. Great fun to listen to the pileups as they came into a new county.

Score includes 200 bonus points for working K4TCG"

VE1RGB

I have complained about this before but I see that the State of TN has done nothing about it: there are simply too many counties in Tennessee to make a sweep even a remote possibility from up here. I'd like to see a number of TN counties consolidated for the benefit of amateur radio contesters. I mean, in all of Canada there can't be many more than 95 counties, right? It's very discouraging at the end of a contest to find that I have left 485 HF mults on the table, all from one single State.

KN4Y – FL

This was a single band 40-meter CW QSO party until late when 80-meters opened. I heard no TN signals on the other bands. The CW mobiles were moving through the

counties like a hot knife on bacon.

My intercom blared, THERE IS A RATTLESNAKE ON THE BACK PORCH LOOKING AT THE CAT. Now with three mobile soon to enter a new county I had to make a serious choice. Who said working QSO parties is easy. Anyhow I dispatched the snake to a new location. How many counties did I miss I may never know. The signals were great and the CW beautiful.I set a goal but with all the excitement I forgot what it was. I shut off the rig had a brandy and slept like ten meters.

KV8Q - OH 154 CW

Another fun time in the TN QP. Conditions were good. I heard lots of TN stations on 20 meters but only heard 6 heard me. 160 had great conditions into TN but very few TN stations up there. I did manage to move for folks over there. 80 was a bit noisy but, overall, conditions were as good as can be expected. Once again, the mobiles provided the excitement. It was a ton of fun chasing them around all day. Hope that they didn't mind too much. Here are the totals from them (QSO"s/Counties):

N5WR 28/24
W4NZ 26/24
NY4N 18/16
W4OQG 6/6
N2WN 5/5
W4QO 5/5
W6UB 3/3

I found 75 of the 95 counties.

W0BH KS

Like last year, I knew this would be a part-time effort, but I still couldn't resist chasing the mobiles around the state. This year, W4NZ/m wins the consistently loudest mobile into Kansas award :

Great job, all! Between all of them, I worked 52 separate counties in 3.5 hours, so the coverage was good. For most of the day, I had both 20 and 40 open to TN, so full time would have been fun. My computer shows 39 unique calls.

NS2X – TN

Forecast Tornado Watches canceled the mobile operation.. actual storms shut the fixed operation down early. Greg NS2X

Occupy Unmasked – Movie to See

Andrew Breitbart's Occupy Unmasked, directed and written by Stephen K. Bannon and produced by Citizens United, opens today. It was a labor of love for Andrew, who appears throughout the film, acting as its narrator. Taking down the Occupy movement was Andrew's last true passion project. And the film shows it.

Just two weeks before his tragic death, Andrew took a few moments out from the Conservative Political Action Conference to confront the Occupy protesters staking out the event. "Stop raping people!" he shouted at them. "You filthy, filthy, filthy raping, murdering freaks!"

He wasn't kidding. As *Occupy Unmasked* shows, the top-down coordination of the Occupy Wall Street movement relied on a leftist leadership willing to mold a conglomeration of the naïve and the criminal into a potent political force. *Occupy Unmasked* features Andrew delving into the roots of the Occupy movement, and uncovering the coordination between the Obama administration, its allies in the media, and Occupy.

And more than anything else, *Occupy Unmasked* shows what the Occupy movement was and is, in all of its true horror. And it deserves horror. It morphed from a ridiculous camp-out movement into a dangerous political force, wielded by the Obama administration and the media as the counter-Tea Party, even as it smashed windows, burned property, and assaulted police.

Andrew saw *Occupy Unmasked* as his magnum opus on Occupy. He cared about it deeply. It is thanks to Andrew, in large part, that the Occupy movement seems to have fallen into disrepair. But it will be back, because wherever the left has the opportunity to build an army of disaffected anti-capitalists, it will. And that's precisely what the Obama administration and its ideological allies still seek to do.

Note de N4CD: The Movie was showing in the Dallas area in one theater for a week. Not widely distributed – yet.

Or you can buy a DVD of it from Amazon.com

Some Things From Ebay

There were some interesting 'goodies' showing up on Ebay this month. Didn't take any multi-week trips so had time to surf the net a bit. Here's a few of them that I spied in my usual areas of interest:

Gilbert Tele-Set

This is a 1922 toy telegraph set. You may have seen many of the ones from the 40s and 50s

that are common. This is the first of this one from such an early era that I have spied.

This is what the individual units look like inside the box

You hook the two up with the piece of wire in the box. Not sure what it uses for a battery – usually a 1.5v flashlight sell battery. The Gilbert ones are rather rare, going back to the 20s, but there were many made in the 40s and 50s and those are worth maybe $10.

Here's a Boy Scout Radio I don't recall seeing on Ebay

Boy Scout 'Explorer' Shortwave Set

It's being sold with no parts to build it, but an instruction sheet. All the parts have vanished. What you get is the box and the plastic case to assemble it. Missing – variable capacitors, resistors, capacitors, brackets, knobs, screws, terminals, jacks, battery connections, and who knows if it used a tube or two or transistors? Hmmmm? A real 'pig in a poke' with the pig missing. (If you ever spy one assembled or kit – call N4CD pronto!).

Here's a web page on what may have been inside

http://vintageradio.me.uk/kits/explorer.htm

(N4CD is still on the trail of regens -).....

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Below what appears to be a one tube (plus rectifier) regen 'homebrew' set built in the late 1920s or early 30s. It's built in a cigar box. The only way one might conclude that this is a regen (two type 37 triode tubes) is by the coil which has 3 windings. For some reason, the builder decided he had to have a light bulb socket on top of the cigar box. Dunno why. I doubt it would work very well as the rectifier hum from the rectifier tube would likely be immediately coupled into the regen detector tube. This is a five buck or less item at a hamfest. The seller was asking for starting bid of $40, plus $18 shipping – hee hee

The type 37 tube had a 6.3v a/c filament – so it either used a 'line resistance cord' (3 wire cord with one of them being a nichrome wire with 330 plus ohms of resistance to drop the 110v

down to 12v for the two tubes in series) or some other unknown way. On the front it had one pot and jacks for headphones. Those resistance line cords are things you don't want to use today – dissipate about 15w, and the insulation is likely 'toast' plus it contained asbestos. (Don't let the EPA know if you cut it off and throw it away, and put a standard 25w resistor someplace else to drop the line voltage or use a small power transformer – hazardous 'waste' if they got wind of it!). Hi hi.

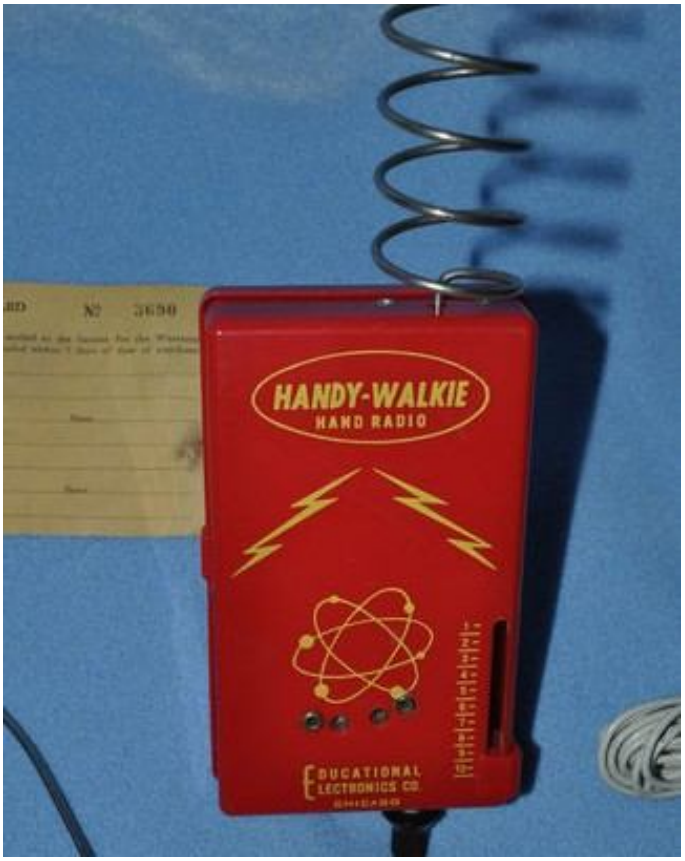
The way you can 'guess' this is a regen is the 3 windings on the coil. One for the main tuning. One for the feedback winding, and one for the antenna to couple it into the circuit. The headphones would be hot – plate voltage to ground. With the rectifier tube right next to the detector – it likely had hum so bad you couldn't listen to it. (looks like a modern electrolytic in the pic).

Cigar Box One Tube Regen

But why would anyone put a light socket on top of a green painted cigar box when it would likely fall over at the slightest touch or breeze? Needless to say, buyers didn't rush to buy it at $40 plus $20 in shipping! Someone bought it! Wow...amazing.....maybe he liked the cigar

box?

Here's another 'way back' goodie from the late 50s or early 60s. A one tube (3A5) radio – offered on Ebay. Uses a 1.5v and 30v battery. "Hand held"



It came with an 18 inch 'spiral antenna, used an 'iron core' inductor for tuning, and had a knob on the bottom to control the gain of something. A 3A5 was a dual triode. It was made by Educational Electronics Corp of Chicago. The instruction sheet says 'this is a regenerative receiver using a twin diode tube'. (obviously the marketing folks aren't up on their tubes). It comes with a single high impedance earphone and a hank of wire for an antenna that would actually get some signals you could hear! Size – 3 1/2 by 6 by 1.5 in thick. A 'portable' earphone radio of the 50s design was included. Plastic case. Seller started the bidding at $60. Ouch.

Reality check....this radio was made before half the people on the planet were born!..actually...what is it? Half the people on the planet were born after 1984 now?

Phase Change Memory

AS EVERY parent knows, a tidy bedroom is very different from a messy one. The number of items in the room may be exactly the same, but the difference between orderly and disorderly arrangements is immediately apparent. Now imagine a house with millions of rooms, each of which is either tidy or messy. A robot in the house can inspect each room to see which state it is in. It can also turn a tidy room into a messy one (by throwing things on the floor at random) and a messy room into a tidy one (by tidying it up). This, in essence, is how a new class of memory chip works. It is called “phase-change memory” and, like the flash memory that provides storage in mobile phones, cameras and some laptops, it can retain information even when the power is switched off. But it promises to be smaller and faster than flash, and will probably be storing your photos, music and messages within a few years.

The technology relies, as its name suggests, on special substances called phase-change materials (PCMs). These are materials, such as salt hydrates, that are capable of storing and releasing large amounts of energy when they move from a solid to a liquid state and back again. Traditionally they have been used in cooling systems and, more recently, in solar-thermal power stations, where they store heat during the day that can be released to generate power at night. But for memory devices it is not their thermal properties that make PCMs so attractive. Instead it is their ability to switch from a disorderly (or amorphous) state to an orderly (or crystalline) one very quickly. PCM memory chips rely on glass-like materials called chalcogenides, typically made of a mixture of germanium, antimony and tellurium.

Each cell in the memory chip consists of a region of chalcogenide sandwiched between two electrodes (see diagram). The bottom electrode is a resistor that heats up when a current passes through it. Delivering a gentle pulse of electrical energy to the cell turns on this tiny heater and causes the chalcogenide to melt. As it cools it forms an orderly, crystalline structure. This state corresponds to the memory cell storing a “1”. Applying a shorter, stronger pulse of energy to the cell melts the chalcogenide but does not allow crystals to form as it cools. Instead, the region of the material above the bottom electrode assumes a disorderly, amorphous state, corresponding to the cell storing a “0”. The amorphous state has a higher electrical resistance than the crystalline state, allowing the value stored in the cell to be determined. (For this reason PCM memory is sometimes called “resistive memory”, and its individual cells are sometimes referred to as “memristors”.)

You may already be relying on chalcogenides to store data without realising it, because they are used in re-writeable optical storage, such as CD-RW and DVD-RW discs. Bursts of energy from a laser put tiny regions of the material into amorphous or crystalline states to store information. The amorphous state reflects light less effectively than the crystalline state,

allowing the data to be read back again. The technology has, in other words, already proved that it can work. Now companies like Micron Technology, Samsung and SK Hynix—the three giants of digital storage—are applying it inside memory chips. The technology has worked well in the laboratory for some time, and has been used in a handful of specialist applications since 2007. But it is moving towards the mainstream consumer market. Micron started selling its first PCM-based memory chips for mobile phones in July, offering 512-megabit and one-gigabit storage capacity.

PCM memory chips have several advantages over flash memory, which works by trapping electrons in an enclosure called a "floating gate", built on top of a modified form of transistor. The value stored in each cell is 1 or 0, depending on whether the enclosure is full or empty. But writing to individual flash-memory cells involves erasing an entire region of neighboring cells first. This is not necessary with PCM memory, which makes it much faster, says Paolo Giuseppe Cappelletti, who is in charge of Micron's PCM memory project at Agrate Brianza in Italy. Indeed, some prototype PCM memory devices can store and retrieve data 100 times faster than flash memory, says Evangelos Eleftheriou, head of storage technologies at IBM's Zurich Research Laboratory in Switzerland.

Another benefit of PCM memory is that it is extremely durable, capable of being written and rewritten at least 10m times. Flash memory, by contrast, wears out after a few thousand rewrite cycles, because of the high voltages that are required to shepherd electrons in and out of the floating-gate enclosure. Accordingly, flash memory needs special controllers to keep track of which parts of the chip have become unreliable, so they can be avoided. This increases the cost and complexity of flash, and slows it down.

"As well as dethroning flash, phase-change memory could lead to a radical shift in computer design."

In addition, PCM offers greater potential for future miniaturization than flash. As flash-memory cells get smaller and devices become denser, the number of electrons held in the floating gate decreases. Last year a group led by Eric Pop at the University of Illinois, Urbana-Champaign, demonstrated how a prototype PCM memory cell could be made that was just 10 nanometres across, bridging a gap between two carbon-nanotube electrodes.

IBM is now working with SK Hynix to bring multi-level PCM-based memory chips to market. The aim is to create a form of memory capable of bridging the gap between flash, which is used for storage, and dynamic random-access memory, which computers use as short-term working memory, but which loses its contents when switched off. PCM memory, which IBM hopes will be on sale by 2016, would be able to serve simultaneously as storage and working memory—a new category it calls "storage-class memory".

This in turn could open the door to new computer architectures in which information does not have to be shuffled from relatively slow storage devices to much faster working memory. Such architectures would be capable of crunching huge amounts of information, such as the data that will be gathered by the Square Kilometre Array telescope, far more efficiently than existing machines, says Dr Eleftheriou. PCM memory does not merely threaten to dethrone flash, in short. It could also lead to a radical shift in computer design—a phase change on a much larger

scale.

Source: Economist Sept 2012

MARAC USQP Results from Norm, W3DYA

2012 MARAC QSO PARTY Results---SSB - .DOC

MOBILE CATEGORY---SSB

		STATE	TOTAL	QSO	(MULT)	TOTAL
CALL	CTYS	(TOT)	QSO'S	PTS	CTYS	SCORE
N8HAM	7	MI	58	148	31	4,588
COUNTIES	7					

FIXED CATEGORY---SSB

			TOTAL	QSO	(MULT)	TOTAL
CALL	CTYS	State	QSO'S	PTS	CTYS	SCORE
W9KB	1	FL	47	705	22	23,265
NT2A	1	NY	371	3,469	301	17,952
WY4Y	1	GA	65	129	60	7,740
K5XY	1	NM	8	68	7	476
KC2WUF	1	NJ	1	1	1	1
Counties	5					

DX CATEGORY---SSB

CALL	Country	PTS	Multipliers	SCORE
VE5KS	CANADA	20	5	75

The Above table is is for SSB

Below is CW results

MOBILE CATEGORY

		STATE	TOTAL	QSO	(MULT)	TOTAL
CALL	CTYS	(TOT)	QSOs	PTS	CTYS	SCORE
W9MSE	43	TOT	982	4,368	241	1,052,688
W0GXQ	30	TOT	888	3,662	218	798,316
W3DYA	36	TX	585	2,953	191	564,023
W9MSE	26	OH	624	2,558	163	416,954
NU0Q	27	IA	494	2,228	167	372,076
KN4Y	27	TOT	552	2,068	155	320,540
K7TM	8	ID	291	1919	132	258,795
KN4Y	21	GA	416	1,594	127	202,438
W9MSE	15	WV	317	1,587	118	187,266
W0GXQ	13	SD	397	1,613	115	185,495
N5NA	15	TX	311	1,219	115	139,725
WB2ABD	5	TOT	100	676	64	43,264
W0GXQ	7	NE	212	826	95	68,121
WC5D	12	TOT	212	884	72	63,648
AB7RW	10	TOT	98	830	73	60,590
W0GXQ	5	CO	134	600	65	39,000
AB7RW	6	CA	68	558	52	29,016
W0GXQ	4	MN	118	510	55	28,050
KC5M	8	OK	163	391	71	27,761
KN4Y	6	FL	136	474	58	27,492
WC5D	5	WI	110	610	45	27,450
AD8J	5	NC	101	417	59	24,603
K4ZGB	5	AL	100	278	57	15,846
WB2ABD	3	NY	54	384	35	13,440
WB2ABD	2	PA	46	292	38	11,096
WC5D	4	TX	80	264	32	8,448
AB7RW	4	OR	30	272	28	7,616
W9MSE	2	PA	195	223	32	7,136
NT7R	2	MT	50	204	34	6,936
KC7YE	6	WA	57	205	33	6,765
KG4VBK	3	TN	45	109	31	3,379
WC5D	3	OK	39	129	17	2,193
W0GXQ	1	ND	26	98	22	2,156
COUNTIES	369					

The total of counties activated is actually 265 CW and 12 SSB = 277.

SOAPBOX: 2012 MARAC U. S. Counties QSO Party

Ed (KN4Y)--I noticed on the county hunter's forum activity by the Texas Dude Norm, W3DYA, is promoting the MARAC QSO Party. I mark my calendar. Saturday rolls around and my driver, who is QSO party savvy, and I head out into Georgia for some CW operations. I ran 20 counties and made 412 QSO's with a126 multiplier. The only band I heard signals was on 20-meters. I tried 15 and 40-meters but no reply to my CQ's. Sunday I bowled in the Team event at the FSU Sport bowling tournament and afterwards the wife and I headed to Franklin County. I stop and run the county as my wife no longer drives. I had two requests, run Franklin and Calhoun counties. After the Franklin County run I drove quickly to Calhoun County, taking the back road out of Carrabelle. I ran 6 counties on Sunday making 134 QSO's and a 58 multiplier. We encountered a massive electrical storm activity the last hour, curtailing some operating. Later we found out we were within a mile of a tornado touch down. I worked the mobiles AB7RW, K7TM, N5NA, NU0Q, W0GXQ, W3DYA, W900 and WC5D. See you next

year. After the QSO party was over I realized my IF shift was turned to the right, I wondered why the signals sounded so weird.

Van (WC5D)--What Fun in the contest! Nice to be back, on mobile, after being off for a few years. Some new equipment was placed into full operation during the contest. This new equipment includes all the necessary items to convert a rental car or van for mobile ops. Everything fits into one piece of carry-on luggage that fits into an airliner overhead bin. Such was the case as operating mobile, after work, on Saturday from WI then flying home to TX and operating from my new mobile in nearby ctys. See pix of mobile(s) on qrz.com. CU in ’13.

Clint (WY4Y)-- TNX FOR ALL THE FUN 73 CLINT

Mike (NT7R)-- I only had about 1 hour 20 minutes to participate this year due to work but I had a great time. Next year I hope to get up to northeastern Montana for some of the more rare counties. I actually had 3 more contacts than I submitted but my logger would not accept the county abbreviation. Two were from TX and one was from OH. Hopefully N1MM logger will be updated before next year's contest.

Jim (KC0NYK)--We opened the station for your contest with high hopes, to be pretty well crushed by a couple of your "big gun" operators. The following are log entry excerpts which we are forwarding as these were courteous operators, who were seemingly appreciative of being able to get Elk County, KS. The consensus of the operators who worked the OSO Party was that there is more courtesy in a dog fight than in working your group, and we will likely never support County Hunters in the future. The stations logged were as follow: K0RCJ, AB7NK, WD4KZW, N3CJJ, N5MLB, KD6AWD, W7PFZ

At any rate, there were a few decent operators we encountered... interestingly, we would have logged 25 more contacts had not the loud mouth in MO not kept telling us to get off the air. I have already sent a notice to FCC with his call sign for his efforts.

Ted (K1BV)--Saturday was mildly OK, but the bands seem to have crashed on Sunday. Each QSO was a struggle, even though I was using a small amp.

Bill (N0AC)--Make sure to include KB0JSH as the other multi op.

John (AF4RK)-- All contacts were CW. I only worked a handful so use it as a check log. Not interested in an award by any means! Just keeping my CW skills sharp.

Bill (NU0Q)--Thanks to all who followed me around Iowa. Like most of the country, we're in a drought here, and the corn looks pretty bad. But it managed to rain most of the afternoon on Saturday, and the lightning and static on the antenna made things tough at times. Sunday was a beautiful day although still quite hot, and the short propagation allowed me to work W0GXQ in several South Dakota counties. I did not have a driver, so I stopped to run each county and

worked a few other mobiles while driving. I tried 40 meters early in the contest, but had no luck, so I stayed on 20 meters. I had computer problems twice, each time requiring me to reinstall the driver for my keyer. And somehow I never managed to stop and run Polk or Warren counties. Of the 25 counties that I did run, NT2A worked me in all but one! And it's always a thrill to get a call from DX stations when I'm mobile. I hope everyone got some counties that they needed.

Phil (AB7RW)--I spent a lot of time sending to myself. Apparently no one could hear me. I called two other west coast operators and they said conditions were terrible and they turned their radios off. The QSB was quite severe. I may be logged in other logs that I was not sure if the contact was completed.

Bob (KW3F)--Hardly heard anything on 20M for the short time I was on. Wish more 40M activity East of the Mississippi River. Surprised I was heard with poor conditions and compromised antenna. Fun! Hope for more time and activity next year. 73!

Dave (W4YDY)-- Primarily looking for new counties for the 6th time so got 41 counties with no repeats. Was also working some mobiles that were not in the contest on SSB in the CHN nets but didn't count them. Maybe next year will have more time.

Hank (W6SX)--I am very disappointed. Two ten hour sessions: 0700 to 1700 pacific time. You have essentially made your event a twenty-fifteen meter contest for west-coast stations while east-coast stations get to play on eighty and forty. Please come up with a better time scheme. Until you do, I will (be forced to) limit my participation, and I will not submit my logs.

Ed (W7GVE)--I sure enjoyed the MARAC contest! I hadn't planned on it, but when I heard all those signals I had to jump in! I was on 20M CW the entire time with the exception of one 15M contact. Noise level was very bad at times. I ran a Yaesu FT-450 at 75 watts to an OCF Dipole configured as an inverted V at 35 feet. Great tuneup for the TXQP. Hope to See you there!

Jerry (W0GXQ)--The QSO Party definitely helped pass the time on my trip from Colorado to Minnesota. I activated thirty counties during fifteen hours of operation. This year over 98% of my contacts were on 20M, as calls on 40 and 15M were rarely answered. the last time I had a driver was in 2002 when Mike, WU3H, drove for me in KS and OK. I'm getting too old for this :>).

Jeff (W9MSE)--Had a great time, slow at times, but fun. I never thought I would make a million points in the twenty-hour format, but squeaked through for the seventeenth-year in a row. Thanks, Norm, and all.

Jack (KC7YE)--Really screwed (up) this time, misread time as continuous from 1400Z Saturday to 2400Z Sunday. Oops: Didn't go to Grays Harbor, Mason, Jefferson, Clallam, or Kitsap. As retired school teacher, XYL sez, "Read the (censored) question!" Sorry and had the

40M antenna tuned up good!

Ed (W2CVW)--Not much of a showing, but I showed up! Poor conditions here plus diversion to CY9M and other DX.

Paul (K1TKL)--Fun! I faded on Sunday. I couldn't keep up with the mobiles. 73.

Clint (NS3Q as WY4Y)--Thanks, everyone, for a chance to work new counties!

Norm (W3DYA) -- Although I wasn't looking forward to the paperwork, it was no big deal. And handling the cabrillo logs was entertaining! Some submitted scores agreed with my cabrillo scoring program, but I started out planning to use my scores which were easy to verify manually. However, since scores were close and wouldn't affect the results, I decided to accept the submitted scores. A couple of exceptions were county-line calculations and counting a mobile contact only once per call instead of all mobile QSOs. I'm going to modify the summary sheet! The results should appear on the MARAC and CountyHunters websites and in the County Hunters Monthly news shortly.

Arkansas QSO Party

Three good mobiles made this interesting. From my QTH in TX, where it is only 150 air miles to the border of AR, I watched for the first hour as the skip went right over AR on 40M. I didn't hear a peep all day on 20M – barely heard anyone calling them there and certainly didn't hear a single mobile or AR station. However, they stayed on 20M for 8 or 10 minutes most of the day so someone had to be there!.. hi hi Then the ski shortened up and it was chasing the 3 mobiles around the state all day on 40M.

Connie, K5CM from OK, and W3DYA, Norm, and the N5NA team from TX made it interesting. Didn't hear any AR mobiles this year. If you needed something in the south half of AR, you were probably in luck as nearly all of it was put out in the contest. For the northern half, hardly anything – but the northern half is a lot of mountainous country – slow driving and twisty roads where you don't make time.

From the 3830 reflector:

K5CM Mobile

Condx were fair and Pam and I had fun giving out Q's from 15 counties.
Pam did most of the driving but did stop and operate from a couple of counties with her call.

Some stations worked the most:
NT2A - 22
KN4Y - 18
N6MU, ND3R, YV5OIE - 14
K5LH, N4JT, W4IHI, WA6KHK - 13
K5WAF, N4CD - 12
KE8M, W8CAG - 11
KC0DEB, VE3KP - 10
N4UF, N5XG - 9
K1TKL, K8NYG, K8QWY - 8
N3RJ, W0GXY, K5GE - 7
PA3ARM -6
K0PVW, K4YFH, K4YTM/M, N3KR, N9STL, VE7CV, W3DLM, WB2ABD - 6

N5NA Mobile

As always a big thanks to my wife, K5AKS, for putting in a long day driving around SE Arkansas!

While conditions seemed up and down I made more contacts this year than the last two years. Mid-afternoon propagation to the west disappeared for a while. 20m was short working into TX and AL. I tried 15m frequently at the request of N6MU. We made it several times and I was able to work several other stations as well.

I moved to 80m at 0107 while in Ouachita and called an AR station CQing. He didn't hear me so I tuned up the band a few KHz and found K5ME calling me! Worked a couple of more stations on 80m and called it a day. My brain was fried and I was ready for dinner!

Thanks to the following stations for contributing more than half the QSOs:
NT2A(30), KN4Y(28), N4UF(26), W4IHI(24), N6MU(24), YV5OIE(22), K8QWY(22), N4CD(21), W1END(21), WA6KHK(21), K5WAF(20), N5XG(19), ND3R(18), WB0PYF(16), K5LH(16), KC0DEB(15), W0GXQ(14), KE8M(14), KB3AAG(14), K4YT(14), K4XI(14), N3RJ(13), KI0I(11), VE3KP(10), and K4YFH(10).

Equipment: Elecraft K3, Scorpion SA-680, Dell Inspiron 2200, CQ/X software, Chevrolet C2500.

Thanks to everyone who called and kept calling. I appreciate your patience while I try to work the pileup when I enter a new county. It's interesting which stations can always distinguish themselves in the pile.

K5LH (TX)

Started 5 hours late. Condx 'ousy. Deep QSB even on 40 meters. Absolutely nothing on higher bands. Complete chaos when NA Sprint started.

Thanks to the mobiles: N5NA, K5CM, N5KW, W3DYA.

KN4Y (FL)

Great CW mobile runs, made CW contacts on 5 bands, very exciting. Made CW contacts with fixed station which doubled the fun. Great signals. The NA sprint started and I could not hear the mobiles the last 2 hours.

N6MU – CA

70% of my Qs were
with the three mobiles. Top mobile for me was N5NA with 23 Qs followed by K5CM(13) and W3DYA(11). Lost lots of mults due to a propagation null from roughly 18-21Z where all three disappeared from 20 meters. Of course the NA Sprint pretty much wiped out CW the last two hours. Oh well.

Peak Oil Update I

Dr. M King Hubbert famously predicted peak conventional oil. Supporters point to Hubbert's correct predictions as a source of doom prophecy. Detractors misrepresent Hubbert and point to the unconventional shale oil revolution. Both sides ignore economics and price.

The U.S and world conventional oil production predictions of Hubbert were largely correct. U.S. production peaked in 1970 and world conventional production peaked in 2006, a date later than planned because of political, rather than geological, reasons. Last decade when the oil price was marching higher the peak oil enthusiasts could be heard screaming loudly.

Meanwhile, technology advanced. In 1956 Hubbert could not have known large offshore oil fields would be discovered and developed in places such as the North Sea. These fields are drilled by multi-hundred million dollar drill ships from a mile or more above the ocean floor. Yet today's North Sea oil production is in terminal and inexorable decline.

The unconventional U.S. shale boom is underestimated by all but the most strident bulls. Horizontal drilling was first applied to natural gas by pioneers such as Devon (DVN) and Chesapeake (CHK). Soon the E&P industry advanced the technology enough and applied it to crude oil (USO).

Leonardo Maugeri's recent energy project spoke of an unprecedented worldwide upsurge of oil production. The report was a farce with ridiculous decline rate assumptions. The oil and gas treadmill runs ever increasingly fast.

Price seems to be the forgotten important factor. All new oil production requires a high price to be developed economically. Bear calls for $65 oil ignore drilling capex budgets would be slashed at such a level and production fall. Oil bulls calling for ever high prices do not grasp the outstanding cash flows producers would be reinvesting to increase production.

Oil production appears to be on an undulating plateau, the shape of which will be determined by price. With higher prices oil production would gently increase as demand is choked. Lower prices will quickly crush producer cash flows given today's very high cost of marginal production. The catalyst for the shale revolution was a new much higher price deck.

EOG Resources (EOG) CEO Mark Papa said it well on a recent conference call:

"Two recent concerns I've heard from oil bears involve horizontal shale oil. One concern is will the U.S. create enough shale oil to affect global supply. EOG's forecast is an increase in the U.S. of 2 million barrels of oil per day by 2015, which, we believe, will not impact a 90 million barrel of oil a day global market...

The second concern relates to possible international horizontal oil shale plays and their potential impact on supply. My answer there is maybe it will happen, but it's not likely for another 10 years at least."

Horizontal drilling outside of North America will not arrive in meaningful scale this decade. Without mineral property rights privately owned, no other nation has the mature and developed

oil services industry necessary to replicate the boom. Imagine trying to source sand in Poland to frack in France!

The world has the ability meaningfully grow hydrocarbon production through natural gas and coal production, but not crude oil.

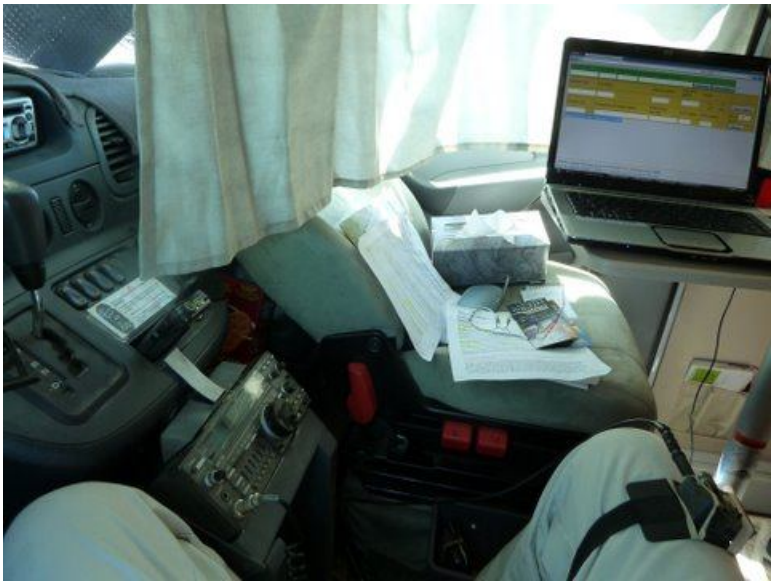
Pictures from K2HVN, Bill

Bill, K2HVN, has been on an extended trip out west for the past two months. He sent along a few pictures to share with the County Hunters

Here's the K2HVN Motor Home:

K2HVN On the Road

K2HVN, Bill



K2HVN – key strapped on leg and operating position

At the San Juan/Ouray County Line – nice parking area – rotten radio location – notice big hills going east. (de N4CD: better spot is 2-3 miles further down the road where you can get further back from the hill to the west – even though it is lower in elevation – better yet at the south end of the county at Coal Bank rest area)

K2HVN – San Juan County, CO

From the north, you get here after a big climb up the mountains to the Red Mountain Pass at 11,018 feet. It's an 8 percent grade with dozens of swtichbacks climbing from Ouray to the north. It's really treacherous at times in the winter.

It's named after nearby Red Mountain and the red oxide (iron ore) that are in the soil. (which makes getting a radio signal out of that location very challenging!).

If you continue south, you wind up in Silverton shortly – it's at 9200 feet elevation and the north end of the Silverton/Durango narrow gauge railroad. In the winter time, there are still a few residents in Silverton – and they dig tunnels from their house out to the streets – as the town gets 20-30-40 feet of snow each winter. They also burn a lot of wood to keep warm with the nightly plunging temps. Even in the summer time in June and July it can be freezing overnight as the temp often drops 50 degrees from daytime highs. Nice to visit there in the summer time, or if you are a dedicated skier looking for adventure.

Going further south, you go over two passes – Molas pass at 10900 and Coal Bank at 10,600 feet. Then it is all downhill to Durango at 7000 feet for the next 20 miles.

Peak Oil Update II

High oil prices have been generally considered a good thing for the largest oil producers. But as the world economy struggles to keep up with runaway prices, there are signs this cash cow may have been milked to the point of denting demand.

Professor Paul Stevens, senior research fellow in the energy, environment and development program at Chatham House, sums up the dilemma facing the Organization of Petroleum Exporting Countries: “OPEC needs the golden eggs, but it needs them at a rate that may well kill the goose.”

High prices are posing twin threats to OPEC’s traditional dominance. In the short term, speculation is rife over a possible release of emergency stockpiles of oil as prices remain stubbornly high. Officials intend such action as an emergency measure in times of supply disruption, but the rising price of oil has become a concern for many governments, particularly in the U.S., where the issue has added political sensitivity ahead of a presidential election.

The International Energy Agency has pushed back against calls for a stockpile release, with the group’s executive director, Maria van der Hoeven, emphasizing that the oil market is reasonably well supplied. Additional comments by Ms. van der Hoeven explaining that individual member states could act individually to release stocks were read by some analysts as a face-saving exercise should the U.S. decide to release its strategic stocks unilaterally.

The price impact of releasing emergency stocks is historically short-lived, so it may be that the chatter is simply premature. Watch this space come October, as the U.S. election date draws

nearer and the political capital to be gained from a stock release increases.

In the longer term, high oil prices mean OPEC faces increasing competition from unconventional sources of oil. According to the U.S. Energy Information Administration, oil production from North Dakota averaged 596,830 barrels a day in the first half of the year, exceeding the output of OPEC member Ecuador.

Meanwhile, development of energy resources such as Canada's tar sands, Brazil's pre-salt oil fields and Russia's shale oil could also eventually threaten OPEC dominance. Many of these projects, however, are only economically feasible while oil prices remain elevated.

Still, OPEC members can ill afford a substantial fall in oil prices, as many governments face increasingly heavy domestic spending burdens in the wake of the Arab Spring.

OPEC must tread the oil-pricing line more carefully than ever now. The U.S. election makes high gasoline prices a key issue, and rising U.S. shale-oil production is raising the strongest challenge in a generation to OPEC's oil-market dominance.

Source: WSJ

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Note de N4CD: The pre-salt formations of Brazil have been a big disappointment. With a government apparently bent upon dysfunction, horrendous costs, inability to work with outside oil companies, the output is actually falling from Brazil.

The Canadian Tar Sands have been beset with multiple problems slowing growth and production.

Mexico is experiencing 'difficulties' and lower exports. Using more of its own with less to export.

If you look at the US, we use 19 million barrels of oil a day, while producing only 6 million. The oil shales will not even dent that number. Keep in mind that China is adding 10 million new cars to the road every year – and all those cars require gas/diesel to run! Whatever we actually incrementally produce, thereby dropping imports a teeny bit, will be gobbled up 10 fold by the emerging economies.

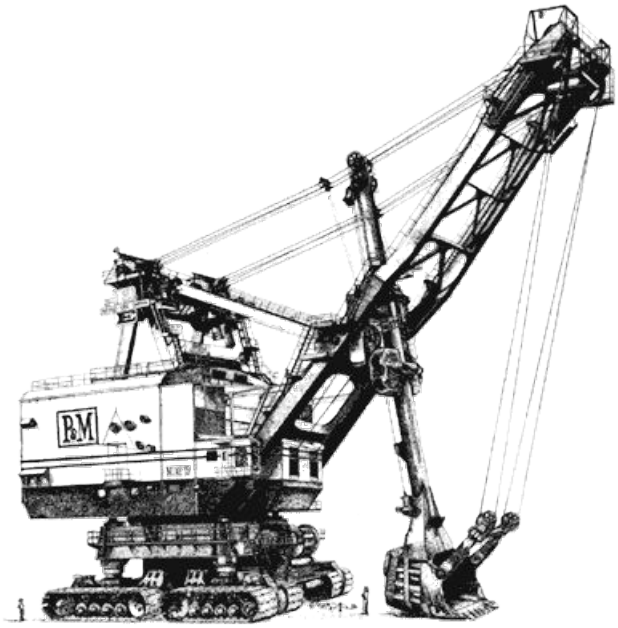
The oil producers need higher than $85/bbl to break even and pay all their social costs for their subsidies. Just who do you think is subsidizing gas at 5c/gallon in Venezuela and 30c/gal in Saudi Arabia? (you are)

Keep in mind that 'peak oil' is NOT running out of oil. It is running out of 'cheap oil' and ever increasing prices for each barrel of oil. It is less oil on the market and more demanding it – meaning some will do without since they can no longer afford it. Economics 101. Prices will

rise...and rise ...and rise.

K0B – Special Event

Special Event Station K0B was on the air from the Big Brutus visitor center in West Mineral, KS (Cherokee County). Some active QRP operators put the special event call K0B on the air.



Big Brutus put the oooohs and aaahs in the backyard of the Heartlands!!! Miles before you reach this retired giant — you can see it on the horizon south of West Mineral, Kansas. Standing beside it makes one aware of how fragile he or she is.

The statistics give the hard cold picture —

- Bucyrus Erie model 1850B
- largest electric shovel in the world
- 16 stories tall (160 feet)
- weight 11 million pounds
- boom 150 feet long
- dipper capacity 90 cu. yds (by heaping, 150 tons — enough to fill three railroad cars.)
- maximum speed .22 MPH

- cost $6.5 million (in 1962)

There is more to Big Brutus than cold steel and long shadows falling across the Mined Land Wildlife Area. Big Brutus is not just a symbol of the past, but an eternal tribute to the mining heritage of Southeast Kansas and to miners all across this nation who toiled to support their families.

On July 13, 1985, Big Brutus was dedicated as "a Museum and Memorial Dedicated to the Rich Coal Mining History in Southeast Kansas."

In September 1987 The American Society of Mechanical Engineers (ASME) designated Big Brutus a Regional Historic Mechanical Engineering Landmark, the 10th since 1971 to be so designated.

Big Brutus is a museum open year round.

If you are ever in that neck of the woods, maybe you want to stop by. Otherwise, Special Events - work 'em and log them for county credit and 1x1 counties! These folks were running QRP and contacts were tough to come by. Help out the Special Event calls – work 'em, log 'em and spot them for others.

Old Radios

One of the things that you are often told is 'don't plug in that 30-40-50 year old radio before checking it first'. If you have an old boatanchor with a power transformer that is 30-40-50 or 60 or 70 years old....you might learn an expensive lesson the hard way if you don't follow the above advice. Some folks rush home after buying something, and can't wait to 'plug it in'.

Here's an ad from Ebay..... I got a chuckle out of it, and it's an 'honest' Ebayer.

“OLD WOOD TOMBSTONE RADIO FOUND IN CABINET IN BASEMENT OF ESTATE. UNTOUCHED AS FOUND. DAIL LIGHTS UP, NO SOUND. PERFECT AGE CRACK ON SIDE OF WOOD RADIO, THAT WILL FIT BACK TOGETHER LIKE NEW, WHICH IS SOLID REAL WOOD - "not plywood' - DAIL LOOKS GOOD, HAS ALL KNOBS AND KNOBS HAVE LITTLE SCREWS HOLDING THEM ON. HAVE NO KNOWLEDGE OD RADIOS. STAMPED MODEL 8 J ON BACK METAL. AND RED TAG SAYS -

GENERAL ELECTRIC COMPANY. RADIO CORPERATION OF AMERICA. WESTINGHOUSE ELECTRIC MFG. CO. AND ASSOCIATED COMPANIES. ONLY FOR RADIO AMATEUR. EXPERIMENTAL AND BROADCAST RECEPTION. - AND A LOT OF PATENT NUMBERS. SOLD AS-IS. THANK YOU FOR MY LACK OF KNOWLEDGE ON THIS RADIO. - **OH YEAH HAS 8 TUBES WHICH LOOKED LIT UP,** COULD NOT SEE ONES COVERED UP. - RADIO IS HEAVY."

The seller provided six pictures of it – it's a Zephyr Model 8 J five band short wave set – likely from the 1930s...which would make it at least 70 years old.

Here's a partial picture of the back of the radio – (edited down for size)

The seller then added the following note:

On Sep-08-12 at 06:42:37 PDT, seller added the following information:

IT's BEEN BROUGHT TO MY ATTENTION THAT SMOKE WAS COMING FROM TRANSFORMER, WHEN PHOTOS WERE TAKEN. SO PLAN ON REPLACING IT.

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You can see the smoke rising in the above pic!

There is an excellent chance that the HV filter electrolytic capacitors were 'toast' and likely had excessive leakage current – meaning a major overload on the power transformer. Maybe the bypass cap on the audio output tube cathode was shorted, too – allowing the audio output tube

to draw excessive current? (It's also possible that the insulation in the power transformer had degraded anyway.) With a bad power transformer, the radio is basically a 'parts radio' worth 10 or 20 bucks. Once smoke comes out of something – it's going to need replacement. (You can't put the smoke back inside it. :))

Maybe if it had not been plugged in, and someone checked the electrolytics first – and found them 'near short' condition – the set could have been resurrected. As it is.....finding a replacement transformer is difficult and likely to add more cost than the radio is worth unless you got an overstocked junkbox or just have to have this particular set as a junker chassis.

Also, most 1920s and 1930s radios were made to run on 110V not 121V. In many homes today, the line voltage is up in the 121-127V range during part of the day. Standard voltae is 121 VAC. That's a good 10-15% more voltage (and the radio will pull 20-25% more power) than the designers intended. If you want to check out an older radio, use a variac to run them at lower voltage if you want them to last! (or dropping resistors). Some use an A/C ammeter to monitor the power draw when they first turn it on. With almost 100% certainty, the HV electrolytics are 'gone' in a radio this old unless they are oil filled types found in MIL spec gear – almost never in consumer electronics - (and they contain toxic PCBs- now banned).

Some of the early ham kits had marginal power transformers. The Heathkit DX-20 and DX-35 were barely adequate to run the radio and you'll find lots of them with dead power transformers. Of course, some eager beaver novice loading them up for an extra 10w of power to reach that rare DX 300 miles away often didn't help keep them in good shape either! Or failing to run the rig tuned up the right way. However, even if you find a set with good transformer, you can destroy it in short order if the electrolytics are leaky!.....so take care!

One of the best ways on old sets with power transformers to keep them running longer is instantly replace the rectifier tube with some silicon diodes (and a small dropping resistor to provide the same voltage drop as a tube – often 30v!) – thereby taking the extra filament drain away from the load on the transformer – about 2 amps at 5v – or 10W! However, this will allow the B plus to come on sooner – and you need to be sure your caps are rated at the higher voltage that may appear before the tubes start to draw current. (At one point, folks make solid state replacements for the common tubes like 5Y3 and 5U4 rectifier tubes. Now, those are scarce).

Here's one source for replacement electrolytics:

single section

http://www.dialcover.com/capacitors1.html

multi-section

http://www.dialcover.com/capacitors2.html

Here are some solid state replacements for rectifier tubes (and other tubes)

http://www.dialcover.com/tubes.html

Not only does he have replacements for the common rectifier tubes like the early 80 (first common a/c rectifier tube) but the 5Y3, and 35Z5.

He also offers replacements for the nearly impossible to find new WD-11 tube that was used in many of the first 'portable' equipment. It had a very fragile filament designed to operate on dry cell battery power, and even if you have a good tube or two, most folks are afraid to even use them for fear of burning out the filament and making the tube a nice 'dud'. New 'old stock' tubes go for $75 and up up up. They use a 5676 sub miniature tube inside them. About $20. He also sells adapters to be able to use a different tube (very common in the past as a repair man's quick fix) and sells replacements for the 01A tubes using a small 1.5v acorn tube mounted in the base. Nifty!

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Part II – another day, another not so wise seller. From his ad for a Knight Kit R -55 receiver from the 50s

"Up for bids is Vintage Knight Kit Allied Receiver Radio R-55A r55a r55 w/ box schematics, from 1966 (postmark on box) is up for bids. Clean interior, case also in nice shape, has all knobs. **I fired it up and while the bulbs temporarily came on, there was no sound from the attached (has tear on cone) speaker. Moved some knobs around and after a minute or two the bulbs went out . Checked fuse, it was then blown. As I have no smarts to troubleshoot or fix this, I just left it as is. So, something for sure is wrong**, but nothing was smoking or anything so maybe it's not some big fix. Comes with the large sized diagrams (2 sided), box in ok condition, has water stains and tears. Nice old receiver. Ship weight is 16 lbs. "

Hint: when you are blowing the fuse (good thing it had one) there is definitely 'something wrong' – likely a shorted filter cap!

Peak Oil Update III

The Energy Information Administration (EIA) of the Department of Energy (DOE) recently revised its historical global crude oil production numbers. Although I have described supply as basically flat in older posts, there is flat, and then there is *flat*. Gregor McDonald reported on the revision. You can find the EIA data here.

> With the most recent release of international oil production data, EIA Washington has revised figures back to 1985. This is one of the most comprehensive revisions I have seen in several years. Generally, the *totals were revised slightly lower, and this was especially true for the past decade*. Data for the full year of 2011 has now completed

You can easily see that global crude oil production has not increased significantly since 2005.

Forecast U.S. total crude oil production increases to *6.02 million bbl/d in 2012*, an upward revision of 190 thousand bbl/d from last month's Outlook, and the highest level of production *since 1998*. Growth in lower-48 onshore crude oil production of 450 thousand bbl/d in 2012 overshadows declines averaging about 30 thousand bbl/d in Alaskan output and 50 thousand

bbl/d in GOM production.

This country once produced over 10 million barrels of crude oil every day, but that was in 1970, a long, long time ago. The latest number is the best we've done since 1998.
But that dramatic, watershed change in domestic production has not changed the global oil production picture one iota.

This global crude supply story should be Front Page News, but it's not. Allow me to close with a brief but telling story.

I started writing about "peak oil" in 2005 for *The Oil Drum*. After a few years there, I left and started doing a weekly column for *ASPO-USA*. I did that off and on for about two and a half years altogether. During the time I was writing those columns, I became *very frustrated*. Nobody, it seemed, was listening to me. Imagine that!

So my columns became longer and longer, and more and more technical in nature. I presented deepwater production curves. I cited production decline rates. I analyzed country data until I was blue in the face. I did this, I did that. In short, I became didactic, long-winded, boring and unreadable for a general audience. But nothing had changed. Nobody was listening. At least, nobody of real importance in the wider world, the movers and shakers.

I learned an invaluable lesson from this, a lesson which has served me well ever since. *Humans don't want to hear bad news.* That's just the way they're built, the way they were designed by Nature. If they're not listening, that's hardly a surprise. Certainly it's nothing to worry about or get frustrated over. If they're not listening to the bad news you're bringing, *for God's sake don't try harder.* They simply *don't care* about your carefully crafted, convincing arguments.

Trying harder just makes your own frustration worse. It was Albert Einstein who said *insanity is doing the same thing over and over again and expecting different results*. That's what I had been doing.

If the global oil production curve remains flat for another three years out to 2015, I would say the verdict is definitely in. At that point, after a decade-long plateau, who could *possibly argue* that peak oil has not arrived? But remembering the invaluable lesson I just spoke of, I know there will be some, perhaps many, who will still *deny* that we've hit the crude oil production wall.

But I'm not going to worry about their denial because *that's just the way it is*. Rather than get distraught over the nightmarish Human Condition, I have finally learned to accept it.

Source: http://www.declineoftheempire.com/2012/04/a-peak-oil-update.html

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De N4CD: Have you noticed the DOUBLING of oil price in less than 4 years? Peak oil is running out of 'cheap oil'. As world demand outstrips the ability of producers to produce it 'cheaply' , the price will continue to rise and rise. One of the side effects of high price oil is economic stagnation. As oil prices rise, food prices rise, and the cost of doing business rises. You reach a point where high gas prices force economies into slower growth, recession, or worse. Then you have a yo-you effect. A reduction in demand, which happens in a recession, allows oil prices to drop. Then as you recover from your recession, oil demand rises, oil prices rise, and you go right back into the 'yo you' cycle again as there is too little to go around at the lower prices. Would you care to guess where oil prices will be in 4 or 8 or 12 years? And what effect it will have on economies worldwide/ And how many 'resource wars' will be fought over the remaining oil supplies? Or how many economies just won't grow?

Washington State Salmon Run

Wowie – it looks like just about every county in Washington was on for the “Salmon Run” event. There were at least four mobiles out there – N7WA who ran at least a dozen, WQ7A who ran two, WW7D, who I heard only once but was spotted a dozen times, K7ED spotted on a C/L, and later saw KC7YE spotted in a couple. One other station was signing /m but never seemed to leave the county he was in. About half the counties were run by fixed stations. Some counties appeared only on SSB, many only on CW.

San Juan, one of the 'rarer' ones was on SSB with a good signal. I think he showed up on 40cw late Sat evening, but barely in there and never seen on 20 or 15m cw. N7WA ran through a lot of the rarer ones on cw – Okanogan, Ferry, Pend Oreille, Douglas, Chelan, etc as well as the west part of the state- he was busy!

The contest was going on with a European DX contest – here you heard the EU stations (some loud on 15M) in the background on Saturday mostly. For our east coast folks, I'm sure those EU signals filled up the band and made it tougher to dig out the SR ones. The South Carolina QSO party was also going on.

15M worked for a good part of the day if you were far enough away from WA state. I heard nothing on 10M all Saturday and most of Sunday. Then the fireworks started. Joe, N5UZW spotted a station on 10M SSB. Well, I went to 10M and there was one station on 10M

CW....spotted him and a few others quickly showed up. Worked half a dozen on CW and half a dozen on SSB. Spotted the new ones too – but no new counties – same folks that were on 15 and 20M were the ones who ran on 10M! But they are band counties and contacts if you are going for a score. It was fun for about an hour – seems the 10M opening was spotty and occurred after lots of folks had quit for the day to enjoy Sunday dinner and football games!

I made over 100 contacts into WA counting all the bands and modes. Didn't try all that hard on SSB but worked most of what was spotted. Had fun and filled in 80% of the state. Seems I was just out there and ran the entire state....but I started over in June and needed to fill in a lot of counties. This fit the bill! Very nice QSO party!

K7RL, fixed in ISL, made over 1000 contacts during the contest.

WW7D – pic from his blog

WW7D – pic from last 7QP party

He's got a real nice blog at:

http://ww7d.wordpress.com/

Check it out – dozens of pics and descriptions of his portable and flying to rare grids in the VHF/UHF contests, mobile in the 7QP and VHF contests! Worth a look. See those large portable antennas for VHF!

From the 3830 contest reflector;

N7WA mobile

Eastern Washington is an interesting place with many types of terrain and contrasts. Especially for some like me who lives west of the Cascades. For the most part, it's also very empty, which makes it attractive to be a mobile in the Salmon Run as it makes you popular.

My partner Jim K7ND and I had a lot fun. He didn't want to do any of the operating but his butt was in the chair just as long as mine as he drove most of the 1000 miles while I tried to keep a computer and

paddles from flying off a board (table) on my knees. (Btw, one of those roads was named Corkscrew road.) I got pretty rummy towards the end so if you started sending something other than the exchange, it just got mentally dumped.

We missed only one county in Eastern Washington that we had planned on activating - Asotin. Maybe next year.

We also had a place to crash mid-route near Spokane thanks to Steve K7AWB and his wife Peggy W7PEG. Many thanks to them both. It was a blessing.

Most county border crossings were met with a mini-pileup which was always fun. We hope we managed to help fill out some of those missing multipliers for the deserving.

The amount of DX was a surprise, 12% of the total Q's.

N2CU (NY)

Murphy hit big time on Saturday. Tribander was out of service (unknown to me) at the start so used my 40m delta loop on 20m, and 40m dipole on 15m. Actually worked pretty well. Took a break and put up a 20m dipole at about 25' and carried on. This morning I go up the tower with some troubleshooting tools and find a bad coax jumper. Replace it and suddenly, Sunday feels much better.

The new 40m vertically polarized delta loop worked quite well, making a number of daylight QSOs to WA.

10m was punk until Sunday afternoon with a couple ESP stations and a few very loud ones. Strange conditions for sure.

Thanks to mobiles N7WA and WW7D for keeping the interest up. Also W7TSQ for my one and only RTTY contact.

K5LH (TX)

Improvement over last year,
but not in points because of reduction in CW QSO point value. Missed COW, SAN,

SKAG, THU. Sad that capital county could not supply a CW station on the air. Cudos to the few but outstanding mobiles: N7WA above all, but also KC7YE, WW7D, K7ED. Condx rather poor with periods of deep QSB. Most WA stations missed 10 meter opening on Sunday PM. Lots of DX stations participating.

W0BH (KS)

The few mobiles that were out there were much appreciated :

18 N7WA - always the loudest after the band opened up, and easy to find
10 WW7D - all over the bands, but couldn't seem to find you consistently
05 KC7YE - nice to have met you in person last August!
02 K7ED and W7IU

The K7KFB/AD7BF expedition to Columbia and Garfield counties was fun to work as well. I knew Eric/ad7bf from when I grew up in Seattle, He told me about their expedition this year, and we were able to work both ops a number of times. He already sent me some pictures of the mountaintop COL location .. just a bit different scenery than Kansas!

For me, conditions between WA and KS on Sunday were lots better than on Saturday. I took time off on Saturday evening to work the North American Sprint. Thanks to those of you who worked me again for Sprint credit, even though it was a log dupe for you! I did hear people working WA on 10m on Sunday afternoon, but I couldn't hear the WA side of things, so no 10m contacts. I worked two fixed stations 6 times : N7PP and W7DX. Stations I worked 5 times included K7INA, K7RL, K7TJ, K7UK, KB7N, W7GKF AND W7VXS. Thanks to you all, and all the rest of the fixed stations for being out there and keeping things interesting. I know I missed lots of you on 40m because of the Sprint. And thanks to the WWDXC for sponsoring another excellent weekend!

W3DYA (TX)

Just wanted to let SR sponsors know I was there; didn't get my last WA county. It was run by N7WA but I couldn't hear him....

KN4Y (FL)

Salmon are not known for the mode of CW, but are knowledgeable in band changes, thus the illusion of many contacts. Good conditions, good CW operators, good

party,good mobile activity (not), good cold beer. Had a good time.
[Note de N4CD – Ed had 17 contacts on 10m]

AD7BF and K7KFB County Expedition – some pics from their trip to Columbia and Garfield Counties and some description of the monster portable antenna:

AD7BF wrote in a separate email:

"The car is a 1991 Ford Taurus LS wagon. The antenna consists of seven six foot long sections of aluminum tubing that fit inside one another and telescope out. The ends are slit and stainless steel worm type hose clamps are used to cinch the ends down to hold inner sections in place.

Maximum height is theoretically about 36 feet if sections are extended so each tube overlaps the next by one foot but I think I had it extended out to only about 29 feet on either setup this trip. This trip I had only four radials.

In the past I have had more but I hurriedly assembled the new trailer hitch mount just before this trip and only had time to build the four radials the night before we left Everett to head to Eastern WA. The radials are insulated UL-1017, AWG12 collected from a rat's-nest resulting from a broken spool. I would have made more radials (and will eventually) but untangling the mess to extract and measure the wire is a time consuming proposition. There are also a pair of braid conductors that connect the ground stud of the AH-4 remote auto-tuner to the trailer hitch, one on either side of the hitch.

The hitch is also bonded to the vehicle frame with a short strap underneath the car, so the car body is also a big part of the ground system. The antenna mount is a re-purposed Harbor Freight bicycle rack that I picked up a few weeks ago on sale. A couple pieces of aluminum angle from my junk box, some fiberglass pieces and some vibration damping hydraulic line mounting blocks, from McMaster-Carr and a few trips to Ace Hardware for various fasteners, and a trailer hitch antenna mount was born. Power source is a group 24 deep cycle marine battery that is charged by way of the vehicle charging system but is isolated so it's only connected to the vehicle's system when the engine is running.

I ran Columbia county on Saturday, and ran Garfield county on Sunday. Total number of contacts was 179 and most were phone contacts with just 12 being CW. . I operated kind of intermittently, taking breaks regularly whenever I ran out of customers on whatever band I was working at the time before resuming. Most operating (and most success) was on 40m. This year 75/80m was a real disappointment (probably because 20m was so hot). I only made a handful of contacts on 75/80m. Signals of stations I worked there were very good too, it just seemed like people were not going down to 80 to look/listen, at least not during the daylight hours when I was there. This is quite a contrast from past years when I made at least half as many contacts on 80m as I did on either 20m or 40m.

Another interesting thing I observed this year was that, later in the day, 10m was in like gangbusters from the south central and southeastern states but propagation seemed to be mostly one-way. Also interesting, and somewhat surprising, was that I could hear a couple of Western Washington stations on 10m. Both W7DX (Snohomish county) and W7DK (Pierce county) had reasonably good signals into Garfield county on Sunday afternoon. I called and called but neither station could hear me. My wife KE7KRS also heard them and tried to work them with her setup (10m rotatable dipole at 12ft AGL) but they could not hear her either. The weekend was a little frustrating for her due to being limited to VHF and 10m on account of her Technician grade license. She didn't hear a peep on either two or six meters and only managed three or four contacts on ten. She's sounding interested in taking up studying again for upgrading to general now though so maybe some good will come out of that.

Jack KC7YE paid us a visit and also did some operating from the mountain.

Main thing is that we had a great time playing radio in a couple of remote and beautiful locations, enjoyed the road trip over and the trip back home, and made a few folks happy by being there and giving them a couple of rare counties. It just doesn't get much better than that!

If you're going to use any of what I've written here in your news letter, please print this: Based on my experience, I'd say anyone who has not tried operating mobile or portable from a rare county, especially during an event like a state QSO party, is short-changing themselves. This is especially true for folks like me who live on a postage stamp sized lot in the city where noise levels are high and erecting decent antennas is really tough. If you can't hear 'em, you sure can't work 'em, you know? Being on the wanted end of pile-up after pile-up is a real hoot. If you've never experienced that, treat yourself - go activate a rare county!

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Building an MFJ 8100 Regen RX Kit

I don't know if any of y'all watch HamNation on the Internet. Here's an episode where they build an MFJ Regenerative Shortwave Kit. Might be some useful hints for kit builders in how he builds it. It starts at 31 minutes into the program – you can move along to that point easily and skip the first part if you want.

http://twit.tv/show/ham-nation/63

NASA – Warp Drive Possible

Can we finally break the speed of light? Nasa breakthrough suggests Star Trek's 'warp drives' may not only be possible - but practical

Despite our desire to explore the stars, we are limited by travelling at less than light speed - and even if we managed to match that pace, we would still be listing our voyages from star to star in years, centuries or millenia.

But, in what could be a huge breakthrough, theorists from Nasa say there is 'hope' that we can achieve faster-than-light travel, after physicists found a theoretical possibility for warp speed travel.

While nothing can break the speed of light, scientists have long considered the fantasy of warp speed travel, where spaceships could bend space and time on itself to move through loopholes in space.

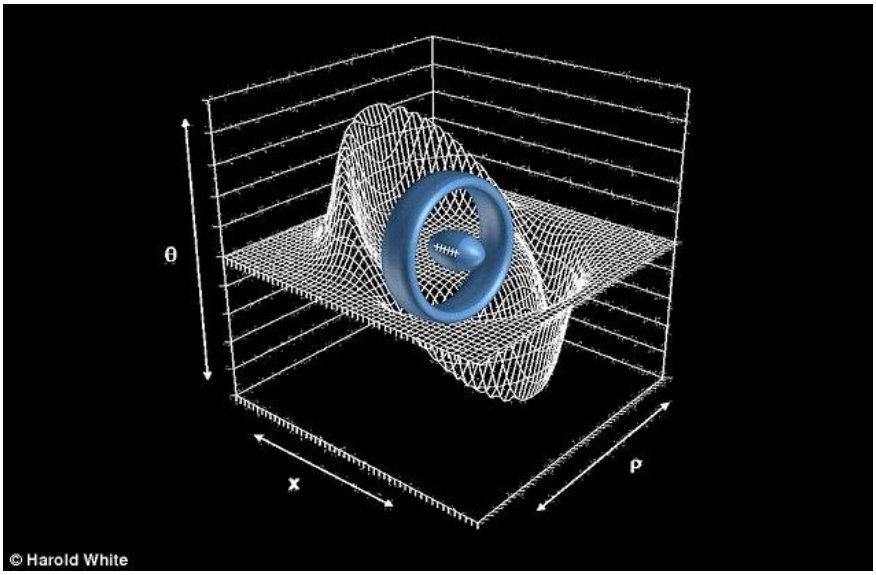
Equations based on the laws of relativity have allowed warp speed in theory: but the energy required to make it happen would require the energy-mass of a Jupiter-sized planet.

Mexican physicist Miguel Alcubierre's theories are the most practical, mooting a ring around a sphere-shaped spaceship, which would contract space in front of the ship, and expand space behind it.

This would allow faster-than-light travel - if astrophysicists could harness planet-sized energy or sip power from a supernova.

according to Space.com, Harold 'Sonny' White, from NASA's Johnson Space Center, told the 100 Year Starship Symposium, a gathering of scientists, writers and philosophers in Houston, that new theories could allow Man to reach such speeds with less energy.

He told his audience that, instead of enclosing a space-ship in a space time-bubble, a craft could sit within a 'doughnut' shape - which means the warp drive could be powered by a mass the size of a spacecraft like the Voyager 1 probe - the equivalent size of a small car.



He told Space.com: "The findings I presented today change it from impractical to plausible and worth further investigation."

'The additional energy reduction realized by oscillating the bubble intensity is an interesting conjecture that we will enjoy looking at in the lab.'

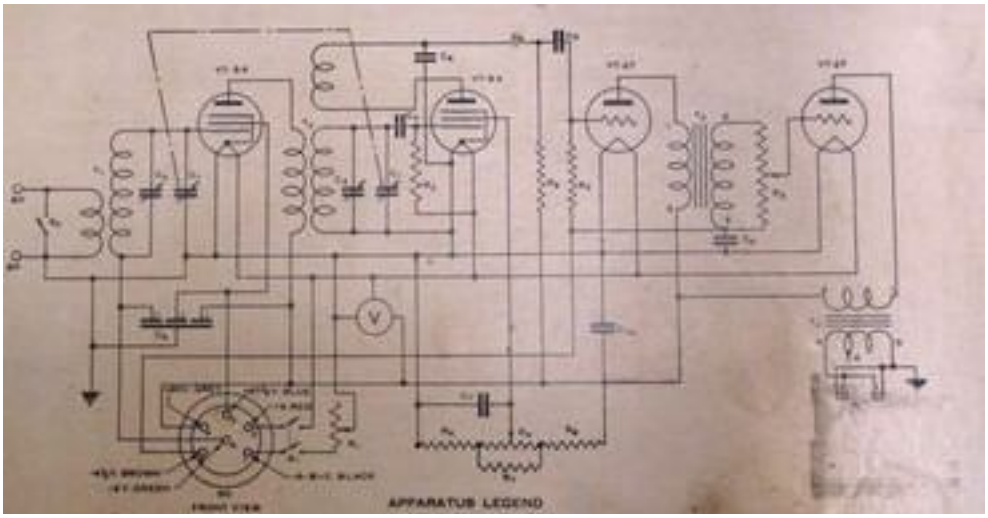
White and his team are experimenting with a mini-version of a warp drive in their laboratory, using laser to try to warp space and time in miniature.

Source: www.dailymail.co.uk

On the Regen Trail

Another day, another item shows up on Ebay – a BC-186 regenerative receiver, a genuine boat anchor type radio that covers 2400 to 3700 KHz. It could make a 80M receiver if you wanted to try and find all the connectors for it. This is part of a pre – WW2 'transportable' set. You could carry this, the matching 8w transmitter and modulator, and battery pack on a mule.

Here's a diagram of it.



The set uses 4 two volt filament tubes – two pentodes – one for an RF amp and one for a regenerative detector. Then there are two triodes for audio. The RX weighs 10 lbs and runs on batteries. It has a ganged tuning capacitor for tuning the RF and detector stage – one knob tuning. You'll notice the meter, and a control for filament voltage. You can set the filament voltage to the required voltage as your batteries wear out. You'd have two 1.5v batteries for the

filaments, and they need 2v – so you have a series resistor. As the batteries go weak, you adjust the series resistor using the meter. If you pull the knob for the meter, you can measure the HV – also supplied by batteries. (those good ole portable days). Regen control is via changing the voltage on the screen.

Here's an interesting web site with more pictures of the unit and matching TX/modulator and the set up as packed on a mule!

http://people.csail.mit.edu/sw/html/NS1W/scr-178.html

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So far, September has been a good month for items showing up on Ebay. A National SW-5, similar to the SW-3 Thrill Box, made about 1930 showed up – sold for $148. A nice Pilot AC Super Wasp, same era or maybe a year earlier, using one of the first 'screen grid' tubes in the RF amplifier stage - followed by 3 201A tubes as regen detector and 2 audio stages - showed up – sold for $188 with a modified front panel. These are some 80 year old radios at the very beginning of 'short wave listening'. Or ham's use way up at those wavelengths shorter than 200 meters. A Graymark 3 tube regen kit – plug in coils – from the 50s – showed up. Also what appears to be an MRL Kit – one transistor regen. A Daystrom version (Daystrom sold Healthkits in the UK and Australia in different cabinets) of the GR-81 Regenerative Receiver appeared for sale, too. Same circuit as the Heath GR-81 but different cabinet. It's either feast or famine on Ebay it seems. Or folks just took the summer off after collecting lots of junk or cleaning out the garage or attic! Plus the HAC radio from the UK was on Ebay.

South Carolina QSO Party

If you followed the mobiles around, you could nearly fill up most of the state of SC in your log in one day – mixed mode. Bob, N4XML, was running all over the state on SSB. AD8J ran at least 10 on cw. There were about 8 fixed stations giving out their counties. A lot of the other county hunters seemed to be 'gone' and not on the air for the event. [In a few weeks, a few mobiles will wander to the state to fill in some missing counties.]

I caught AD8J in many, worked most of the fixed stations on cw, but only caught a few on SSB to give them another contact.

From the 3830 contest reflector:

AD8J/mobile

"Took the KW mobile down into SC to try to spice up this contest. Ran 8 counties during the day and was planning to run the last 5 again on 75/80 meters. Just couldn't get anything going on 80 meters so headed back to NC two hours before the end of the contest. I think this contest needs a different weekend so it isn't in competition with the WA Salmon Run contest. Thanks to NT2A for 17 Q's. K5WP and K4BSK each had 11 Q's and N4JF and KI0I each had 10 Q's."

W4ANT – Dorchester SC – portable - SSB only

Worked the contest /P from the RV in Dorchester Co. Enjoyed working the mobiles in-state and when things got slow, grabbed up some 7's from the Salmon Run.

KN4Y (FL) – 12 Q total

Listened and heard a few CW stations, one mobile. Did not meet the QSO requirements to send in a log.

AWA Latest Newsletter

The Antique Wireless Association Newsletter for Sept is now online (free). Some interesting articles on TRF radios, early broadcasting and more.

http://www.antiquewireless.org/pdf/GatewayV2no3.pdf

Atlas Shrugged Part II

Atlas Shrugged, Part II, shows up in movie theaters October 12, 2012. Watch for it!

Official movie trailer

http://www.atlasshruggedmovie.com/atlas-shrugged-part-2-trailer

where to see it

http://www.atlasshruggedmovie.com/theaters

The movie Obama hopes you won't see after watching the movie Obama 2016. You have seen it, right?

Your Tax Dollars at Work

Backed by $146 million from President Obama's stimulus, California last year launched an effort to help as many as 100,000 homeowners save energy by providing rebates for new insulation, windows and furnaces.

The stimulus money has been spent, but as of July, just 5,130 homes received upgrades or qualified for rebates, according to the California Energy Commission. The money also funded 3,728 energy-efficiency projects at businesses through May - mostly improvements to ventilation systems and lighting controls.

Why have so few benefited? In part, it's because the state and its partners spent more money launching and running the program than they did on rebates.

According to figures from the Energy Commission, $40.9 million went directly into rebates for homeowners and businesses, while $56.5 million was spent implementing the program, marketing it to the public, training contractors and making sure projects saved as much energy as intended.

In addition, homeowners just haven't been clamoring for the rebates.

The state's tough economic climate undercut the program, called Energy Upgrade California. Cash-strapped Californians balked at investing thousands of their own dollars in home improvements, even if the rebates would later cover some of the cost. Banks were hesitant to lend money for the supplemental work. As a result, $48.5 million that could have paid for more rebates was used to provide loans for homeowners.
Is it worth it?

Critics question whether it's worth the expense.

"Here's one thing that all people, of both parties, tend to agree on - they want good value for their tax dollar," said Kris Vosburgh, executive director of the Howard Jarvis Taxpayers Association. **"And this is a glaring example of folks not getting good value for their dollar."**

State officials say the program's initial, federally backed phase laid the groundwork for the future, even if it didn't issue nearly as many rebates as hoped. The Energy Commission made the 100,000-home prediction when it announced the program's launch in March 2011.
Utilities chip in millions

"It turns out that it's a pretty difficult thing to do," McAllister said. "There's no getting around that."

Local governments, meanwhile, have kicked in an additional $50 million, although much of that money came from the U.S. Department of Energy. The program's total funding to date has been roughly $312 million. But the stimulus portion of the funding, tracked by the Energy Commission, has been fully allocated.

Source: http://www.sfgate.com

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de N4CD

So let me get straight. Over 312 million was spent to 'upgrade' just 5000 houses? That's $60,000 per house/business ....likely with only $10,000 in actual 'work' done on the house/business. 2/3rds the money from you, the taxpayer, was wasted in fraud, abuse, 'overhead' and government bureaucracy. CA ratepayers forked over a lot of it, too.

Remind you of "Shovel ready jobs"? That weren't. The only folks who 'cleaned up' were 'contractors' who scammed the system out of over 300 million of taxpayer dollars. Your dollars. Greenie dollars. Wasted. Flushed down the greenie drainhole. And Obama wants to 'double down' on these projects?

But wait...there's more - Seattle, WA

"Last year, Seattle Mayor Mike McGinn announced the city had won a coveted $20 million federal grant to invest in weatherization. The unglamorous work of insulating crawl spaces and attics had emerged as a silver bullet in a bleak economy – able to create jobs and shrink carbon footprint – and the announcement came with great fanfare.

McGinn had joined Vice President Joe Biden in the White House to make it. It came on the eve of Earth Day. It had heady goals: creating 2,000 living-wage jobs in Seattle and retrofitting 2,000 homes in poorer neighborhoods.

But more than a year later, Seattle's numbers are lackluster. As of last week, only three homes had been retrofitted and just 14 new jobs have emerged from the program.

Amateur Radio Newsline

Sone interesting reading every two weeks or so – Amateur Radio Newsline – text version. Audio version is also available as well as podcast.

This week – super high definition TV – amateur spectrum and the FCC – DX-pedition news, satellite news – crime report- and more …...

"Political wrangling over making spectrum available to expand broadband could impact on ham radio in years to come; the South African Radio League backs the Radio Society of Great Britain in is stand on in-home B-P-L; a bunch of new cubesats reach orbit; a dozen operations approved for DXCC and the upcoming Last Man Standing on-air celebration gets the special event callsign K6T. "

http://www.arnewsline.org/storage/scripts/nsln1832.txt

Obama's War on Cheap Energy

“You know who the “mean greens” are. They are those curmudgeonly misanthropes who begrudge and bewail humankind’s economic progress and the high standards of living attained in the modern era.

President Obama is a mean green. Indeed, he sounds like one of their leaders when he tells us there is something wrong with Americans living so comfortably when there are poor nations in the world. In his words: “We can’t drive our SUVs and, you know, eat as much as we want and keep our homes, you know, 72 degrees at all times … and then just expect that every other country is going to say OK … [when we] keep using 25 percent of the world’s energy.”

Given that Obama disapproves of Americans’ affluence, it isn’t surprising that he appointed one of the meanest greens of all to be his science advisor—John Holdren, who comes from the extreme branch of environmentalism that openly advocates the “de-development” of the United States.

Obama’s preferred strategy has been to implement whatever policies increase the price of energy to American consumers. He proved this by striving mightily to impose a cap-and-trade program on fossil fuels so that “if somebody wants to build a coal-fired plant, the can, but it will bankrupt them, ..”

Obama’s animus against fossil fuels explains why he chose Dr. Steven Chu to be his Secretary of Energy. Chu’s most famous policy goal is encapsulated in his statement, “Somehow we have to figure out a way to boost the price of gasoline to the levels in Europe.”

To help Chu achieve his goal of hammering Americans with much higher fuel prices, Obama appointed the like-minded former Colorado senator Ken Salazar to be his Secretary of the Interior.

In his first week as president, Obama rescinded a Bush executive order that permitted drilling on the continental shelf. A few weeks later, Salazar unilaterally canceled 77 oil and gas leases in Utah, expressing his dread that some poor soul might catch a glimpse of drilling equipment from a national park more than a mile away.

Team Obama continued the assault on domestic oil development, first by adding two million more acres to the 107 million acres of designated wilderness to block the extraction of fossil fuels from those tracts; then using the Deepwater Horizon explosion in the Gulf of Mexico as a pretext to block or delay the return of American oil rigs to the Gulf; then delaying the construction of the Keystone XL pipeline to transport Canadian oils sands to be refined in

Oklahoma. Most recently, Salazar's department disclosed a new plan to offer only 15 offshore drilling leases. That is a record low, and appears to be the absolute minimum that can be offered under existing law.

It wasn't that long ago that Al Gore and other mean greens designated natural gas as the fossil fuel of the future, but now that it is turning out to be superabundant, and therefore has become dirt-cheap, they have turned against it with a vengeance. The Sierra report announces, "We're going to be preventing new gas plants from being built wherever we can." More quietly, White House energy aide Heather Zichal followed up with an announcement this summer that Salazar's Interior Department will unveil new rules regulating "fracking" sometime after the election.

Clearly, Team Obama is waging unrelenting war against cheap energy for Americans."

Source: Dr Mark W Hendrickson, in Forbes Magazine...

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de N4CD...and don't forget ANWR....where the oil industry wants to use a few acres to drill out of the millions in ANWR.....the size of a postage stamp on a NFL football field in area.....in the ANWR reserve. No relenting by the eco-whacks of allowing a permit to just explore in ANWR. You happy with gas prices that have doubled in the 4 years of Obama? Just wait to 2016 to see the rest of his plan put in place. Unless we have 'change'.

Awards Issued

3rd Time	Ron, N5MLP	September 12, 2012
7th Time	Gene, K5GE	September 3, 2011
Bingo #344	Jim, W8FNW	September 13, 2012
Master Gold #55	Barry, N0KV	August 26, 2012
Five Star #51	Mike, NF0N	August 30, 3012

Upcoming Events for County Hunters

October 6

California QSO Party
Serial and state/prov/"DX" or CA county
www.cqp.org
Oct 6, 1600Z - Oct 7, 2200Z

October 13

Arizona Centennial QSO Party
Name and S/P/C or Year and AZ county
www.azqsoparty.org
Oct 13, 1600Z - See website

Pennsylvania QSO Party
Serial and ARRL/RAC section
www.nittany-arc.net
Oct 13, 1600Z - See website

October 20-21

Iowa QSO Party
RS(T) and IA county, state/prov, or "DX"
www.wa0dx.org
Oct 20, 1400Z - Oct 20, 2300Z
See website.

New York QSO Party
RS(T), NY county, state/prov, or "DX"
www.nyqp.org
Oct 20, 1400Z - Oct 21, 0200Z

Illinois QSO Party
RS(T) and IL county or S/P/C
www.w9awe.org/ILQP.html
Oct 21, 1700Z - Oct 22, 0100Z

October 27-28

SSB folks – beware....the entire weekend full of CQ contest on SSB.....

CQ World Wide SSB Contest
RS and CQ zone
cq-amateur-radio.com
Oct 27, 0000Z - Oct 28, 2359Z

Rumor has it that N0KV/N0DXE will make a trip to HI in October to run all the islands except Oahu(Honolulu County). Likely SSB and CW. Keep your eyes open. He's now good for Master Platinum, having just received his MG.

That's all folks!

73