County Hunter News

January 1, 2008
Volume 4, Issue 1

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 attempt to provide you with interesting, thought provoking articles, articles of county hunting history, or about county hunters or events, ham radio or electronics history, general ham radio interest, and provide news of upcoming operating events.

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

County Hunter Nets run on 14.0565, 10.122.5, and **7056.5**, with activity nights on 3556.5 on Tuesday evenings around 8-9pm Eastern Time. Also, with low sunspot activity, most of the SSB activity now is on 'friendly net' 7188/7185 KHz. The cw folks are now pioneering 17M operation on 18.0915. (21.0565, 24.915.5, and 28.0565 when sunspots better). Look around 18135 or 18.132.5 for occasional 17M SSB runs.

You can see live spots of county hunter activity at http://ch.w6rk.com

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

The USA-CA award is sponsored by CQ Magazine. Rules and information are here: http://countyhunter.com/cq.htm

For general information FAQ on County Hunting, check out: http://countyhunter.com/whatis.htm

MARAC sponsors an award program for many other county hunting awards. You can find information on these awards and the rules at:
http://countyhunter.com/marac_information_package.htm

The CW net procedure is written up at:
http://www.wd3p.net/ch/netproc/netproc.htm

There is a lot more information at www.countyhunter.com . Back issues of the County Hunter News are available at www.CHNewsonline.com

De N4CD (email: telegraphy@verizon.net)

Notes from the Editor

1) Fourth Year of Publication – The County Hunter News On-Line begins its fourth year of publication. Thanks for all the support and contributions pf of pics and articles and ideas.

2) Mexico Trips – If you are planning on visiting Mexico while at the South Texas mini in February, the rules are changing as of January 1, 2008. US citizens will require either:

a) A passport or

b) A 'seal copy' birth certificate and other photo ID (driver's license).

This is all a result of the 9-11 enhanced border security. Fortunately, there is lots of good Mexican food on the US side of the border if interested.

Note, a driver's license is NOT good enough any more as the only ID unless the government relents again and postpones the effective date.

3) Gremlins – a few gremlins managed to sneak into the last newsletter. Probably you figured them all out.

a) In the WARC update, there is the possibility of a new allocation at 137 KHz – low frequency. Now just experimenters are down there.

In the article about the scammer selling towers and rigs on Ebay and other auction sites – it is Daniel Rouse – KI4WRS(not WRX) . He has a few felony arrests and outstanding warrants. He's moved around a few times, and appears to be a slippery character having bilked dozens of hams out of tens of thousands of bucks for goods he 'sold' but never delivered.

b) I mentioned Stokes and Forsyth in the On the Road article, but the N4CD mobile didn't make it that far east…next trip. I ran down through Surry and Yadkin, then back west. Still need to run those for second time, and a few others along the top of NC, plus another 15 or so in NC to finish it off. So many counties – so little time!

4) Marconi - One of the radio pioneers was Marconi – who started the entire 'wireless' industry. This month we have a feature article on Marconi.

5) Judicial Districts in Alaska

W6TMD posted a link of a good map to determine which towns are in which Alaska Judicial Districts. See http://www.state.ak.us/courts/venuemap.pdf You may have to increase magnification by 100% to see the detail sufficiently well. If you work someone there, and have a QTH, you likely can determine their J.D. easily

6) K9DCJ Picture Albums

Arnie, K9DCJ, and XYL had several albums full of county hunting photos from conventions and get togethers. After his passing, she offered them to anyone who would help make the pictures available to been seen by the other county hunters.

W0MU, the MARAC web custodian, quickly offered to take them and said he would quickly put them up on the web for all to enjoy. That was, what, a

year ago? Mike seems very eager to accept anything 'in the name of MARAC', then act with glacial speed (infinitely slow) from that point on.

If you want to see convention pictures now, you visit NX4W's web site to see nearly all the folks who attended (with captions), or you read the CHNews that puts dozens in the CHNews over the course of several months. Dennis, KK7X, has hundreds of pictures on his web site for all to enjoy.

So where are the 'Arnie' pictures? Sadly, half the folks in the pictures are probably silent keys by now – and at the rate W0MU is moving, the other half will be silent keys before they will get to see them on web pages. Sad situation. If the CHNews had access to them, you'd be seeing some of them each month, with the folks identified in each picture. I'm sure Dennis, KK7X, would have had hundreds up on his site if he had access to it. Instead, lots of 'nothing' from the MARAC web custodian 'so eager' to have them. Possibly, Mike, W0MU, doesn't recognize a single person in the pictures as he himself is a 'newbie' that appeared after K9DCJ became a SK, and then seemingly 'burned out' quickly after a year on 20M SSB net, and is now seldom heard on any county hunter frequency.

Meanwhile, the hundreds and hundreds of county hunters around the country wait and wait for W0MU to put the pictures up on the web for all to enjoy.

7) **December Overall** – December was a good month, especially for the CW folks, and on 40M SSB. Winter moved in with a vengeance up north-ice storms, blizzards, snow, freezing rain, ice pelting, and howling winds. Despite that, there were still many mobile trips in many areas of the country.

KS5A and NN9K went all over IN on a several day trip – 80, 40, 30, 20, 15meters. Trip report in this issue. N4CD was out and about on several weekends in TX putting out Texas counties. AA8R, Randy, was on for two days. KB6TAL put out counties in NM and AZ. Sterling, WA7JHQ made a trip. Ed, K8ZZ ran up in MI for the folks. KG5J got some 'most wanted' ARK on a one day trip. Mark, KO1U wound up in SC for the holidays.

K0UU, KG5U, K5OT, WV2B, KE3VV, K2HVN also running counties on 20/40 CW for the folks in ND, FL, TX, NH, AR, FL, NY, GA, NC, and VA – lots of opportunities for new counties, cw counties, and band-counties. Jeffrey, AF3X, ran a bunch on 40cw headed back home from a trip. Before that, he was spotted on 40 SSB in counties.

W9MSE and N9JF were out and about on cw in IL, MO, KS, TX, MN and WI. Others including K0RCJ, K8YJ, KD1EJ, N1SPX, W0NAC/N0LFV, were out and about on 40M SSB primarily in IL, MO, NC, GA, CO, WV. Rich, K0RCJ, is thinking about getting on cw to join the fun. He also has a 75M hamstick on 3905. Pete, N6HH, ran on 40 cw and SSB headed out west to CA and back.

Pete, N4AKP, ran a dozen in VA, and finished up K7REL with last two WBOW on cw. Mark, N2MH, ran some needed ones in NJ and NY on some trips. Quite a few counties were run on cw this month!

Not much was happening on 20M SSB other than the 'club of one' stations were more busy running off more mobiles/banned fixed stations rather than actually running mobiles most of the time during December. Even worse, one of them actually wipes out nets across the band trying to prevent off-frequency operation on 20M – more on this later. (One can only conclude he is seriously interested in permanently losing his ham ticket)

N6PDB/WA6OCV ran a few in MT as they headed home from long trip in November– spotted in most counties on 40M SSB

8) **New Call** – George, N3ISH, is now AA4GT.

9) **Worked ALL the prefixes** – Scottie, N4AAT, received the US-PA award for all four of the prefixes – A, K, N, W – the first person to have worked all the prefixes in all the counties. He finished up in November 2007.

10) 80M Season

Several posts on the K3IMC website indicate that 80M CW is working great this winter season. Larry, W0QE notes the following mobiles in his log: AA8R, AA9KH, K8ZZ, KA3QLF, KB6TAL, KB6UF, KM1C, KN4Y, KQ0B, KS5A, N9JF, NF0N, NM2L, NN9K, W0GXQ, W0QE, W9MSE.

On SSB on 75M, have K0RCJ, KQ0B, KB0BA/N0XYL, W3CR, N9STL, and WB0CQO, possibly more. Jay, AA9KH, noted "Just heard KD5JSS in TX QSO K8ZZ in MI, mobile to mobile. Other loud signals here near Chicago tonight include KM1C (NC), NM2L (GA) and KB6TAL (AZ) to

name a few. When the other bands have 'gone long', maybe it is time to try 80/75M to get more counties and more band-counties.

11) Sunspot Cycle Update – the beginning of the new cycle?

http://science.nasa.gov/headlines/y2007/14dec_excitement.htm

"The solar physics community is abuzz this week. No, there haven't been any great eruptions or solar storms. The source of the excitement is a modest knot of magnetism that popped over the sun's eastern limb on Dec. 11th, pictured below in a pair of images from the orbiting Solar and Heliospheric Observatory (SOHO).

It may not look like much, but "this patch of magnetism could be a sign of the next solar cycle," says solar physicist David Hathaway of the Marshall Space Flight Center.

"New solar cycles always begin with a high-latitude, reversed polarity sunspot," explains Hathaway. "Reversed polarity" means a sunspot with opposite magnetic polarity compared to sunspots from the previous solar cycle. "High-latitude" refers to the sun's grid of latitude and longitude. Old cycle spots congregate near the sun's equator. New cycle spots appear higher, around 25 or 30 degrees latitude.

The region that appeared on Dec. 11th fits both these criteria. It is high latitude (24 degrees N) and magnetically reversed. Just one problem: ***There is no sunspot.*** So far the region is just a bright knot of magnetic fields. If, however, these fields coalesce into a dark sunspot, scientists are ready to announce that Solar Cycle 24 has officially begun." (as of late Dec – no sunspot!)

12) Cumulative Index of Pictures and Articles

This month we include a comprehensive index of the past four years of articles and pictures. Check out your favorite articles and see many of the active county hunters/mobiles.

IC706 Mark 2–G Problems by Mark, N2MH

http://www.n2mh.net/ic706.htm

This note is about some problems that I found in my IC-706 MK2G mobile radio and how I fixed them. If you have this same radio, you may or may not find these same problems. Your Mileage May Vary (YMMV).

The other day I went to run Essex County, NJ as part of my County Hunting activities and had to abort the run when the rig would not key on CW. Going home, I pulled the rig out of the car and put it on the bench. I found three things wrong with the radio, fixed them up and now the radio works right.

Before the show-stopper in Essex, there were three things that were annoying about the radio. None of them were serious enough to pull the radio and put it on the bench. But, they were indications that something wasn't right. They were:

- Intermittant problems with keying the radio on CW.
- A flutter on the received signal of HF stations.
- Spurs/birdies on various VHF and UHF repeater channels.

The Fix

CW Keying Problem

The first thing I did was to fix the key jack. The two ground connections on the jack were completely loose. They no longer made connection with the pc board ground. Thus, the ground never made it out to the paddle.

This was an easy fix - I simply resoldered the two lugs and put a substantial amount of solder on them. While I was at it, I also resoldered the other two connections - the ones for the dot and dash lines (again, with a little more solder). This fixed up the CW keying problem.

HF Flutter Problem

While I had the radio open, I took a look around to generally take a look at the radio. In the transmitter power amplifier section, I found a small toroid

transformer held in mid-air by two of its solid, bare leads. The other two leads were thin, stranded, and were not supports for the toroid. Looking closely, one of the solid wires from the toroid was very close to one of the connections to a power transistor. I found that the toriod would bounce a little bit on its support leads. It looked like the lead near the power transistor would actually make contact with it when it bounced. In additon, it seemed to bounce at the same rate as the flutter I was noticing.

I didn't like this close proximity, so I bent both leads of this toroid up and away from the pc board (and thus the power transistor). I bent them enough so that when the toriod bounces, it no longer would be close to the power transistor. I was really surprised that Icom did not put any sleeving around those bare leads or use insulated wire.

VHF/UHF Spurs/Birdies

I've seen spurs/birdies on VHF and UHF before and the cause of that is generally poor grounding or shielding. So, looking at the insides of the radio, I did not see any obvious faults with the shielding. However, I did notice that several of the pc board mounting screws were a little loose. So, I went ahead and tightened all of them for good measure. I did not do any of the screws holding the power transistors as I'm not sure if they actually go to the chassis. I'm also not sure if there is some requirement that those screws be torqued when they are tightened.

I also found that the screws holding the two coax connectors on the back panel were a little loose. To be complete, I tightened them also.

Results

After I buttoned up the radio and put it back in the car, I'm happy to report that the rig now keys FB on CW. In additon, it does not seem to have the flutter on HF. And, VHF and UHF seem to be back to normal - the spurs/birdies are now gone.

I'm happy that this is all it took to fix this radio. It also points up the fact that the mobile environment is quite different from the base station environment. A car is a source of a considerable amount of vibration and its bad effects. Thus, one has to keep an eye on things and do a little preventative maintenance once in a while.

NN9K/KS5A December County Run

Pete, NN9K, and Guff, KS5A pulled off a very successful CW trip to Southern Illinois and Southern Indiana in early December. Although they battled the threat of extreme winter conditions, their planned route remained south and clear of most snow and ice until the last day. Then, they lost a half day and were unable to run a few of the planned IL counties due to those icy roads.

The numbers:

60 counties total, 21 IL, and 39 IN, three and a half days, 1395 miles, 74.5 gallons of fuel, 3 hotels, 2614 CW QSOs, Bands 80/40/30/20/15.

Band - Q's - Percent breakdown:

80m – 797 – 31%
40m – 1174 – 45%
30m - 401 – 15%
20m - 217 - 8%
15m - 25 - 1%

QSOs per local day – Sat 593, Sun 817, Mon 863, Tue 341

Several stations worked them 60 – 70 times, but the real top dogs were K8ZZ with 99 Q's and K8MW with 105 Q's. With the exception of the last day of the trip when they were racing the ice, they ran on any band potentially open, and they did not leave a county until all calling had a shot at working the mobile.

The equipment:

IC-7000, 5 Hustler resonators horizontally mounted, Bencher key, Unified Microsystems XT-4 keyer, two laptops – one with Street Atlas + GPS (driver), one for W3KM Logger software and Street Atlas + GPS (operator), 2 Lind Electronics DC-DC computer power adapters, 12 vdc work light, Sony earphones.

NN9K Comments: Guess I get to talk about the vehicle and equipment but please remember everyone's situation is different and you should do whatever needed to satisfy your particular needs and operating style.

Before I started county hunting I participated in a few nearby state QSO parties. I discovered that it was a lot more fun to operate as a mobile rather than operating as a fixed station. In attempting to find a comfortable and workable vehicle configuration for both me as an operator and my driver, one refinement led to another, and that's how I wound up with the present vehicle configuration. The requirements for a mobile contesting station and a good county hunting vehicle aren't all that different.

The present vehicle is a 2002 Chrysler Town and County van, nothing out of the ordinary but it is comfortable and easy to drive. An Icom IC-7000 is installed under the third row passenger seat and all the cabling is run under the carpet. The normal console between the driver and passenger seats has been replaced with a wooden stand with room for a laptop computer, the radio's control head, a speaker and a set of Vibroplex Code Warrior paddles. For "normal" driving I use the radio's built-in keyer but for trips such as this one or contesting an external keyer is used. The laptop runs DeLorme Street Atlas with a GPS receiver attached. The laptop power supply is manufactured by Lind Electronics and although not inexpensive it is reliable and produces no hash or noise into the radio's receiver.

During QSO party runs and trips such as this one, both driver and operator ergonomics as well as "wife approval" were the two major considerations taken into account for the internal modifications to the van. Since the van has two distinct uses, "normal' driving and contesting I tried to make the changes suitable for both. On trips where it is just Nancy and me the laptop, radio head, speaker and paddles are in a comfortable, easy to see and use position. During the times when there are both a driver and an operator things get changed around slightly.

The QSO parties I normally participate in last for 7 or 8 hours and I do use a computer to log during those contests. That's a long time to be in a seat running contacts and I do like to be comfortable (we do usually make one stop during the "Party" but that only lasts as long as it takes to fill the gas tank). I tried a lapboard but found that the computer seemed to gain weight as the contest progresses and it just wasn't all that comfortable balancing things on my legs. Funny thing, I sit at a table to operate when I'm at home

so why not in the van. So a table was built and it installs in the second row of seats behind the front passenger seat. This allows the front seat to be moved all the way forward giving the radio operator as much leg room as possible. The navigational laptop stays on its stand but the radio control head is moved to the operating table and an external keyer is installed. There is adequate room for a logging computer, writing paper (if needed) and a full sized set of paddles. A 12 volt operating light is used for evening and night operating and everything is almost as comfortable as operating at home.

A couple of comments before I talk about antennas. I do have a spare 7000 programmed and ready to drop into place if the primary radio fails; I hate radio problems in the middle of a contest! Street Atlas is my software of choice for navigation. If you are a user and haven't tried putting flags on the county lines with the county name in the flag please try it. The flag makes it very easy for the driver to know the name of the next county. If you place the flag first and then put a put a "STOP" on the line the stop will automatically pick up the county name and this works extremely well if you are using the program's voice prompts. You'll also know the distance and time to the next county line if set your entire route up in this fashion.

Antennas—nothing fancy, I use Hustler resonators because they are readily available and work nicely for my purposes. Since all my operating is CW, I do not seek nor do I need a great amount of bandwidth (no tuner is used). The mast is a homebrew two-piece mast about 104 inches long. There is room on the adapter at the top of the mast for six resonators. For the Indiana trip we planned to run 80, 40, 30, 20, 17, and 15-meters. However for some reason the 17-meter resonator wouldn't tune correctly and at nine o'clock in the evening with a 28 degree temperature we decided to leave it off and I'd explore the problem later. Antenna height is 11 feet which is fine for 99% of the obstacles encountered, however if we find something that is less than 11 feet I can raise the tailgate moving the mast into a horizontal position and drive under the problem. And yes, mounting the antennas on the rear of the vehicle does cause some directivity on the higher bands but again for my situation it is the best mounting alternative. Possibly as we move into the next solar cycle a center mount on the van roof with a shorter mast may turn out to be feasible but currently with the higher bands not being consistent I feel I need the best performance I can achieve on the low bands. Looking at Guff's QSO totals on 40 and 80-meters I think I've done that.

Again, everyone's situation is different so take the time to analyze what you have and what you want to achieve and then start building towards it. My current setup didn't happen over night, there have been several iterations before getting to the current configuration. Remember though, what ever you put together needs to be sturdy and as maintenance-free and reliable as possible. It's much more fun, at least for me, to be operating a radio rather then operating on antennas.

NN9K Contest Setup

KS5A Comments: What a pleasure to work in a superior mobile setup - no noise, a roomy "nest", instant/contest type band switching, outstanding route planning. Other than the last day on the road, everything went as planned.

A note on conditions … I can't remember the last time I've seen a flux index in the 80's with both the A and K indices at ZERO. This could be the reason for the fantastic conditions on 40 and 80 meters. From the start to the end of our day, both bands were wide open within reason, and contributing 76% of the total QSOs. Around 2200Z we were working VE1WT each day on 80m with strong signals without the need for QSPs. That is roughly a 1300 mile leg.

Those same times plus early mornings at 1300Z+ we were reaching the CO guys on 80m with equal results with 1100 mile distances. Some AZ stations were worked late in the day too on 80m. We missed hearing the far west coast and the northwest on 80m. 80m would probably have had enough length if we had stayed out longer into the evenings. However, 40m was no problem for either coast. During the rest of the day, 80m was great for those within an 800 mile range. As a west coaster, I sure envy you guys east of the Rockies. I hope all of you can benefit from these conditions this winter, especially if more mobiles check out the band during the daylight hours.

For operation conditions in the van, Pete built me a perfect "nest". From the first QSO of the day until the last, I was pretty much head down and operating. Other than a break for lunch and a few pit stops, it was constant ops. We probably had less than 10 lax periods the entire trip where we ran out of callers and had a 5 – 10 minute breather before crossing into another county and back at it.

We stopped only on Sunday as we approached county lines to finish working the masses. As we worked more total stations on Monday, I feel that was because both you and I fell into more of a routine that all caught onto and increased the QSO count.

I believe several areas helped overall:

One, we published the route and stuck to it until the last day. We went the way we said, and you could judge when we would be in a county you needed. Pete spent a lot of time planning the entire trip as you can see in his write-up. It paid off!

Two, we stuck to the published band plan with very few exceptions. The order of bands didn't change that often. A few times another mobile was running, and we either waited until they finished or moved on to the next band, hoping the spots would highlight our move. It seemed to work well. Even the 339 Q's worked on the upper bands without relays because you knew which band was next. I think I announced most of the time what bands would be next to keep you in the flow of things. A few times I worked a mobile and moved down a couple of KHz, but without a big following. Going back to a net freq on a band I had bypassed usually had better results.

Three, sending your call only once worked best. I usually could pick out familiar letters if there was a big pileup. A few called somewhat off freq, and that worked after the strong 599+ stations were logged. If I couldn't get anything, that pause with silence usually was more than someone could stand, and they would throw out their call again .. Gotcha .. one more down. I don't think we could have worked stations any faster. On occasion we did take a list if we were stopped. But, while in motion, working the key and the computer was about all I could do. Trying to write down calls before entering in the computer would only have slowed down the rate.

Four, I did use the W3KM Logger program (free) and after a few county runs, I found my routine. I had my doubts at first about using a logging program, but I definitely did not cherish the idea of going back over paper logs, much less re-living the trip listening to a tape recorder, to enter the contacts into my own computer logs. I use Access to maintain my own personal logs (Fixed, Mobile and DX databases). The W3KM program kept track of calls, times, bands, reports and counties. This was all easily exported to Excel, reformatted for my Access logs, and imported into Access. In less than an hour all 2600+ QSOs were transferred to my Access Mobile logs and ready for checking MRCs. W3KM Logger

Five, having the computer with Street Atlas + GPS at the operation position kept me from having to stop the Q's and ask Pete a lot of "where are we", "what's next" and "how much longer" questions. I kept it on the screen behind the logging program. He still reminded me to get back to work as we crossed into a new county.

So, what didn't we like? NOTHING! We started each day as planned, ran counties until it was time to quit, always found a motel and a place to eat. For a December time frame, even cutting the trip short at the end, one couldn't ask for a better time. I do wish the higher bands had been better for our EU CHer's though. We did work a few of them but not like we had hoped. Your pileups on 30m did bring in several EU and SA stations that thought you had found some DX 'pedition!

If you get a chance to see Pete's setup, especially if it is in the contest/county hunting trip arrangement, plan on spending some time checking it out with your questions … you definitely will glean some fresh ideas. Good times! .. and 73 from Pete and Guff.

Signor Marconi's Magic Box

Every now and then, I run past the Half Price Book Store to see if there are any interesting books for sale. Usually I depart without spending any money – the library is full of good books, too, and they don't cost me money out of my pocket (although my taxes pay for them). This time I found a copy of Gavin Weightman's recent paperback book on Marconi – widely regarded as 'the father of radio'. That led to doing a bit more research on the subject.

Like many others of his time, he wasn't regarded as someone who brilliantly 'invented' many things, but like Samuel Morse and the telegraph, he did brilliantly put together many ideas of the time and provide a practical invention – modern radio communications. He then hired technically competent people to help him solve problems. He didn't understand the science of what was happening, yet he created a multi-million dollar business that led two way communications for over a decade and a half. Like Edison, he often used trying one idea/possibility after another until something was found that worked.

From http://www.madehow.com/inventorbios/40/Guglielmo-Marconi.html

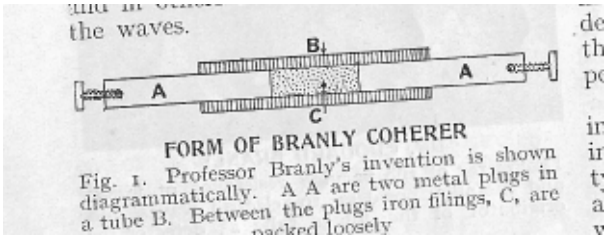
"The greatest strength of Guglielmo Marconi was not his ability to innovate, but his mastery of synthesis. Assimilating the ideas and inventions of others, Marconi brilliantly fashioned a working technology. Born in Bologna, Italy, on April 25, 1874, Marconi was the son of a wealthy Italian landowner and his second wife. Educated by private tutors as a child, Marconi was later sent to the Technical Institute in Leghorn where he studied physics and electromagnetism.

A number of key events set the stage for Marconi's experiments. British physicist James Clerk Maxwell (1831-1879) had established a theory about the existence and behavior of invisible electromagnetic radiation in the 1860s. About twenty five years later, German physicist Heinrich Hertz successfully generated such radiation, which he dubbed "Hertzian waves," using a spark-gap device.

In 1891, Professor E. Branly published a very exhaustive account of research into the detection of electromagnetic waves. He observed that an electric spark – the origin of the waves – could alter the conductivity of many loosely packed conductors. Branly invented a detector in the form of a tube containing loosely packed iron filings between, and making contact with, two metal plugs. In this device, when electromagnetic signals are present, the filings 'cohere' together. Fig below shows Branly's coherer. Under normal conditions, the conductivity of the filings is very low, but under the action of a spark the conductivity is greatly increased. Branly experimented with many materials. Branly was the first to realize one could detect "Hertzian Waves" at a distance.

In 1894, English physicist Oliver Lodge invented another form "coherer " capable of detecting Hertzian waves with relative efficiency, and a year later in Russia Aleksandr Popov had devised an antenna circuit capable of boosting reception and transmission.

In 1894, the year that Hertz died, Marconi came across a technical magazine that discussed some of the possibilities of Hertzian waves. Intrigued, he began to experiment with a spark-gap generator at his family's estate. He made a key improvement to the coherer. He spent countless hours attempting to find the best materials to use – finally settling on 95% nickel and 5% silver. Where others had used rather large tubes, he adopted a much smaller size of glass tube – just 4-5 cm long and only 5mm internal diameter. He used much finer filings and produced coherers with far more sensitivity than any else had done. He devised an effective vertical antenna consisting of an elevated metal plate connected to another plate on the ground.



FORM OF BRANLY COHERER

Fig. 1. Professor Branly's invention is shown diagrammatically. A A are two metal plugs in a tube B. Between the plugs iron filings, C, are packed loosely

Above illustration is that of a Branly Coherer
(Illustration from Harmsworth Wireless Encyclopedia circa 1920)

Marconi experimented with coherers, and found a mix of nickel and silver filings worked well for 'detecting'. Lodge had invented an automatic tapper that would restore the high resistance of the detector after it had 'detected' a signal, and Marconi used this. After every 'dit', the coherer had to be mechanically tapped to reset it! (to de-cohere the filings!)

Within a year, Marconi was successful in sending wireless Morse code signals a distance of more than 1.5 miles (2.4 km). Marconi also found that when he attached sheets of metal to his antenna in certain configurations, the radiated radio waves focused into a directional beam. When Marconi was able to transmit and receive over a hill that blocked the line of sight in September 1895, he became convinced that the potential of radio as a means of communication was far greater than anyone had anticipated."

In 1896, Marconi moved to England, settling in London. He was hoping to sell his invention to the British Navy, then the most powerful in the world. He had help from William Preece, the director of the British Post Office – the equivalent of AT&T in England, and did successfully demonstrate communications shortly over a distance of 9 miles. Marconi was convinced that with higher transmitter power and better equipment, he could transmit 'much further'. He really had no idea of what the limits were.

"Marconi demonstrated better business sense than many of his contemporaries. Seeing the commercial potential of radio, he began to protect the devices he used by taking out patents with the help of his cousin, a British engineer. He received his first patent for a radio transmitting apparatus on June 2, 1896. Marconi also founded corporations both in Britain and the United States, and continued to file important patents guaranteeing his companies exclusive use of key devices."

From: http://home.luna.nl/~arjan-muil/radio/coherer.html

"The coherer, which is the result of the work of many men - Hughes, Lodge, Branly and Popoff among others - consists essentially of a small quantity of metal filings lying loosely between metallic electrodes. The first practical form of the device for telegraphic purposes was brought out by Marconi. and consisted of a very small quantity of nickel filings, to which were added a small percentage of silver filings, lying between silver electrodes having beveled ends so that the space between them, in which were the filings, was

wedge-shaped. The purpose of thus beveling the plugs is to enable the sensitiveness of the coherer to be adjusted. The most sensitive position is when the nose of the wedge is pointing downward and reverse position is that of least sensitiveness. The plugs and fillings are enclosed in a glass tube, which is exhausted to a partial vacuum, and the wires connected to the plugs pass out through the ends of the tube"

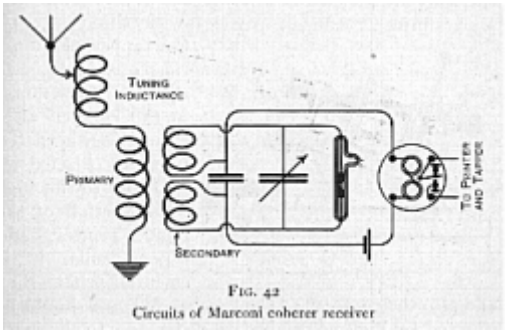


FIG. 42
Circuits of Marconi coherer receiver

Marconi Receiver Diagram

"The antennae circuit consists of turning inductance and primary of oscillation transformer joined in series and connected to antennae and earth. The secondary winding of the oscillation transformer is cut in the middle but its continuity for electrical oscillations is preserved by the insertion of a condenser. To the ends of the secondary winding is connected a variable condenser for turning it to the primary and across this latter is the coherer. The relay with a single dry cell in series is connected across the condenser inserted in the break of the secondary winding. To the contact terminals of the relay are joined a battery of the cells in the series with the Morse printer, and in parallel with the printer is the tapper, the function of which is to shake loose the filings in the coherer after it has been actuated by the oscillations".

In 1899, Marconi transmitted across the English Channel to France – another milestone. He was using spark gap transmitters and the 'coherer' detector. He was convinced there was no limit to his range – he just needed bigger antenna systems and higher power transmitter systems! He incorporated rudimentary 'tuning' although at the time, he didn't understand 'resonance' and why it helped. He was a tinkerer.

In 1901, Marconi successfully demonstrated that signals would travel across the Atlantic Ocean by detecting signals in Newfoundland from his main station in Poldhu, England. The equipment at the time was very primitive.

Marconi had both the Branly coherer, and the Bose/Solari Mercury Detector of 1901 in Newfoundland. His transmitter in Poldhu was on about 833 KHz (plus likely strong harmonics). It was rated at 13 KW output – a 'double spark design'. (two separate spark gaps – and by accident, some 'tuning' components which he used to 'match' things.) No one really knows for sure what frequency (ies) the transmitter was on as it was using a secondary antenna, which didn't last long in the weather.

Now, Marconi had the good sense to file patents. Two physicists – Oliver and Lodge – had discovered 'tuned circuits' but did nothing with the information. They found that tuned circuits would excite each other over a distance. Marconi's spark gap transmitters were basically broadband noise generators. He found that by putting capacitors across the tuning matching inductors, he got better performance.

Marconi slowly grasped the idea of tuning – and resonance - called then syntony, and filed his famous 'Four 7s' patent – patent #7777. This was the key to building his radio communications empire along with other patents he had or would get. He was also quick to use other's inventions, improve upon them, and change them slightly.

From: http://www.californiahistoricalradio.com/photos63.html

"Marconi's Mercury detector patent application shows a bias voltage across the Mercury interface with Carbon and Iron electrodes.

The possibility of significant gain arises from the fact that the power into the device as radio frequency (RF) energy is minuscule. Yet if it is even just barely enough to change the electro-chemical properties of the coherer's internal interface, it permits a great deal more power (as DC current) to pass though. It is this DC current that operates a transducer. Initially Marconi (and others) employed landline telegraph inkers as a visual display of a message. Marconi, in Newfoundland, used a telephone receiver earpiece to hear the pulse of DC from the bias voltage applied to the Mercury detector". This was a simple 'mechanical type' amplifier –which probably provided the extra gain to allow Marconi to hear 38 times the "S" sent by Poldhu over the several days of experiments.

In the Solari (also known as the Italian Navy Coherer), a small globule of mercury was used. This was the detector, designed by another Italian, Captain Bonomo, that heard the signals across the Atlantic.

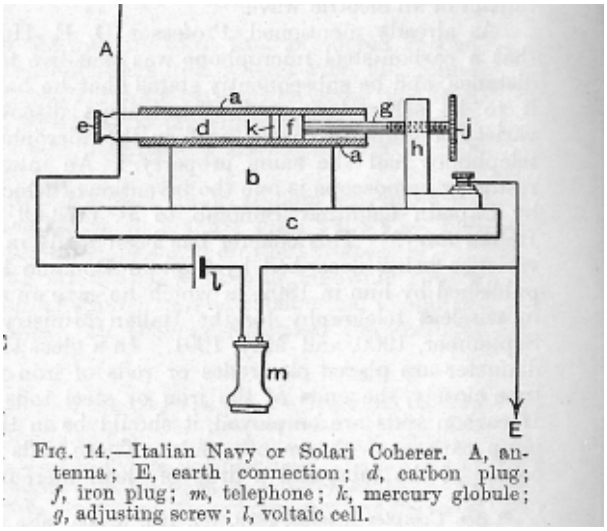


FIG. 14.—Italian Navy or Solari Coherer. A, antenna; E, earth connection; *d*, carbon plug; *f*, iron plug; *m*, telephone; *k*, mercury globule; *g*, adjusting screw; *l*, voltaic cell.

Italian Navy Mercury Detector (aka Solari)

(Source: Principles of Electric Wave Telegraphy, JA Fleming, 1908)

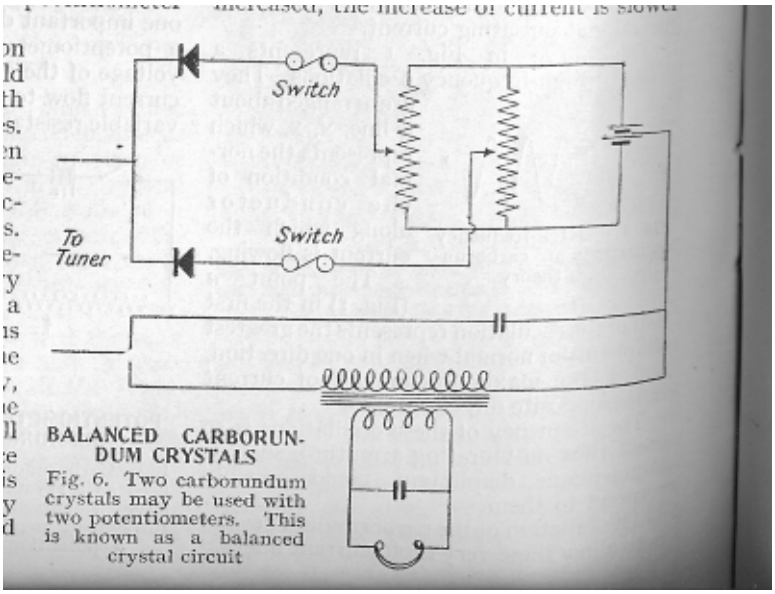
Later, Marconi would use a balanced carborundum detector for even lower frequencies. These required bias to operate well. (Experimenters found later that galena crystals would also detect radio signals) Within a few years, Marconi was setting up trans-Atlantic communications systems that used 38 KHz and 55 KHz to pass message traffic across the Atlantic on a routine basis – spark transmitters using high powered r.f. alternators as the 'source' of power!

The nice thing about a carborundum crystal is you screw it down tight. The entire surface works. With galena, you need a cat-whisker and need to find a 'sensitive spot' that can be very tricky to find, and even trickier to find and keep adjusted when on a rocking, pitching ship!

Carborundum is a chemical produced composed of silica and carbon. Dunwoody, in 1906, discovered that carborundum crystals had the power of rectifying high-frequency signals. They were used for their abrasive and grinding properties – it is second in hardness only to diamonds. It was quickly found that best performance as a detector occurred when one applied bias to the crystal – so early circuits had a bias battery and potentiometer to forward bias what we now call the junction. Even after galena crystals were discovered and used, Carborundum detectors were still used to a large extent in WW1 due to their ability to withstand vibration such as gunfire where others would be useless. Galena crystals required a 'cat whisker' and were

only sensitive in spots, where the entire carborundum crystal was useful at any point.

Marconi used a 'balanced detector' as illustrated below



Balanced Carborundum Detector

(source: Harmsworth Wireless Encyclopedia)

In this circuit, the crystals were biased to conduct in opposite directions. (Carborundum exhibits a "S" curve of conductivity – good in one direction, poor in the other). One is adjusted to the most sensitive position and the other to a less sensitive position. When normal signals are received, the action is the resultant of the rectification of the two crystals in opposite directors. When strong oscillations are received, as in a lightning static burst, those due to atmospherics or proximity of transmitting station, the current is not so much rectified in proportion by either crystal. The result is that strong signals are largely balanced out, so increasing the ability to hear weaker ones. (sort of like a primitive automatic volume control). Switches are used so one crystal can be cut out altogether when atmospherics are not strong or local interference is small.

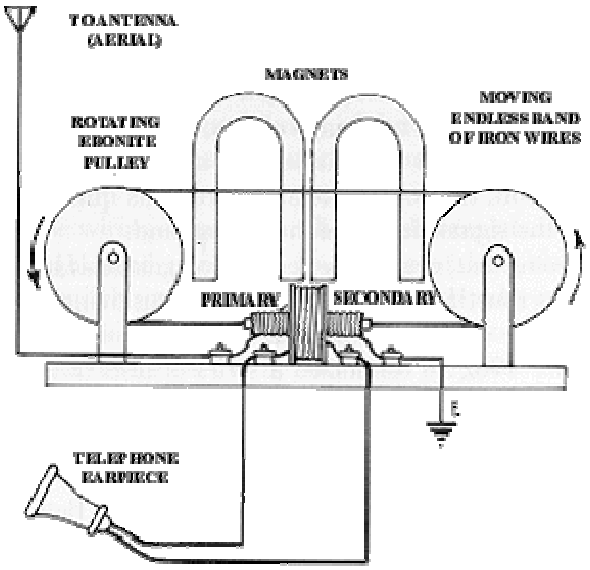
What you get is a form of static 'noise blanker' that worked well at the VLF frequencies that Marconi used! If you operate on 80M during the summer

time, you know how bad thunderstorms can be. 160M is even worse, and Marconi was using 250-500 Meters, and for some services, 1000 to 3000 meter wavelength!

Marconi sold/leased his system to the British Navy, and then to passenger liners would wide. He had locked up most of the patents necessary for radio communications, although the Germans attempted to 'engineer around' the patents he held. At the time, many wealthy people traveled on ships – the only way to cross the oceans, and then quickly expected to enjoy the Marconi wireless radio to send and receive wireless telegrams at sea. Marconi successfully commercialized on this 'need' and sold more and more systems to ship lines.

A later invention – the Magnetic Detector – became the standard. While it wasn't that 'super sensitive' it did provide a lot of immunity from static – and ship to shore and ship to ship communications was at 250 KHz and 500 KHz – the bands where there is massive QRN from thunderstorms all the time! Good operators would go along at 35-40 wpm right through the static! Now, you'll probably scratch your head over the magnetic detector for quite a while to figure out how it could possibly work.

Here's the diagram of it:



Source: http://www.sparkmuseum.com/MAGGIE.HTM

From Wikipedia:

“The Marconi version consisted of an endless iron band built up of 70 strands of number 40 gage silk-covered iron wire. In operation, the band passes over two grooved pulleys rotated by a wind-up clockwork motor. The iron band passes through the center of glass tube which is close wound with a single layer along several millimeters with number 36 gage silk-covered copper wire. This coil functions as the radio frequency excitation coil. Over this winding is a small bobbin wound with wire of the same gauge to a resistance of about 140 ohms. This coil functions as the audio pickup coil. Around these coils two weak permanent horseshoe magnets are arranged to magnetize the iron band as it passes through the glass tube.

The magnet poles are arranged to create two opposite magnetic fields each directed toward (or away) from the center of the coils in opposite directions along the wire. This functions to magnetize the iron band first in one direction as it approaches the center of the coils, then reverse its magnetism to the opposite direction as it leaves from the other side of the coil. This causes a reversal of the iron band’s magnetism just as it passes through the coils. This continuous reversal in magnetism induces a very weak DC current in the audio pickup coil.

The radio signal from the antenna is tuned and passed through the excitation coil, the other end of which is connected to ground. That radio signal in the excitation coil aids the reversal of the magnetization of the iron band as it passes under the audio pickup coil. This works by agitating the magnetic domains to reduce reluctance in the iron band. Changes in the amplitude of the radio signal change the rate of magnetic reversal in the moving iron band. This causes variation in the magnetic flux through the audio pickup coil causing the current in the audio pickup coil to vary. The audio pickup coil is connected to a telephone receiver which converts the varying current to sound.”

The iron band travels at a few millimeters per second.

From: http://www.antiqueradio.com/marcmagdet_06-99.html

“The first "Maggie" (the nickname widely used for the magnetic detector) was installed in the Italian Navy's warship the *Carlo Alberto* in 1903. Magnetic detectors were very reliable for shipboard communication and were the primary detectors installed on European vessels from 1903 to 1912,

replacing coherer type detectors. In fact, because of their reliability, magnetic detectors were used as back-up detectors on many ships into World War I to supplement crystal and later vacuum tube diode detectors. Although wireless technology was developing at a very fast pace at this time in history, because of its dependability, the Maggie had a remarkably long period of usefulness."

When the Titanic sank in 1912, the CQD and SOS message was sent by spark gap/arc transmitter and received by Magnetic Detector – then the standard on all ships carrying Marconi equipment.

At this time, the USA was full of experimenters. The first decade of the 20th century saw thousands of experimenters – using simple spark coils (like a Model T ignition system) and simple detectors. The first ham radio club was formed in 1909. A simple 'ham station might get a few miles. A big ham station maybe out to 25 miles, and an exceptional ham station out to 100 miles. Spark and the 600-3000 meter area were 'king' for radio.

The first 'cat whisker' galena crystal detector was invented around 1910. Everyone shared the same spectrum – and literally everyone was on top of everyone else as tuning was rather primitive, and spark gap transmitters put out noise across the band. Commercial stations had lots of power (KW) but experimenters also managed to make lots of noise. It wasn't long before commercial stations wanted protection from interference.

The first audions (tubes) had been invented in 1904, and it took until 1913 before De Forest made one oscillate (a triode). Only a few scientists in labs could afford to build and tinker with them. They started to see commercial use in the mid-teens.

Before long, government started issuing ham radio licenses. The Radio Act of 1912 banished hams to the 'short waves' above below 200 meters (frequencies above 1.5 MHz). Armstrong invented the first regenerative receiver in 1913. CW was born. By 1917, there were over 6000 'hams'. In 1917, the US entered WW1 and ham radio ceased. Hams were told to dismantle their receivers and transmitters. Over 4000 enlisted into the army.

Marconi never realized how propagation worked. Despite work by Heaviside and Lodge who proposed an ionospheric influence on radio, Marconi throughout the first two decades of his business persisted in using

only ‘long waves’ – from 33 KHz(thousands of meters wavelength) up to 600 meters – 500 KHz.

“In 1902 (Oliver) Heaviside predicted that there was a conducting layer in the atmosphere which allowed radio waves to follow the Earth's curvature. This layer in the atmosphere, the Heaviside layer, is named after him. Its existence was proved in 1923 when radio pulses were transmitted vertically upward and the returning pulses from the reflecting layer were received.”

Source: http://www-groups.dcs.st-and.ac.uk/~history/Biographies/Heaviside.html

Anything higher in frequency to ‘long wave’ was considered ‘useless’. That was 1.5 MHz and above in those days. Marconi never could explain why signals traveled further at night than in the daytime. He just accepted that as ‘that’s the way it is’ and worked around it. Hams, after WW1, discovered that ‘short waves’ work better than ‘long waves’ for global communications. New bands at 80, 40, 20 and 5 meters were created, and spark was banished in the mid 1920s.

Marconi’s main idea of ‘more range’ consisted of bigger antennas and more powerful transmitters. It took WW1 to change all that quickly, plus the fact that hams had been banished to ‘short waves’. The US government had confiscated all radio patents during the war. Afterward, the patents and assets of American Marconi were sold to General Electric, who formed RCA- Radio Corporation of America – to start producing radio equipment and systems.

By 1916 or so, Marconi was adapting to using ‘balanced detectors’. This helped to cancel out some of the static. Audions – the first vacuum tube amplifiers and detectors, followed quickly AT&T had made audions into reliable amplifiers for long distance landline communications. . However, they heard all the static at ‘long wave frequencies’ as well as the signals very well.

Continuous wave transmitters, first using Poulson arcs and rotary gap transmitters, along with r.f. alternators, then vacuum tubes, followed, and the era of old spark quickly came to an end, as well as the era of coherers and Maggies after WW1. By the early 1920s, broadcasting was in its infancy, and radio technology exploded over the next decades. Spark/arc transmitters was outlawed from ham bands in 1926.

Yet, until just recently, ships at sea kept watch on 500 KHz – 600 meters - and had to be monitoring that frequency 24 hours a day for emergencies from ships at sea. Only with the advent of satellite emergency location was 500 KHz finally retired from use – after a century of continuous use. That's quite a record, and it all started with Marconi.

For much of his life, he was involved in patent disputes. He was successful in most, up until World War One, when governments then forced patent holders to surrender them, and radio companies were 'nationalized' for the war effort. Afterwards, basically everyone had rights to previously patented technology, and the state of the art had moved from spark to continuous wave. Even today, there are billion dollar patent suits going on in two way radio/warless, and the history of commercial broadcast and TV is filled with tens of thousands of patent infringement suits and settlements and claims. Patent suits controlled how AM broadcasting and receiver technology, then FM broadcasting/receiving, two way radio, and TV. Businesses were made or lost depending upon the outcome of patent suits.

Marconi continued in business – but now with competition worldwide after the World War. He eventually started to experiment with 'short waves' and even 'microwaves' before his death. He was a true genius in that he recognized previous work and inventions that he could adapt to radio communications and the 'business of providing communications', and through relentless 'tinkering' succeeded in creating effective 'wireless communications'.

See a 1921 spark gap transmitter in operation at:

http://youtube.com/watch?v=6ybYxkt3UxU

Not long ago, a complete 1910/1912 ham spark gap station was found at a garage sale. See the story of finding this treasure, and what it contained. Now it is part of a radio museum exhibit. Nice site at:

http://www.radioblvd.com/DoddStation.html

More spark era equipment at:

http://www.radioblvd.com/WirelessPhoto.htm

More Marconi pics of equipment at:

http://www.sparkmuseum.com/MARCONI.HTM

The Marconi book is a fair read- if you get it for a few bucks, great - but don't waste a lot of good money on it- borrow it from the library!

Other interesting books if you are interested in digging deeply into the technology of the 1890-1920 era:

Wireless Telegraph – The Origins, Development, Inventions, and Apparatus by Charles Henry Sewell, 1903, reprinted 2000 by Brohan Press.

Harmsworth's Wireless Encyclopedia, London (1915-1920?), 3 volumes

Principles of Electric Wave Telegraphy by J. A. Fleming, Longmans, Green, and Co, London, 1908 (rare)

Practical Wireless Telegraphy, by Elmer Bucher, Wireless Press, 1917

Syntony and Spark – The Origins of Radio, Hugh G. Aitken, Princeton University Press, 1976 paperback

A History of Wireless Telegraphy, J.J. Fahie, Arno Press reprint, 1971

Induction Coils – How to Make, Use, and Repair them, H.S. Norrie, 1901

Operator's Wireless Telegraph and Telephone Hand-Book, Victor Laughter, 1909 and 1918

Wireless Telegraphy and Wireless Telephony, A. E. Kennelly, 1909

MARAC Origins and Giving Out Counties

MARAC Origins - A county hunter called a while back on the landline and we had a long talk about the current 'state of affairs'. He noted it seemed a lot of the stations 'on the net' were simply content to 'work the mobiles' that happened to be out there, qualifying for more and more MARAC awards issued to fixed stations. The conversation went back to the original purpose and intent of MARAC.

If you look at the name of the organization – you'll see it starts out as **MOBILE** AMATEUR – and that is why it was started – to give out awards to mobiles! Marac issued no awards for USACA type accomplishments. No Bingo. No second time. No Big Rig. No YL. No Prefixes or Nth time. Zip. The awards were for mobiles – last county awards – mobiles giving out 25 counties or 50 counties or 100. Mobiles giving out all the counties in a state. It was an organization composed of active mobile stations – of, for, and by the mobiles. In the 'old days' there were hundreds and hundreds of active mobiles – with attendance at conventions and minis topping out at over 250 attendees. **Folks came because they ran mobile! Contrast that to today where some folks arrive at conventions by airplane, or drive but don't run a single county getting there! Sometimes half the folks!**

Today, in the ham radio community, there are at least 10 times as many mobiles out there as 20 or 30 or 40 years ago – just go to Dayton and start counting mobile antennas – the number of cars with HF antennas is truly staggering. Yet, for some reason, only maybe $1/10^{th}$ of 1% of the total antennas ever get tuned to county hunting frequencies. And usually just once until they feel 'unwelcome' and never return.

What are we doing wrong? Back 30-40 years ago, I'd venture at least 25% of the mobile installations were tuned to the county hunting frequencies! There were dozens in every state QSO party. Now, you can't interest new mobiles in county hunting. Some state QSO parties have NO mobiles, others have 1 or 2 the entire contest! Some state QSO parties have no stations! Fixed or mobile! Every year, one or two QSO parties get cancelled.

A query - Has the net commandant in SC and his sidekick "just plain rotten" on 14.336 managed to run off that many, or given county hunting such a bad reputation that almost no one considers it? Oops – I forgot..you are not 'allowed' to ask a query on net. You must have a 'question'. Has the image of county hunting suffered so much over the years that we cannot attract more quality people to county hunting? (if you go to Dayton and mention county hunting, there are sadly so many NEGATIVE comments heard.). I moderate the county hunter forum which hopefully will interest new hams. I try to recruit folks, but it is darn hard given 20M SSB situation.

Are most people afraid to even mention the 20M SSB net to new recruits? Are you going to invite a ham to ride along and share the 'excitement' of County Hunting as seen on 20M SSB? (like a 2nd grade parochial private school classroom where you are punished for any infraction of unwritten "rules" by getting your knuckles verbally whacked with a ruler? Where you are 'allowed' or 'not allowed' to do something? Where 'net helpers' are 'allowed' or 'not allowed' to do things?). With someone afraid of phonetics and more than willing to castigate someone for a slip up instantly turn them off? (and still not get calls posted correctly on the spotting websites?) I dunno. Sure not like the old days with friendly net controls that encouraged rather than discouraging new folks. And more importantly, RETAINED the older folks with experience.

Listen to 14.336, and you'll hear the smart aleck side-kick in FL mouthing off. Every comment he makes is a caustic, sarcastic comment about something or someone. It's the other 'club of one' station. It seems that often one club station would rather be jamming someone that helping them, making comments about how they maintain their own little 'clique' of their 'chosen' folks, and would rather be running off mobiles than getting new mobiles on the net. When was the last time you heard one of the two 'Clubs of One' operators mobile? Isn't ironic that the two NC stations for the 'mobile county hunting net' haven't been spotted mobile in years? What do you think when folks hear the NC (KZ2P) yelling 'You aren't wanted on THIS frequency' over and over again? What sort of image does that present to anyone listening?

County hunters used to have a mobile that ran NJ all the time. Doug, WA4UNS. He was 'run off'. Oh, he's still around. Now, if you need NJ on 20M SSB, good luck. You might catch him on 40M where he hangs out now or make a sked off freq.

We used to have a mobile team that ran in FL all the time – Mary, NV4Z and George, AA4GT, now. If you needed south FL on SSB, they'd put out the counties. Now 'run off'. You need FL on SSB? Tough luck, Run off.

The most active mobile in IL on SSB was run off. Need IL on 20 SSB? Good luck. Better hope you are in 40M range or on cw as N9STL, or dig her out from the jamming on 20M SSB.

Ohio? One of the active mobiles there 'run off'. Need OH on 20M SSB? Tough luck…mobile has been 'run off'. And so it goes around the country. Others just 'hang it up' because they aren't willing to run on the 'trashing and bashing net'. Try and find a mobile on SSB in all New England. Rhode Island. Connecticut. Massachusetts. Vermont. Maine. Vast areas with no mobiles. Try ND, SD, MT, ID, OR, IA, MS. Try most of CA other than one far ranging mobile, and UT, NV. ID? Forget it – the mobiles were run off.

Worse, it has been the experienced county hunters with 'stars' and Bingo that help folks qualify for higher level awards that seem to get run off regularly – by the dozens.

How about IN? W9GBH was quite active on SSB putting out the counties on SSB. He sponsored the recent IN convention for MARAC. Now, good luck finding an IN mobile on SSB in his part of IN on 20M. Herb's been chasing counties now on cw. Been 'run off' 20M SSB by 'you know who'.

North Carolina? Need it on SSB? Good luck. One of the most active mobiles, Gene, N4ANV, run off. He was one of the chief sponsors of the Hampton Roads MARAC convention. Same with several of N4ANVs friends who no longer go to SSB to run because of this, and when they are on, are on cw. Fortunately, Bill, KM1C, and Gene, WB4KZW have helped out in NC lately.

Even worse, since the 'commandant' can't keep a 'net control slave' (one who will unquestioningly and absolutely ENFORCE the 'rules' about who can and can't run on HIS net, about who can and cannot get relays, and who is in 'time out', etc)…. In the west to look back east, and the folks back east can't even tell if a net is in operation most days. The folks out west have, one by one, just decided they don't want to be a participant in the 'you are

allowed' and 'you aren't allowed' to run or relay in certain folks depending upon the 'black list' additions of the commandant that day to the 'black list' of 35-40 or more stations. They aren't going to 'follow' his orders of who he wants 'run off' and who is denied relays, and they have to listen to him yell at full volume to their friends 'YOU AREN"T WANTED HERE!' type comments. Many of them very active on other bands and modes now.

TX? Need it on 20M SSB? Good luck – most active mobile has been 'run off', but if you are on 40M SSB or on cw, no problem. Folks get finished off there. Also there are several other active CW mobiles in the state.

And on and on – entire parts of the country without any active mobiles on 20M SSB – either run off, only run on cw, or discouraged because the folks they used to talk to aren't 'allowed' on 14.336, or are jammed when they try to work the mobile, or can't get a relay from the 'commandant' to you. Why go there when half the active stations needing it can't get a relay or are jammed? Why bother go mobile if you only run on SSB when the commandant and sidekick won't relay in a long list of stations 'not allowed' on net, or even let you talk to them without attempts to obliterate the contact or information?

It wasn't very long ago where there were dozens and dozens more mobiles – who ran through the last downturn in sunspots during the 1990s putting out county after county on SSB, both 40M and 20M. There were active big rigs on SSB running all over the country. There were folks on trips. Folks just out for a day. Now, either they stick on 40M SSB, operate cw, or don't even turn the radio on. The majority of big rigs now on are cw on 40M SSB. Those with screwdriver antennas don't waste the time and effort to 'tune' it to 20M – it just wears out the motor, and usually there isn't anything to listen to on 20M SSB.

And on and on. With activity at an all time low, the last thing you need is more SSB mobiles 'run off' than actually are now running elsewhere, or just decided to 'retire' and stay home. We have entire states with no activity for MONTHS at a time!

On CW, nearly all the regular net control stations are out there running mobile (W0GXQ, N9QS, W0QE, K8ZZ, AA9KH, AA0IP, NM2L, N9JF, WA7JHQ and many others helping) , so they know what it is like these days

to be mobile. They don't run folks off, and are getting new mobiles out there on cw to help out the folks finish up.

Now, WA2DWP, KD4HXM, WB4FFV, W8FNW, W0NAC, KB9MGI and a bunch of others, plus new cw regulars like WQ7A, KM9X, KA0SHC, N2OCW, WY7LL, WV2B, come over to CW to get their counties if 40M SSB isn't good at the time. Lots of new blood on CW. With 80, 40, and 30 and 20M there is usually a band that works for the distance involved.

Same for the folks on 40M SSB - N5UZW, K8ZZ, KM9X, W0FP and many others running counties and know what it is like as opposed to the other two on 20M SSB sitting on their butts running off the mobiles (and many fixed stations who just can't even stand to hear them and the bashing both on the air and in the 'chat room'). What a shame.

Even worse, the commandant delights in trying to jamming mobiles and wiping out the upper 30 KHz of 20M, taking out the nets on .340, .345 and .347 in his brain impaired jamming efforts. Oh, and also wipes out 14.336 in the process, but, heck, he really doesn't seem to care about anyone else other than his own private wars and ego. What are a few nets in progress, when he can jam a mobile? He'll go on for 10 or 15 minutes wiping out 30 KHz of the band. Totally amazing. Checks .336 for any mobile, then back to jamming.

What's more reason to not be a county hunter? What does more damage to the image of the 14.336 'net commandant' and the 20M SSB 'county hunting' net? I sent an email to the folks running the nets on 14.340, 14.345, and 14.347 which he been was wiping out time and time again for a 3 day period in early December, explaining what was happening to their nets and who was doing it and what his 'excuse was'. Only fair to fill them in.

How do we know for sure? Well, it seems James slipped up. He had one VFO of his fancy rig set on 14.342 where N4CD was running off freq most of the day on Sunday, Dec. 16, 2007. When he heard N4CD there, he'd start the jamming – carriers, feedback, noise…must have turned up the gain and amp for all his Alpha multi-KW amp could muster – but folks still got through. (his loud IM products went out 6 KHz either side of his sig that day) Every 20 seconds, he'd go back to 14.336 and ask "This is K2JG. Is there a mobile station who'd like to run a county?" If he didn't get an answer immediately, he'd be right back on 14.342 with the jamming effort.

Many got through anyway. (after the first few counties, a few cellphone calls were made and folks learned of the 'other freq' I was using – hi hi).

First, and during the entire weekend, slowly, folks noted he couldn't be in two places at the same time. If you called on .336 while he was off frequency jamming, magically he just wasn't there. By listening with two VFOs, the jammer was EITHER on 14.342 or K2JG was talking on 14.336, but never at the same time. Time after time after time. Point #1. Despite fancy rigs, K2JG can't be transmitting KW jamming signals and be talking/listening on 14.336. Most rigs including basic mobiles now let you simply switch between A/B VFOs or you can set both frequencies in adjacent memories and switch back and forth. At home stations, folks could set up 'dual receive' if they had in their rigs, and listen to both. Easy for anyone to draw a conclusion. He was never on .336 when the jamming was occurring. (on the third trip in Dec, I actually started working stations there on 14.336 when he was on 14.342! – 15 seconds at a time! He never knew it – imagine that!)

Then Point #2 - One time he slipped up….big time…..and was heard by county hunters around the country who had receivers on 14.342 waiting for N4CD who was attempting to run off frequency. After I was finished one time….and he thought he had successfully run off N4CD and ruined any possible contacts…...Suddenly KZ2P was asking "Is there a mobile station who'd like to put out a county?"…but on 14.342! Not on 14.336!

Now, why would K2JG have a transmit VFO set on 14.342? **I can think of absolutely no reason. No one had run there other than N4CD all day.** He must have been tired after switching back and forth maybe 100 times checking .336 for a mobile, then back to 14.342 to jam for 15-20 seconds at full power, **and this one time forgot to push the button to get back to 14.336.**

He was heard loud and clear by stations listening for N4CD. He was identifying on 14.342, repeat, 14.342…'This is K2JG…Is there a mobile station who'd like to run a county? ". **Ooops.** He has been nailed. He identified himself on the same frequency he had been jamming. Caught for sure. His goose is cooked. Managed to hit the right buttons 80 or 100 times, but you only have to miss once to screw up, and he did. **So point #2 – he**

identified himself as the jammer! Absolute, incontrovertible evidence. He provided it!

Also several others used their beams – you don't 'peak the beam'. You use the null at the side which is more sharp and precise. Gives you an angle 90 degrees off the heading. For example, if you are in Chicago, and if your heading is 120 degrees (say right at St John's Island SC), you'll see the null at 30 and 210 degrees – depending which way to swing to get 'off the side' of the beam. Based upon whether stations can hear K2JG (and thus hear the jamming or not) plus beam headings, the evidence is VERY strong, plus obviously his own goof of identifying on 14.342 accidentally. His goose is cooked. Nailed! KZ2P is the jammer. Let's see…failure to identify. Intentional interference. Malicious interference…..hmmm..folks guess he is still trying to lose his ham license? Trying to give county hunting a good reputation? Making points with other occupants of the band?

So that is 3 separate points hard to argue….but to top it off…..

Sunday morning James had a power failure. Guess what? No jamming on Sunday morning for 3 hours. As soon as he was back on 14.336, after he announced he had been off the air due to a failure of a transformer down the street, guess what? The jamming started again. No power at the K2JG hamshack – no jamming. Power at the K2JG hamshack – immediate jamming again. Proof #4. It doesn't take that much to add the information together, plus his own slip up of identifying himself on 14.342 and calling for a mobile there accidentally!

Now, can anyone ever remember James calling for a mobile to run on 14.342? Of course not. He never moves off 14.336. He left a trail of evidence that anyone could follow. And even he or his 'sidekicks' or most ardent "supporters" cannot argue with the trail of evidence.

No wonder why there aren't many new folks in county hunting – two days in the chat room and they get the idea that it is a 'club' for two or three ego-maniacs trying to control what anyone can and cannot do and what anyone can and can not even say **even 'off frequency'**! A day or two and folks realize the net commandant, who is supposed to be running mobiles, is spending parts of his day willfully and malicious and illegally jamming other mobiles and nets on the 20M band. Who wants to be associated with that?

What do new folks observe on their own quickly? What is 'allowed' and who mobiles can talk to without being interfered with? Who, they as mobiles, can get relayed in and who cannot for some reason get a relay. It's like second grade parochial school with a sadistic teacher run by a few big bullies. Who, after 2 days in the chat room, would want to be a part of that? (And that is the often first thing recommended to newcomers!).

Who, after a day trying to run a county the first day, when some stations calling 'aren't allowed to be relayed in' or are interfered with by NC 'coughing fits', quickly get the idea that county hunting must be for idiots and those willing to give up their choice of who they can and can't 'work' on certain ham frequencies? Or somehow have to mysteriously join the 'clique' by agreeing with everything the 'commandant' tells them is gospel. Or learn about stations (and other nets) jammed even off frequency by the 'club station'? No wonder there are very few new 'recruits' on 20M SSB. Or to county hunting. Who would want to be associated with such demented, illegal behavior of the 'club' station that 'is always there'?

I sure still enjoy county hunting, but I'm not sure if I was starting out in ham radio that I would get involved in it now. You aren't 'allowed' to talk to him or her. You get 'kicked' out of chat rooms. You aren't 'allowed' to use phonetics.' You aren't 'allowed' to get a relay to this or that station. **You 'aren't allowed' to work this or that station or NC will attempt to interfere with or talk over the station.** Huh? Just listen on 14.336.

Worse, net helpers have to swallow their conscience if they decide to 'help' him. If someone is calling who isn't allowed to 'have' a relay, they either have to 'pretend' not to hear them, or simply ignore their old friends trying to work the mobile, or say 'I'm not allowed to relay you in!" What is it, second grade? You are not allowed….he is not allowed…she is not allowed….may I have permission to? It's absolutely no wonder why no one will lift a finger these days to help KZ2P. Who in their right mind would kow-tow to his silly 'rules' and list of who is and who 'isn't' allowed, and HAVE TO FOLLOW THEM or 'else'? Or work with someone trying desperately to lose his ham license to jam mobiles no matter what?

Yes, he has 'total control' – by himself….but over an "empire" almost devoid of mobiles. Who is willing to give up their conscience and participate with him as a 'net slave' in his bullying tactics? Almost no one these days.

Most hams out there do have a conscience and just aren't going to participate with him, help him, abet him, or condone such actions.

Ham radio faces a serious challenge to interest people and retain them. It seems MARAC has done little to try and get new people involved. It seemingly turns a blind eye to those who give county hunting a black eye, refusing to do anything about that, either. Despite repeated, intentional, and consistent poor behavior completely in violation of the rules and spirit of MARAC, these two 'chub' folks remain 'members in good standing' with MARAC. One of them often receives a major annual award. What for? The largest number of MARAC members run off 14.336? Occupying an empty frequency that both he and Percy have emptied? Jamming 20M off frequency? It sure makes you wonder why one even joins MARAC these days when this behavior is condoned.

MARAC seems to have evolved to merely issuing awards now primarily to FIXED stations, with the emphasis on creating many more awards. MARAC membership levels likely plummets year after year faster than the real estate market.

What is MARAC doing to give county hunting a good reputation? Don't ask me – I haven't figured it out lately. MARAC does have lots of awards for folks to work on, but it seems only a 'hardcore' group is working on most of them. Folks are a lot more excited about working the FJ new DXCC entity than trying to work all counties.

Is the entire community of hundreds of county hunters evolving to be 'sitting on one's butt' and 'watching' or 'waiting' for the spots to appear, with only a dozen or two active mobiles in the entire group? In the beginning, MARAC was ALL about mobiles and mobile operation – 250 came to a single convention! Now it seems to have morphed to the opposite. Half the folks arrived at the "MARAC" South Carolina mini-convention and don't run a single county on the way there!

Cars get better mileage today, too. Cars back then were lucky to get 15-20mpg. My 1966 Mustang got in the high teens for gas mileage. My 1975 Ford Van got 13 mpg. The '83 Sentra got 23 or so. That didn't stop me from treks all over the country – but that was before I was a county hunter. That is not most of the reason why mobiles aren't out today- although a few

are on tight budgets and not out. The CW mobiles are out in force. Gas has yet to reach the inflated adjusted price levels of the late 70s and early 80s.

What's your take on this? How do we get more interested? Is there hope for MARAC? Is there hope for 20M SSB? Everyone complains of 'no mobiles out running'. How do we get more into county hunting? How do we get and keep more new mobile ops, get them all excited about county hunting, and get them into the social group of county hunters meeting at conventions and minis? MARAC just seems to have lost its focus.

Or maybe the two folks on 20M SSB have really had success in 'running off all the mobiles' (both experienced and newcomers) to the point where there are few left, and few interested in even tuning to CH freqs other than 40M SSB and CW?

It's still LOTS OF FUN on cw and there is lots of activity year round. The state QSO parties can be a lot of fun –either chasing mobiles or being one yourself! Without mobiles, MARAC will indeed become 'the fixed station' award club, likely for working just other fixed stations that get on the air.

I ran mobile all during the last sunspot minimum in the 1990s. There were dozens of others out running too. Despite tens of thousands of more mobile units installed in cars nationwide in the past 15 years, maybe 100,000 more, we have fewer and fewer mobiles willing to venture on 20M SSB and the county hunting nets. Maybe K2JG has succeeded beyond his wildest hopes? Run 'em all off? Turned everyone on 20M SSB into a spot watching fixed station waiting for a 'fix' that seldom appears. Meanwhile, he is telling everyone that 'things are normal'. They aren't. County hunting is ailing in getting new blood.

Or maybe folks just 'yawn' at the mention of MARAC. A place to send in for their awards as they sit home waiting for spots to show up, and maybe eventually finish up when someone wanders through their last counties on 40M SSB or on CW? MARAC needs some good leadership. Maybe more emphasis on mobiles and less on fixed stations.

At the current rate of decline of mobiles, it won't take but a few more years of business as usual on 14.336 for the 'clubs' to have succeeded completely for the SSB folks. Then what? Everyone sitting at home?

Peak Oil News

A) Better Lithium Batteries

Exxon Mobil Chemical and Exxon Mobil's Japanese affiliate, Tonen Chemical, have developed new film technologies for lithium-ion batteries with the potential to improve the energy efficiency and affordability of next generation hybrid and electric vehicles.

These new film technologies are expected to significantly enhance the power, safety and reliability of lithium-ion batteries, thereby helping speed the adoption of these smaller and lighter batteries into the next wave of lower-emission vehicles.

"By developing new film technologies that allow lithium-ion batteries to meet hybrid and electric vehicle requirements, Exxon Mobil Chemical is helping to make next generation vehicles more energy and cost efficient, as well as lighter," said Jim P. Harris, senior vice president, Exxon Mobil Chemical Company. "We are currently working with industry-leading battery manufacturers to expand the boundaries of current hybrid and electric vehicle applications."

Separator film is an integral part of battery system design and critical to overall performance. Exxon Mobil Chemical's new technology platform builds on twenty years experience in lithium-ion battery separators, applying advanced polymer and process technologies with flexibility to tailor products to battery manufacturer requirements.

First introduced by Sony in 1991, lithium-ion batteries were designed to help slim down portable electronics devices. But automakers have struggled to adapt them for vehicles because of operational limitations, high costs and safety issues.

Last year, 6 million Sony lithium-ion batteries in Dell and Apple notebook computers were recalled because of overheating that in some instances resulted in fires.

That recall gave a boost to companies working on improving lithium-ion batteries, including Exxon Mobil Chemical, which has 20 years of experience in the field, and Boston-based Optodot Corp., which has also developed a separator film for lithium-ion batteries.

Separator films are membranes that keep the battery's positive and negative fields, which are wrapped in a jelly-roll configuration, from touching.

Exxon Mobil developed its film with Japanese affiliate Tonen Chemical. Invented in research labs at Exxon Mobil's Baytown complex, the film is the first to squeeze multiple layers of plastic into a single white sheet the width of a human hair.

The added layers enable the batteries to run at higher temperatures — and produce more power — while still protecting them from overheating, company officials said. It also incorporates features that cause it to shut down if there is a short circuit in the battery.

This year, Americans will buy 354,000 hybrid vehicles, accounting for about 2 percent of total U.S. auto sales, according to J.D. Power and Associates in Troy, Mich. By 2012, hybrid sales will grow to 1 million, or nearly 6 percent of the market, the firm projects.

A hybrid, like the Toyota Prius, combines a gasoline engine with an electric motor to achieve better fuel economy and lower emissions than vehicles with only a traditional internal combustion engine.

But hybrids still cost roughly $3,000 more than their gas-powered counterparts, and can weigh up to 900 pounds more, leading to sluggish performance.

More practical

If Exxon's film separator can reduce the costs and weight of battery systems, then hybrids could become more than a niche market, said Erich Merkle, auto analyst with IRN, an industry research firm in Grand Rapids, Mich.

"Quite honestly, that's the type of thing that's going to make hybrids much

more practical, because right now there's some real economic factors that hold hybrid sales back," he said.

Exxon Mobil is working with the leading battery manufacturers to incorporate its film separator technology, Harris said. To date, the company has only produced test batches of the film but has the capability to begin mass production through its affiliate in Japan, he said.

Among the biggest lithium-ion battery manufacturers are Japan's Sony, South Korea's Samsung and Johnson Controls in Milwaukee, Wis.

More Lithium Batteries – further out

Stanford researchers have found a way to use silicon nanowires to reinvent the rechargeable lithium-ion batteries that power laptops, iPods, video cameras, cell phones, and countless other devices.

The new version, developed through research led by Yi Cui, assistant professor of materials science and engineering, produces 10 times the amount of electricity of existing lithium-ion, known as Li-ion, batteries. A laptop that now runs on battery for two hours could operate for 20 hours, a boon to ocean-hopping business travelers.

The greatly expanded storage capacity could make Li-ion batteries attractive to electric car manufacturers. Cui suggested that they could also be used in homes or offices to store electricity generated by rooftop solar panels.

The electrical storage capacity of a Li-ion battery is limited by how much lithium can be held in the battery's anode, which is typically made of carbon. Silicon has a much higher capacity than carbon, but also has a drawback. Silicon placed in a battery swells as it absorbs positively charged lithium atoms during charging, then shrinks during use (i.e., when playing your iPod) as the lithium is drawn out of the silicon. This expand/shrink cycle typically causes the silicon (often in the form of particles or a thin film) to pulverize, degrading the performance of the battery.

Cui's battery gets around this problem with nanotechnology. The lithium is stored in a forest of tiny silicon nanowires, each with a diameter one-

thousandth the thickness of a sheet of paper. The nanowires inflate four times their normal size as they soak up lithium. But, unlike other silicon shapes, they do not fracture.

Research on silicon in batteries began three decades ago. Chan explained: "The people kind of gave up on it because the capacity wasn't high enough and the cycle life wasn't good enough. And it was just because of the shape they were using. It was just too big, and they couldn't undergo the volume changes."

Then, along came silicon nanowires. "We just kind of put them together," Chan said. For their experiments, Chan grew the nanowires on a stainless steel substrate, providing an excellent electrical connection. "It was a fantastic moment when Candace told me it was working," Cui said.

Cui said that a patent application has been filed. He is considering formation of a company or an agreement with a battery manufacturer. Manufacturing the nanowire batteries would require "one or two different steps, but the process can certainly be scaled up," he added. "It's a well understood process

B) More “Export Land” Model

Remember the last few issues outlining the ‘export land’ model where producing countries start to use more and more of their production, leaving less and less available for export? Indonesia, still a member of OPEC (oil producing and exporting countries) hasn’t exported a barrel of oil for years – it uses all it produces. Now, per Bloomberg news:

Indonesia: “Dec. 2 (Bloomberg) -- PT Pertamina, Indonesia's state oil company, will cut liquefied natural gas shipments to Japan from 2010 to meet domestic demand, the Nikkei newspaper said, without saying where it got the information.

Indonesia will cut supplies to 2 to 3 million metric tons a year for contracts being renewed for 2010 and 2011, from 12 million tons under existing agreements, the newspaper said. The contracts account for 80 percent of Japan's annual imports from Indonesia of 15 million tons, according to the

report.

Pertamina plans to cut supplies to six Japanese companies including Kansai Electric Power Co., Chubu Electric Power Co., Kyushu Electric Power Co. and Osaka Gas Co. to 3 million tons for the first five years of a 10-year contract, and 2 million tons after that, for a contract it plans to sign this year, the report said."

The Wall Street Journal had articles about how OPEC members are using more of their production. CNBC was talking about Peak Oil. Maybe soon the public will finally get the message?

From Dec 12 – Wall Street Journal

"Long the biggest spigot for crude oil, Saudi Arabia now has broader ambitions. It wants to become a big exporter of chemicals, aluminum and plastic, and in the process to create jobs. So Saudi Arabia is on a building binge. In the works are new seaports, an extended railroad system, a series of new industrial cities and a score of refineries, power stations and smelters. Over the next dozen years, such Saudi investments are expected to consume $600 billion. **But they'll also consume something else: large quantities of Saudi oil -- oil that otherwise could help slake other countries' growing thirst.**"

"Saudis also are guzzling oil in more traditional ways. They're clogging highways with shiny Hummers and Chevy Suburban. Saudis are now the world's biggest oil consumers per capita, at more than 32 barrels a year per person. That's twice the rate of South Korea and well ahead of the U.S., which consumes 25 barrels a year per person.

The result is that 22 barrels of every 100 the Saudis produce stay at home, compared with under 16 of 100 seven years ago. Forecasts from the U.S. Energy Department and the International Energy Agency say that by 2020, **Saudi Arabia will be consuming more than a third of its own oil** -- leaving a lesser share for American cars, Indian airliners and Chinese factories.

The Middle East remains awash in oil, with more than 60% of the world's proven reserves. Saudi Arabia says it has 264 billion barrels, which would

be enough to supply the entire world's needs, at today's rate of demand, for almost nine years."

Oh, I just love statements like Saudi has enough oil to last the world nine years. Let's see - that gets us to 2014. So if we could (and it isn't possible) suck out all that oil in 9 years, Saudi would then go bust (no economy) and there wouldn't be enough oil for the world from other sources.

If you recall the 'export land' model, it suggests that oil exporting countries are using significantly more of their own production, while at the same time their production is falling (or will be) resulting in tremendously less oil on the market for importers – China, the USA, and most of the world. The news is going 'mainstream' when you see it in the WSJ and on network TV now. The handwriting is on the wall.

Of course, the Middle East is experiencing a population boom as well.

"Thirty years ago, Saudi Arabia had fewer than eight million people. Now it has over 24 million." At the rate it is growing, it will be double before you know it. With 'free' everything, subsidized housing, gas at 25c/gallon, and essentially guaranteed income for everyone whether they work or not, the incentive to have large families is high.

So just where will tomorrow's oil come from?

C) Kyoto Treaty Update

Oh, funny – the latest conference to do a Kyoto Treaty update (2012 forward) was supposed to have about 1500 delegates. It turns out since it was in tropical Bali – a very nice, expensive tourist destination, 15,000 people decided they just 'had to attend' at tax payer expense worldwide. Naturally, with 15,000 people in attendance, not much was accomplished other than saying China and India, with China now set to be the world's largest emitter of CO2, must sign on and start reducing CO2. That will kill any chances of anything happening.

China built more coal power plants with more energy production last year than all the power grid capability of the entire country of England, and will

build even more next year. Even more will be built the next year, and so on for the next 20 years! Of course, China and India think they should be exempt, and that 'past polluters' should bear the brunt of CO2 emissions cuts, cutting them by 90%, while China and India to up them by 500% or 1000% or 5000% over the next 20 years. Keep in mind that China will be the #1 source of CO2 emissions for the entire world in 2007. And they want to be totally exempt? What a joke! (And an Al Gore scam on the rest of us – carbon taxes – and the like, while China is exempt). If you believe in GW, that would be like using a teacup to bail out the Titanic while it was sinking, ignoring the millions of gallons of water flooding in.

D) ASPO NEWS

From the December ASPO Newsletter

"It is obvious that the major oil companies of the world are motivated to deliver the maximum amount of profit to their shareholders, most of whom have a short-term view of the future, buying and selling positions on the stock market in the hope of a quick return. Flat-earth economics proclaim that money to-day is worth more than money tomorrow. Oil has been trading on a trend of rising prices, which might provide the companies with a motive to withhold production to reap higher returns tomorrow, but on other hand the investment in installed facilities gives them an incentive to maximize the throughput of existing capacity.

It is reported by the oil journal, Platts, that the combined production by BP, Shell, Chevron, ENI, Conoco Phillips and Marathon declined by 6% for Third Quarter of 2007 compared with the corresponding period of the year before. Shell apparently led the pack with a decline of 9%. It rather suggests that the fields owned by these companies have passed peak, and are not only in decline but are not being replaced by new fields.

Clearly the major oil companies face contraction in the years ahead, which, if intelligently managed, can still be achieved profitably. It will be interesting to see which of them admits to the new policy first : there are signs that it might be BP, which is already shedding staff."

E) Kuwait Comes Clean - Dec 12, 2007

“It was an incredible revelation last week that the second largest oil field in the world is exhausted and past its peak output. Yet that is what the Kuwait Oil Company revealed about its Burgan field.”

The peak output of the Burgan oil field will now be around 1.7 million barrels per day, and not the two million barrels per day forecast for the rest of the field's 30 to 40 years of life, Chairman Farouk Al Zanki told Bloomberg.

He said that engineers had tried to maintain 1.9 million barrels per day but that 1.7 million is the optimum rate. Kuwait will now spend some $3 billion a year for the next year to boost output and exports from other fields.

However, it is surely a landmark moment when the world's second largest oil field begins to run dry. For Burgan has been pumping oil for almost 60 years and accounts for more than half of Kuwait's proven oil reserves. This is also not what forecasters are currently assuming.

“Kuwait plans to invest $51 billion over the next five years in its energy industry to increase production capacity and stem declining supply from older oil fields, the head of the state oil company said.”

“Kuwait does not produce enough gas to meet its own needs and has held discussions with Iran and Iraq about importing gas. The country's power demand is soaring by about 10 per cent a year as government subsidies protect consumers from the rising cost.”

http://p088.ezboard.com/Kuwait-to-invest-51b-in-energy-over-five-years-/fdownstreamventurespetroleummarkets.showMessage?topicID=21642.topic

de N4CD: So what do we have? Second largest field in the world, Burgan, now in decline. Readers of the CHNews know the third largest, Cantarell in Mexico, is dropping 10-15% per year in output. Mexico output dropping despite heroic measures at other fields. Likely Burgan will begin to descend nearly as quickly. Also, with cheap internal energy prices, internal demand in Kuwait for all fossil fuels is going up 10%/yr – meaning they have less and less to export each year (the ‘export land’ model). Is this getting your attention now?

On the Road with N4CD - 1

Eventually if you put enough miles on the car, things begin to wear out, plus you have 'routine maintenance'....oil changes, air filters, gas line filters, etc - many county hunters have 'worn out' cars with high mileage. Sooner or later, you get whacked with big repair bills.

As I headed home on the November trip from MD, the Buick LeSabre started to have a 'whine' in the front....and it got louder and louder as I headed toward Texas. If you have ever had studded snow tires, you'll remember the sound as you go down the highway..... or if you ever had a bad belt on a tire....or a bad bearing.....that was one problem. The other problem was that the oil pressure meter (digital) sat at 130 PSI all the time. Usually, it was between about 45 to 75 PSI depending on engine speed. You don't 'need it' unless for some reason your oil pump fails or something else.....which can result in engine demise....and you won't get an indication of imminent doom about to happen if the sender isn't working! If your oil light comes on, stop immediately, turn the engine off, and call a tow truck.

So it was off to the Buick place today for those two things....plus other routine stuff like new PCV valve, new air filter, and new gas line filter. The car has 172,500 miles on it.

Well, the bad news started. Oil sender was bad (sort of figured that) but it is $162 bucks on the Buick to replace it. That was the first minor ouch. The 'whirr' in the front end was diagnosed as the front left 'wheel hub'. ($560). Ouch again - major ouch. So I said go ahead and fix it.....the noise had started 3000 miles ago and was getting louder and louder - and eventually would fail catastrophically somewhere maybe far from civilization on a Sunday. So they replaced that.

Then they test drove it again...problem was half resolved.....still had 'not as strong' noise.....diagnosed as the right front wheel hub being worn. So that had to get replaced at a bargain price of 'only' $465. (these are fancy front end wheel bearings – but are the hub to which the disc brakes, anti-lock brake sensor and other stuff attaches.)

Well, other than a major transmission rebuild at 155,000 miles (very big ouch), and BOTH rear window power window motors defunct, the rest of the car seems to still be in good shape, so more county hunting coming up. (Oh, I did have to replace left rear turn signal, too, after the trip but that was $6 for new bulb – seems you can't buy just one in most places - so I have a spare).

I'm not ready to buy another new car, so this better last to over 200K without any more major repairs.....it's digging into the county hunting trip budget in a big way!..... It might only 'cost' 10c/mile for gas (at 29-30 mpg on the road), but there's another 10-15c/mile in maintenance and depreciation on the car. Suddenly those bills are adding up! (But I'm not the only CH in that position – hi hi).

Heck, with all the money I spend on CH, I could afford to buy one of them fancy ICOM $11,000 radios and stay at home for just a year or two and never put out a single county like some "club station" in SC. If I stayed home another year, I could buy Alpha amplifiers and big beams and towers. That wouldn't get anyone finished up….and that isn't what county hunting is about. It's about mobiles and mobile OPERATORS putting out counties, not about 'bogus callsigns' and 'borrowed calls' and second and third calls which are not your own personal calls. Way back when, MARAC was about mobiles. It seems to really have lost that focus.

So if the weather is decent, you might hear N4CD out testing the repairs on the car….and seeing how far it will go before it dies. Oil prices up around $90/bbl and gas likely to hit $4/gal by summer if the world doesn't descend into recession/depression. Diesel is already $3.35 almost nationwide. The price to transport things is increasing, meaning food costs are significantly climbing.

Maybe two years ago, one weekend day I stopped by Ray, WA5OPO's QTH and we went out for a day of county hunting. Now very active chasing counties on cw, Ray has occasionally put out counties himself. Here's a pic of Ray:

Ray, WA5OPO (Just got Five Star Award #31 – Congrats!)

Nanotech news

FED-TVs With Carbon Nanotube Technology Could Supersede Plasma and LCD Flat Screens

"Just as silicon is the wonder material for the computer age, carbon nanotubes will most likely be the materials responsible for the next evolutionary step in electronics and computing. Their extraordinary properties have identified them as having the potential to revolutionize many technologies.

In particular, it is widely believed that carbon nanotubes will take electronic devices to the next level. Many people expect the hugely popular LCD and plasma screens of today to be replaced by field emission flat screen displays (FED-TV). FED-TV's take all the best aspects of CRT's, LCD's and plasma TV's and roll them into a single package. While the technology exists, manufacturers are at present unable to compete with LCD's and plasma displays on a cost basis. However, carbon nanotubes have the ability to change all that.

In order to incorporate carbon nanotubes into devices like these field emission flat screen displays, an intimate knowledge of the properties of various forms of carbon nanotubes is invaluable. Researchers from University of Latvia, University College Cork, Trinity College Dublin, University of London and Mid Sweden University have just published work characterizing the conductive and field emission properties of single and multi walled carbon nanotubes.

These findings make a significant contribution to the understanding of the structure/property relationships for carbon nanotubes, which in turn bring the next generation flat panel televisions and monitors a bit closer to our lounge rooms and offices."

Source: http://www.azonano.com/news.asp?newsID=5353

High Mileage Cars – Million Plus Miles

County hunters have a tendency to put lots of miles on cars. Gene, W1TEE put 375,000 miles on his Plymouth Duster running all counties twice. There's an interesting web site by Mercedes – seems they run a 'high mileage club'. If you get 250,000 km (155,000 miles) or more on your Mercedes, you can get a special plaque to put on it – and they have endorsements for higher and higher levels of up to 1,000,000 km, and one for 1 million miles. Over 3,000 people have gotten the quarter million km award.

The current record is held by Gergorios Sachinidis, a Greek driver who has 2.8 million miles on his 1974 Mercedes 240D (diesel). Others reaching the 1,000,000 mile mark include on couple in CA, who bought a 1970 280SE and drove it to over a million miles.

http://www.theautochannel.com/news/2005/05/10/072401.html

From a 1994 Guinness world record book, one 1963 VW went 1,442,000 miles by a California owner. A 1979 Cadillac had gone 577,000 miles without an engine overhaul.

Not to be outdone, Volvo has a high mileage club at:

http://www.volvoclub.org.uk/hmc/index.shtml

The top official listings include one 1966 1800S with 2.4 million miles on it!

These days, it is not unusual to hear of cars with 250,000 miles or 300,000 miles on them. In the 60s, if you got up to 80,000 miles, that was considered very high mileage. Now in the 21st century, many cars will easily go 150,000 miles before major repairs, and with some replacement of parts and rebuilds, might keep running for half a million miles. The body work and seats and upholstery might be in worse shape than the mechanical parts of the car by the time you wear it out! One of my neighbors just sold a 1977 Ford F-150 with 400,000 miles on it – didn't get much for it – but it was still running! Toyotas and Hondas seem to run forever if maintained.

Working toward Platinum

Here's a list of the Master Gold holders from the MARAC database. In order to receive the Master Platinum award, you must make a contact with one of these individuals after the date they received their Master's Gold Award in a county. (or once you have MG, make contact from the county with another MG holder)

27	**WQ7A**	**10/27/2007**
26	**AB4YZ**	**10/5/2007**
25	**KB6UF**	**7/11/2007**
24	**N4UJK**	**2/14/2007**
23	**N0ZA**	**1/6/2007**
22	**N9QPQ**	**11/10/2006**
21	**N8KIE**	**11/6/2006**
20	**WG6X**	**10/26/2006**
19	**AB2LS**	**10/15/2006**
18	**K2JG**	**10/4/2006**
17	**N4AAT**	**6/11/2006**
16	**N9STL**	**5/2/2006**
15	**W6TMD**	**11/16/2005**
14	**AA9JJ**	**11/9/2005**
13	**KC6AWX**	**7/28/2005**
12	**N9QS**	**5/14/2005**
11	**N4CD**	**9/29/2004**
10	**ND3T**	**9/2/2004**
9	**KC3X**	**4/7/2003**
8	**KI0JD**	**5/6/2002**
7	**N8STF**	**4/25/2002**
6	**K9DCJ***	**1/31/2002**
5	**W3CR**	**2/18/2001**
4	**KC4UG**	**1/9/2001**
3	**N7BKW**	**9/5/2000**
2	**KZ2P**	**7/3/2000**

1	K5GE	11/12/1999

I did a search on W6RK for the number of spots (indicative of the number of counties put out) by each of these Master Gold holders. It's interesting to see who was active in 2007, 'giving out the counties' helping others get to their MP award level, and who wasn't. There are two silent keys in the list. For those with MG, one must transmit from 500 different counties (no repeats counted) after they get their MG award to qualify for Platinum part II requirements.

From W6RK, going from oldest award date to current time in year 2007 – approximate count:

K5GE	500+ spots
KZ2P	Big fat zero for past 2 years
N7BKW	0 - been 'run off'
KC4UG	SK
W3CR	10 (very active 2000-2006)
K9DCJ	SK
N8STF	25 (very active 2000-2005)
KI0JD	100+
KC3X	15
ND3T	100+
N4CD	500+
N9QS	500+ (was previously KC0JG)
KC6AWX	25
AA9JJ	500+
W6TMD	500+
N9STL	500+
N4AAT	500+
K2JG*	Big Fat Zero (not even eligible to hold MG)
AB2LS	10
WG6X	500+
N8KIE	500+
N9QPQ	500+

The following people received their MG in 2007, so didn't have the full year to run counties. The date of their award is after the number of spots after their award date.

N0ZA	25	1/6/2007
N4UJK	1	2/14/2007
KB6UF	250+	7/11/2007 new
AB4YZ	none	10/05/2007 new
WQ7A	6	10/27/2007 new

So what does the data indicate? Several Master Gold holders, despite being quite active from their fixed stations, didn't even run a single county in 2007or ran less than 15. Of those who didn't run many in 2007, several were quite active in 2005 and 2006.(N8STF and W3CR) **The majority of Master Gold holders** put out 25 or fewer counties for the entire year!

The mobiles putting out and spotted more than 250 times include KB6UF, N8KIE, N9QPQ, AA9JJ, N4CD, WG6X, N9QS, K5GE, W6TMD, N4AAT, and N9STL. That is less than a dozen very active MG mobiles. In the 100+ spot group we add in KI0JD and ND3T. (AB4YZ put out many in 2007, but only got MG late in the year). It appears county hunting has a very active group of 'super mobiles' but also quite a few others who have earned MG, but no longer give out counties for one reason or another.

That makes it rough for those seeking the MP award. It is – at the current time – a real challenge. Good – but not every award should be 'easy' – something that you can do in 18 months, then do again and again….and again like clockwork. While several are up to 2700 MP counties in their totals, it's going to be challenging to get the others, when half the MG mobiles are inactive mobile wise for the entire year, never giving out counties. Or if you missed the one time a county was run, when will it be run again? Realistically, a few of the formerly active mobiles have situations keeping them close to home, but several others are quite able to get out and about, and chose not to.

Hopefully, a few additional **ACTIVE** mobiles will qualify for MG and start to give out contacts good for the Master Platinum award. Conditions aren't great, but with 40M and CW, well over 1500 MP counties have been put out in the past year.

On the Road with N4CD II

The K3IMC County Hunter web page lists the 'most wanted' counties for each state based upon posted needs in the Special Needs. These contain needs for all the awards, including prefixes, MG, Five Star, YL, and others, so you may not be able to help out everyone if you go to those counties. Of course, many of the needs are for USACA/Nth time or other awards, so you can give those out even if you are just a new county hunter. It helps to print out the needs for the state of interest, so you can see who needs what for each type award. I then make a copy of the state map from a blank coloring book, and identify the 'most needed' counties. That gives one an idea of which part of the state is in demand, and it is then easier to plot a route to get many/most of them in a trip.

Others had starting making 'most wanted county trips'. I decided it was time to run the panhandle of TX again. Way back when, before I retired, I usually ran the panhandle every six months on a 3 day weekend. With 254 counties in TX, it's hard to get folks finished up without many trips. (I checked the log, and N4CD ran over 160 TX counties in 2007.)

The weather was supposed to be good for 3 days before the ice storms moved into that part of the state – and then into Dallas. With that in mind, the route was planned going west through Baylor and Archer and then west out to Briscoe, then north. Most folks headed to the panhandle go up Route 287 from Wichita – along the railroad tracks. If you stay anywhere overnight along this route, you'll be within a ¼ mile of the train tracks and probably hear them go by in your motel room at night. All night.

The first day, progress was good with very long runs on 40cw and 40SSB, and good runs on 20 and 30cw, and on 20M SSB when the band was open. As I headed west, Darrel, W6TMD, had sent me email that mentioned that Crosby was the "LC" for the Master Platinum Award. Hmmmm…with another 25 miles I could hit Crosby, and several others had asked for it – so I decided to go that far west.

Crosby TX – LC W6TMD for MP – no QRN here on C/L! –flat and empty!

The QRN on most of the main roads in TX is usually fairly low – the best places to run are on the Interstate, and the main highways. On secondary roads, it can be very good (no power line) or horrible – large noisy power lines on both sides of the road. Most of the power lines seem to go to 'pump jacks' pumping oil – and they don't worry about QRN from the power lines. There are few houses out this way. If you don't run the county regularly, it is a crap shoot about how good/bad it will be as you head on unfamiliar roads.

Unless you run things frequently, you can find things a real mess when you get to a county line and there is S9 noise. Having run the panhandle many times, I had my favorite spots to run. However, in seldom run Crosby and other places, once on secondary roads, things got pretty bad. I managed to work just about everyone calling with trouble, then got back on the main roads later on. (with a lot better r.f. situation). Friday was a warm day - 50s/60s. I was looking forward to two more decent days of weather – that is what the weatherman had promised. Sun, warm, no rain.

The first night, I didn't quite get as far as I planned – too many good runs, an added county, with long runs on 40M SSB (usually stopped on a county line). Many are chasing band-counties now. Clarendon TX lies along route 287 – good place to find a motel. I had gone through many counties with no motels (as least on the roads I had selected). There aren't too many choices

without going 50 miles out of the way in much of the panhandle or south of it. Clarendon originally was six miles away, but when the railroad was laid out, and it missed the town, the entire town packed up and moved to the new site 120 years ago. Now, it is a bump in the road (287) for folks traveling from Dallas to Amarillo to Denver.

Many were working me on 40M – both SSB and CW – filling in band-counties for the Top Challenge Award. Then 30 and 20M. Conditions were very good on 40M to most of the country on cw- working east coast to west coast most of day.

In west TX, many of the motels are named "Western Skies", the "Bunk House", "Ranch House", "Open Skies", the "Western Motel", etc. Many are also 50-60 year old motels updated to some more modern standards. In most cases, prices are reasonable ($40-50/night) and the accommodations satisfactory. You can find Best Westerns and Days Inns at $75 or $80 or more/night in many major towns, too – but out of my county hunting budget. It was getting COLD and damp. The heat ran quite a bit the first night in the room. Dinner was at the Clarendon Steak House - Catfish Buffet for $7.

The majority of folks in this 'family restaurant' in the town center were well over 60 – maybe 30-40 - and just a few kids. Probably representative of most of the town – as the younger generation had graduated high school – then went off to college or other places for employment. There is not much to do in this town other than a small junior college, 'county seat' and tourists passing through on the way from Dallas to Denver – and a hundred motel rooms.

Way back when, there used to be rail yards where cattle were loaded onto trains to head to market. Down the street was the other restaurant/bar in town – the lot was filled with pickup trucks – likely the drinking crowd.

Days are a lot shorter in December – during the summer (when it will be hot, guaranteed) – the sun is up well before 7am, sets at 8pm, and you have a lot more time for county hunting. Now in December, the sun is up at 7:40am in west TX, and sets at 5:30pm. So I am usually stopped by sunset, and don't get too far before sunrise either these days. That means less miles each day in the winter. Chilly temps occurred in the morning the next day and I had to scrape just a bit of ice off the windows.

The second day I headed north, to discover the antenna was getting ice from the humid, very cold air as I moved through it. I was back on the normal N4CD panhandle route – the car knows it by heart. Up through Roberts and Hemphill, up to Ochiltree and Lipscomb then west two by two on small roads. From experience, I can tell you where to run the county lines and which side of the road to be on – and which highway since I likely have run them 20 or 30 times before. There are also many places to avoid. Nothing changes quickly up there.

One does have to wonder how the few small towns out there still exist. In the mornings, you see folks leaving their houses (farm houses) and driving who knows how far to jobs – maybe 35 to 100 miles away. With gas prices rising each year, how long will they be able to afford it? Most of the small farms and ranches need at least one wage earner working somewhere else to make ends meet. Like many areas of the country, there are literally thousands of old abandoned places – folks moved on as farms were consolidated and technology allowed farming much larger acreage. Now, they are rotting away -Many more of them than occupied houses.

It was then west to Hansford and Hutchinson on some very lonely back roads – but at 70 mph. These two counties often at the top of the 'most wanted list, and there is not much reason to go there! The roads were good, but the antennas were getting a coating of ice which was starting to detune the antennas down about 100-200 KHz. I had to stop a few times before running and get it off. At this point, it was easy to get off. One time I simply took the 40M hamstick for SSB inside the car for 20 minutes to de-ice it while zipping to the next county line. Then I used it to try to scrape off the ice on the main antenna and mast (resonators 9.5 feet up – too high to reach from the ground and the bumper was icy too) before I put it back on the mount on the roof.

Joyce, WB9NUL, is closing in on Bingo. I ran her county on 40SSB. No Joyce. WD9EJK needed it too for a LC- he is closing in on next time, too. He was there for it. He needs just a few more. I ran all the bands, then went back to 40M SSB hoping Joyce was there – she was, and now she is down to a handful to finish off Bingo. The guy who lives in the house on route 281 at the county line (Hansford/Hutchinson) must wonder why cars with big antennas stop right across the street from his house several times a year – I've been there 20 times before as others likely. That's where the C/L is, and it is quiet r.f. wise.

The weather wasn't too good – it was supposed to be in the 50s, with the winter weather further north. I listened to the AM radio – it was snowing in KS – 50 miles north, and OKLA was having a major 'winter storm' and ice warning. (winter storms tend to go across OK and clobber OKLA City and Tulsa with regularity – and usually include the panhandle). Suddenly the forecast for the panhandle was temp around 28-32F, drizzle, and worse weather coming tomorrow including major ice.

Charlie, W0RRY, just north of Tulsa, received over 1.5 inches of ice from this storm – out of power for 8 days – antennas brought down by ice and 28 trees demolished. He is moving to full time RV and will be down in TX away from Tulsa. Joyce, N9STL, reported lots of ice/bad weather in IL and many other CH affected by the storms that took out power to over a million for days and days until things could get repaired. Winter is here.

Now it was also getting foggy – 32 degrees or colder and fog so I had to slow down. I wound up at the NW corner (Dallam) then headed south to see how far I could get – I was behind schedule. The really bad weather was promised for tomorrow now, so I decided to 'be as far gone south' by then! The weatherman has seriously goofed. There wasn't any sun in sight.

From Dallam south it is very lonely road – 385 - but well traveled – there is only one or two roads in all of Oldham and Deaf Smith counties. It was very foggy (less than 40 mph speed) as I crossed the Interstate 40 and still decided to head further south. Eventually the dense fog ended. Where was the promised 50 degrees and sun? Nothing but cloud layer 100 feet up at best, gloom, drizzle and moisture freezing on anything cold (tree branches, grass on side of road and of course, antenna parts). Icicles hung off the front of the car, too. Luckily, the road surface was warm enough so traction wasn't a problem.

I wound up making it down a few more counties to the great metropolis of Muleshoe, TX (pop 4500). There are several 50s vintage motels there - $46 including tax at the 'Village Inn'. It was cold and going down to the 20s. Dinner at the China Buffet for $7.50. The heater ran frequently keeping the room warm. I should have taken in the antennas to keep them warm and de-iced. The radio comes out each night, but I seldom take antennas off the car.

The last day I hoped to get home. Listening to the local TV news at the motel,), the forecast was "ice, winter mix, and freezing temps, icing roads, foggy, and dangerous conditions for the panhandle area". That was supposed to be moving east toward Dallas, too. I decided it was time to 'be gone' and head home with determination with no extra detours.

In the morning, I woke to find ¼ inch of ice on the car – and antennas. Temperature in town was 24 degrees. After 15 minutes of scraping and chopping, I got enough off to start driving and heading south two by two. Roads were OK. You can run most of these counties by running south on small roads, then going across to the neighbor county and running on parallel small road going south. That way you spend 15-20 minutes in each county – which was not even enough to run all the bands – so sometimes you stop in the county, or at a C/L to run it on one band/mode, then get moving again to make some time and distance.

I QSYed up to 20M for the folks after the 40M SSB run most of the time, on 14.342, and 10 or so were waiting there and quickly got them. Or the 'alternate freq' on 20M that half a dozen knew about. While K2JG was busy jamming .342, I was elsewhere in the band making pre-arranged contacts. Then back on .342 to keep him jamming with broadband noise all the nets from 14.330 up to .350, plus the other government channels up another 10-15 KHz. Truly amazing! Most folks got their needed counties – either on .342 or the other freqs on 20M SSB I use. The VFO A/B switch works fine in the mobile. It's a dang shame he wiped out the regular nets from 14.300 to 350 for the better part of 3 days every 30 minutes or so. The CA/HI net. The EME net. The YL net. The GE Net. He jammed them all. Plus more.

After heading south to Andrews, it was up to Borden (dead end run – was there for half an hour giving out contacts)…then over a short distance to Mitchell/Scurry line. After that, it was 300 miles headed east on highway 180 to Ft. Worth, then home.

Most counties I was logging 50-60 contacts – very busy on 40cw and SSB, with good runs many times on 30. (If I ran 30 first, about 3 times the contacts – as folks would take the county any band to get it in the log). I was pleasantly surprised to hear KB9MGI on cw. She has joined KM9X as a cw op now and they have 30M, too! Conditions were good – at one point, I was working WQ7A in WA and N4UKK in FL on 40M SSB - about as far apart stations as you can get. Alice, N4MYZ, in NV was there on 40M SSB,

too for some of the counties. Sure nice hearing such friendly net on 40M SSB with everyone participating from coast to coast. That's the way the 20M SSB net used to be ten years ago.

When I finished running all the bands, I would sometimes go over to 20M SSB to listen at times, but it seemed like nothing but hours and hours of "This is K2JG. Is there a mobile station who would like to run a county?" – hour after hour – followed by 'anyone care to look for a mobile?' - from 8 am CST in the morning till late afternoons. Nearly all the time, after these queries (oops, "not allowed" – you must have a question on the "James" net, not a query), there was dead silence. I think 2 mobiles ran all day on Sunday on 20 SSB – sure seemed nearly devoid of useful activity. And with all the antics that NC does, no one volunteers anymore to even help lift a finger to be his 'servant' and to help him look for 'approved' mobiles. He and 'just plain rotten' created the mess and now he gets to enjoy a mostly empty frequency by himself.

Meanwhile, CW was sometimes jammed up – KS5A was busy running all over Indiana for a few days – big pileups, too, and he was on 80-15M cw. Jim, KB6TAL, was running AZ counties on cw as well. At times, there were mobiles 'down 2'. (that meant someone was running on net, and the second mobile moved down 2 KHz, plus or minus QRM).

A few times, the pile ups were so bad on cw I had to resort to 'list' (when stopped). On SSB when times were good, or sometimes now on 40M SSB with someone back east, and seldom but sometimes on CW, the mobile will send "LIST QRZ"…then listens for maybe 20-30 seconds writing down the calls of all the stations he/she hears. Then the mobile works them sequentially.

A good fix station op will time their call (call just once!) during that period to not collide with someone else. Some folks don't get it – they all try to be #1 calling, and often the mobile gets none out of that initial pile up, and some of the weaker ones make it through right away by timing during the 20-30 second interval. Usually using "LIST QRZ" once or twice thins things out enough so you can go back to a regular "QRZ? on SSB or send a "TU" or "QRZ" on cw, then take the next call you hear.

Ernie, W7KQZ, was in there all the time on the TX trips – 20, 30, and 40M cw and 40M SSB. Not usually that strong, but always there – earlier than

most in the mornings – later than most in the evenings. On cw, as soon as I get in the car at 7am CST there is someone on 40cw to talk to. The band is good till the sun goes down, and that's about the time I stop. For those who run longer 40cw continues to work, and for late runners, 80cw might be a good addition to the antenna system now.

Another of the nice things that cw ops usually do is if they work a mobile, and that mobile is going to QSY off the frequency and run the county, they announce the mobile move. For example, if KS5A is running, and N4CD works him and says he is in Shackelford, TX, QSY DWN 2, Guff will then announce "CHN QNC N4CD Shackelford, TX is QSY DWN 2". That alerts the folks to the move, and usually someone will quickly spot it. (QNC means the following is for all stations to copy).

On SSB, much of the time, if you work someone and announce that you are going to move, all you will get is a 'Thanks for that, QRZ'…and no repeat of the move by the mobile running on net - if folks weren't listening real close, they'll miss the move, county, or frequency. (not only that, the NC in SC will often attempt to obliterate that information from being passed for the 35 or 40 on his 'banned list' or just prevent or reduce off frequency operation. N9STL was trying to just work a mobile this weekend on 20M SSB, and amazingly, KZ2P had a coughing fit. Only ones he had all day – just when N9STL called the mobile K5MZV down in Orleans, LA on 20M – and of course, when she is mobile, the same happens as it does for the 35-40 on the 'banned list'. She got right through though. Does he really think no one knows what he is up to?

It's amazing anyone still runs mobile on 20M these days with the disrespect shown to the mobile running the county! On net. Off net.

Seems now KZ2P apparently thinks he **own the entire band** on 20M and will 'enforce' his black list' at multi-kilowatt levels regardless of the damage done to other nets and occupants of the band. Positively IDed as the jammer. Sad. (and N4CD was down the band most of the time, too!)

Well, anyway back to TX county hunting. I still managed to do all the counties on the planned route despite the weather by keeping moving quickly. It was below freezing, and ice still forming on the antennas. Fortunately, no ice on the roads, or they were treated – and it was still daylight and still enough traffic to keep them clear.

Andrews TX CL – needed by WA5OPO for 5 Star

I ran the 40M SSB hamstick on cw – it was happy 150 KHz lower but not too happy on 40M ssb where the radio was probably putting out 10-15 watts. I still filled log pages. As the day wore on late in the afternoon, the QRM from broadcast increased, 20M died about 3PM or so and so most of activity was CW. Driving conditions still OK. The temp finally got above freezing as I got to Ft. Worth. By then, I was in 'home territory' and it was dark (6:30 PM) so I concentrated on getting home the last 60 miles. The car made a short detour in Denton County to the Cracker Barrel for a county ham dinner, then 20 miles home after a good trip with not so good weather.

Gosh, overall it was a good success – 50 counties put out – dozens of log pages full with contacts on the 'most wanted' list. I stumbled into a LC WBOW for Ray, WA5OPO, for Five Star and got LC for WD9EJK and W6TMD, helped WB9NUL with a next LC to close in on Bingo, and got some desperately needed counties for the folks that hadn't been run much lately. I missed a few folks as I had to run some on Friday while they were still at work. Since it was 1330 miles for this trip, it's not quite possible in just 2 days of the weekend. There are still a lot of 'most needed' counties in TX, so I guess I'll have to keep putting them out. The 50 counties run are not even 20% of the total 254 count of TX counties!

It gets cold in the car when you are stopped on a C/L with the engine off for 20-30 minutes and the outside temp is 22 deg!.....brrrrr. I'm ready for spring. Glad I'm not up north with below zero temps – I'd leave the engine running! TX winters are warmer to the south. Maybe I better head there next!

Gas is now about $2.75/gal in Dallas, and out in west TX it went from $2.90 to $3.15. In counties with only one or two gas stations, or in small towns, you'll pay 15-25c/gal more than in large cities. One place was $3.25. Car got about 26-27 mpg in all the bad, wet, damp weather – not as good as normal trips, and most of time engine was off when stopped on county lines. No sense to waste too much gas and contribute more to Al Gore's phony global warming scam.

That's what it is all about – helping folks get finished. Helping the mobiles run (not interfering with them or running them off). Helping folks get the contacts, not QRMing them. Not 'running off' mobiles.

That was the purpose of the trip. That is what county hunting is about. I'm not sure what the 'idiot' in SC thinks county hunting is?

I barely got to run all the bands with all the contacts in many counties – low bands are super (40 and 30M). With 40M SSB, and 20/30/40cw, it can take a half hour or more to run a county.

Keep your needs current on the K3IMC web page so folks know where to go! If no one is asking for a county, there isn't much reason to go there!

MARAC Could Care Less?

MARAC recently had the opportunity to examine whether certain operators were worthy of being MARAC members. Remember, membership in the organization is based upon certain criteria and participation in the awards program has requirements.

Sadly, I guess some out there (the operators at the two "club of one stations") have done more to damage County Hunting and MARAC than ever will be compensated for by any other claimed 'good deeds' or time spent 'running mobiles **and** running off mobiles' on 14.336 while 'occupying the frequency'. Lately, one delights in wiping out entire portions of 20M.

What is amazing that they are still allowed to be members of MARAC. **By and large, they have succeeded in running off nearly all the 20M SSB mobiles, both new and old, a fine legacy indeed**.

By and large, they are responsible for a **tremendously year over year drop in MARAC membership**. It's plummeting like the real estates market. By and large, they are responsible for running off most new hams that stumble across county hunting and quickly leave after seeing the hate and discontent and ill-will on 14.336 and in the **'marac' chat room**.

By and large, they are clearly responsible for giving county hunting a bad name in just about every forum around the country. When one NC station delights in wiping out the upper 30 KHz of 20M with broadband jamming, taking out all the other nets up there for an entire 3 day weekend, you wonder how the others react to this. Sure doing wonders for the reputation of the 20M county hunting net. (and emails were sent other nets know exactly what is going on). Next weekend it was only 12 KHz of the band taking out 3 Nets and another QSO or two. .

By and large, these two are responsible for fewer and fewer heading to conventions. In the 'good ole days' up to 250 people made conventions. By and large, the one in SC exhibits behavior only seen in bootleg high power CBers on 11 meters attempting to jam entire portions of the band in some mentally depraved state of mind. Who wants to be associated with that? Who wants to even have such a 'member'?

So, really, why does MARAC let them continue to participate in the awards program? Does MARAC really 'approve of' or 'care to ignore' the behavior of those ruining the reputation of county hunting and MARAC? Does it really enjoy plummeting membership ranks? Does it really enjoy having the first words out of anyone's mouth at Dayton be "Oh, you mean that group on 14.336 with the sarcastic, acidic net control station? He ran me off the first day I tried to check in while mobile. Told me to 'have a nice

day and QSY'" or " I heard some weak ones, but for some reason they were 'allowed' to be relayed in" or something like that……..followed by some chuckling…." And similar experiences.

I'm sure large portions of the membership wonder the same thing. Yet, MARAC given the opportunity to do something about it merely takes no action. Tacitly it seems to approve of everything. The least it could do is 'send a message of disapproval' - disqualify these two from the awards program.

On the Road with N4CD Part III

Another weekend arrived, the weather was decent, and folks still needed lots of TX counties. KM9X still had 'too many to list' counties for MG in TX, and others were looking for LCs to finish up. The weatherman said windy and chilly but no rain. The wind did blow – 40mph Saturday afternoon!

So I plotted a route through more of the 'most wanted counties' as listed on the K3IMC web site, posted a quick trip, then headed east out to Marion county. WB9NUL had needed two counties to close in on Bingo in TX. Hansford TX….and Marion. I got her Hansford last weekend – its about 400+ miles to the NW….and this week, it was 200 miles straight east to Marion. She showed up for Marion, and is down to just a very few to finish up. (She now needs: OH: Adams and Knox, SD: Clark and Spink)

Marion TX…LC for WB9NUL

Camp TX had not been run in while, so I went through that on the way to Marion…then was thinking of heading into LA to get Red River – one of the most wanted there. Fortunately, Joe, N5UZW, was doing most of the northern part of LA over the weekend, and he ran it – saving me some miles. So after I heard he was running it, I headed south – to get some of the 'woodland' counties. Texas has a million acres of trees – mostly pine in the "Piney Woods' of southeast TX. So it was down through Panola, Shelby, San Augustine, Newton, and Jasper – all the way south to Orange TX – as far as you can go. You see signs 'evacuation route' where everyone heads north in a Gulf hurricane situation. The land is flat as a table top, and maybe a few feet above sea level.

Saturday night I stopped in the Orange TX area after a long day. Motel $51. In the morning, it was on the road by 7 am headed back home via back roads, then eventually hitting I45 for the rest of the way back. I ran through Hardin – another needed county. As I headed west, Charles, W5DU, called on the radio and said "how about an eyeball?" I told him my route and he said he'd come and meet me. After I ran Hardin, I headed up highway 356 to get to Trinity. I was running the county sitting in a driveway when this pickup truck with lots of antennas zips by, then makes a U-turn and comes back.

Charles W5DU

He visited for a while as I run the county on 30M and 20M CW, then we head off to get a bit of chow. Charles at one time was on cw, but now is a bit rusty. He grandfather was a telegrapher with the railroad. His dad was a telegrapher with the railroad – so he has 'cw in the blood'. One of the projects he is working on now is restoring a railroad depot telegrapher's station back to good working order.

Charles is down to about 20 to finish – see if you can't help him out with:

AR: Drew, Montgomery, Pike, Sebastian, Yell
CA: Amador
GA: Spalding
KY: Todd, Green
LA: Catahoula, Franklin
NC: Hertford
OK: Alfalfa
PA: Delaware
TN: Lauderdale
TX: Camp, Ellis, Hamilton, Hays, Irion, Lasalle, Nacogdoches, Stephens, Wharton
WA: Island

He keeps his needs current on the K3IMC Special Needs site. He runs mobile in a 1997 Ford F-150 pickup with 345,000 miles on it – it just keeps running and running with minimal problems so he is planning on 'keeping it'. He's now on 20 and 40M SSB, and thinking about adding 10M as the propagation improves and there are more openings there. He uses hamsticks for both bands. He'll be at the mini in Weslaco in Feb.

We yakked for quite a while, then I had to get moving to get to the rest of the counties before it got dark and the band shut down.

I ran over to San Jacinto, a LC for K3IMC.

San Jacinto TX – LC for K3IMC for MG

Rufus needed Grimes for a LC for MG. The last time I ran it was about 7:30 in the morning and the band wasn't open so we missed getting it for him a few months ago. This time it was later in the day. I took a 40 mile detour to get it for him, and a few others likely needed it on a weekend day. So it was down the back roads to Grimes. Some roads in TX great, but lots of roads in southeast TX have miles and miles of trees, miles and miles of power lines, and lots of QRN as you move by them – S9 and above in stretches.

Sometimes you just have to find a place to pull far enough away from the lines (a couple hundred feet) on a road without a power line (if possible) or just wait 5 or 10 miles to find a better spot. Everything down this part of

TX is wet, humid and somewhat swampy for much of the area for much of the year.

I succeeded in hooking up with Rufus, KD4HXM in Grimes.

Grimes TX – LC for MG for KD4HXM

Conditions were quite good over the weekend – 40M was solid most of the time on CW – open from 6:30 am to late in the evening - and SSB on 40M opened early – but the broadcast stayed in until 9 am – but after that, it was excellent – working FL and WV and out west and up to the north border consistently. 30M was good. 20M CW was marginal. I worked DL6KVA twice – but that was it for DX. The W6 and W7s were in on cw along with VE1WT, N2OCW, and KO1U. Jeff, N8II was usually on 20M SSB and CW along with a few others. I filled in dozens of log pages.

Mark, KO1U, said his attic indoor dipoles were under a roof full of snow – from the big storm back east – but I heard him in most of the counties. It doesn't take KW amplifiers and big beams to get through on cw!

After Grimes, I headed back to I45, ran the counties on the way home, including Navarro, which for some reason is 'most wanted', and made it back home by dinner time. There was lots of great help from the NC 40M SSB stations – K0ERE, N5UZW, AD4IA, KM9X, WG6X, KA0SHC,

N9KNJ on ssb plus others helping. On cw, KB6TAL, NM2L, K7ESN, and half dozens others helping out with relays depending upon the band.

It was a good trip. The SC jammer just decided to wipe out about 8-12 KHz of the band on this trip – just the nets on 14.340, . 347 plus .345 this weekend. While he was busy on 14.342, I was off on the other frequency making contacts, then back on 14.342 for a few seconds to keep him busy for another minute or two or three, then back to the alternate frequency on 20M. It was pathetic watching him take out the other two nets time and time again. More emails were sent to the folks on the other nets. The county hunters realize that when he is on 14.342 jamming, he is not listening on 336. Call him then, and he doesn't answer! Otherwise, he is always quick to respond. I guess he just doesn't care about other occupants of the band?

Or the reputation he is getting countywide as the jammer? He listens on 14.342, I say "N4CD QRZ" then switch and I'm off on another frequency most of the time on 20M SSB. Meanwhile, he's generating as many KW of as many weird sounds as he can on 14.342, expecting that N4CD is being interfered with. I laugh myself silly sometimes! Then after 20 seconds on the other freq, I go back to 342 for a few seconds to let him think I am there, and he's off to another 20-30 seconds of jamming. Meanwhile, I'm off on the other frequency working another half dozen stations!

Those who pre-arranged things know that when the spot appears on 14.342, they go to the other frequency! Some can catch me there on 342 since they are as loud as KZ2P. Of course, while he is on 14.342, I could be making contacts on 336…he'd be no wiser. Maybe I'll try that next time. (Does he really think there are no other hams in Charleston, SC, that hear him 60 to 80 over S9? – there are over 375 hams in Charleston and over 31 other hams in Johns Island, SC – one less than 2000 feet from him).

Meanwhile, if you need a county on 20M SSB for one of my trips, let me know ahead of time, and we'll go off where there is no QRM, and let KZ2P jam the other nets and operations on the band, cementing his reputation world wide as 'the jammer'. He seems intent upon losing his ham license for good, so let's help him out.

Maybe the weather will hold and more can be knocked of the 'most wanted' county list for TX in January, and I'll be mobiling on down to Weslaco in Feb along with other mobiles.

Housing Pain – More to come

Most of the county hunters have a home QTH. For many others who are just starting out, have just bought a house, the future might be a lot different. Just like the stock market dot.com bubble and bust, housing is going through the same thing. Like the dot.com bust, many individual investors will lose hundreds of thousands or even millions. Unlike the dot.com era, many banks, financial institutions, pension funds, hedge funds, and others will lose the better part of trillions of dollars. That is big money – and it will have major impact.

From http://p088.ezboard.com/HOUSING--SIMPLE-AS-THAT-/fdownstreamventurespetroleummarkets.showMessage?topicID=21632.topic

"There is no means of avoiding the final collapse of a boom brought about by credit (debt) expansion. The alternative is only whether the crisis should come sooner as the result of a voluntary abandonment of further credit (debt) expansion, or later as a final and total catastrophe of the currency system involved."

Below we shall explore the (very) simple reasons that explain why house prices must fall by 30% to 50%. Each one can be lumped into a category of fraud, reducing demand or boosting supply."

"House prices rose far above income gains. Too far. They became unaffordable, and now they are in the process of correcting back to affordable levels. What goes up must come down. Simple as that."

"More than one out of every four homes sold in 2005 and 2006 were sold to speculators and now house prices are at or below 2005 levels. This means that many a speculator has been wiped out (and then some considering transaction costs). Speculator demand is gone, and will not return for many years. Less demand equal lower prices. Simple as that."

"Developers overbuilt the national housing stock by a very large amount in part to meet the false speculator demand. I calculate somewhere in the

vicinity of **two to three million excess units**. We have too much housing stock and it will be a minimum of 3 years before population gains naturally work it off. All things housing-related will be in recession until that oversupply is worked off. Simple as that."

"In summary, real estate supply, demand and price are severely out of whack and can only 'be fixed' by a significant decline in prices, which means that a whole lot of individuals and financial institutions are in trouble as a consequence. It all adds up to one simple conclusion; banks, pensions, hedge funds, & money market funds all will have to dispose of a whole lot of bad paper. **Possibly up to $2 trillion dollars worth if my calculations are correct, meaning that the potential exists for literally all of the capital of the entire US banking system to be wiped out**."

"You now have all the information you need to understand why there really are no policy fixes to this mess (e.g. 'freezing interest rates'), only an inevitable date with lower house prices."

"From a purely theoretical standpoint, house prices need to fall to match those at the start of the bubble in 2000. Why? **Because otherwise we have to believe in The Free Lunch. For The Free Lunch to be true it must be possible for a person to buy a house, do nothing except sit on a couch drinking beer for the next 5 years and get rich in the process.** Examining 70 past examples of asset bubbles we find that The Free Lunch has never worked before and it's very unlikely to work this time either."

Over the past 7 years, average income levels rose just a bit – a few percent per year - while housing prices escalated by 5-10 times the rate of income growth per year - compounded. If you bought, like in many bubbles, at the start and sold before the crash, you did OK.

Since most Americans shiver at the thought of even a $1 price hike per gallon, let's be kind and take that as our starting point for a simple comparison. This means an extra $150 billion will have to be forked over at the pump to keep driving the same way and distance if gas prices rise again next year.

Most need a house or apartment to live in, and didn't have that option of selling and cashing out at 'the peak'. Housing became unaffordable other

than by risky, often shaky financing. Now, the entire US banking system and banks worldwide might go under because of this, and there is no easy fix. Worse, government intervention can only prolong the agony and bring down more of the worldwide financial system. Like the stock market, the housing market must re-adjust to the reality of the situation with sharply lower prices in those markets were things appreciated beyond affordability.

In TX, the 'real estate' folks will tell you housing sales are 'up' and prices are 'up' one percent in 2007. If you look at the numbers, housing from $100,000 to $200,000 (starter homes) has declined by 16% overall. Housing over $700K has gone up 10-20% (the high end). Averaged out, it looks good on paper, but the vast majority of home owners have seen a 5-18% decline in value. Builders hide the reduction in prices by 'giving away' $10,000 or $15,000 in free 'upgrades', selling at the previous prices to 'maintain' 'value' in new subdivisions in a valiant attempt to stay in business.

The striking fact is that national indexes of real house prices and real rents moved together until 2000 and that real house prices then surged to a level 80 percent higher than equivalent rents, driven in part by a widespread popular belief that houses were an irresistible investment opportunity. How else could an average American family buy an asset appreciating at 9 percent a year , with 80 percent of that investment financed by a mortgage with a tax deductible interest rate of 6 percent, implying an annual rate of return on the initial equity of more than 25 percent? The 'free lunch' at least for a while.

But at a certain point home owners recognized that house prices – really the price of land – wouldn't keep rising and may decline. That fall has now begun, with a 3.4 percent decline in the past 12 months and an estimated **9 percent annual rate of decline in the most recent month** for which data are available. The decline in house prices accelerates sales and slows home buying, causing a rise in the inventory of unsold homes and a decision by home builders to slow the rate of construction. Home building has now collapsed, down 20 percent from a year ago, to the lowest level in a decade.

Many home buyers signed on to 'teaser loans' with adjustable rates – never expecting rates to go up, or figuring they could easily refinance and take out equity in a few years. Many re-financed time and time again, taking 'cash out' – thinking they could spend the 'Free Lunch' as the value of their house rose 10-20% year after year, and now find as values drop that they owe more

than the house is worth after all the re-fis. Many who had 'interest only' loans suddenly discover they are upside down by hundreds of thousands of dollars. It will all have to work itself out.

In many cases, painfully. Taxpayers don't want to bail out foolish folks who speculated and lost, or who took out equity time and time again, or foolishly bought houses they really could not afford and will not be able to afford with current interest rates. It is going to get interesting!

The average person doesn't buy or sell a house every year. A drop in value of 15% of housing means investor equity will drop by and cause a reduction in GDP and spending about 150 billion dollars.. The loss the homeowner sees will be on paper, but the additional money that folks pay to fill up their gas tank will take $150 billion from consumers pocket's for each additional dollar of price of gasoline. Which will the consumer complain more about?

While housing declines will hurt 'on paper', higher energy prices will hurt in actuality. What is going to be the big political issue next year for elections? Global Warming (zero impact cost wise to consumers)? Loss of housing value on paper? (no pain felt each week – only if you sell) Or dollars spent to buy heating oil and gasoline – as seen every week when they 'fill the tank' or have to pay off the credit card bill at the end of the month?

This holiday season, the AAA folks and others are on the radio saying travel is still at record levels despite gasoline being 65 cents a gallon higher than last holiday season, and the highest ever at this time of year. IF the US doesn't go into recession, energy prices are going to rise long term as worldwide demand keeps increasing, and supplies are struggling to keep up.

On the Road with N4CD – Part IV

Another weekend was coming up in December, and folks still needed counties. It's about 'running counties', not getting them 'run off' that gets the folks finished up. I checked the needs page at K3IMC and 'most wanted counties'. Saturday was going to be a potentially bad day for weather, so I opted for a one day trip on Sunday. Most folks are home on the weekend – not so many during the week. You typically get twice as many contacts on a weekend day.

Wow…OKLA hadn't been run in a while. Coal, Pontotoc and others were fairly 'scarce' counties according to spots log on W6RK. I hadn't been up to visit Charlie, W0RRY for a while – he'd been busy working for most of the year it seems and no time for county hunting trips. He has now sold the house near Tulsa and is now 'RV' full time. (and will spend a lot of time in TX)

I plotted out a good one day trip – 410 miles or so, sent out a few emails, posted the trip, and off I went at 6:30 am on Sunday morning. On the day before, Saturday night, there had been a 50 car/20 Big Rig 18 wheeler pileup on I40 in the panhandle of TX (where I was two weeks ago) – fog and snow there. The pileup was so bad they didn't even know for sure how many cars/trucks had mangled themselves together. Amazing. Folks doing 70 mph with near zero visibility.

OKLA in the west and north got clobbered with blizzard and 'whiteout conditions'. I figured I'd head north till I saw snow, then turn around and head back south. The N4CD mobile (and driver) really doesn't like to go in snow, although it seems to find some in WV each November. No sense to hit it now – it wasn't needed!

Larry, W0QE, needed Bryan, OK and we connected there. K3IMC needed Marshall as did many others, and Johnston was soon to follow. There were some big pileups for those counties, which had only been run twice in the last year. The route then went through Coal and Pontotoc – which finished off Alan, KI7WO. Folks needed Pottawattamie – where I saw the first traces of snow on the north sides of steep hills – 99% of it was gone. That was as far north as I planned, so I lucked out weather wise. It was time to head back south through Garvin, McClain, Carter, then over to Stephens and Jefferson, then home.

Randy, AJ5ZX and Janet, KC5CQB were out running on 40M, N1SPX, KD1EJ, K0RCJ, KB6UF, K8YJ, KD5CXO, and WV2B also out giving out counties on 40M. Very busy day on 40M with N5UZW, KB8OMG, KE9OI, WG6X, AD4IA, and even W7KQZ helping out with relays and running things. On CW, NM2L and KB6TAL, with some help from W0QE held things together on CW.

On this trip, Harry, W6TPC joined the fun on CW for the first time. The antics of the NC with the off frequency jamming 8 to 10 KHz wide (14.342 with IM products 6 -8 KHz either side) have brought another convert over to the CW bands, joining KM6HB, WA2DWP, WQ7A and many others now working mobiles regularly on CW. Ernie, W7KQZ was snagging al the band counties – 20/30/40M CW and 40CW.

The weather was good – clear – sunny most of the day, and the 410 miles went quickly. Conditions on 40M were excellent with sigs from W6TMD running 559 or better all day, and hearing the east coast with no problems. Terry, WQ7A, Leo, WY7LL and many others were on 30M CW, and a handful was on 20M CW in each county. No DX today. There was lots of QRN from the power lines in OK, but I think most of the state is happy to just have power back after the bad storms three weeks ago that left 600,000 without power for up to 10 days and had nearly every county a 'disaster area'. Most of the time, at some point the QRN dropped and most got through.

WB4VFN needed a rework in Denton, TX – we hooked up for that one. As it got late, it was a 'natural' for the car to stop at the Cracker Barrel in Denton County for a county ham dinner before getting home. Hope N4CD hit something you needed – missed with a few county hunters that were not around for their county, so I guess I'll have to make a few more trips up that way – not too many run OKLA counties theses days! However, it is better to run it when it is NOT winter, and when it is not tornado season! Maybe it is time to head south for the next two months!

Piles of contacts on 40M SSB with the 'friendly net' there and half dozen helping out where EVERYONE gets a relay. Help on 30 and 40cw when needed. It was a good trip and in the 'county hunter' tradition of putting out the counties for the folks! About 80 contacts on 20M SSB.

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11th Time #1 – Upmteenth Time, KZ2P, December 19,2007

Operating Events for County Hunters

Slim pickings in January – but opportunities for band counties!

Courtesy ARRL Contest Calendar, ARRL, Newington, CT, 06111

January 1 – SKN "***Straight Key Night*** begins at 7:00 p.m. EST December 31, 2007 and runs for 24 hours through 7:00 p.m. EST January 1, 2008 (**0000 – 2400 UTC January 1, 2008**). ***SKN*** is more of an operating event than a contest. To participate, simply send "CQ SKN" or listen for CQs that have SKN in them. The object of this friendly event is to enjoy some good old-fashioned QSO fun, using straight keys. The emphasis is on rag-chewing rather than fast contest-style exchanges. Take pleasure in sending and receiving CW sent without a computer or keyer, listen for the best fist you encounter, and be sure to tell us all about your activities.

Jan 5-6 ARRL RTTY Roundup – opportunities to 'data counties'

Jan 12-13 NAQP - CW

"**North American QSO Party** -- CW, sponsored by the *National Contest Journal* from 1800Z Jan 12-0600Z Jan 13. Frequencies: 160-10-meters. Categories: SOAB and M2, 100 W power limit, operate a maximum of 10 hours (off times must be at least 30 min and M2 entries may operate the entire contest). Exchange: Name and S/P/C. Score: QSOs × States + Province + NA DXCC countries (count each once per band). For information: **www.ncjweb.com/naqprules.php**.

Jan 19-21 –VHF/UHF Contest Opportunity for 6M band counties for Toplist Award

January VHF Contest - 1900Z Jan 19-0400Z Jan 21, see page 92, Dec 2007 *QST* or **www.arrl.org/contests**.

Jan 26-27

CQ WW 160-Meter Contest -- CW, sponsored by *CQ* Magazine from 0000Z Jan 26-2359Z Jan 27 (Phone is Feb 23-24). Exchange: RST and S/P/C. Categories: SO-QRP (<5 W) -LP (<150 W) -HP, MO categories. Enter as MO if packet or spotting nets are used. QSO points: own entity -- 2 pts, same continent -- 5 pts, diff cont -- 10 pts, /MM stations count 5 points, but no multiplier. Score: QSO points × states + VE call areas + DXCC entities (KH6 and KL7 count as DXCC only). For more information: **www.cq-amateur-radio.com**.

Fini

Next month – Maybe we'll have the year end totals from KA3MMM for CW and include them in the Feb issue. If you haven't already done so, send in your year end cw totals to Elwood, KA3MMM. Then you can track your progress, too, each year toward your next CW award!

We can look forward to another banner year of CW activity with some new mobiles out there on cw – KA4RRU, K0RCJ, and more, along with the crowd o100+ cw regulars with new additions like Harry, W6TPC and Ralph, WB4FFV. Next year we need to get Ralph finished up for USACA.

That's it for this month! Happy Winter Solstice, Holidays, and Happy New Year Y'all! The amount of daylight will be increasing – more time for county hunting in the new year!