County Hunter News

April 1, 2009
Volume 5, Issue 4

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 ch.W6RK.com

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

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

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

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

N4CD - Editor

Winter is slowly headed away, although blizzards continue in the North and Northwest USA. Spring has sprung, but winter still keeps poking around. Soon it will be good mobiling weather all over the country. I decided that it was time to part with the old reliable 2001 Buick LeSabre at 220,444 miles, so it has gone on to a new owner. It was a good county hunting car.

There is big flooding in ND (right after/during the ND QSO Party) and blizzards in WY/SD – hope Leo WY7LL/Chris WY7ML got out of there before the 18 inches of snow fell – 250 miles of Interstate were shut down.

This month we go to expanded coverage on the state QSO Parties. Since this is the Year of the State QSO Party, why not? With reduced mobile activity, the state QSO parties give you great opportunities to catch needed counties for the many awards – band counties, prefixes, Nth time, first time, and whatever else you are working on. Many of the big county hunter mobiles go out in the QSO Parties, and of course, many chase the mobiles out there for counties! It can be a lot of fun.

1) **Mobile Activity in April**

Activity seemed to pick up nicely in March with the appearance of spring in many areas. Gasoline prices remained under $2 in most locations. With the gyrations in the financial markets, some folks took a trip to enjoy themselves and get away from the continual bad news and bad decisions out of Washington and Wall Street.

Hollis, **KC3X**, took a trip to FL, running the counties on the way to FL and back, collecting some MP transmitted counties. Mostly on SSB.

Jerry, **W0GXQ**, ran around in MN at the end of February. He is now recovering from a sudden double bypass heart surgery.

Silver, **N9QS**, made it home from his long trip to FL, NC, VA, NC and back. Then headed down to Branson, MO, and ran a few counties down that way, and on the way down and back.

Pete, **NN9K**, worked his way over to MS, then ran in the MS QSO Party, then headed home to IL. Then he went to WI for that QSO Party.

Norm, **W3DYA**, ran in the MS QSO Party. Then he headed to OK for that QSO party, and before you know it, he'll be running in the GA QSO Party in April.

Jim, **K0ARS**, was busy on 40M CW and in the evenings on 80M CW. He was running all over the country – AL, MS, TN, IL, AR, MO, and more. Occasionally he'd be up on 30M. At night, you might find him on 3556.5

Jim, **N9JF**, made a few business trips and ran the counties. From AL, to ME, IA, NE, KS, and lots of other states as well. There have been some big spring time storms brewing in the Midwest.

On SSB, Dan, **KM9X**, and Judy, **KB9MGI** were out mobile in IN and KY.

Barry, **N0KV,** and Pat, **N0DXE** were off in OK, AR, AL, GA and points east. Seems to have left the cw key at home.

KB0BA, Lowell, and Sandra, **N0LXJ**, were busy in TX, OK, KS on their 10,600 miles 2 month long trip.

K0GEN, Lloyd, and **Gayle**, **KI4WHK** were putting out counties in TN.

John, **N8BGF**, and Joan, **KC8WRP** were out running as well down to AL and south.

Rick, **KG4NNK**, and Sheila, **KI4GKA**, continued to run more of the KY counties.

Jerry, **K1SO**, made a trip south.

Dennis, **N6PDB**, and Susan, **WA6OCV**, trekked from CA east.

The ARRL DX contests made it possible for many to get AK and HI counties toward their awards. Quite a few were spotted and many county hunters worked at least half the counties in each state, some getting most. [However, you won't find Kalawao on for the DX contest – that is a county hunter 'special'. There are no resident hams there.]

Steve, **AK8A**, drove across from Florida to TX, running the counties on the cw bands.

Jeff, **W9MSE** drove to OH and back. He made a few contacts on 17M, too. Conditions not good on 17M. Most activity was on 40M, with some 80M activity, and DX on 20M. He had fun working WI from OH from his mobile while in OH during the QSO Party.

Jerry, **W0GXQ**, and Mike, **NF0N**, did a 3 day trip all around SD. Those don't get run often, especially in the winter months. Jerry had a major snow storm a few days before departing on the trip! They were very busy for 3 days.

Rick, AI5P, headed across TX to NM. **Gene, N4ANV**, returned home from GA back to NC.

Bob, N8KIE, headed to FL and GA to run a whole bunch down that way for Master Platinum and finishing up running all 3077 transmitted.

2) Want Email notification when CHNews comes out?

Each month, I send out emails to those wishing to be alerted a new issue is available. If you are not currently on the list, send me an email and I'll add you to the email alert list.

3) AA0IP – Arden – USCA #975 – USACW #55 - Silent Key

AA0IP, Arden, is now a SK. He was one true gentleman CW operator and a great asset on the net. He will be missed. (pic in Aug 2007 issue of CHNews). He was one of the pioneers on 30M, and was actively hunting counties on 17M.

7) Auto Bailouts – Repeating Failure?

With government funds to rescuer the domestic auto industry, an automotive 'czar' and 'task force' to oversee their operations, and a reinvigorated focus on energy and environmental policy, can the government-designed car be far off? The Pelosi 2011?

Government does not have a good record when it comes to car design and development. Consider the Henry J, a compact car built 50 years ago. Its maker, Kaiser-Frazer, was founded in 1947, financed largely by the wartime earnings of Kaiser Steel. By 1949, the company was on the ropes and borrowed $44 million from the government to stay afloat, promising to deliver the kid of small, efficient car that the government decided the country needed. Sounds familiar, right?

Taxpayer money came with strings attached, the big one being that the car under development had to be priced at less than $1300. When it arrived in 1951, the Henry J was so priced. To make the target, the company did things it never would have done otherwise. There was no trunk lid – so access to the cargo area was only through the rear seat. No glove box either.

This Spartan approach applied throughout the car. Kaiser-Frazer was out of businesses by 1954, though the car survived a bit longer, sold by Sears as the Allstate, with more amenities added.

A more recent example is the Clinton-Gore-era Partnership for a New Generation of Vehicles (PNGV). This originated in 1993 with the notion – that since Detroit was not making the cars the administration thought it should – eight government departments and bureaus would cooperate with the "automakers" to develop the kind of cars that Al Gore and company thought we needed.

And what would that be? Cars should get 80 mpg while seating five, with the passenger and cargo volume of a midsize family sedan. They had to make zero to 60 in 12 seconds. The PNGV prototypes were at the 2001 auto shows were not ready for prime time. Part of the problem was that most of the government research money went to labs, "think tanks" and auto suppliers, not the auto makers. Typical distribution of pork by the folks in DC was the order of the day - porkulus.

Three prototypes in 2000 had diesel hybrids that met 72 mpg on diesel (the government equivalent of 80mpg on gas), but they would have been sold at $100,000 even in mass production. So what happened? The Japanese sold small cars that got 45-50 mpg in large volumes for $25.000. (Honda and Toyota hybrids). Not a single PNGV car has ever been sold.

How about hydrogen and fuel cells? Sure – million dollar prototypes, and that's likely as far as it will ever get in your lifetime. All government funded hype.

Government has its role in research, but a government designed or mandated car? Forget it. History shows it never has worked. There is ample evidence it is a bad idea!

8) Washington DC

"You cannot legislate the poor into freedom by legislating the wealthy out of freedom. What one person receives without working for, another person must work for without receiving. The government cannot give to anybody

anything that the government does not first take from somebody else. **When half of the people get the idea that they do not have to work because the other half is going to take care of them, and when the other half gets the idea that it does no good to work because somebody else is going to get what they work for, that my dear friend, is about the end of any nation. You cannot multiply wealth by dividing it.**"

Dr. Adrian Rogers"

9) Kalawao

A planned fixed operation to Kalawao on 20 and 40M SSB for early April had to be postponed due to fuel shortage 'down below'. They are not expecting more fuel until summer at the earliest. Stay tuned. Occasionally a ham will go 'down below' as part of a work detail, and after the day's work is done, they can get on the air for a few hours. Naturally, it takes electricity to run the radios, and unless the operator goes solar power recharged during the day, and fairly low power at night, it seems there might not be enough fuel to run the generator at night, or maybe even during the day for the work detail. Watch the K3IMC web site for updates.

10) Year of the State QSO Party

The CHNews had the details last month for this ARRL one time award for working all 50 states in QSO Parties or alternatively in ARRL Contests after the QSO Party if you missed it. I've still got a few sets of state flags for your printed certificate if interested. You can easily print your own certificate. Labels, too if you have the right Avery labels to use. If not, Contact me by email.

State QSO Parties

This is the Year of the State QSO Party – that alone is a good reason to get on, plus, of course, if you need counties for any reason – starting over, Bingo, band-counties, stars, prefixes – the state QSO parties can be excellent opportunities to fill in the logs. Or, if you are snowed in, and need

something to fill our weekend, try a QSO Party! If you are 'competitive', its fun to see if you can do better than you did last year as well.

Reader Question: "I just started working QSO parties and I'm a little confused. Is there some special codes that they use when they run counties? I seem to get half calls and always get 599 RST reports, regardless of how good or bad there signal is, or mine. Will someone explain the sequence used in running counties. What are W4W, K4Z calls, etc.???"

Answers:

a) Like contests, everyone is always 599 in a state QSO Party or in a contest of other types, such as DX, ARRL Sweepstakes, Field Day. Many people use computer logging programs/sending systems and 599 is programmed in.

They are like MARAC Logger where the default is 59 or 599, and you have to make an effort to change it to something else. So everyone is 59 or 599 no matter what.

b) Then, depending upon the rules, you give the 'contest exchange'. Before each QSO Party, it helps to read the rules and get the abbreviations used for the counties. For example, in the OQP, you give signal report and county if you are in OKLA working others. On CW, that is usually a 3 letter abbreviation, such as COA (Coal). From out of state, you give signal report and your state or province. (or DX)

For VA QSO , you need to give a contact sequence number. So you might be given NR 26 BEX. That means you are the 26th contact for that mobile/station in VA. You start with NR 1, and go up as you work more and more VA stations. You'll note that some VA stations were in the many hundreds of contacts. Mobiles often start at 1 again when they change counties. In VA, the also use the Independent Cities. BEX= Bedford - the Independent City. BED=Bedford County.

c) Some folks get/run special calls or use club calls in the contests. In ND, WI and MN, W0AA is a club call. W4CA was out in VA, and you have special 1x1 calls used, like W4W. (if you need QSL cards folks, see the web page - often the mobile routes are listed, and often the mobile op with the special call so you know who to QSL!.) Short calls make QSOs go faster,

and some people are chase getting 1x1 calls, which are also used for special events stations.

d) The County Hunter News each month list the QSO Parties including the links to get the rules and exchange - and often we put in the exchange info in the newsletter so you don't have to dig for it!

The weekly Contest listing in the ARRL Letter (free), the WA7BNM site, and they also give all the links, and the ARRL Contest Corral give the links to the rules, and the exchange information. After a while, you'll catch on.

Note: For DX contests, often the exchange is the DX stations power, and your CQ Zone or other information. For ARRL Sweepstakes, you have a longer exchange – see the Rules! For other contests like FD, you give your ARRL Section – such as North Texas.

Now, prepare a big pot of coffee, or get some of your favorite beverage, because we are covering the QSO Parties in detail this month! Lots to read!

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Mississippi QSO Party -

This was held the last day of February, extending into March for a few hours. Three active mobiles were on - W3DYA, NN9K, and K4ZGB. None of the three active mobiles lives in MS! About a dozen fixed stations were on, including county hunter K7ZYV. It's sure was good that there were some 'visiting mobiles' otherwise it would have not been as much fun. N4CD worked 62 QSOs in 43 counties from here in TX – about half the state(82).

Folks heard lots of county hunters chasing the mobiles and fixed stations: KB6TAL, W0GXQ, AC0B, K4XI, NT2A, NM2L, K4YT, KA9JAC, K0LG, K8QWY, KO1U, NU0Q, N8II, KD8HB, W9DC. AD1C, KG5RJ, KS5A, KB9OWD, K8ZZ, AA8R, N1BY, and at least a dozen others, plus the regular QSO party people who show up for every QSO party, like WB3IPE and W8VWU were in there. About 15 fixed stations were in there giving out their counties, too. Over 60Qs from here mostly on 40M cw and SSB.

Not a peep heard on 20M, other than folks calling MS at my QTH. . The W6RK spotting site had many spots on 80M as the evening wore on, and a dozen or more on 20M during the day. Mobiles were going up to 20M, so I'm sure someone was there, but the sunspots are not cooperating these days.

Norm, W3DYA and Pete, NN9K ran 8 of the same counties – I guess they chose to stick to the interstate going north/south through MS with the bad weather (usually quiet to operate along them), but I could have used different counties hi hi. However, I worked them all in every county for QSO points and to give them points. Some day, if I worry about prefixes, I got an "N" and "W" in a lot of them. (not to worry – K0ARS ran through many of the same ones a week later to give us the "K" prefix!).

I tracked each mobile on a copy of a page from the coloring book, so I could anticipate what might be next. That way, without checking the official abbreviations page, when you hear a station in "GRE", and he was last just south of Grenada headed north, you know it is that, not Greene, which is 250 miles away. It's just fun with a few mobiles to watch their route, then check the Road Atlas, and see what road they are likely on. In this case, it looks like both Pete, NN9K, and Norm, W3DYA, spent a good part of the time on I-55 – hi hi.

According to the TV, Memphis TN had a couple inches of snow late Saturday, and the snow extended down into northern MS during the late day hours. Yuk! Otherwise, there were lots of areas of rain. Bad weather might slow down a dedicated CH, but doesn't stop them from getting out.

Terry, **WQ7A** noted: "12 on 20m and 2 on 40m. NO MOBILES were heard out west."

K4XI noted: "Mostly 40 cw with a few on 20cw. really too close for much 20. Worked a few on 80 cw. Got a late start"

AD1C: "39 QSOs, mostly on 40 CW, worked one on 40 SSB and a handful on 20 CW. Good signals on both bands. Worked a lot of new counties on 40. It got difficult once the NAQP RTTY started, since I was operating that contest, but I kept the mIRC chat window open and picked off the stations that were spotted."

KB6TAL: “44 QSOs, 3 new counties. Work interfered a bit but no big wrecks this year. Jim”

W0GXQ: “I managed 75 contacts with nine different fixed stations and three mobiles. Used an OCF dipole for all of them. Thirty six Q's on 40m, 23 on 20m, and 16 on 80m. My multiplier was 39 of which 26 were new for CW-IV and picked up 10 new ones for my 80m band count. The hardest station to contact was W4HOZ and the easiest was W3DYA. Thank goodness for the mobile activity!”

Norm,**W3DYA** reported:

“Except for the WX, I was surprised at the activity. I had almost 700 contacts, ran 15 counties, so had about 46 contacts average in each. I've only been mobile in a few one-day contests, and it looks like they attract a real crowd. IL, OK, AR, LA, and MS – all were pretty good. But MS is kind of far to travel for only 12 hours”

My 80M resonator quit in Leflore County at 7 PM (0105Z) and 40M was very quiet. So I quit and went to bed. I just took it apart and it looks like a wire melted. That happened before - this was the first time I was getting a lot of contacts on 80M.

Hit snow in Tate and turned around back South to Quitman/Coahoma/Tallahatchie/Leflore. “

N5KGY: “I made 260 QSOs from Oktibbeha County (and I must have spelled it over 100 times !) Wasn't planning on entering but wx too bad to watch local college baseball. Since I’m starting over for 4th time - worked 181 new counties!”

LY2ZZ: “29 QSOs. Snow storm. Hard QSOs.”

KE5KTU: One of the big MS sigs was **KE5KTU** – he wrote me: “This is the first time I have done the MS QSO party. I operated for about 5 hours off and on. I operated mainly 40 meters phone, but did operate on 80 meter phone for a little while.

I had a total of 127 contacts, and contacted 31 states. I also contacted 9 Mississippi counties of which all were on 80 meters. I was using my Ten-

Tec Jupiter into a Fan Dipole up about 40 foot. I have legs for 80,40,20, and 17. I was also using my Ameritron 811H at about 600 watts.

It was real fun and I am sure I could have made a lot more contacts, but I tend to work at a slow fun pace, I am not big on contesting but a party is another story !

I hope that y'all all had fun in the QSO party and I look forward to next year

Jake KE5KTU"

De **N4CD**: Sent in my log. Added Mississippi sticker to the YSQSO Party Award Certificate.

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NN9K Mississippi QSO Party – de NN9K

The QSO party was planned as a climax to a month long trip to Arizona, Texas, Louisiana to see friends and family and turned out to be an interesting adventure and contest. Pre-contest scuttlebutt indicated that there would only be three mobiles operating the contest and ironically none of them were from Mississippi. Last year I drove for KS5A and if this year would have a similar amount of activity there would be lots of action and of pileups for the mobiles.

My original plan was to have a Louisiana friend drive in the contest but since he was ill I changed my plans and route to a stop/operate and then run to the county type of operation. On the day before the contest my wife volunteered to drive so I redid the route to add more counties and rearranged the equipment placement in the van.

Saturday, the day of the contest, the weather was sunny and bright although the weather folks indicated that maybe some nastier weather would be moving in later in the day or that night. We started the contest and everything was working nicely, the QSO rate was good and Nancy wasn't having any problems following the route on the computer. In fact, even after stopping several times to stretch our legs and taking a nice lunch break we

got back to our motel in Tunica with time still remaining in the contest. After a quick look at the map I decided our only option to add counties without duplication was to head east. Since it only involved two state routes, I just wrote the information down instead of adding it to the computerized route. So back on the road and back to the contest. Things were still going well for me in the contest, deep pileups and good rates. But that wasn't the case for Nancy, with darkness came the rain and then the rain got thicker and thicker. We slowly made our way into Benton County and found a place to park at a gas station where I continued to operate until things started to really ice up. By that time we were eleven hours into the contest, Nancy was very tired and even though I would have liked to continue to operate it just made sense to stop operating, put Nancy in the passenger seat and I'd to drive back to the motel while the roads were still drivable.

Even considering the weather during the contest we had a good day, tiring, but a good day. The trip back to Illinois on Sunday is another story -- let's just say that I don't think Arkansas owns any snowplows or if they do they were put back in storage for next winter.

Results: 877 contacts and 54 multipliers Will I go back for another run next year?

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North Carolina QSO Party - the NC QP was held March 1. The weather took its toll on planned mobile operation, with rain and snow over much of the state. Most of the planned mobiles decided not to go out due to the weather forecasts. As you may recall, western North Carolina has lots of mountains and area at high elevations that can get lots of snow quickly, and many small roads that are not fun to drive in snowstorms.

I heard only one mobile (W4MY) and he ran on 40M most of the time. Before I could break the pile – and he was usually 339 copy at best – he would run out of the county and the pileup would start again. Frustrating! Everyone was calling 'the mobile' and it was one gigantic massive pileup for the whole contest for him!

Lots of fixed stations were on – many with good signals on 20M and at times on 40M. Mark, KO1U, was having a ball working them all. There were dozens and dozens of regular county hunters in the pileups, plus the usually state QSO party types who just show up for either this particular one, or just the contests. From TX, I worked 31 counties and 56Qs.

I managed to get some new ones, but I only heard about 20% of the state counties on cw, and worked about 25% of the counties including both SSB and CW. Too far for good 40M propagation from TX to NC, and 20M flakey most of day. However, any contest is better than no contest!

N9QS: "I did manage to make about 65 Q's about evenly split between 40 and 80. Those were the only bands I worked. Too bad about the weather. The NC QSO Party is usually really a hot one. W4MY/m was all alone, hence the super pile up. I was glad he knew my call."

K4XI: "Worked only 6 on 40m but got 20 on 80m-all cw. Conditions strange. Could work very few with 100w - did not hear me at all. 500w and they came right back! Guess NC was covered with noise"

LY2ZZ: "47 QSOs"

NN8L: "picked up 13 new ones, mostly on 40cw. I haven't done much cw since 1980, so working W4MY seemed like cracking a dx pileup."

KO1U: "20/40/80 wall-to-wall NC stns for us...Rare day indeed"

KM1C: Ran Pamlico County as a fixed station on and off throughout the day. Total of 256 QSOs, about 80% CW. WX in eastern NC was horrible with heavy rain. Had arrived back from CT in the middle of the night and had no desire to go mobile on the rain-slick roads. Operation from home was fun, except static crashes activating the AGC really tore up some of the weaker stations. Often had to ask for repeats. But, all in all, it was fun, especially working the CHers on multiple bands. Had one request to QSY to 15 meters. Tried it, but no one heard. Thanks for all the QSOs. "

NW6S: "Had 263 Q's and 70 mult's all CW Lot's of fun!!"

De **N4CD**: Sent in my log – added the North Carolina sticker to my ARRL YSQSO Party Certificate.

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IDAHO QSO PARTY – 3/14/09

This provided opportunities to collect some new band counties and SSB counties. CW contacts were hard to come by. About a dozen stations were on 20 and 40M SSB, and many worked them from all over the country. Only 2 stations were spotted on cw. Dang. But any counties are better than no counties! 40M conditions were good during the evening hours. I heard quite a few county hunters in there calling and working the stations, including AA8R, KB9MGI and dozens of others. Managed to get 12 QSOs here. A bit disappointing, but better than none!

W9MSE: "I heard and worked 3 stations on CW. 8 of my last 16 for 4th time CW are in ID, and got 1 of them"

AD1C: "Need a SSB QSO for LoTW, got a few (that I know are good). Worked W7IUO in Franklin, he went to CW for me, new county. " [He must be working on his ARRL Triple Play W.A.S.]

AA8R: "only heard two cw stations and about a dozen fixed. Hope a CH'er, with a key, goes through Camas one of these days. Nice weekend otherwise....Randy"

WB2ABD: "Did pick up Gem, leaving 2 in ID and 8 for 4th time."

K4XI : "Also let down! Need Idaho, ID for WBOW!!" (no joy for him)

KN4Y: "I worked the only two CW operators in Idaho, so I guess I was 100 percent."

K1SO: "Needed 5 in ID, but only heard three(3) and not any I needed. It didn't work out for me. Maybe next time! "

LY2ZZ: "Only 3 QSOs."

KG7E (Custer ID): "I operated a few hours here and there when I could find a clear spot to call CQ. It's tough because I run barefoot to a fan dipole. I

had 120 QSOs (111 on CW). Only 9 stations could hear me on SSB." [If you need Custer ID, get in touch with him].

N4CD: Sent in log. Put the ID sticker on my YSQSO Party Certificate.

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WI QSO Party - 3/15/09

The WI QSO Party is usually good, and this year is no different. Those folks know how to 'throw a party'. Mobiles were running all over the state and likely every county was on the air. Like many QSO Parties, some are 'too close' for good propagation on one band (20M in TX), and sometimes 'too far' for propagation on a lower band. For this one, at this part of the sunspot cycle, the distance was about right for 40M for me. I missed 13 counties – heard a few of them, but the mobiles ran out of them before I got to work them. Two mobiles seemed two or three times to hit a county, work about 10 people, and then leave the county before you can say 'county line'. Oh well! I needed all but 3 in the state to start, and this sure filled in the coloring book with this contest! The contest is 12 hours long. There were one or two stations who I heard people calling, and never heard the station – must have been QRP or had bad antenna situation, or ?. That's a bit frustrating – but you take what you can get! Not all contacts are going to be 599! There was lots to get, too.

In one case, a mobile ran a few counties right under a local 'birdie' from someone's TV or computer heard at my house – which wipes out about 2 KHz of 40M cw band in the area of interest. Too weak to hear through it. Dang. Missed those. I'm not a contest fanatic, but since starting over, I need everything everywhere, so I hate to miss them!

Mobiles included NN9K, NG9T, NE9U, W0AA, W0ZQ, K0PC, AF9T, N0IJ, and more. Fixed stations were on in about 15-20 counties.

There was LOTS of activity. K8MFO, KN4Y, NT2A, K4AMC, WA2VYA, KI7WO, AD1C, N8II, KD8HB, K1BV, K4BAI, K0HNC, N0ZA, W0BH, and dozens and dozens of other county hunters were in there calling –

gigantic pileups – fortunately there were 4 or 5 mobiles out there to chase, so the pile ups were 'distributed'. It was search and pounce the entire contest. Most of the QSO Party regulars were in there too. Those mobiles seldom went a minute without a contact for 6-7 solid hours. In the evenings the mobile activity tapered off, and folks migrated to 80M.

Hint from N4CD to newcomers: If you only need a few counties in a state, and know the route of mobiles from the K3IMC Planned Trips page, or the QSO party web site that often publishes mobile routes, be sure to be working the mobile along the way. That way, they get used to hearing your call in every county and can more easily pick you out of the pileup. A good mobile op, after a while, can hear just part of your call, and know who it is. Then you have better odds to get through earlier (and before the mobile leaves the county) in the one county you do need. The mobiles are happier, too, getting more contacts if things are not 100% wild with dozens calling all the time.

NN8L: "Too close for 20 & 40 here.....Had to work the party on 80M. 157 Q's, mostly on SSB. 34 new counties mostly from calling CQ."

WY7LL: "HAD SOME FUN..... and got some cw practice in as well. Made 39 contacts on cw and heard a lot of county hunter calls in the pile ups. Had a nice relaxing weekend."

AD1C: " Like N4CD, barely heard the guys on 20m here in Colorado, but did hear lots of activity on 40. Signals improved as afternoon/evening wore on. Worked mostly CW, a few on SSB. Picked up at least half-dozen new band counties on 40.Made about 50 QSOs total. I worked several guys on 40 SSB Sunday evening who thanked me for the new CO multiplier, so guess not too many out here were up there. "

KM9X: "Got all but one of my third time needs- good bunch on 40 and 75 and both ssb and cw. lots of fun."

W9MSE: "Made 116 QSOs with 59 counties while running back and forth between our daughter's house and our minivan parked on the street here in Ohio. Missed being out there in the pack of WI mobiles though. 40 meters was great, and finally pulled through to some on 80, but was tough getting through the stronger stations from the mobile.

N4CD: Sent in log for 102Q CW in 58 counties. Put the WI sticker on my YSQSO Party Award certificate.

AA8R: "Signals were way to weak on 40 from Mich. 80 was great."

N2OCW: "Couldn't work anything on 20M! 40 and 80 were great all day. Got down to 11 for 6th time and 13 for CWII. Missed two CW while away from the radio for dinner. Got Ashland on 40M for last 40M WI. Filled a few band call combos and prefixes."

N9JF: "The lower tier counties were impossible to work on 40 early, then mysteriously became possible later. Eighty was great. Polished off all but one for 2nd time, the remaining needs for CW and 40 meters (mixed bands cw) and down to 5 for Bingo. Some awfully good ears (K0PC in particular) and some not-so-good."

LY2ZZ: No propagation to EU during the contest period!

WI9WI: My goal was to operate from 5 more counties that I hadn't operated from in the past 15 years of mobile operation in the WIQP. My ultimate goal is to operate from every WI County.

I left our cabin on Barker Lake in Sawyer Co about 2 hours before the start and drove over Cty B through Hayward to 77. About 5 miles east of Minong I went north on Cty G about 5 miles to the WSB/DOU line. Just inside DOU is a snowplow turnaround where I parked and set up. I had about an hour, so I retuned the antenna, getting an SWR of 1.2:1 at 7070. For some reason it wouldn't tune on 20 where it had before, so I set up the Hustler antenna on a magnet roof mount for 20. Conditions were good, in fact excellent on 40, and after 50 minutes I left DOU with 53 QSOs in the log and drove the 1 mile back south to a boat landing in WSB. In spite of tuning well on 80 earlier, the BugCatcher now exhibited a high SWR even with the tuner. I made only 1 QSO on 80 from DOU and WSB.

I spent 43 minutes in WSB and made 64 QSOs, 62 on 40. By now it was time to make the long drive south to BAR. Take down, driving the 64 miles including getting gas and set up took an hour and 42 minutes. I stow the radio gear and take the antennas off when driving more than a mile or 2. I drove back to 77, through Minong to 53, down 53 and 63 south of Cumberland to 48, west on 48, north on E and then about a mile east to Polk-Barron County Line Road. I set up in BAR and made 59 QSOs in 59

min. I made 4 on 80, but something wasn't right.

The SWR was high and signals weak. I then drove the 100 ft to the other side of the road and ran POL for 48 mins. While running on 40, signals suddenly became weak, and the SWR high. After thinking for a minute, I changed the coax to the antenna, and voila all was well. After a bit I went to 80, and now with the new coax the antenna tuned as it had before the start of the contest, so I made 23 QSOs there for a total of 72 in POL before driving 8 miles up to BUR. I haven't checked out the coax yet but there's obviously a bad connector. I finished up the last hour in BUR, making 87 QSOs in about 54 minutes.

I did bring a mike, but made no phone QSOs. I only worked 8 WI counties, DAN, FOR, MRN, MRQ, MIL, TRE, WAS, and WAU. I heard very few mobiles and only worked a couple. I did work Steve N9CK (DAN) in 4 counties. I probably should have spent a few minutes on 75 phone to pick up some more Counties. I worked 43 S/P including WI.

Of the 7 hours of the WIQP, 2 hrs and 36 min were spent driving, adjusting gear for travel, and troubleshooting. It's a lot, but I'm SOND, and I don't feel comfortable driving, operating, and logging at the same time. That meant I actually operated only 4 hrs and 24 min.

After finishing in BUR I stowed everything and set out for the cabin. Just east of Stone Lake on 70 a deer ran out of the tree line and into the side of my Subaru Legacy wagon. First deer I've hit (or hit me) in almost 20 years. I stopped and reviewed the damage. Smashed right front quarter panel, smashed passenger side of the windshield, smashed rear door. Amazingly the front door appeared undamaged. The front was untouched, and inspection under the hood revealed no damage. Killed the deer. Got back to the cabin about 0250Z. Total driving for the day was an even 200 miles. Early the next morning I started back to Madison, and about 5 miles south of Ojibwa on 27 the engine overheated and blew coolant all over. I figured a hose had gone, or the water pump crapped out. After a bit of a comedy of errors involving a number of calls to AAA I finally got a tow to Ladysmith.

There it turned out to be a stuck thermostat, no blown hose or anything serious, and totally unrelated to the deer accident. Five hours after getting sidelined I was back on the road and arrived home about 10 hours after

leaving the cabin.

This turned out to be an expensive trip. I'm sure the deer damage is several $1K. The upside is the weather was great. Like others I operated with open door/windows a great deal. Also conditions were very good, and activity was the best I've ever heard it in the 25 years I've operated the WIQP. I also put 5 new counties under my belt, and now have covered the whole northern tier of the state as well as a number of south central counties. I'll be on from somewhere new next year.

Congratulations to all the great scores out there, particularly the other mobiles and some great out of state scores. And thanks to the WARAC and the organizers of this contest.

73 and thanks for all the QSOs

Jim
WI9WI/M

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N0IJ:. The wx was as perfect as it can get for this time of the year and the condx were way above average for the past few years. I thought I was in pretty good shape with over 100/hour average for all 7 hours, but there are lots of good mobile scores out there!

An interesting note is the effect on this contest by members of the Minnesota Wireless Association. There were 6 of the most active mobiles in the top scoring group--K0PC, W0AA (WA0MHJ), AF9T (multi with N0IM), W0ZQ, and N0IJ. All of these mobiles were also active in the Minnesota QSO Party just a month earlier. This group effectively activated all of Western counties in the state, and are responsible for a lot of the growth in both of these popular QSO parties.

73
John, N0IJ
Duluth, MN

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NN9K Wisconsin QSO Party – de NN9K

Nancy and I returned home late on March 1st. Now I have 14 days to unpack the van, get it serviced after the 5,000 mile journey and get it ready for a different operating environment in the WIQP. And of course there are all the usual things around the house that need to be checked and done after a long trip. And I have to get the MSQP logs ready for submission, but that can be an after dark effort.

This year, as we have done the past two years, another local county hunter Tim, N9BIL and I would enter the multi-multi mobile class in the QSO party. This means adding another operating position, another radio and another antenna to the van. Plus wiring an antenna switching scheme along with band-pass filters and coaxial stubs. While I was on my trip, Tim borrowed some antenna analysis software and cut a replacement stub for 40-meter rejection as we had suffered some interference from 40-meters during 20-meter operation last year. Actually, it didn't affect us too badly last year since 20-meter propagation was so poor .But we wanted to make sure there was no interference this year as 20-meters had been pretty good for me in the MSQP.

Another friend and county hunter, Tony N9YPN, agreed to drive for the contest. We planned to use the same route that we had used in 2008 just to see what the difference in propagation might do to our score. Things fell together nicely, maybe too nicely, since after we left home for Wisconsin we seemed to have a series of little problems --none were unsolvable, just aggravating. I always carry some clamp-on ferrite beads and usually don't have to use them; well that wasn't the case this year. Tim's MicroHam CW keyer wouldn't interface to the logging software using the same baud rate as mine, not a big issue but took a bit of time to correct. And during the contest we, became directionally confused (this was more my fault than anyone else's!) so decided to cut three counties from the route. Other than those nagging little problems things went well.

One of the nice things about the route was that it didn't require any overnight stay so we got back home late on Sunday evening. Monday morning I started tearing everything amateur radio related out of the van -- it had just made its last mobile run. The new vehicle will probably be another

van since Nancy and I both like to travel in one, however exactly when it will be replaced and what will replace it is still somewhat unknown. Will it be set up for mobile contesting as well as casual mobile county hunting? I just don't know right now.

Today is the 20th of March, five days after the contest and I haven't really taken a close look at the logs. I wanted to get this written so Bob could make his publishing deadline and I plan to work on the logs next week. But as I remember we had 900 plus contacts and 70 plus multipliers. Better score than last year even without the three counties cut from the route.

One last comment about QSO parties in general, I have fun and that's why I operate mobile in them. Sometimes it's tough to pull county hunter's calls out of the pileup but I try and sometimes I don't get them right the first time. After hours of continual pileups, RTTY QRM on 40-meters and folks that like to tune up on my signal things can start to run together. When I'm tired my reflexes tend to slow down a bit and it can be a struggle to find the correct key on the keyboard but I try and hopefully before the party is over I've helped some folks with their needs. We need more mobiles running counties both in QSO parties and during non-contest times. Too many folks just sit at home waiting for the mobiles to help them instead of getting out in the countryside and helping others!"

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OKLA QSO PARTY

WA7JHQ: "Fun on 40m here in NM. Not a whisper from OK on 20m here in NM, but worked 70 counties, 20 phone Q's, and 136 CW Q's on 40m. I worked mainly 7 mobiles: K5CM, N4CD, W0BH, K5YAA, W3DYA, NO5W, and N5UM along with a few fixed stations. Signals weakened mid to late morning, but were otherwise great. Great job by all the mobile OP's. "

K9AAA: "I got the last 8 counties in OK that I needed. All were mobile"

AD1C: "Thanks for OK counties! Thanks to all the mobiles, portables and fixed stations for putting out a lot of activity in the OK QSO Party. I finally finished OK on phone (Pontotoc, tks N4CD and NO5W) and worked a ton

of new counties on 40 (it's easier from CO than MA). Something like 86 QSOs,

Conditions were strange on Sunday. No signals early on except for N4CD who was loud, then NO5W went from S1 to S9 in a matter of moments, but was weak most of the rest of the day; he was louder Saturday. W3DYA had the most consistently good signal on Sunday.

WB2ABD: "That was fun! I had to miss time on Saturday, but , otherwise, never a dull moment. Lots of mobiles = good time. 40M didn't quite get long enough for WNY, but there were plenty of good ears in those vehicles. Thanks to all the mobiles for their efforts."

KM1C: Great QSO Party. Got 9 of the last 10 needed in OK. Worked N4CD more than 2X times than any other mobile. Bob was everywhere, SSB and CW. All I had to do was tune down any band on any mode and Bob would be there. I suspect he may have cloned himself and was secretly running a Multi-Multi Mobile.

W3DYA: "I heard N4CD once at the beginning, but too weak to attempt a QSO. Did work a few OK mobiles on 40M, but mostly on 80M during the day, especially W0BH. And worked some fixed stations, usually when I was in the same county, or nearby.

It was a fun contest and the WX was very nice. Sure beat MS earlier... I'm a Yankee by birth, but rain, sleet, and snow isn't great WX to be mobile hi!

Thanks to all the stations who hung with me the entire weekend.

Now it's time to rest up for GA in a couple of weeks!"

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North Dakota QSO Party

There was one active mobile, W0AA, and about 8 fixed stations that got on for the rejuvenated ND QSO Party held on 3/21/09. Maybe 16-20 counties were on the air out of the 53. . It was a good start to have activity every year in ND. He wasn't easy to work mobile to mobile, but he had good pile-ups going.

I was out mobile for the contest in the OQP, but snagged about 10 contacts – and I'm sending in my log, and putting the ND sticker on my YSQSO Party Award Certificate!

On the Road with N4CD

It was my turn to put out some counties in a state QSO Party. So far, I'd been hunting the other mobiles out in the QSO Parties since I started over.. About the only QSO Parties that I've run in for the past 20 years has been TX and OK. Both are good ones with lots of mobiles and fixed stations.

I've run the Oklahoma QSO Party before and this year it was on a weekend that was open. For the last two years it had collided with another annual event. Now things begin to get a bit interesting at the N4CD QTH.

I decided to sell the 2001 Buick LeSabre after 8 years and 220,444 miles. It had done great duty, but at the rate I put miles on cars, I decided to let someone else use it. I put it on Craig's list here in Dallas, and it was sold in three days. You just don't get that much for used Buicks with high mileage. A Toyota or Honda would have sold for double. I didn't argue about the price – got book value - since the last county hunting car, a 1994 Buick Lesabre with 203,500 miles took forever to sell back in 2001. So that left me without the great county hunting car.

I just bought a new Chevy Malibu to replace it. Ron, KA3DRO has a Malibu and had good success with his for county hunting. It arrived about 10 days ago, but I was quite busy last weekend so I didn't get a chance to get a permanent installation in it. Or even a start.

I grounded the trunk deck with grounding straps and installed the grounding strap for the mag mount. I might actually stick a ball mount on this one. I put in a standard ICOM power cable in my temp fashion around the right door, through the door gasket, to the radio which was on a board on the passenger seat. Unlike the LeSabre, which had the battery under the rear seat, the battery is under the hood. I put the 40M SSB hamstick on the roof, and the 20/30/40cw antenna on the trunk deck.

Now – there is good news and bad news about my 2009 Chevy Malibu. The good news: On 20M, you can't even tell the car is running on the radio. Zero noise. Zip. Same on 30M. On 40M, it is very, very quiet……except ---- the bad news: one spur coming from a computer or something in the car – and it is centered on 7058, and about 6 KHz wide. It gives S4 noise on 7056.5. Below 7052, it is S0. So I'm going to have to figure out what it is, and if it can be whacked down, and by what means. It comes on with the ignition switch, and goes off about 4 seconds after you turn off the ignition switch. Allegedly, the car has five 'computers', so I am going to have to do some detective work.

That is not good for 40M CW operation. The other problem I had was that the radio didn't like the voltage at the end of the cable, and after about 5 minutes with the engine off, the cw sig started to get bad, and on SSB, the sig didn't sound as good. So I'll have to put in some heavy wire once I figure out how to mount it more permanently. I ran with the engine on nearly all the time on this trip.

I headed to OKLA to run a bunch of counties in the OKLA QSO Party- after dragging myself out of bed at 5am or so, and getting on the road by 6am to get to the first operating location two hours away. I stopped to run every county for the QSO Party. I could have used a recorder, but there are lots of back roads in OK that I was using, and with the new car, I decided to play it safe. It was up through Bryan, Atoka, Johnston, Coal, Pontotoc, Hughes – up to the Tulsa area. There were a few sprinkles and showers, but not bad. No sun on Saturday.

There is a nice short ½ mile section of Osage on 412 that Charlie, W0RRY, had shown me on our county hunting trips, so I hit that, stopped in the one off the road spot in the county along this road, ran it, then continued into Tulsa.

I was getting tired after a long day, so I check the Nav system for local motels and a Motel 6 popped up a few miles away – so that is where I stopped for the night - $40 including tax.

Conditions were not great- sigs were in and out all weekend. There were two other QSO parties going on. In ND, there were several fixed stations, and a mobile or two, with W0AA being one of the mobiles. I tried to work a few of them so I could send in log for ARRL YSQSO Party Award – plus I need just about everything in ND, too! I just started over. I only heard W0AA in a few counties, but we were often running at the same time on different frequencies and he didn't come looking for me like I looked for him! I snagged a few ND fixed stations. Most seemed to be on SSB.

Since I went to bed early, I was wide awake at 5am! Dang. Well, nothing to do but head to the nearby 24 hour Waffle House and pig out on their special breakfast – eggs, bacon, grits, a waffle, and coffee while reading the Sunday paper. The contest didn't start again till 8am. The first county was about 30 miles away so I had time to kill. I then headed to Okmulgee and got near the far county line before the start time. The weather was better on Sunday and the sun came out. Temps both days in the 70s – on Saturday, it rained a bit. Sunday was clear but very windy. The 'spring weather' of thunderstorms was expected on Monday – so the timing was good – no really bad weather which can ruin your day – snow, ice, tornadoes, etc – in the Midwest. The bad weather hit on Monday after the QSO Party.

Also this same weekend we had the VA QSO Party. Ray, AB4YZ, and Fred, W4DF were operating at other stations, and there were a handful of mobiles. The mobiles were very weak on 40M into OK, and not much heard from them on 20M either! Not much joy for me for VA QSO Party other than fixed stations – but I needed everything on cw, so they were all 'new'.

By running in the QSO party, I probably got another 50 counties from the folks who worked me on cw (everything is 'new' again). In the contest period, I worked about 46 other states (missed CT, RI, and HI). After the contest ended, on just a normal run, picked up CT and HI (KH6G), but never heard a RI station on. Those last two didn't count, anyway! Our normal CT contact, K1BV, was off chasing DX in some other contest – heard him working those DX stations. Not many other county hunters in CT!

The DX contest made a mess of much of 20M – not much QSO Party activity on Saturday morning due to the QRM there. It eased up a bit later.

Not much out of Canada either, other than VE1(2) ,2(1), 3(3) , 4(1). With my QTH in OK, I snagged only a few OK – heard mobiles only twice the whole time – worked W0BH/m (close by) and NO5W/m in way way west OK. I need about 90% of OKLA. Maybe next year I'll go to VA and run that, and work OK mobiles if they are the same weekend! Hi hi. Just kidding.

40M seemed OK, but it was up and down like a yo-yo. There are no relays in the QSO Party – I ran on 40M SSB, plus 20 and 40cw. Most of the time, 20M CW was poor – but at times it was very good for short times. Only DX was DL3DXX, CU2JT, DL5MC (1 time), an "ON"(1) , and LY2ZZ.

A few times I showed up on 14.336, but not many takers. No net was running all day Sunday. There were quite a few loud VA Fixed stations on 20M. I gave them a few points on SSB. I worked 34 QSOs in the VA QSO Party. There you have to keep track of QSO numbers which isn't easy when you are mobile and everything is in one log. It would be impossible if you were using a recorder without a separate log for it. Sometimes they call you, and when you find out they are in VA, you give them a number/state and they usually give you back a contest exchange, too. Sometimes they are just confused, and sometimes folks confuse contests and give you the wrong exchange! (Especially when you are a "N4" and they are thinking VA) Hi Hi

Dan, KM9X, and Judy, KM9MGI were running in KY. Barry, N0KV, and Pat, N0DXE, were in AL/MS, and Tim, KD5CXO was in AL. Bob, N8KIE was putting out FL – he said not many QSOs on 20M, and 40M down that way is tough! Leo, WY7LL and Chris, WY7ML were in WY and SD running those counties.

I put 450 miles on the new car breaking it in – got some good 'red OK mud' from the shoulders of the road on it – so it's off to the car wash to de-gunk it. I've been on a few long trips where the car gained about 50 lbs from mud underneath, in the wheel wells, and other places. This is just a bit, but with it being 'new', I guess I'll try and keep it clean for a while.

The car ran well. The radio didn't seem to affect any system on the car – good! Other than the one birdie (bad – very bad), the car is super quiet. It

has a center console, so it is going to take some carpentry work to get things where the control head, key paddles and other stuff are conveniently located. I had the key under the right leg on the small board like I ran in the Buick. It's a bit more cramped in this car, but it worked out OK for a temp set up.

So stay tuned to the continuing sagas of N4CD on the Road to see where things develop in the new Malibu. This one has the 6 speed automatic and might get 33-34 mpg on the road. It's got more bells and whistles than you can shake a stick at. Now, the federal government mandates tire pressure sensors in each wheel so you can read each tire's pressure remotely. It's got Onstar and satellite radio (both of which work for a while free to try to get you hooked, then you have to subscribe to them for $$/month).

I ended up in the 'mountain counties' of OK – the eastern part has lots of backroads up and down mountains with switchbacks and other time consuming winding roads. The contest ended at 2pm, so after that it was headed home, running a few along the way just to give out the MG, MP and stars for those needing them. By then, everyone likely had at least once chance at them during the contest! N6MU said he had worked all 77 OK counties that weekend!

Now to send in the logs for ND, for VA, and for OK – I'm going to be busy this week! 1, 530 QSOs it looks like, about half on SSB, and half on cw more or less. It was a busy 2 days. Thanks everyone for giving me some points in the contest. The OKLA needs, other than for MG, Bingo, Plat, and prefixes should have been whittled down significantly by all the mobiles out there – NO5W, W3DYA, W0BH, K5YAA, K5UV, K5CM, N5UM, and yours truly – N4CD, plus a half dozen or more fixed stations. It looks like every county in OK was on the air.

Thanks to the regular County Hunters for giving me the contacts. On CW, we had some of the regular QSO party folks – N6MU, W8WVU, N2CU, N4IG, WB9CIF, N2WN, N4IG, KV8Q, and a dozen others, plus a lot of the CW regulars chasing cw contacts. I picked up a bunch of multipliers from the CH – which helps the score. Looks like NN8L has now joined the CW bunch, too, and same for W9KB.

So it was a good trip. I've got the log done, so time to send it in and put my OKLA sticker on the ARRL YSQSO Party Award – whew. I worked hard for that state! (also need to send in the ND log, the VA log, too!).

40 Meter Shortwave Broadcast

From Amateur Radio Newsline – Feb 27

“Ham radio operators world wide are preparing for the expansion of 40 meters. This, as the date approaches where shortwave broadcast operations must vacate the spectrum from 7 point 1 to 7 point 2 MHz. Jim Linton, VK3PC, in Forrest Hill, Australia, says that hams down-under are prepared:

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With four weeks to go before broadcast stations are due to have migrated from the band 7100-7200kHz as that band is restored to the Amateur Service, a scan watch has begun to identify stations still currently using that segment.

IARU Region 3 Monitoring Systems Coorindator, B.L. (Arasu) Manohar VU2UR has been scanning the segment.

He did this for four days recently to identify 58 broadcast transmissions, their frequencies, times and signal strengths. The broadcasters use 5kHz channel spacing.

The worthwhile yet painstaking task also notes the languages of the transmissions including Arabaic, Burmese, Chinese, English, French, German, Indian, Japanese, Russian and Turkish.

Adding to the complexity of the task are jamming stations, heterodynes, low powered regional or domestic stations and many powerful broadcasters using relays to cover their audience target area.

Arasu VU2UR says similar scanning and monitoring work may be necessary in other parts of the world to get a fuller picture of broadcast activity and he’s prepared to share the spreadsheet result of his work.

Mapping of broadcasters on the 40-metre band will be important should be IARU need to mount a case to fight any continued occupancy of the 7100-7200kHz after 29 March.

That is the departure date set by the World Radio Conference 2003 and coincides with the new broadcasting schedule for 2009. “

N4AAT Trip Report

N4AAT, Scotties’ first hand report of his trip to/from the TX mini:

“I started out on Saturday morning the 7th of February at 01:30 am in the morning. I was about 40 miles from home heading into Georgia when I realized I didn't have my cell phone with me. So, I had to turn around and head back home to get it. Well, that's 80 miles lost and an hour lost in travel. This was the first of the unfortunate things that happened on this trip. Back on the road again and stopping briefly for a large cup of coffee, I headed for Georgia. There were no county hunters listening yet so I jumped up to the triple (HHH) net and worked a few DX stations. They also worked me for the state that I was in. I set my cruise control on 80mph so I wouldn't get a ticket for speeding.

By the time the band started to open I was in Etowah AL. I ran this county then had to go backwards a few miles to run Cherokee. By noon thirty or thereabouts, I was in Franklin, AL, and gave Larry, N2OCW, Franklin AL for his last county for the WBOW on CW. This made my day being able to do this on CW. I was taking request for CW but not many asked me to go there.

By the time I stopped for the day it was February 8th. At 00:03 I ran Tallahatchie, MS. Time to find a hotel room. It was just my luck as they must have had a convention in the parking lot at this hotel. Cars were cruising around in circles, people were running around yelling and screaming and peeing on vehicles in the lot. The cops were called a couple

of times to clear the lot. As soon as the police left, it started all over again. Bad night in Mississippi.

We started out Sunday, and by 13:06Z , I was running Mississippi counties. Unknown to me, my recorder was running, but was not recording. I didn't find this out until that night in the hotel room, in Marshall, OK, when I wanted to log some of the tapes. This was a devastating setback for me. Nothing to do now but go to bed.

While trying to sleep, the person in the next room was snoring so loud it came through the walls and kept me awake. WOW he was loud. I took the stuff off my bed and went to the furthest part of the room and slept on the floor.

By 12:23Z on Monday February 9th we were out running counties. I'm an early starter. Thanks go to Jim N1BY and Joe N5UZW, who were up early to run me. Knowing that my tape recorder wasn't working, I started to use a little hand recorder - the type with the little tiny tapes. I used this until I found a recorder in Texas at a Walmart.

I had a planed route for Texas. I needed to run 11 different counties for Bob N4CD. Just a little payback for all the counties he got for me. So for the next three days I was making a big loop around Texas. I did manage to get the last MP in Texas for Joe N5UZW. Good old Irion, TX.

The third night I stopped in Runnels TX at a run of the mill hotel and got some sleep. BUT, in the morning I had to take a cold shower because there was no hot water. Boy, my luck in hotels was beginning to become a nightmare. Why me lord?

I continued to run around Texas and managed to get a few last counties for Pete, NN9K - Crockett TX, and Randy, AA8R - Maverick, TX. Later on in the day I stopped and had a long chat with the border patrol. They were curious about all the antennas on the truck. When they were looking at my radio setup they spotted my blue light in the truck. We then got to talking about police work and about K9's. Had a nice chat.

During the next few days I got a few more counties for N4CD. I ran into Lloyd, NX4W on a county line and he showed me his setup. Later on I waved down Milt, KY0E to see if he wanted to stop for lunch. We couldn't

find a place, so I just followed him to the convention hotel. Believe it or not, I finally got three nights of good sleep.

I met a great bunch of county hunters during the convention and really enjoyed it.

I started out in the wee morning hours on Sunday the 15th so I could finish up Bob N4CD with the counties he needed. It was crunch time, by the time I got to Hopkins, TX. Again I was blessed to be able to run a county for the WBOW, on CW. This was also a WBOW for his seventh time. Because I started out early in the morning, I had an extra day to play with and ran a bunch of different counties on the way home. I had to get home by Tuesday because my wife was having surgery on Wednesday, and I needed to be there.

Thanks to all who helped run all the mobiles this convention week. I ran 203 counties and thousands of contacts. I did get stopped in Atlanta, GA for some minor traffic violations. It's another long story on how I managed to avoid a ticket. Nice officer. See ya all on the road the next time.

Scottie, N4AAT

Reader Feedback – Electronic Confirmations

From N4PJ via email

Bob, just finished reading your March County Hunter News.

I typically find your data pretty factually correct and this month is no exception, with one minor detail.

Here's my personal experience.

eQSL is absolutely, positively NOT county hunter friendly. I was able to create a couple of additional "accounts" for counties I have activated. Because of the unique "QTH Code" and the inability to "overlap"

dates/times, it is extremely difficult to create and use a given county entity more than once. Virtually each occurrence of the same county has to be given a totally unique ID. It simply turns you into a bookkeeper!

You also state that LotW is not very counter hunter friendly either. Actually, I've found that to not be the case.
Until CQ and the ARRL can work out something where CQ can accept LotW "credits" nothing good is going to happen relative to "counties."

However, if you are an LotW user *and* possess a reasonably compliant logging program (I use the DXLabs Suite - DXKeeper is the actual logbook and it is *very* county-hunter friendly), getting your counties into LotW is not very difficult.

Using TQSL (the system used to digitally sign your QSOs for loading into LotW), you must create a "station location" for each county activated. Unlike eQSL, once the station location has been created, you can visit that county an unlimited number of times on different dates, etc. and use that same station location.

Within DXKeeper, you must also create a MYQTHID to match each of the station locations created in TQSL. Fortunately, in both the case of TQSL and DXKeeper, this needs to only be done once. You can use them over and over and over.

When uploading the logs, you must segregate the QSOs into their respective counties (outrageously easy in DXKeeper) and then have DXKeeper upload them, a county at a time (it goes very, very quickly). Fortunately, when you check for "hits" against your data, you do NOT have to segregate anything by county - everything comes back to you under your "normal" callsign.

Unfortunately, for the moment, it is very irrelevant since CQ can't seem to get ARRL to cooperate in the use of the LotW system for anything outside the auspices of ARRL awards.

Many thanks for the hundreds of QSOs you've given me thus far. Getting ready to apply for my 1,500 (all on CW).

Regards,

Art - N4PJ (ex K4IRS)”

Lower Ionosphere

Observations made by NASA instruments onboard an Air Force satellite have shown that the boundary between the Earth’s upper atmosphere and space has moved to extraordinarily low altitudes. These observations were made by the Coupled Ion Neutral Dynamics Investigation (CINDI) instrument suite, which was launched aboard the U.S. Air Force’s Communication/Navigation Outage Forecast System (C/NOFS) satellite on April 16, 2008.

CINDI and C/NOFS were designed to study disturbances in Earth’s ionosphere that can result in a disruption of navigation and communication signals. The ionosphere is a gaseous envelope of electrically charged particles that surrounds our planet and it is important because Radar, radio waves, and global positioning system signals can be disrupted by ionospheric disturbances.

CINDI’s first discovery was, however, that the ionosphere was not where it had been expected to be. During the first months of CINDI operations the transition between the ionosphere and space was found to be at about 260 miles (420 km) altitude during the nighttime, barely rising above 500 miles (800 km) during the day. These altitudes were extraordinarily low compared

with the more typical values of 400 miles (640 km) during the nighttime and 600 miles (960 km) during the day.

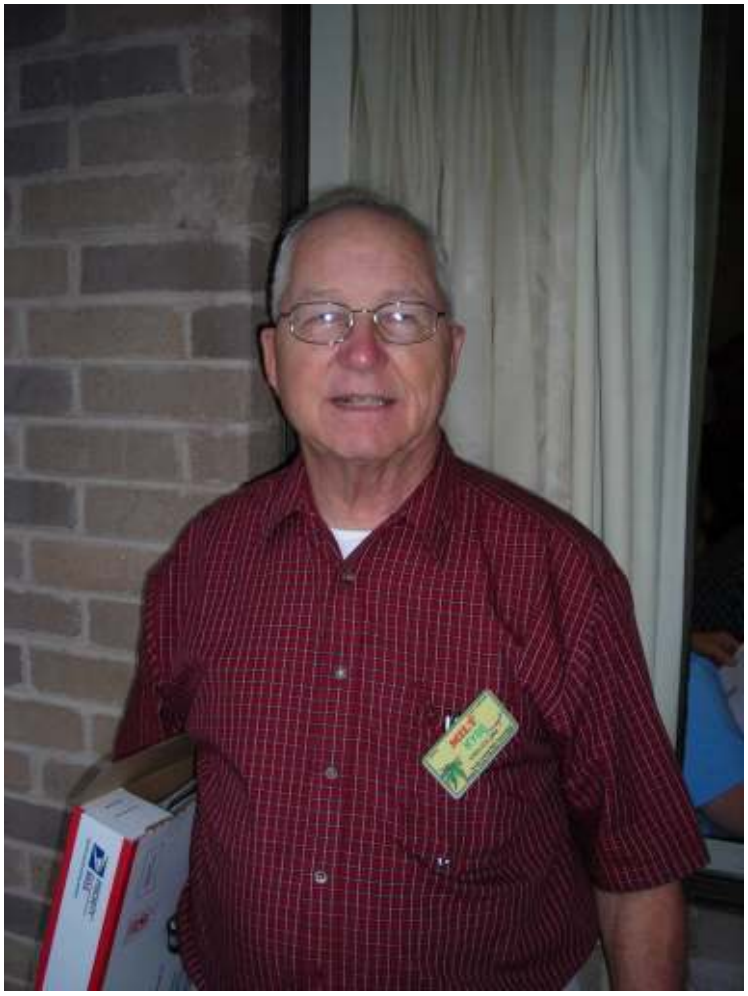
The height of the ionosphere/space transition is controlled in part by the amount of extreme ultraviolet energy emitted by the Sun and a somewhat contracted ionosphere could have been expected because C/NOFS was launched during a minimum in the 11-year cycle of solar activity. However, the size of the actual contraction caught investigators by surprise. In fact, when they looked back over records of solar activity, they found that C/NOFS had been launched during the quietest solar minimum since the space age began.

More at: http://www.sciencedaily.com/releases/2008/12/081215121601.htm

More Pics from the Feb Mini

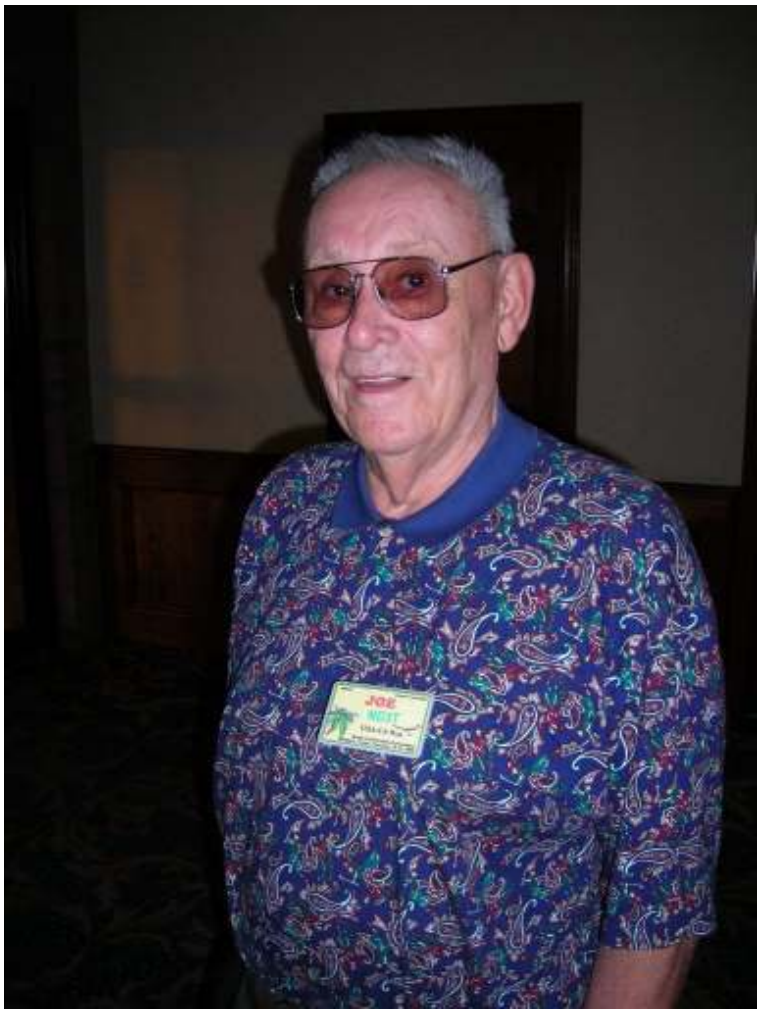
K1DFO Walt USCA #851

Walt is usually on 20M SSB from California. He makes it to most of the conventions around the country. If you need to know anything about HDTV, he's the expert.



Milt, KY0E USCA #563

Milt is on both SSB and CW. He's from Colorado.



Joe, ND3T USCA #814

Joe recently relocated to Texas permanently. You'll hear him on 20M and 40M SSB.

Ron, N5MLP USCA #1169

Ron has a big signal on 20 and 40M SSB from east Texas. He's standing by his mobile – nice pick up truck.

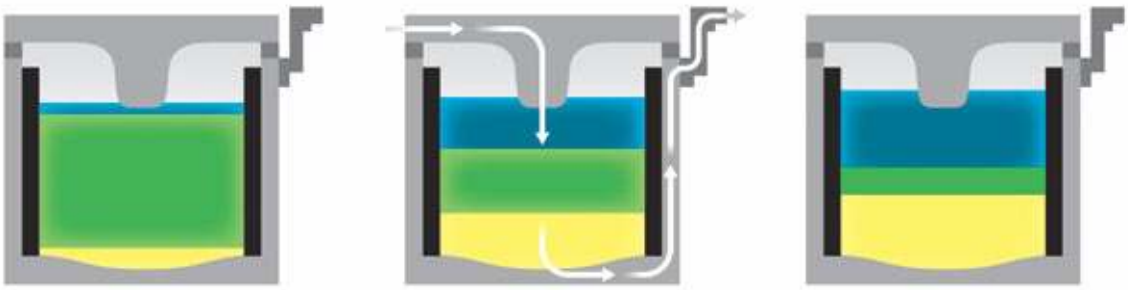
Liquid Battery Technology

Without a good way to store electricity on a large scale, solar power is useless at night. One promising storage option is a new kind of battery made

with all-liquid active materials. Prototypes suggest that these liquid batteries will cost less than a third as much as today's best batteries and could last significantly longer.

The battery is unlike any other. The electrodes are molten metals, and the electrolyte that conducts current between them is a molten salt. This results in an unusually resilient device that can quickly absorb large amounts of electricity. The electrodes can operate at electrical currents "tens of times higher than any [battery] that's ever been measured," says Donald Sadoway, a materials chemistry professor at MIT and one of the battery's inventors. What's more, the materials are cheap, and the design allows for simple manufacturing.

The first prototype consists of a container surrounded by insulating material. The researchers add molten raw materials: antimony on the bottom, an electrolyte such as sodium sulfide in the middle, and magnesium at the top. Since each material has a different density, they naturally remain in distinct layers, which simplifies manufacturing. The container doubles as a current collector, delivering electrons from a power supply, such as solar panels, or carrying them away to the electrical grid to supply electricity to homes and businesses.



Discharged, charging, charged: The molten active components (colored bands: blue, magnesium; green, electrolyte; yellow, antimony) of a new grid-scale storage battery are held in a container that delivers and collects electrical current (left). Here, the battery is ready to be charged, with positive magnesium and negative antimony ions dissolved in the electrolyte. As electric current flows into the cell (center), the magnesium ions in the electrolyte gain electrons and form magnesium metal, which joins the

molten magnesium electrode. At the same time, the antimony ions give up electrons to form metal atoms at the opposite electrode. As metal forms, the electrolyte shrinks and the electrodes grow (right), an unusual property for batteries. During discharge, the process is reversed, and the metal atoms become ions again.

As power flows into the battery, magnesium and antimony metal are generated from magnesium antimonide dissolved in the electrolyte. When the cell discharges, the metals of the two electrodes dissolve to again form magnesium antimonide, which dissolves in the electrolyte, causing the electrolyte to grow larger and the electrodes to shrink *(see above)*.

Sadoway envisions wiring together large cells to form enormous battery packs. One big enough to meet the peak electricity demand in New York City--about 13,000 megawatts--would fill nearly 60,000 square meters. Charging it would require solar farms of unprecedented size, generating not only enough electricity to meet daytime power needs but enough excess power to charge the batteries for nighttime demand. The first systems will probably store energy produced during periods of low electricity demand for use during peak demand, thus reducing the need for new power plants and transmission lines.

The team hopes that a commercial version of the battery will be available in five years.

Source: MIT

See the video http://www.technologyreview.com/video/?vid=264

How to File those QSL Cards

Mark, WB4UHI inquired on the K3IMC Forum: “I’m trying to sort my QSL cards so I can apply for the CQ award (just 2,000 counties). I have been keeping the cards in a fireproof file box but it broke during my last move. Anyone have a good way to sort and store cards? I had been keeping them filed by call area but I really would like to file them by prefixes (WB4, KC7, AA9, ...).. I have about an even number of QSL Cards and MRC's. I keep track of the cards on a Microsoft Access database. I really am looking for a better way to store the cards than rubber bands.”

Some of the responses were:

1) **NN8L** “First of all, I'm a spreadsheetaholic. When I first started I didn't have Logger, so everything was logged and mrc's printed from within Logic8. It does a good job, but not perfect. I started by putting only one state on a card. If I worked a mobile in 5 states they got 5 cards. (Or more). I number the MRC's when I get them back. I have a spreadsheet with all the counties and cells for the mobile's call, date, band, mode and mrc # for that county. When it comes time for someone to check the cards all they'll have to do is sort the spreadsheet by mrc#, date, time and go right through the cards. Everything should be in order. The QSL cards will sort out at the end of the list. Another sort back to state/county order and its ready to submit to CQ. More than likely everybody has a different method, but this one seems to be the easiest to me.”

http://www.staples.com/office/supplies/p1_Globe-Weis-4-x-6-Index-Card-Files_10468_Business_Supplies_10051_SEARCH

Shoe boxes would work, but these are a bit heavier and have a plastic follower assembly that helps keep the cards upright if you don't have a near full box.”

2) **KD7KST**: “I went to the local Office Supply store and bought a box of 100 "Clasp Envelopes" 6" x 9", they are yellow colored with a clasp to close them.

I took 50 of these envelopes and labeled them AL thru WY. I then sort the QSL/MRC's first by state and then by county in alphabetical order. MRC's with several counties are difficult to get in alphabetical order but I put in the stack where it seems to fit best. I've put index cards in the stack with notes like "For Yakima County, WA see MRC filed under Benton, WA. I also use post-it notes to make notes to myself and the card checker.

For states like TX I use multiply envelopes and I also usually put a rubber band around the stack of cards so I don't have to play 52 card pickup if they accidentally fall out of the envelope. I then put all the envelopes in a shoe box.

I try to make it as easy as I can on the checker. So far the checker I've been using hasn't complained about my system. "

3) **KA9JAC**: Shoebox - I sorted them by call, K, KA, KB etc
Made divider cards to label the call groups, then sorted by suffix

4) **WQ7A**: "checkout **http://www.hamstuff.com/** I use them a lot.

Over the years I have found that sorting by suffix works best for me. Have fun."

De N4CD – Hamstuff has some heavy duty QSL boxes you might want to check out.

5) **N7IPG**: "I store mine in the larger metal index card boxes, these are about 6.25 by 4.5 inches. Probably the easiest way to cross reference the cards is to just number them. Then when you make up your record book show the card number next to the county as you fill in your record. It should then be a simple matter to pull the card for the county in question."

6) **W9KB**: "Photo Album - have twelve 3 inch binders with about 80-90 vinyl 4x6 photo sleeves (4 cards) per binder. I then organized and labeled the states and counties alphabetically... Texas gets its own special book with 254 counties. While I don't necessarily recommend this process since it took many hours to setup, it is easy to maintain when the 'new' ones arrive."

7) **WB4VFN**: ACCUFILE 26 POCKET FILE CASE - Got it at Walmart and now down to 9 for WBOW and it holds all cards and mrcs ok....a bit stuffed but it works. With the tabs I use each section for 2 states. In each section the state with the fewest counties I put in a letter envelope. The others I drop in that section. Simple but effective.

* * * * *

For those working on USCA, you'll have a mix of MRCs (mobile reply cards) and QSL cards. There will be multiple QSOs on most of the MRCs. Some try to keep things sorted by states, putting only QSOs in the same state on a card, while others mix them together. Likely you'll use both QSL cards from previous contacts, plus hundreds of MRCs, to qualify for your USCA. Afterwards, you can stuff all the MRCs in a large box somewhere in the back of your closet, and keep the QSL cards where you can browse through them, and add to them as others send you cards. After the first time, you won't see another MRC, unless you go mobile and someone sends one to you to review, check, sign, and mail back!

Then it comes down to sorting QSL cards. Most people probably still do it first by call area, then by suffixes, so all your '1' cards are in order by suffix. With the large number of moved calls, like N4CD in TX, KB6UF in LA, it won't go by state or region, but you'll be able to find a call. If you have identical suffixes, then you sort those by prefix so AB1XX would come before K1XX. For county hunting, you'll never need another MRC or QSL after the 'first time'. However, if you are working on 5B WAS, 160M WAS, or other things, you might want to keep those cards in a separate shoe box with a rubber band or envelope for 160M W.A.S. until you get all 50 and send in for that award. Or 30M or 17M or whatever your wish. Some keep DX card by band, so they can track their totals on each band. Whatever turns you on.

Climate Pork

http://online.wsj.com/article/SB123552068199964531.html

“Put away the global warming panic. Mankind's contribution to rising CO2 levels raises serious questions, but the tens of billions poured into climate science have, by now, added up only to a negative finding. We don't really have the slightest idea how an increase in the atmosphere's component of CO2 is impacting our climate, though the most plausible indication is that the impact is too small to untangle from natural variability.

In any case, has Mr. Obama taken a gander at collapsing industrial production numbers around the world? He's going to get a big reduction in CO2 output whether he wants it or not. Nor will the public be moved to make costly, material changes in its energy habits, especially if the recent global cooling trend continues. **What we'll get instead is already depressingly clear: climate pork, or lucrative favors for lobbying interests in the name of global warming that have no impact on global warming**.

Peak Oil News – Tajikistan

Lacking fuel, Tajikistan slides into darkness

TURDIBOBO, Tajikistan, March 1, 2009 - Twice a day, the students in this village school just outside the Tajik capital rush out of their classrooms bundled in layers of heavy winter clothing. They aren't running outside to play in the snow -- they're jockeying for position to warm their hands around the school's only heater, which now comes on just twice a day.

'Studies are not cancelled, kids are coming early, however not all of them are prepared for the lessons,' said teacher Daler Yukavov. 'The kids complain that they couldn't do their home work because of the lack of electricity.'

The poorest of all the ex-Soviet Central Asian states with a population of 7.5 million, Tajikistan is in the midst of a massive energy crisis that has caused chronic shortages even in the capital Dushanbe.

The collapse of Soviet-era infrastructure, a dispute with neighbouring Uzbekistan and lack of investment in the energy sector after independence have paralyzed the country's electricity grid.

The shortages are just one of the problems facing the country high in the Pamir Mountains, the only Persian-speaking state in the otherwise Turkic ex-Soviet republics of Central Asia.

Its debt-ridden economy is massively dependent on remittances sent by Tajik manual workers employed abroad which according to the International Monetary Fund account for 45 percent of GDP. Earlier this month think-tank International Crisis Group issued a report warning that Tajikistan, which shares a large and porous border with war-torn Afghanistan, was in danger of becoming a 'failed state'.

A move earlier this month by Tashkent to halve gas deliveries forced Dushanbe to implement an even more stringent energy rationing scheme than before, plunging much of the country into darkness for all but two hours a day.

Even in some areas in and around the capital Dushanbe, electricity is only available for two hours a day or less, an d gas only to those lucky enough to afford it.

Tajikistan has for decades planned to develop the hydropower potential of its mountain streams and rivers eventually becoming a net exporter of power to surrounding states including Afghanistan. But Tajikistan depends on Uzbekistan -- the main supplier of natural gas to countries in the region -- for 95 percent of its natural gas.

The two countries have long been at loggerheads over a number of issues, including water and energy supplies in addition to long-standing cultural strains.

No issue is more controversial than Tajikistan's massive Rogun hydro-electric station, begun under the Soviets in 1976, which Uzbekistan fears would cut off water to its lucrative cotton fields.

'I probably won't live to see the day when they build all these power stations, when light and heat will be in abundance,' said 80-year-old Edgor in the Turdibobo village shop.

'I'm buying one candle, that should get me through the night,' he said. 'But tomorrow I'll have to come back and do it all over again.'

Tajikistan this week agreed to allow the transit of non-lethal US supplies for troops in Afghanistan, after Russian ally Kyrgyzstan said it would shut down a key US base.

* * * * * * *

Just one of the countries around the world that may go back to pre-electric living in the near future.

Whatever Happened to Heathkit?

“There once was a time in electronics when you could actually build circuits and equipment yourself. You needed a design that you could create yourself—or if not, get from one of many magazines, including Electronic Design. You could buy the resistors, capacitors, transistors, or tubes in the olden days, then put them all together on a metal chassis, a breadboard, or a finished printed-circuit board (PCB). It was quite a project but doable, and many hobbyists like hams built these designs on a regular basis. “

de N4CD: I’m sure many county hunters started out with something Heathkit along the way!

In the late 1940s and 1950s, some genius invented the kit business. Companies designed a product and sold it as a bundle of parts. You could buy the kit and build it for a fraction of what a comparable wired unit. The outcome was quite favorable—a workable electronic product and a great sense of accomplishment you got from the construction.

Heath was one of the companies that help started the kit business. Ed Heath founded the company in 1926 withan airplane kit. Right after World War II, Howard Anthony, who took over after the death of Ed Heath, bought a batch of electronic surplus. From those parts came one of the first successful kits, a small oscilloscope for $50.

Heathkit succeeded more on its ham radio products than anything else. Most of the early kits were shortwave radios, transmitters, receivers, transceivers, power amplifiers, and accessories like antenna tuners.

In the 1950s and 1960s, Heathkit expanded into audio equipment, TV sets, weather and other consumer products. The company had a low-cost line of test equipment with scopes, multimeters, generators, counters, and other items. While Heathkit had competitors like Allied Knight, Lafayette, Eico, and a few other smaller companies, it did well because it had a better product.

Heathkit's good reputation really came from offering a better assembly manual than anyone else.. If the customer can't build the kit successfully without massive telephone and mail support, it would die a quick death, and many did. Heathkit figured this out early and spent as much development time in the manual as it did engineering the product. Its primary marketing message was "We won't let you fail," and the company lived up to it.

In 1974, Heath built a line of self-instructional courses on electronic fundamentals and a wide range of other topics. A line of kit trainers accompanied the instructional materials. They followed up with microprocessor learning packages, developed the Hero robot kit that came out in 1982.

There were also the Heathkit computers - the H8 and the H11 and the H9 terminal. The all-in-one H89 and others came later.

The success of the computer line attracted the attention of Zenith Corp., which went on to buy Heathkit in 1979 from the owner Schlumberger, an oil

field service company that also owned Fairchild Semiconductor at the time. Zenith carved out the computer product line and started Zenith Data Systems (ZDS), and that company went on to build a several billion dollar business making Zenith computers and PC compatibles. Groupe Bull of France eventually bought that business, and ultimately it succumbed to the market forces driving the PC-compatible business with all its shakeouts, ups, and downs during the late 1980s and early 1990s.

In the meantime, the kit business suffered. Zenith didn't really want that business, but it came with the deal. It was neglected as ZDS grew, and so began its slow decline into oblivion. A great deal of that decline had little to do with Zenith. It was also the time of great progress in semiconductor manufacturing. More and more equipment was being made of more and smaller ICs and surface-mount components, both of which were always a challenge for kit builders. It became harder to make a kit people could build at home with basic hand tools.

At the same time, wired products became cheaper thanks to Asian engineering and manufacturing. You could buy a great stereo or color TV set for less than what a kit cost, and you didn't have to spend three weekends building it. Everyone was into instant gratification in the 1980s, so nobody wanted to spend time building kits.

Heathkit discovered it could no longer compete in many markets like ham radio, audio, TV, and test equipment as it took as much time and money to create the manual as it did the product. With double the development costs and the technology making assembly more difficult, Heathkit eventually concluded it could not compete. This perfect storm of conditions led to the formal phasing out of the kit business in 1991 and 1992.

Wait—Heathkit Really Didn't Go Away

The education and publishing business now called Heathkit Educational Systems (HES) was still doing well. While the courses, materials, and trainers were sold to individuals, HES also developed a huge college and university business. HES was soon sold to a private buyer and continued as a successful operation. It still is today.

While its primary customers are educational institutions, you can still buy individual learning programs and even the trainer kits. HES also retained the rights to all those amazing kit manuals. The company still has many in stock.

If you're looking for the documentation on an older Heathkit transceiver, scope, or whatever, you can get a copy of the manual. It's a nice little side business.

So despite the fact that almost everyone thought Heathkit died, it still exists and is still doing well. Check out its Web site at www.heathkit.com. The company's new address is 2024 Hawthorne Avenue, St. Joseph, Mich. 49085.. Many of the original Heathkit employees are still with the company, and that "we won't let you fail" attitude still prevails.

Source: Electronic Design

Climate Hoax

The bitter cold and record snowfalls from two wicked winters are causing people to ask if the global climate is truly changing. The climate is known to be variable and, in recent years, more scientific thought and research has been focused on the global temperature and how humanity might be influencing it.

However, a new study by the University of Wisconsin-Milwaukee could turn the climate change world upside down. Scientists at the university used a math application known as synchronized chaos and applied it to climate data taken over the past 100 years.
"
Imagine that you have four synchronized swimmers and they are not holding hands and they do their program and everything is fine; now, if they begin to hold hands and hold hands tightly, most likely a slight error will destroy the synchronization. Well, we applied the same analogy to climate," researcher Dr. Anastasios Tsonis said. Scientists said that the air and ocean systems of the earth are now showing signs of synchronizing with each other. Eventually, the systems begin to couple and the synchronous state is destroyed, leading to a climate shift.

"In climate, when this happens, the climate state changes. You go from a cooling regime to a warming regime or a warming regime to a cooling regime. This way we were able to explain all the fluctuations in the global temperature trend in the past century," Tsonis said. "The research team has

found the warming trend of the past 30 years has stopped and in fact global temperatures have leveled off since 2001."

The most recent climate shift probably occurred at about the year 2000. Now the question is how has warming slowed and how much influence does human activity have?
"But if we don't understand what is natural, I don't think we can say much about what the humans are doing. So our interest is to understand -- first the natural variability of climate -- and then take it from there. So we were very excited when we realized a lot of changes in the past century from warmer to cooler and then back to warmer were all natural," Tsonis said.

Tsonis said he thinks the current trend of steady or even cooling earth temps may last a couple of decades or until the next climate shift occurs.

Source: Milwaukee News

Japanese Super Conducting Antennas

From a letter to W7BX:

Greetings from Tokyo and all the members of TIARA (Tokyo International Amateur Radio Association). I know I promised you a series of articles on Japanese amateur radio, but there is something so exciting I just have to take a break and tell you about it.

It all started with the work that Ed Coan (AH7L/7J1AAE) did on antenna pattern plotting using his personal computer and the A-to-D converter in his FT-1000. The circular, and even backward antenna patterns of some of our local TIARA club members brought home the point that what a good station needs is a good antenna. Ed's antenna looks great and the results verify it. He works regular schedules into Colorado and Maine, just like sunspots don't mean anything. My mini-beam just could not compare.

Well, I got to thinking about what we Tokyo apartment dwellers could do and realized that space is THE problem. How do you fit a full-sized beam on

a balcony? Loading coils are the answer and the problem at the same time -- the antenna radiation resistance drops as reactance is substituted for length. High current loops develop and the power is dissipated in the antenna instead of being radiated. If only the antenna didn't dissipate the power. Hmmm....let's see, $P=E^2/R$; now if R were 0 then...

From my work, I have some contacts in research groups over at Tokyo University. Better yet, I knew a Japanese ham that is a graduate student there. The thought running through my head was to build a super-conducting antenna. This requires cryogenics, i.e. temperatures around minus 279 degrees Centigrade. I was able get the university folks interested in the project and we built a 10-meter dipole test silicon wafer. They put together a lot of serial coils by "re-work" on the wafer; they were able to connect them so we had a super-conducting yagi. I took my TS-930 transceiver down to the lab for the first tests, but before we could test it, actual measurements showed it was resonant on 3.126 MHz. It seems that the normal equations for inductance don't work with super-conducting materials -- you need a lot fewer turns to get the same results compared to room temperature. Many measurements and trials later, we had a ten-meter resonant wafer. This time we put a 40-element beam on each wafer and stacked 4 wafers in the same assembly. That made a 160-element array on 10-meters in less than a half-foot cube (15 cm^3).

The first test didn't go too well. I connected my TS-930 to the super-conducting wafer antenna and tuned it for 10 meters. At room temperature, we couldn't hear anything. Using a heat pump, the lab technicians started lowering the antenna's temperature toward the super-conducting region. I was really impressed by how small the equipment is, and started thinking it might all fit in the shack. Just then, the TS-930 froze solid, which had a negative effect on its operating characteristics. This wouldn't be so easy after all; the coax connection would need some study!

We reworked the wafers to put inductive coupling on them, but I could find no way to efficiently couple to it from the conducting array. Fortunately the lab technicians came up with a new ceramic material that passed RF but not heat. Probably, something that Kyocera invented just for this use. I sent the TS-930 to the ham shop in Akihabara and asked them to touch it up for me. My friend Suzuki-San, JH1WWC (store manager at the ham shop), asked exactly how the paint had been peeled off around the coax connector -- lightning maybe? No, I assured him -- just low temperature exposure,

without saying how low the temperatures were. The project had to stay secret and besides, Suzuki-San can repair anything!

Since it looked like it might be a while before the TS-930 would be repaired, I brought out my TS-940. I had already placed an order for a Yaesu FT-1000 anyway. After verifying that in the super-conducting range the antenna was resonant on 10-meters, we connected the TS-940. The ceramic material worked and the rig operated well as we began the cooling cycle. The band seemed dead even with the antenna at -150 degrees C. It took another 10 minutes to get to the super-conducting range -- then the TS-940 blew up. It seems our antenna had a bit more gain than the TS-940 front-end could take. Later measurements showed 500 volts coming out of the coax. A little hard to believe, but then what do I know about cryogenic LSI antenna technology? The TS-940 was also returned to Suzuki-San, but this time he frowned a bit -- the front-end board did look like it had been hit by lightning. Not to worry, Suzuki-San can repair anything!

The FT-1000 arrived just in time to be able to continue experiments. We built a QSK attenuator to protect the receiver. With the LSI wafer antenna still inside the lab, we decided to try to make a contact on 10-meters. What a shock when we got it working! The first thing we heard was a couple of W2's talking locally on 10 meters and that was with 80 dB of attenuation. We had the antenna array on a rotatable mount; I moved it about a half-degree and the W2's disappeared. What beam width! We tuned them in again, and they were just about to sign off, so we thought we would try to work them. The rig was tuned up at 50 watts on a dummy load; we switched in the wafer antenna and gave N2BA a call. The noise was unbelievable -- an ionized ray shot out from the antenna and hit the wall of the building. Before we knocked a hole in the band, we took a piece out of the lab wall! Ever wonder what an antenna pattern looks like in three dimensions? There was an oval hole in the wall of the lab -- about 1-cm high by 2-cm wide. We cut power quickly. N2BA came back on frequency a few minutes later and said he was using his back-up rig; something had taken his main rig off the air. For some reason, the station he was talking to never came back, so we decided not to transmit again until we knew for sure what was going on.

As near as we can tell, the antenna array has 620-dB gain over a dipole, but with a beamwidth of 0.75 degrees using the 60-dB points. With 50 watts output, the effective radiated power is 55 quadrillion watts at the center of the beam (5.5 with 13 zeroes). As soon as the University realized what we

had built, the entire project was taken away from us and turned over to the Japanese Self-Defense Force. Amateur radio "tinkering" has contributed to something, but I am not exactly sure what. I haven't the slightest idea what was in those wafers or how to build another set. Do you think someone may be interested in this idea for Star Wars/SDI?? What I'd give to use a much smaller set in the next CQ World Wide Contest!

A few months later, the University contacted all of us and asked just how close we had been to the antenna when operating. As best as I can figure, we were in the null behind the array. From what has been said so far, it looks like a secondary use for our antenna may be as a mass sterilizer, but confirmation will have to await the results of our medical tests. If our antenna ever hits the market, it looks like remote operation may be desirable.

As I am writing this, I have been informed that my friend Suzuki-San can't fix everything after all. He's written off the TS-930 and TS-940, and I just found out that before the university terminated the project, they tried one more time with my FT-1000, but without the 100-dB attenuator to protect the receiver. Its front-end now matches the 940's and it looks like it will be a while before I am on the air again.

Best 73,
Joe Speroni, AH0A/7J1AAA
Ex-Technical Adviser TIARA
1 April 1997

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Hybrid Cars – Toyota Prius 2010

Toyota is the leader in hybrid car technology. For 2010, some improvements have been made to make their best selling car even better. I

wonder if they even tried to fix the ham radio noise problem? That sure we be nice, but don't count on it!

The biggest changes made are in the engine compartment. The 1.5-liter gas engine is out in favor of a 1.8-liter unit. There is an electrically operated water pump, which allowed engineers to remove the drive belt and the accompanying loss from the motor. Engine coolant circulates to a heat exchanger that encircles the exhaust just downstream of the catalytic converter. This feature heats the engine up sooner, so it can be warmed up and turned off promptly. Also, it provides quick cabin heat. An aggressive exhaust-gas recirculation system employs cooled exhaust gas that's pumped into the cylinders. The inert gas replaces the intake charge, reducing exhaust-gas temperature and pumping losses.

The Hybrid Synergy drive system uses the same planetary continuously variable transmission (CVT) as before, but with a new twist. The main electric motor drive was downsized and produces less torque. A reduction gearset that connects it to the gearbox allows the electric motor to spin to 13,500 rpm, 7100 higher than before. Consequently, it makes 80 peak horsepower, 13 greater than before. The smaller, lighter electric motor and other refinements in the drive system yielded a 66-pound weight saving.

A nickel-metal-hydride battery pack is used. It's been shrunk slightly, but a more effective cooling system allowed a peak output rise from 25 kilowatts to 27 (battery voltage remains at 201.6 volts). The inverter converter has been improved—it's slightly smaller—and provides up to 600 volts of AC current, a 100-volt jump. Toyota has also added a feature many Prius buyers have been waiting for—an electric-only button. Pressing this button on the dash prevents the gas engine from starting until the battery is depleted. Electric-only mileage, however, is slight—on average, a mile.

The total maximum output of the engine and electric motor is 134 hp, 20 higher than before. That should drop the 0-to-60-mph sprint by about a second to 9.5 seconds. Despite the increased pace, the fuel economy has been improved, jumping from 48/45 city/highway to 50/49.

That fuel economy increase is all the more incredible considering that the new car weighs about 110 pounds more, a consequence of meeting tougher crash regulations. For sure, the car's aerodynamics play a role in increasing the on-road efficiency. Airflow around the Prius is carefully managed with flat underside panels, bumper-mounted air deflectors, and that gently sloping rear hatch. The drag coefficient has been reduced to only 0.25.

Want more bells and whistles? . Buyers can opt for the Lane Keep Assist system that detects when the car goes out of a lane and automatically nudges the steering wheel to stay on course. A pre-collision system works in conjunction with radar cruise control to avoid an impending collision by applying the brakes. An optional roof-mounted solar panel powers the fan and keeps a parked Prius cool, reducing the draw on the air conditioning. The new Prius can even parallel park itself with the Intelligent Parking Assist. Lots of toys for the folks who want a hybrid can be ordered!

High Mileage Cars

From AutoWeek

Irv Gordon really likes to drive, and he really loves the Volvo P1800 that he bought new for $4150 in 1966. Before he retired from teaching, Gordon's daily commute was 125 miles, and he's been know to drive to Atlanta for lunch and then drive home- to Long Island, NY. Gordon is the undisputed king of the high-milers. His Volvo's odometer has turned over 26 times, and as of mid-January 2009, the car had gone 2,676,045 miles total.

It seems incredible, but it has been documented repeatedly to meet the stringent requirements of the Guinness World Records book, and by Volvo."

By the way, Volvo gave him new cars at 1 million miles, and again at 2 million miles. He holds the record for non-commercial use. The record for commercial use is a Mercedes-Benz 240D with 2.85 million miles. Gordon's car has the original body, engine block, transmission and

differential. The engine was rebuilt at 680,000 miles . He changes oil every 3500 miles and does other maintenance 'by the book'. The twin SU carbs need a rebuilt every 900,000 miles or so. Transmission and differential seals have been replaced, and new third gear synchro was installed.

QSL Cards (de WA4PGM)

If you are a county hunter, you probably don't go through too many QSL cards. If you are a DXer, you might go through hundreds a year. Here are two programs that you might use to print off some QSL cards to send back to those who send you one.

http://qslmaker.mi-nts.org/

http://www.radioqth.net/qsl.aspx

http://www.geocities.com/billth87/qsl_template.htm

http://www.qsl.net/wa7s/Templat.html

Police Busted for Ham Radios

Oh, the irony – from Amateur Radio Newsline 2/27/09

INDIANAPOLIS HAMS BUST COPS FOR LANGUAGE ON UNOFFICIAL CHAT CHANNEL

"Hams in Indianapolis are taking credit for getting city police in that city to top using unofficial extra radios on which the cops reportedly used language that might make a sailor blush."

“Dozens if not hundreds of Indianapolis Metro Police Officers have been busted for using Amateur Radios illegally to rag chew while on duty. According to a report aired on an Indianapolis TV station, complaints to the FCC from local hams lead to a shake down of all Metro Police vehicles. Amateur Radio operators reported hearing foul language and improper usage of Amateur Radio frequencies by Metro Police officers.

This prompted the department to do a three-day inspection of cruisers, ordering everyone with an unlicensed radio to remove them.”

“While some bloggers are advising Indianapolis hams to keep a low profile for a while others point out that the officers are the ones that are likely worried. Now they know that there are thousands of ears listening to their every word on what they thought was their unofficial chat channel. Ears with tape recorders ready to send more complaints to the FCC.”

QRZ.com comment: “The radios shown in the report were installed by the Metro IPD motor pool appear to be Kenwood Ham Radios. Remember that the radios in the police cars were not illegal; the illegality didn't begin until unlicensed operation and operation for police business began.” These are programmable type radios – so someone, somewhere, might get thrown under the bus for this. Or not.

Awards

Fifth Time #95, Ross, N0ZA, Feb 24, 2009
USACW III #10, Larry, W0QE, Feb 23, 2009
Marac Bingo #307, Bob, N5KUC, Feb 24, 2009
Marac Bingo #306, Pete, NN9K, Feb 23, 2009
USCA #1182, Bill, WA5VGI, Feb 23, 2009
Master Gold #36, Don, W9GUY, March 1, 2009
Bingo II #58, Don, W9GUY, March 2, 2009
Fifth Time #96, Don, AE3Z, February 28, 2009
Fourth Time #140, Ken, K4XI, March 16, 2009
USA-CW #100, Ed, K8ZZ, March 7. 2009
Bingo II #59, Ray, AB4YZ, March 3, 2009
Bingo #308, Jeffrey, AF3X, March 21. 2009
Five Star #39, Ron, KB6UF, March 20, 2009

Activities for County Hunters

1) Montana QSO Party RS(T), S/P/C or MT county www.fvarc.org
Apr 4 0000Z - Apr 6 0000Z

2) MO QSO Party RS(T), serial, MO county or S/P/C www.w0ma.org
Apr 4 1800Z - Apr 5 2400Z CW 40 kHz from band edge; Phone--1.880, 3.980, 7.180, 14.280, 21.380, 28.310.

2) **GA QSO Party** – Apr 11, 12
1800Z Saturday until 0359Z Sunday and 1400Z to 2359Z on Sunday

http://gqp.contesting.com/

4) MI QSO Party - The Michigan QSO Party occurs on the Saturday of the third full weekend in April. For 2009, the contest will start on Saturday, April 18, 2009. The contest period runs from 1200 EDST to 2400 EDST (16Z Saturday until 04Z Sunday UTC). All stations may operate the full twelve hours. See http://www.miqp.org/Rules.htm

5) FL QSO Party - 2009 Florida QSO Party (FQP)

Contest Period: 4th full weekend of April. There are two operating periods. 1600Z April 25 - 0159Z April 26 and 1200Z - 2159Z April 26. 20 hours total. All stations may operate the full 20 hours.

http://www.floridaqsoparty.org/rules.html

6) 2009 NEBRASKA QSO PARTY (NQP)

Begins 1700 UTC - April 25, 2009 Ends 1700 UTC - April 26, 2009

http://www.hdxa.net/neqso/

7) 2009 MARAC COUNTY HUNTERS CW CONTEST
0000Z Saturday May 2, 2009 to 2400z Sunday May 3, 2009

RULES

1. Mobiles must clearly identify themselves as being mobile by signing **/M** several times during each county run so as not to be confused with a Portable station which is worth 1 point.
2. Multipliers: Each category, Mobile and Fixed, will have a separate set of Multipliers. The Mobile category will have a set of 3077

multipliers and the Fixed category will have a set of 3077 multipliers. A Multiplier can only be counted once in each category during the contest, regardless of band.

3. A Mobile on a county line can be counted for each county as a new potential multiplier BUT as only one contact – 15 points. Three and four county lines are not allowed.
4. Single operator stations only. Drivers are OK.
5. Contest contacts between operators in the same vehicle or in shadowing vehicles are invalid. There are no restrictions against spotting mobiles. **To be considered as "Mobile" you must put out at least three US counties.**
6. Net contacts are invalid and are discouraged.
7. For a valid contact one station must be in a U.S. county. Independent cities like 'DC' and Carson City are not a valid US County. You must use one of the 3077 declared US Counties.

8. Official list of County Codes (Multipliers) can be downloaded from: **WWW.BNK.COM/W0QE/COUNTYABBREV-V3-4COL.PDF or .DOC.**

9. **Additional rules for the NEW MIXED category**:

9.1 While in the Mobile category you cannot run the county that you declare as

the county that you are in while operating in the FIXED category.

9.2 You must remain in a category for at least one hour. You may switch several

times during the contest.

9.3 You must have at least 50 contacts from the FIXED category.

9.4 You must submit a MOBILE log and a summary sheet.

9.5 You must submit a FIXED log and a summary sheet.

9.6 You have two sets of 3077 multipliers: one for Mobile and one for Fixed.

Ex: If you work KENT, MI for the first time in the Mobile category and again

for the first time in the Fixed category. Both contacts are new multipliers.

One for each category.

EXCHANGE

U.S. station: Signal report, State Code and County Abbreviation. (Including HI & AK)

Ex: 599 MI BAY

All others: Signal report, "DX" (Including Mexico and Canada).

Ex. 599 DX

SCORING

FIXED stations - 1 point. **DX** stations - 5 pts. **US MOBILE** stations - 15 pts.

MOBILES:

1. **C**alculate a STATE score for each state that you put out a county in by:

a. Add up the Total # of QSO points worked while in that state.

b. Add up the total # of unique multipliers worked while in that state.

c. Total State score = (Total # QSO pts.) **x** (Total # Multipliers)

2. Scores CAN NOT count a multiplier more than once regardless of the State,

County or band that you are operating in.

3. Final score = (Total QSO points from all states) **x** (Total Multipliers from all states)

4. You must submit log and summary sheet for each state.

5. Submit a Summary sheet for Total Mobile Category Score.

FIXED:

1. Scores CAN NOT count a multiplier more than once regardless of band.
2. Final score = (Total QSO points) **x** (Total multipliers)
3. You must submit a log and a summary sheet.

MIXED:

1. Determine your total Mobile QSO points following the MOBILE scoring rules.
2. Determine your total Fixed QSO points following the FIXED scoring rules.
3. Determine total number of multipliers worked from your MOBILE operations.
4. Determine total number of multiplies worked from your FIXED operations.
5. Final score = **(**Total QSO points from both the Mobile and Fixed categories**)**

x (Total Multipliers from both the Mobile and Fixed categories**)**

6. You must submit a log and summary following Mobiles rules and Fixed rules.

FREQUENCIES

3.550, 7.050, 14.050, 21.050, 28050. Fixed stations should operate above the suggested frequencies and mobiles below.

More info at: http://marac.org/cwrules.htm

Upcoming Conventions

1) Michigan Mini - April 23-25, 2009

The 2009 Michigan Mini will be hosted by K8ZZ and W8TVT and will be held at the Holiday Inn in Traverse City, MI.

Thee hotel has granted us an extension, so the cutoff for the special room rate is now April 1st!

2) Dayton Hamvention May 13-15

The 2009 Dayton Hamvention County Hunting Forum is officially scheduled for Friday, May 15 from 4PM until 5PM in Room 2.

We usually have a county hunter dinner afterwards. Details to be announced.

3) MARAC National Convention - July 8-11, 2009

The 2009 MARAC National Convention will be held at the Odawa Casino Resort in Petoskey, MI.

And that's it for this month's edition of the County Hunter News. Keep those stories, ideas, questions, comments, feedback, articles, etc headed this way!

73 de N4CD