

County Hunter News

May 2007

Volume 3, Issue 5

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, or provide news of upcoming events.

We hope you will enjoy the new 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 8-9 pm Eastern Time. Also, with low sunspot activity, most of the SSB activity now is on 7185.

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

De N4CD (email: telegraphy@verizon.net)

Notes from the Editor

1) **Monthly Report** - Several mobiles have made nice trips during late March and April. W0QE headed out to MT and ID from his QTH in CO. Richard, K5SF, took an airplane up to Boston, and ran with temporary set up in MA. Larry, NA7W, headed from TX out to the far west, running counties along the way.

Kent, KL1V, made a two week trip. His radio died after a few days, and with an emergency trip to Lubbock, TX, he secured a new IC7000. He got back on track and put out most of the planned counties. Big pileups on 20M CW – not so many around on 20M SSB. To solve the 20M cw pileups, Kent requested ‘late spotting’ so he could work through the initial pileup. Things improved as the trip progressed with the pileups. Many could not hear most of the others calling due to propagation.

Kent also usually ran on 40M SSB and CW, although it is tough from south TX, NM, and AZ to work many on 40M. He experienced some ‘spring time’ conditions in TX and OK (and in the Midwest), where at times you need to be monitoring the weather situation carefully as severe thunderstorms and tornadoes can quickly change your plans! (It was in the 40s back at his home QTH in Valdez). There were tornados and hail out in the panhandle, and some road closures as well.

W0ETT ran a few on cw, and KB6UF headed up to Maine running along the way with many on cw, and quite a few ‘band counties’ on 80m for the night owls. Ron likes to run late (like half the night!). N2MH ran down to NC.

Those who travel for a living, or travel to get to job sites, put out quite a few counties as well. Jim, K0ARS and Jim, N9JF, ran many on cw from the Midwest to the east. A few new mobiles spotted on 20M SSB in the past few months. N9JF ran on 80 cw as well late in the evenings.

The GA QSO party and MI QSO party gave many a lot of ‘band counties’. Lots of activity!

For those chasing Master Platinum (and everyone can be), KC0JG, WG6X, and K5GE put out quite a few counties on trips in April. ND3T was heard on the road headed back west. AA9JJ and N9QPQ ran down to Santa Cruz for the folks.

N7AKT changed calls back to the ‘4th’ call area, and is now N4AAT – he has his MG, so he is good for MP contacts! All contacts after Feb. 12, 2003 with MG holders count toward MP.

Anyone can be collecting MP counties from mobiles that have received their Master Gold Award for the first part of the award- working all counties with a MG holder. To get the second part of the requirements for MP, each

mobile with MG must transmit from 500 separate counties and work another Master Gold holder. That is to give 'incentive' for those with Masters Gold to go out and run counties – a lot of them for everyone else to get the counties. [Just like most people qualify for Masters Gold by running 1500 counties (which there can be repeats), for MP, people **MUST** run counties after they get their MG, and no repeats allowed!] People with their MG can also get credit for working someone from the county as well.

2) **Conditions** continue to favor the lower bands with most of the activity on 40M these days. As spring arrives, many days also have a fair amount of QRN from thunderstorms is a normal part of dealing with the lower frequency bands. Crazy spring weather has affected mobile operations in parts of the country with heavy rain, late snows, and spring time thunderstorms including some tornadoes.

There were four people who have received the Single Band Award for 30 meters so far, with the last being over 9 months ago. Several others were closing in. What happened? 30M is still fairly decent! Is everyone chasing band counties on 40M and 80M now, and forgetting about 30M? Is the next Single Band going to be on 40M (Nr 4)? Many of the 'net controls' that were active on 30M now are on 40M. Either activity is way down, or the spots are way down, and counties still run on 30M, but not spotted. Any ideas?

3) **Dayton** - Tim, W8JJ, will be the forum moderator this year at the Dayton Hamvention for the Friday afternoon County Hunter Forum. Plan to attend if you are at Dayton this year. Dinner will be at the Ryan's Steak House at 5:30-6 pm. Room reserved in the rear- same as last few years.

4) **Radios of the 50s/60s** - If you ever look at the old radios showing up on Ebay, you see a few surprises. After writing the article about radios from the 1950s and 1960s in the March issue of the CHNews, while surfing Ebay for certain other items, I did a search on some of the early radio manufacturers. What popped up? Would you believe the Gonset mobile transmitter and receiver from the 50s up for sale (at a big price)? There is one dealer selling the Gonset mobile converter. There was a KWM-2 for sale, and much home station equipment from the period. Several Multi-Elmacs – AF68 Transciter, AF67, power supplies! A National NCX-3, the Heathkits Cheyenne transmitter and matching Comache receiver, HR-20

receiver and HX-20, and others. I suspect if you make it to the Dayton flea market, you'll see some of these radios up for sale as well.



Heathkit Cheyenne 90W CW/AM transmitter -

5) A reader asked what is the 'optimum' SWR to run the UEFA (Ultra Efficient Power Amplifier) as described in the **April 1**, 2007 issue of the County Hunter News. Astute readers realized they had to operate off the resonant frequency of their antenna to get low impedance, then 'tune out' the reactance, leaving only the low 'resistance' to suck up the power from the UEFA. You need some SWR to get the UEFA working correctly.

Those with a screwdriver simply tune them to about SWR of **4.1:1**. If you had fixed tuned resonators, you would tune them above the desired frequency to give you somewhere between 2:1 and no more than about 8:1 SWR, the current limit for the UEFA design. Optimum? 4:1 – Easy to remember – just think **April 1st**. (like 4/1/2007)

6) **Gasoline prices** are creeping up. Gone up 35c/gallon here in a few weeks, and it seems every time I pass the gas station, the price is up another nickel. Several refineries are down for spring maintenance, and several others down with production problems, fire damage, etc. World oil supplies tight, and world oil inventories are shrinking. Soon we will find out whether there is any 'extra capacity' or everyone is pretty well maxed out. If we are nearing max production, then it will take a while to sink in, followed by a couple years of denial, then it will get real interesting real fast. Now, we

facing shortages of gasoline imports, refineries struggling with poorer quality oil resulting in less gasoline per barrel, and increasing demand for gasoline from more people who drive more and more.

Refinery capacity in the USA running near full tilt, and there is no incentive to build more. As one oil exec suggested, why build more oil refineries when the government has mandated that 20% of all fuels must be ethanol within 15 years? That means less gasoline needed. Gas at \$4 this summer? Any little glitch in the system and it will head that way.

7) **KF0LZ – Dave** -This month an article about Dave, KF0LZ and his quest for USACA and Nth time around. After you read the article, you'll be happy propagation is so good on 40M and why CW is still doing well. Those who don't frequent 14.336 might have no clue as to the shenanigans going on there.

8) **Loads of oil – not** - Wow...the mis information on the world wide web is amazing. Much of it is politics. One day we are told that Iraq suddenly has 'twice as much oil' despite nearly all other experts in the world concurring that Iraq has produced oil in large quantities from only 3 oil fields, but suddenly 40-50 year old known fields are 'ready to produce' at prodigious levels – but never did in the past. Even funnier that suddenly there is all sorts of 'oil' under Western Iraq when the geology indicates those will likely be natural gas fields. People want to believe 'a miracle' will save us. Many of the existing Iraqi fields will need tens of billions to rebuild and maintain, and many likely have been damaged by over production. Mostly it is posturing by western oil companies to divvy up the Iraqi oil reserves so there is room for all at the table.

9) **Sign /m** - Seems there are a few retired folks out there with too much time on their hands, looking to break something that isn't broke. For decades, hams have identified mobile by signing '/m' or 'portable' as '/p'. As far as I can tell, **that is the common practice world wide.** If you work a DX station on 'holiday' (vacation), or that is away on work assignment, you will hear calls like PA/DJ2XYZ/p, or if you recall the QSL card from Russia in a previous, a UA0/m call.

Now some ham 'looking for a problem' where there is none happens upon an FCC missive which states USA stations can use 'self assigned suffixes' as long as they don't conflict with allocations assigned elsewhere. The rest

of the world uses ‘/m’ for mobile. The country with the PREFIX M requires that it come first, always. If you are mobile in that country, you must sign /m after any call sign, too. Stations from outside “M” Inad operating in the country must sign “M/DJ2XYZ”, not the other way around. There can never be a conflict with the ‘m’ suffix being confused. There is also no country with the prefix “P”. It takes two letters, such as PA for Netherlands, or “P5” for North Korea. Therefore, there can never be a conflict with ‘/p’ for portable, no matter where in the world you are.

Naturally, some contests like state QSO parties and the MARAC contest, require you to identify as mobile when you are mobile, since you get extra points. Some ‘less than helpful folks’ pointed out that this is a ‘conflict with the rules’.

Since no country will let you use ‘m’ as a suffix for identifying the country, it can never be a ‘conflict’. It is not a problem, nothing is broke, and there is nothing to ‘fix’.

10) **Sunspots** - from ARRL Letter, published by ARRL, Newington, CT, Apr 20, 2007: “Solar Fluxmeister Tad “The Spudman” Cook, K7RA, Boise, Idaho, reports another with few or no sunspots. Most days had zero spots, but from time to time a new sunspot will appear, but only briefly. Expect more of the same conditions, with few or no sunspots. Eventually this year we should reach a point where the only place for solar activity to go is up.”

11) **E-mail service** - You can now get your County Hunter News emailed to you as soon as it comes out. See www.chnewsonline.com and click on the ‘Sign up for email delivery’ link. The CH news usually appears before the first of the month.

12) **40 CW** - The 40M CW frequency has shifted to 7056.5 KHz due to QRM from EU and RTTY on 7038.5. While the QRM has dissipated on 7038.5 with more daylight, when winter returns, the RTTY interference will likely return. 7056.5 seems to work for most. Late at night, you might need to move down 0.5 KHz to get away from the traffic nets just above. 7185 works well after the foreign broadcast in Chinese fades out.

An arrangement with the OMISS group that takes over the frequency at 0100Z needs to be worked out. Seems they went ‘looking for a frequency’ after we had selected 7185, and they wound up there weeks after we started

using it – maybe months after, and are discontent that our net runs late. Duh! The reason we moved to 7185 is that there was NO other group there! Some mobiles running late have kept our net running late. Usually not a problem.

Titanic Museum

If you should be passing through Branson, MO, be sure to check out the Titanic Museum. <http://www.titanicbranson.com/> It's open all this year in 2007, and has a radio room which is similar to that of the original ship, which went down April 14/15. 1912 - 95 years ago with some very expensive original equipment from that era, on loan from those who own it.



Radio Museum Receiver – part of Radio Room
Loaned by Jim Kreuzer

“The story of the distress calls from the TITANIC has been repeated in many amateur radio publications particularly the use of SOS being sent for the first time. What actually did happen? Was this story true? Did the operators on the TITANIC keep sending until the encroaching water flooded their radio room? Did they go down with the ship? The answer to these questions and many other examples of heroism and human failings which this disaster produced can be found in the records of the two official hearings, the United States Senate hearing, and the British Court of Inquiry.
“

<http://jproc.ca/radiostor/titanic.html>

“As often happens in real-life situations, "truth is stranger than fiction". The most recent blockbuster movie is a must see and many parts are based on the recorded facts, however, many are not and are the result of 'artistic license'. One of the closest representations still remains the 1958 black and white British production, 'A Night To Remember', based on Walter Lord's excellent book of the same name. Those CW buffs among our numbers will find that the Morse depicted in this film is actually readable. This film also spends much time on the most ironic event in the chapter of calamities which befell the stricken liner, that being the Marconi operator on the CALIFORNIAN shutting down his operations half an hour before Jack Phillips (the TITANIC's first operator) commenced sending distress signals.”

“According to Bride, the TITANIC's wireless was functioning until ten minutes before the ship's final death throes at about 2.20 am Monday April 15. As we have seen, Jack Phillips as the principal operator, came back on duty and commenced sending CQD followed by MGY. CQD was the Marconi conventional distress signal and MGY was the TITANIC's call sign. While SOS was also used,....”

“As a result of the part played by wireless in the events surrounding the loss of the TITANIC, 24 hour radio watch was introduced. The strange set of coincidences which resulted in one radio operator shutting down at a critical time and another contacting the stricken liner by pure chance would not be permitted to happen again.

Thus followed a requirement for all ships to continuously monitor 500 KHz for ship in distress messages. “ This was the case until recently, when ships no longer need to monitor 500 KHz. If hams are lucky, we might get an allocation down in the 495 to 505 KHz region in the upcoming WARC. Several nations allow use of narrow channels in this area.

If one delves further into the origins of “CQD” and “SOS”, it becomes an interesting history. From K5RW's excellent web site, The Telegraph Office at <http://www.telegraph-office.com/>, we learn that the first use of the new ‘Wireless’ for emergency communications was in 1899, when The East Goodwin lightship off the coast of England was rammed by another ship in fog, and the radio used to summon help.

By 1904, there were many trans-Atlantic ships equipped with Marconi wireless. The commonly used call 'CQ' in England was used on the radio waves as well. Most of the shipboard operators came out of the landline telegraph industry and brought their practices with them. CQ preceded time signals and messages of general interest.

At the first international congress on wireless transmission in 1903, the Italians proposed "SSSDDD" for the emergency signal and to mean 'all stop sending' and leave the channel open for emergency communications. It was not adopted, but later DDD was often used to tell people to 'stop sending' during an emergency. In 1904, the Marconi company adopted the "CQD" as CQ Distress. Some have suggested it meant "Come Quick Danger" but that was not the case. It was just a distress call and 3 letter abbreviation.

At the second Berlin Radiotelegraphic Conference in 1906, they proposed the use the "SOS" symbol. The Germans had been using this since 1905. It was not until 1908 that this was formally ratified.

For the USA, the first wireless rescue occurred in 1905, as a lightship of Nantucket sent 'HELP' in International Morse and American Morse. The American Morse code was used on the radio along the USA coasts up till the 1950s!

After 1934, American ships monitored 600 meters (500 Khz), except for the Great Lakes, which used 410 Khz for automated systems. A quiet period for 3 minutes each half hour had to be observed. Around 1911, companies started to use "QST" as a preamble to messages of general interest, replacing CQ.

There's lots of interesting history at the Telegraph Office Website for a rainy day or dead-band day.

During April, special event station W0S operated from the museum along with other stations memorializing the loss the of Titanic.

Titanic Radio Room Replica



from <http://jproc.ca/radiostor/titanic.html>

“She was touted as the safest ship ever built, so safe that she carried only 20 lifeboats - enough to provide accommodation for only half her 2,200 passengers and crew. This discrepancy rested on the belief that since the ship's construction made her "unsinkable," her lifeboats were necessary only to rescue survivors of other sinking ships.” (from "The Sinking of the Titanic, 1912," EyeWitness to History www.eyewitnesstohistory.com (2000).)

If you want a copy of the ‘straight key’ used on the Titanic, you can buy a replica today from England.

See

<http://secured.titanichistoricalsociety.org/store/tek9.asp?pg=products&specific=joemdqj8>

About \$199. This is 1912 style key.

Lots of reading about the Titanic at

http://www.marconi.com/Home/about_us/Our%20History/Marconi%20Heritage/Titanic%2090th%20Anniversary/those%20saved

Way back in 1968 or so, my roommate way back then at my first job in Schaumburg, IL, was Earl Shuman. (forget his callsign). One time he casually mentioned that his mother was a Titanic survivor - a small child back in 1912. It didn't mean much until the Titanic movies started coming out, and then it was a very personal connection. Small world, isn't it. That was a long, long time ago.

If you get tuckered out with too much 'country music' while in Branson, check out the Christian Family - http://www.bransoncourier.com/issue-12/branson-christian_dan-kim-accordion-music-ma-699.html Should be a great show that they put on.

Reader Feedback

Dear Editor,

I know what I have to say regarding the Volume 3 Issue 4 April 1, 2007 County Hunter News will not be popular with most readers nor will it coincide with the opinions of today's amateurs, however I feel compelled to speak my mind on a couple of concerns. If I'm shooting myself in the foot here, as far as any further help with CHing, then so be it.

I am very new to CHing and therefore I do not have the historic perspective that most county hunters apparently have. From my point of view, most of the CHers I have had the opportunity to work have had a high level of operating skills and have been eager to help a new-comer to the CHing hobby such as myself. Never have I been treated with any disrespect nor felt like a "dried cow chip".

My second bone of contention is with the political content of the CHN. Again, from my point of view all controversial subjects should be discussed in forums other than one dedicated primarily to ham radio. Since I live in six-land and count myself as a progressive thinker I would no doubt be labeled one of the eco-freaks that are mentioned in the "Summer Gas Prices" piece. I would hope that the great avocation of Amateur Radio would have room for all points of view, yet that it will never turn into a soap-box for any one political stance. I know that I can choose not to read CHN, just as I can turn the dial when I stumble across some political diatribe on the air, but my hope is that we can all operate with the Amateurs Code in mind. As the amateur operator is always: **CONSIDERATE**...never knowingly operating in such a way as to lessen the pleasure of others.

Thanks for an otherwise great publication. Yours in peace and 73,

Ross F. Guldenbrein
W6FG

De N4CD: Ross operates only on cw.

The Government on Peak Oil

The Government Accounting Office (GAO) has issued a 100+ page document on Peak Oil. You can find it at:

<http://www.gao.gov/new.items/d07283.pdf>

The full title is:

“Uncertainty about Future Oil Supply Makes It Important to Develop a Strategy for Addressing a Peak and Decline in Oil Production”

This predicts oil production will peak between now and 2040, but the conclusion is the most important part. It basically says ‘we don’t have a plan’ and

“In the United States, alternative fuels and transportation technologies face challenges that could impede their ability to mitigate the consequences of a peak and decline in oil production, unless sufficient time and effort are brought to bear. For example, although corn ethanol production is technically feasible, it is more expensive to produce than gasoline and will require costly investments in infrastructure, such as pipelines and storage tanks, before it can become widely available as a primary fuel. Key alternative technologies currently supply the equivalent of only about 1 percent of U.S. consumption of petroleum products, and the Department of Energy (DOE) projects that even by 2015, they could displace only the equivalent of 4 percent of projected U.S. annual consumption. In such circumstances, an imminent peak and sharp decline in oil production could cause a worldwide recession. “

“According to our analysis, 85 percent of the world’s proven oil reserves are in countries with medium-to-high investment risk or where foreign investment is prohibited, on the basis of *Oil and Gas Journal* estimates of oil reserves. (See fig. 8.) For example, over one-third of the world’s proven oil reserves lie in only five countries—China, Iran, Iraq, Nigeria, and Venezuela—all of which have a high likelihood of seeing a worsening investment climate. Three countries with large oil reserves—Saudi Arabia, Kuwait, and Mexico—prohibit foreign investment in the oil sector, and most major oil-producing countries have some type of restrictions on foreign investment. Furthermore, some countries that previously allowed foreign investment, such as Russia and Venezuela, appear to be reasserting state control over the oil sector, according to DOE. “

“The **consequences would be most dire** if a peak occurred soon, without warning, and were followed by a sharp decline in oil production because alternative energy sources, particularly for transportation, are not yet available in large quantities. **Such a peak would require sharp reductions**

in oil consumption, and the competition for increasingly scarce energy would drive up prices, possibly to unprecedented levels, causing severe economic damage. While these consequences would be felt globally, the **United States**, as the largest consumer of oil and one of the nations most heavily dependent on oil for transportation, **may be especially vulnerable** among the industrialized nations of the world.”

Of course, readers of the County Hunter News have been aware of this issue for the past two years. Now, the government is acknowledging that Peak Oil is going to happen, and happen within a short period. Wonder how many readers actually read about that GAO report, or heard much on the news? Not many, likely. “Global Warming” is the buzz word. In one sense, ‘global warming’ may be the ‘politically acceptable’ way to tell folks they are going to have to burn less gasoline, and have less power in the future – not really because of ‘climate concerns’ but because there isn’t going to be the gasoline available!

With Cantarell in Mexico now declining faster and faster (declining even faster than the worst case predictions, and each month brings even further worse news!), and some very interesting news from Saudi, and with USA gasoline usage growing even faster than predicted (earlier Daylight Savings caused even more gas to be burned) by nearly 1%, it is going to get very interesting very quickly.

From the Chairman of Schlumberger, one of the largest providers of technology to the oil industry:

“““We continue to believe the most fragile element of current supply projections is the age of the existing production base and the consequent failure of current activity levels to slow decline rates. This environment, when coupled with delays in the increasingly complex projects that our operators are undertaking means the supply response to create adequate levels of spare production will take longer than we originally anticipated.”

That means that the old oil fields are fading away, and they can’t do anything about the dramatic fall off in output. Not only that, the delays and complexity in trying to get new production on line is going to take longer. Thus, there will be little to fill any gap, and it is going to be a very bumpy ride!

Saudi Arabia Oil Output

<http://archive.gulfnews.com/articles/07/04/01/10115135.html>

“

Government spending to boost Saudi Arabia GDP

“Riyadh: Economic growth in Saudi Arabia, the largest Gulf Arab economy, could accelerate this year on the back of a projected rise in government spending, Riyadh Bank said in a research report.

The kingdom's fifth largest bank by market value expects gross domestic product to grow 4.3 per cent in 2007 compared to 4.2 per cent in 2006.

Saudi oil production is expected to fall from an average 9.12 million barrels per day in 2006 to 8.44 million bpd in 2007. "For 2007 ... we forecast oil prices to rise/fall by \$3 per barrel," it said.

N4CD comment: Hmmm....**oil production fall?** While some simply suggest that Saudi is observing self-imposed ‘quotas’ to keep prices high, others are not buying that argument.

The world is expecting ever more output from Saudi every year! (at least the Cornucopians like the USGS and CERA). Matt Simmons has suggested that oil producing countries may decide NOT to increase output, but to preserve the ability of their fields to continue producing for longer periods. Pushing fields too hard can actually result in less total oil recovered. Just like if you want to preserve your ability to move for longer, you don't want to do high impact running and “all out” exercise 12 hours a day, every day, pushing yourself to the limit. You might wish to ‘conserve’ to prevent

damaging joints and later serious ability to do work. Pushing production levels too high at oil fields gives you more immediate oil, but steeper fall off and more problems producing the oil that still remains. Not only that, you can rake the same amount of dollars as oil production fails to meet world demand, and the price per barrel goes up. It's their oil. There's no law that says they have to provide 'everything' that 'anyone' demands.

Compressed Air Car?

INDIA HOPES TO UTILIZE THE SMALL CAR WHICH OPERATES ON AIR IN THE NEAR FUTURE

Tata Motors, on Feb. 5, 2007 announced that it has signed an agreement with Moteur Development International (MDI) of France to develop a car that runs on compressed air, thus making it very economical to run and be almost totally pollution free.

The air engine has 4 two-stage pistons, i.e. 8 compression and/or expansion chambers on one crankshaft. The pistons work in two stages: one motor stage and one intermediate stage of compression/expansion. They have two functions: to compress ambient air and refill the storage tanks; and to make successive expansions (reheating air with ambient thermal energy) thereby approaching isothermic expansion. It has injection similar to normal engines, but uses a special crankshaft and pistons, which remain at top dead center for about 70 degrees of the crankshaft's cycle; this allows more power to be developed in the engine. The engine is powered by compressed air, stored in a carbon-fiber tank containing 3178 cubic feet of air at 4500 psi.

The expansion of this air pushes the pistons and creates movement. The atmospheric temperature is used to re-heat the engine and increase the range.

The cars have the following characteristics:

Are light weight vehicle that can reach speeds up to 220 kph. MDI's vehicle's have fiberglass bodies which makes them light, silent urban car.

In the single energy mode MDI cars consume around US\$1 every 60 miles . The vehicle's driving range is close to twice that of the most advanced electric cars -180 miles or 8 hours of operation.

The recharging of the car will be done at gas stations in 2 to 3 minutes, once the market is developed. The car also has a small compressor that can be connected to an electrical network (220V or 380V) and will recharge the tanks completely in 3 or 4 hours.

The temperature of the exhaust is between 0 and 15 degrees below zero and can be used for air conditioning of the car.

The car will be produced in both a single engine compressed air cars, the MiniCAT and CityCAT and a dual engine hybrid, a compressed air engine plus a multi-fuel internal combustion engine.

Chinese Growth

“The news that China’s economy grew by 11 percent in the first quarter, and that China is now a **net importer of coal**, coupled with the EIA projection that **China will soon surpass the US as the world’s biggest emitter of carbon dioxide**, raises the issue of just where China is going.

For the last 25 years, the Chinese have been undergoing an economic boom with little attention to efficiency or the environment. **There are now 30 million cars in China and the number is growing by 20 percent a year.** Power use in China, the world's biggest coal producer, is rising 13 percent annually, and **a new power plant is opening every four days.** The world oil markets are under constant pressure from Chinese demand.

A recent Chinese government report on global warming rejects binding caps on carbon emissions until the country is “modernized” around the middle of the century. While the Chinese realize they are creating an environmental disaster, the forces pressing for modernization are simply too strong to be overcome by appeals to reason. In short, China seems a nation out of control on the issue of growth vs. the environment.

A standoff has developed between the US and China in that currently each sees no reason to cut back on emissions unless the other does the same. The Chinese believe that it is now their turn to modernize as have other nations before them.

There seems no immediate way out of this impasse. The urge to grow trumps the specter of damage from climate change until major shortages of fossil fuels develop, economic recession sets in, or devastating environmental disasters occur.”

<http://www.energybulletin.net/29094.html>

CW Contest

‘2007 (41th) MARAC COUNTY HUNTERS CW CONTEST

0000Z Saturday May 5 to 2400z Sunday May 6, 2007

Last year a new “**MIXED**” category has been added to the contest. In this new category you can now work the contest in the **MOBILE** category and in the **FIXED** category. As part of the **MIXED** category you should maintain two lists of Multipliers. One list is for the Mobile category and the other list is for the Fix category. The reason for the two lists is to be able to compete for State Certificates and ease of switching between categories.

RULES

- 1) Mobiles must clearly identify themselves as being mobile by signing /M several times in each county.
- 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) 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 two counties.
- 6) Net contacts are invalid and are discouraged
- 7) For a valid contact one station must be in a U.S. county.

- 8) Official list of County Codes (Multipliers) can be downloaded at:

**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.

Ex: 599 MI JKSN

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

Ex. 599 DX

SCORING

FIXED stations - 1 point. **DX** stations - 5 points. **MOBILE** stations - 15 points.

MOBILES:

- 1) Calculate 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 operations.
- 3) Determine total number of multipliers worked from your MOBILE operations.
- 4) Determine total number of multipliers 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, 28.050. Fixed stations should operate above the suggested frequencies and mobiles below.

De AA8R more info at www.aa8r.net

W0QE Quickie Trip Report

Larry, W0QE, took a trip out to Wyoming, Montana, Idaho, Utah, and Colorado in late March. He posted the following on the K3IMC County Hunter Forum :

“Mar. 24 thru Mar. 30

Ran 54 different counties on 40/30/20m CW/SSB

Made 4039 contacts

20m CW = 8.8%

30m CW = 28.6%

40m CW = 42.1%

20m SSB = 7.8%

40m SSB = 12.7%

I was glad to be able to give out many "last counties" along the way, most of which were unexpected, and that was fun. I totally underestimated the demand for the counties and my wife was rather upset at how much "radio" the trip took up. Sunday was the worst day with over 830 contacts. We drove 380 to 440 miles each day except for the last day. In 3 counties I had over 120 contacts which was amazing. The trip unexpectedly had to be cut short with road closures in Wyoming due to snow and I will try to do that area later this year.

Now for my observations:

The 40m SSB frequency of 7.185 is TOTALLY WORTHLESS in the west. The morning broadcast is horrendous. If anyone expects to work 40m SSB counties in the west, it will be on a different frequency or after 1700Z. I would guess many won't even bother with 40m SSB when going mobile in the west.

I ran 40m CW on both 7.0385 and 7.0565 for the first day and anytime there was any QRM on 7.0385. I really did not experience any real interference on

7.0385 except for some deliberate QRM from a person whom I believe is in FL and this happened only twice.

I did experience both SSB and digital QRM on 10.1225 several times.

In closing it is becoming very tough to run both CW and SSB on multiple bands with so many folks chasing the W6RK County Challenge and will probably not be so aggressive with my plans on my next trip.”

- - - - -

N4CD Comment: Wow – did you see the percentage of contacts on 40M CW? I had troubles with him in far MT and ID on 40cw, but that is getting to be near 2000 miles from the QTH, and my antennas are fairly low (not high enough for “DX”). Got him in a bunch I needed, and didn’t work him in ones I didn’t need to let the others through. No need to work him on bands I already had him on, unless I needed the county for the next time around.

Between 40M cw and 40 SSB, more than half the contacts were on 40M! You know we are at the bottom of the sunspot cycle (or darn close to it) when 40M is better than the other bands combined!

Nanotech Update – May 2007

Heat sinks

“Mobile phones, iPods and other portable electronics could someday be cooled by lightweight fins made of carbon nanotubes -- rather than the copper fins of today. That's the claim of researchers in the US and Finland, who have worked out a way to attach arrays of these tiny carbon tubes to silicon chips using conventional manufacturing techniques. The nanotubes were found to dissipate heat at the same rate as copper, yet were ten times lighter as well as being stronger and more flexible.”

Researchers at RPI (Rensselaer Polytechnic Institute, Troy, NY) , Robert Vajtai and colleagues, have used nanotubes, made from a sheet of carbon atoms one thick, rolled into a tube, to make cooling fins for microchips

“The fins were made by first growing a film of multi-walled nanotubes (several carbon tubes nested inside one another) on a silicon substrate. The individual nanotubes pointed out of the substrate surface and were about 1.2 mm long and varied in diameter from 10-90 nm. The nanotube film was then detached from the substrate and a laser was used to systematically remove nanotubes from the film to create 10x10 arrays of nanotube "fins". The fins were pyramid-shaped structures each containing a large number of individual nanotubes.”

“The arrays were then soldered to silicon "flip chips", which are used in portable and automotive electronics. Despite being knocked about during the assembly process, the nanotubes came through unscathed and their cooling capabilities were on par with copper structures. Indeed, Vajtai said that the nanotubes proved to be much more robust than the delicate copper structures that are currently used to make light-weight cooling fins.

Vajtai added that the group is currently trying to boost the performance of the fins, which he believes could reach ten times the heat dissipation of copper fins. This could be done by using higher-quality nanotubes and through the careful optimization of the overall structure of the arrays in terms of the size and spacing of the fins. He also believes that nanotube cooling fins could someday be manufactured at a cost of about one cent per device cooled, which is comparable to existing technologies. “

From <http://nanotechweb.org/articles/news/6/4/1/1>

Insulation

The best solid insulation you can buy at your local Home Depot is foam board insulation with an R factor of 6.5 for an inch thick piece. Fiberglass batts are about R3 per inch. Blown in fiberglass R2.2 per inch. With the help from nanotechnology, you can nearly double this to R10-R13 per inch!

“The insulating component of Nansulate® is a material we call Hydro-NM-Oxide. Passage of thermal energy through an insulating material is an attempt by hotter, fast vibrating molecules to transfer energy to cooler, slow

vibrating molecules in order to reach equilibrium. It occurs in three ways; solid conductivity, gaseous conductivity, and radiative (infrared) transmission. The total of these is the thermal conductivity of the material. Our material is by far the world's worst conductor of thermal energy and the world's best thermal insulation medium, and it provides excellent protection against rust and corrosion..."

Thermal conduction through the solid portion is hindered by the tiny size of the connections between the particles making up the conduction path... Therefore, thermal transfer through the solid portion occurs through a very complicated maze and is not very effective. ..Conduction is limited because the "tunnels" are only the size of the mean-free path for molecular collisions, smaller than a wave of light, and molecules collide with the solid network as frequently as they collide with each other. The unique structure... nanometer-sized cells, pores, and particles, means poor thermal conduction."

Now used primarily in industrial applications, who knows when it may be used to insulate new homes, or to upgrade the insulation in existing homes as the price of energy goes up and up?

From: <http://www.industrial-nanotech.com/howitworks.htm>

Awards

Fourth Time #130, Dave, KE3VV, March 25, 2007

Third Time #204, Matt, W0NAC, March 23, 2007

Third Time #205, Terry, WQ7A, April 25, 2007

On the Road with N4CD – Dave, KF0LZ

Back a few years, I met up with Dave at the Annual Convention in Idaho. It was a great convention with many of the western folks in attendance. He sends some info about his county hunting and radio operating.

“My first introduction to county hunting came from my hunting partner and “Elmer”, W7LQT. Ken told me he had met the greatest gang of people on 14.336, and how they represented the Cream of Ham Radio. In addition, since Ken and I hunted a lot together, I came to know how useful hams could be during road emergencies.

My career later took me to Western Colorado, then to Sidney, Nebraska where I was City Manager and also served as Public Safety Director. The local hams there discovered I was a Novice and set out to help me become a General because I could help with the frequent weather emergencies in Western Nebraska. Naturally, I gravitated towards W7LQT and W7WBZ in their frequent travels putting out counties. I also came to know WA3TUC, W5QLD, and W4RKV in their work as net controls.

I was hooked, working perhaps 2500 counties before submitting them to the Awards Custodian, WB9RCY for the 2500 level of USACA.”

Dave continues: “I was shocked when I received a return letter stating that I had illegally worked mobiles in “team contact”. I called her and in her abrasive manner, she indicated to me, that I had associated with the “least element” in County Hunting. I didn’t know what a “team contact was” nor did I have any empathy for it. I stripped all of my W7LQT/WB7WBZ and other TEAM contacts out and resubmitted for USACA, at that time having worked all of them with ‘single mobiles’.”

“I received an abrasive letter informing me that I had been disqualified from the USACA program”.

[De N4CD: It was clear the intent (along with a certain abrasive NC) was to drive from the net certain stations who were not in favor with the self proclaimed ‘net mullahs’ of the day. The ones making up the ‘new rules’ to be able to ‘punish’ the ‘undeserving.’]

He continues: “I continued to work counties, and later through the efforts of several MARAC members was awarded the MARAC “worked all counties award” Number One. “ (note de N4CD – MARAC at one time also issued the equivalent to the CQ Magazine USACA – but no longer does).

“This award was good for Bingo and all other MARAC awards. It allowed me to continue on the net and to run counties. During that time, I put in several hundred hours as Net Control and ran all counties in several western states. I also worked all Counties the Second Time.

I later met with the Publisher of CQ Magazine in Kansas City, while I was County Administrator for Wyandotte Kansas, and presented him with the information (on the rejection of my USACA application) . He was non-committal but friendly. Later I found that they were searching for a new Custodian to replace WB9RCY (ostensibly because of her politics and hostility).

When Norm Van Raay, WA3RTY, was appointed as Custodian, he agreed to review my previous application. At a MARAC Convention, my entire previous application was reviewed card by card by two USACA Holders who signed my application. After I sent in the list to Norm, it was approved for USACA by CQ Magazine.”

I continued to put out counties. I have put out about two thirds of the counties in the States as well as working from 49 of the 50 States.

My most memorable mobile experience was in putting out Shannon, South Dakota, during one of the tense periods on the Sioux Reservation. While parked, my mobile antennas attracted a lot of attention and six young Sioux men pulled up in a small car and surrounded my car as I was making contacts. I stopped transmitting and handed my wife (N0SW) a camera and try to get my picture with them. A smile, an explanation, a picture, and they went away wondering what this crazy white man was really up to.

County Hunting has changed, from a friendly collegial atmosphere to a very hostile and negative one. I never thought I would be banned again from the net, but I was **during a family emergency** while mobile as my wife tried to contact me to return home as I was on the way to the Idaho Convention at Coeur De Lane. It was mentioned to me by the Net Control, that “WB9RCY was right” at the time.

Having worked all counties 4 times, putting out 2/3rds of the counties to others, and several hundred hours of Net Control, I am waiting for the day when I and others can return to 14.336. Ironically now, its not enough to

carry a ham grudge on the net, but now your professional reputation is assailed on the air by Net Control and his helper.

Someday that will all change, I remain in contact with several hams, but 6 months in Iraq as a Consultant to Iraqis and the Coalition and starting a new business has slowed down my CH activity. **From Iraq, I learned that dictatorships do not last.** Look for me to return soon.

De KF0LZ

1st Time MARAC Worked All Counties USA # 1 10/04/86

USACA # 833

2nd Time 99 10/03/90

3rd Time 70 08/18/95

4th Time 83 09/05/99

Bingo 52 07/01/92

Black Sheep Number 1

Some pictures sent in by Dave, KF0LZ. He's been working overseas lately and not active on the ham bands.



Dave, KF0LZ
At Idaho Convention



Dave, KF0LZ, at work in hot DX desert location in Middle East

NM2L – GA QSO PARTY



Greg, NM2L, Georgia QSO Party 2007

Greg reports:

“As for the GA QSO party, it was a really fun time. At the end, I was really surprised with my QSO totals. I worked 9 Georgia counties from the rover and I needed 2 of them! Only 59 to go in Georgia.

Total operating time was 17 hours with a QSO total of 1,304. The NM2L mobile covered 24 Georgia counties. I guess if I do the GQP again, I would

leave myself a few more counties to run at the end of Sunday because I ended up too close to home about an hour earlier than I thought I would.

Some highlights included a Saturday night phone conversation with Alan KI7WO from the county line of Douglas/Wright, MO. It was cold, wet and pouring down rain in Stephens county when my cell phone went off. I thought it was going to be my XYL wondering if I was ever coming home, but instead it was Alan. I was in the middle of a pretty big pile up, but I couldn't miss these two counties so I gave the pile up the ole wait signal and ran up the band to work Alan. I suppose that makes me a poor contender, but I never claimed to be a good one. Even though it took me a while to get the momentum back, everything worked out great and I had Douglas/Wright MO in the log.

On Sunday, a few Bingo counties were handed out for last in something or other in both Murray and Lumpkin. Heavy winds and snowing like the dickens as I ran up on the Union/Lumpkin county line in the North Georgia mountains. For a little bit, I was wondering what in heck I was doing up there. However, I survived it "ok" with a lot less trouble than the 2 dozen Harley Davidson riders sitting in one of the pull offs. Those guys had to be freezing their tails off.

I sure could have used a driver. Thanks to everyone who participated. It was a lot of fun! "

Farewell to the Honda



N4CD Honda Mobile – Newton TX – 199?

The N4CD 1990 Honda Accord was sold in March 2007 after 17 years of faithful service. It was time to move on to something else, or let someone else worry about all the things that could go wrong. 165,000 miles, with about 70,000 of them county hunting miles – TX, AR, CO, KY, OH, IN, LA, MS, FL, AL, VA, KS, OK, IL, and many, many other places when N4CD was out solo.

One time I lost half of antenna (top half) in KS one trip and had to make emergency trip to Kansas City area to buy new mast and resonator. I was out getting N2TPH some desperately needed counties. Just one of the ‘adventures’ in the N4CD/mobile.

That trip taught me to use one 6ft section of mast, with no coupling joints in it. It can’t break at a joint that isn’t there! When you are flying down the road at 70+ MPH, and somewhere in the last mile, you lost the antenna, and it flew off into a field of scrub and pasture, it is darn hard to find, if it even survived the fall. After not seeing it after searching, I gave up looking.

Recently, this car was just used for around town driving. Once Miss Ida and I started putting out counties on long trips, and after she became a SK, I used the Buicks for CH. Lots easier and a better road car for trips.

The Honda zipped around town, and fit in small parking spaces easily. It got about 30 mpg on the road, and 25 around town average. No complaints, and nothing expensive had gone wrong in a long time. So before the a/c died or something else broke that would be expensive to fix, I decided to part with it. Nothing other than a starter had gone wrong in six years. Only 3 repairs in 17 years and the last tune up was 6 years ago. Sold it quickly on Craig's List.

Original antenna was 20M only, mounted on small metal projection welded on from frame on left rear below the bumper. It worked but not all that well. I added 40m, but it didn't work well either. Too much noise, and hard to keep a good connection at the bottom. Then the antenna system was moved to mag mount on rear trunk deck which worked better. I could guy the mast, so there was less strain on the bottom connector. In the mid to late 90s, it was 20M and 40M. Thirty meters for CH hadn't been 'invented yet'.

One time in NE, when the winds were kicking up over 50 mph, I had to add two more guys to the antenna. It was leaning over 30 degrees from the very heavy steady winds from the side of the vehicle. That was the first time I had to guy it in all four directions. The wind blasted everything with grit flying through the air that made it hard to see or breathe or even stand up! I guess that's just part of the 'fun' of county hunting all over. It wasn't fun getting a face full of grit trying to keep the antenna on the car.

Back then, I mostly ran county lines, and didn't run all that much CW, and none "on the run" like today. The Honda had fairly quick responsive steering, so you had to be very careful if driving and running counties, otherwise, you'd wind up in a ditch or wrecked.

Nearly all of county hunting recently has been in the Buick LeSabres for the past 10 years, with 203,500 miles put on the 1994 (N2TPH mobile) , and now with 150,000 miles on the 2001 LeSabre. That's about 330,000 miles of county hunting miles between them. Throw in the Honda miles, and it is up at around 400,000 miles of county hunting. Add in 10,000 or more on rental cars. Whew!

In a year or two or three, I'll have to figure out what to buy next. The new hybrids are HORRIBLE for noise. The Honda Insight, Toyota Prius, and likely all the others are DISASTER areas for r.f. reception. Maybe someone will build a 50mpg car that is noise free (other than the VW Diesel Jetta).

Operating Events for County Hunters

May 5-6

MARAC CW Contest -- sponsored by the Mobile Amateur Radio Awards Club from 0000Z May 5-2400Z May 6. Frequencies (MHz): 3.550, 7.050, 14.050, 21.050, 28.050. Work fixed station once/band and mobiles once from each county and band. Categories: Mobile, Fixed and Mixed. Exchange: RST, 2-character state code and 4-character County abbreviation. County line QSOs count as one QSO, but separate multipliers. QSO points: Fixed stations in US -- 1 point, DX -- 5 points, Mobile -- 15 points, one station must be in a US County. See more detail above

10-10 International Spring Contest -- CW/Digital, from 0001Z May 5-2359Z May 6. Logs due May 21 (see Feb *QST*, p 100, or www.ten-ten.org)

Indiana QSO Party -- CW/SSB, sponsored by the Hoosier DX and Contest Club from 1600Z May 5-0400Z May 6. Frequencies (MHz): CW -- 1.805 and 40 kHz above the band edge on 80-10 meters; SSB -- 1.845, 3.850, 7.230, 14.250, 21.300, 28.450, try 160 at 0200Z, no crossband QSOs. Categories: SOAB (HP, LP, QRP, no spotting assistance), MS (includes SO using spotting assistance), Mobile, Portable. Exchange: RS(T) + S/P or IN county (DX stations send RS(T) only). QSO points: SSB -- 1 point, CW -- 2 points, contact stations once per band/mode and once per county. County line stations count for 2 counties max. Score is QSO points × IN counties or S/P/C counted once per mode. Bonus for working W9KT. For more information: www.hdxcc.org/inqp

New England QSO Party -- CW/Phone, 2000Z May 5-0500Z May 6 and 1300Z-2400Z May 6. New England is ME, NH, VT, MA, CT and RI. Frequencies (MHz): CW -- 3.540, 7.035, 14.040, 21.040, 28.040; SSB -- 3.850, 7.280, 14.280, 21.380, 28.380; no cross mode or cross band QSOs, all

CW QSOs in CW band segments. Categories: SOAB (HP, LP and QRP), MS (includes stations using any kind of spotting assistance), mobiles use same categories. Exchange: RS(T) and S/P (non-US/VE send DX) or NE county/state. Work stations once per band/mode and mobiles in each county. County lines logged as two QSOs. QSO points: phone -- 1 point, CW and Digital -- 2 points. Score: Non-NE stations -- QSO points \times NE counties; NE stations -- QSO points \times S/P/C; mobiles total QSO points from all counties and count multipliers only once. For more information: www.neqp.org

7th Area QSO Party -- CW/SSB, sponsored by the Central Oregon DX Club from 1300Z May 5-0700Z May 6. Frequencies: 160-10 meters, 6 and 2 meters; CW: 40 kHz above band edge; SSB: 3.855, 7.235, 14.255, 21.355, 28.455; no repeater QSOs. Exchange: state and county code (see Web site) or S/P/C. QSO points: SSB -- 2 points, CW -- 3 points. Score: QSO points \times 7th area counties (7th area stations add states and provinces plus up to 10 DX) counted only once. For more information: www.7qp.org

May 12-13

Mid-Atlantic QSO Party -- SSB/FM/CW, sponsored by the Independent Mid-Atlantic QSO Party Committee from 1600Z May 12-0400Z May 13. Mid-Atlantic States include DE, MD-DC, NJ, NY, PA, VA and WV. Frequencies: 160-10 meters, 50 kHz from bottom of band segment for operating mode; 50, 144, 222 and 432 MHz. Categories: Standard (SO < 200 W), QRP, MO, Mobile. Exchange: serial number and QTH (Mid-Atlantic stations send 3-letter county and 2-letter state, US/VE send S/P, DX send DX). QSO points: Phone -- 1 point, CW -- 2 points, Mobile -- 3 points. Score: QSO points \times Mid-Atlantic counties (Mid-Atlantic stations count S/P + 1 DX) counted only once. For more information: www.maqp.info

Nevada QSO Party -- CW/SSB/RTTY -- sponsored by the Area 51 Contest Club from 0001Z May 12 - 2359Z May 12. Frequencies: 160 - 6 meters, CW 15 kHz and SSB 25 kHz above General class band edge. Categories: SO-LP/HP, MO-LP/HP, and Portable-SO/MO. Exchange: RST and S/P/C or NV county. QSO Points: 1 pt/QSO. Score is QSO Points \times NV counties or S/P/C counted only once. For more information: nv.arrl.org/NQP

May 19-20

Dayton Hamvention!

US Counties QSO Party -- SSB, sponsored by The Mobile Amateur Radio Awards Club, from 0000Z May 19-2400Z May 20. Frequencies (MHz): 3.880, 7.240, 14.275, 21.340, 28.340. Work fixed stations once per band and mobiles once from each county and band. Categories: US fixed, mobile operator, mobile team, Canadian operator and DX operator. For more information: www.marac.org

May 26-27

CQ WW WPX Contest -- CW, sponsored by *CQ Magazine* from 0000Z May 26-2400Z May 27 (see Mar *QST*, p 90, or www.cqwpix.com).

Information Services

If your service is like yours at home, you might get one or two free calls to 'information' or directory service. My cellphone whacks me with over a dollar charge.

At home, you can use one of several web services...one is www.switchboard.com to find people or businesses.

On the road, try 800-FREE-411 or 800-GOOG-411. You might have to listen to a 15 second commercial first, but that beats paying \$1.50 to get a phone number. There may be some additional ones soon.

That's it for another month...see you next month. Remember to sign up for free email delivery of the County Hunter News if interested at www.chnewsonline.com