### **County Hunter News** April 1, 2007 Volume 3, 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, 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 7038.5, 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 7185.

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

De N4CD (email: <u>telegraphy@verizon.net</u>)

### Notes from the Editor

1) 40CW – With the current spate of activity on the lower bands, and especially 40 meters, problems were noted with crowding from other users on the cw frequency used by county hunters – 7038.5. It seems this is now in the middle of the DX RTTY window, and the northern part and eastern part of the USA gets clobbered frequently by RTTY and other digital signals.

In the past month, various alternative frequencies have been proposed including 7117.5, 7122.5, and runs made on those frequencies. It turns out they have major BC interference issues in the north and western parts of the USA. In addition, the new 7185 frequency on 40m SSB is not useful out on the west coast. Not that 7238 was any better with BC interference on the east and west coasts, and Baja net use during the day.

Now, anywhere between 7100 and 7125 has BC interference issues in the east/north/west part of the USA at times (mornings out west, most of day up north, morning/evenings back east). 7099.5 is good for a while, then clobbered by BCI. W0QE is now monitoring 7056.5 and near 7099.5 and others hoping to find something useful for most across the country. Stay tuned.

More and more RTTY contests on weekends clog up the entire spectrum from 7028 to 7085. We are at the bottom of the sunspot cycle and most of the activity has shifted to 40m worldwide. One does have to wonder how 100 EU stations can all call CQ on top of each other around 7039 and ever work anyone. Apparently the skip is such they can't hear each other, but all call incessant CQs in the "RTTY DX" window that ARRL has identified on 7040, hoping for someone to answer, but most are wiping out each other with interference so no one copies much of anything.

To date, no viable alternative has emerged for the 40M cw frequency. Most of the net control stations listen on 7038.5 and spot mobiles there. Perhaps that will continue as the primary frequency, with only occasional trips to alternative frequencies.

Most of the activity remains on 7185 which is useful in the middle parts of the country, and on 7038.5 as the alternatives seem no better. Most of the spots on the W6RK ( ch.w6rk.com ) spotting site are on these frequencies. Of course, mobiles do move up/down a bit to avoid QRM. Some 40M cw is run up or down a few KHz from the SSB freq for those without tunable antennas.

2) Record numbers of applications for ham testing have been filed since the lifting of the Morse Code requirements. I'm not sure where the new activity is going, but the county hunting frequencies don't sound much busier.

3) **The 40M net** is doing well. There's usually enough time to help out new folks and for chit-chat, and no obsession against using phonetics. One can yak about trips. Yes, priority goes to running the counties, but its not all business and not much else. For many, the following sentiment received is typical of what has happened over the past five years or so.

"The truth is county hunting is not much fun anymore. I started in the late-1970s or early-1980s when people were still friendly." "I might as well be the dried cow chip one kicks while walking through the pasture. You know...there but not wanted."

"The first time I worked a county, WA3TUC, Paul Bugen, took me off frequency and told me all about county hunting, his life and all sorts of things. I've never forgotten that day or him.

That kind of attitude and respect is apparently dead on the net now."

"I don't know how the net ever became a vehicle for cramming as many contacts as possible into a given period of time but that's how it is now. In the old days, I'd jump in to do relays or to be the net control to keep things going. I won't anymore because I wouldn't meet the standards and rules now in place." "One is just inviting abuse by saying too much."

"There were friendships I formed on 14.336 and the old 80 meter net but there's no chance of that now. There are only a limited number of people allowed on the "A-Team" these days."

" I've gotta get my 40 meter antenna back on the car and check out that frequency."

"When a new person inquires about county hunting on 20 meters now, he or she is driven off quickly and ordered to check the internet. No chit-chat. No warmth. We've got no time for that. "

"It's a real shame. You'd think somebody would get the message."

Well, most folks in the middle part of the country have got the message, and are quite active on 7185. Nice friendly net there most days with some enthusiastic net controls more interested in running mobiles than running mobiles off. No need to suffer on 20M.

4) **Sunspots** – from the ARRL: "For the past ten days we've observed no sunspots at all. Periods like this, or longer, are expected at the bottom of the sunspot cycle. As mentioned in a recent bulletin, the latest projection for smoothed sunspot numbers from NOAA Space Environment Center has the solar minimum at February through April 2007, with a smoothed sunspot number of 11. Another way to look at it is that the minimum is projected between December 2006 and July 2007, with a smoothed sunspot number of 12 or lower.

The lower part of the HF spectrum is a good place to operate at the bottom of the sunspot cycle. Unlike 10 or 15 meters, 160 and 80 meters won't be bothered by a low MUF (Maximum Usable Frequency), a consequence of the lack of sunspots. With less solar activity comes less problems with geomagnetic disturbances, which can be frequent toward the top of the cycle."

# Dennis, KK7X, Rides for Charity



Dennis, KK7X, writes: "Instead of asking for donation to support CountyHunter Dot Com this year I am asking supporters to sponsor my ride." Coming up in August, Dennis is headed out on a long bike ride to raise money for the <u>Courage Classic</u>. This is a charity ride "For the Kids", funds raised from this ride help kids who are victims of abuse and neglect. To donate to support Dennis in his fund raising efforts please visit his fund raising site at <u>http://firstgiving.com/kk7x2007</u>.

Dennis writes: "This is going to be a fun ride but I really have to train, train, train for the next 6 months."

Dennis now provides the County Hunter Dot Com web site, full of pics of county hunters and county hunting events going back 10 years, with a discussion forum for cw, planned trips, and other issues (including Kwiklog support).

http://my.inbox.com/photos/kk7x/index.aspx

During the 1980s and 90s, Dennis was a very active mobile running all over the country in the Big Rig, putting out thousands and thousands of counties. He occasionally gets on the air, but has not been active as a mobile in a few years – in part due to the rotten conditions out west.



Dennis in a 2005 Race

Visit his web site at <u>www.countyhunter.com</u> and check out all the newly added pics, and the information available there. Then consider helping out with a tax-deductible donation for his ride for charity.

See <a href="http://countyhunter.com/index.htm">http://countyhunter.com/index.htm</a>

# 50<sup>th</sup> Anniversary of the KWM-1 Transceiver

The first 'mobile' transceiver was produced by Collins Radio in 1957. The creation of this unit was recently described in the January issue of QST Magazine.

In the early 1950s, all hams used a separate transmitter and receiver. Often the combination weighed in at hundreds of pounds, as getting stability in equipment required massive mechanical design of dial assemblies, VFOs, temperature stabilized oscillators, etc. Recall that back then most equipment was AM (amplitude modulation) requiring large power supplies, modulators, and naturally filament power for dozens of vacuum tubes. Many hams used WW2 surplus equipment (ARC-5 transmitters). A little drift might not bother AM, but it made SSB reception very difficult. A recent issue reviewed rigs available starting around 1960.

The only 'transceivers' available were made for VHF operation on 5 meters (in the 1930s/1940s) and later 2M, 220, and 6M in the early 1950s. There were no transceivers for the HF bands.

One of the Collins engineers, also a ham, Gene Senti, W0ROW (SK) began tinkering at home with his 75A4 receiver, to see if he could figure out a way to use the high stability PTO (permeability tuned variable oscillator) along with a separate crystal oscillator to generate transmit frequencies. He took the BFO oscillator, the PTO, and the crystal mixer oscillator out of the radio for injection purposes (used in the receiver) and homebrewed external circuitry that would generate a transmit signal on the received frequency, with what we call today a heterodyne oscillator.

This was the beginning era of SSB, and tuning a receiver easily to a sideband signal was difficult for many people, having to play with the BFO, the main tuning, and often fairly quick tuning rates. Then getting a transmitter on the exact frequency was the next challenge. The Collins receiver (the Cadillac of what was available) was a good SSB receiver for the times. Getting your transmitter on your receive frequency was also not easy, as things often drifted around.

Senti continued to experiment, along with other hams at the factory. Collins built gear for the military at the time as its main business. Eventually, word

got to 'the big boss' of Senti's idea for a combined transmitter/receiver, and one evening Art Collins visited the home workshop of Gene to see what he had done.

Before long, the Collins factory had produced 25 prototypes of the KWM-1, which covered 14-30 MHz with a tuning range of 100 KHz per crystal. Up to 10 crystals would be installed, covering most of 20-10 meters. A pair of 6146s was used in the final, to deliver 100w output. There were 24 tubes total.

Furnished crystals were:

14.0 - 14.1 mc CW 14.2 - 14.3 mc SSB 14.9 - 15.0 mc calibration with WWV 21.0 - 21.1 mc CW 21.3 - 21.4 mc SSB 21.4 - 21.5 mc SSB 28.0 - 28.1 mc CW 28.1 - 28.2 mc CW 28.5 - 28.6 mc SSB 28.6 - 28.7 mc SSB



Collins KWM-1 Transceiver (courtesy www.rigpix.com)

It weighed 15 lbs, and was  $14 \ge 10 \ge 6$  inches, used a separate power supply for either DC or AC. It operated either CW or SSB, but not AM, the dominant mode of operation for hams then. (The Heathkit SB-100 was a cost-reduced copy of the Collins transceiver 8 years later that most hams could afford).



Collins Mobile Power Supply (15 lbs)

The rationale for only 14-30 MHz coverage was that 'mobile antennas were too inefficient' below 14 MHz. In addition, the first design would not meet spurious at 80 meters, so a compromise was reached. If you had a lot of money back then, the basic unit was \$770 in 1957, plus \$248 for the DC power supply or \$103 for the AC power supply. Buying all three was about the price of a new car! The mobile mount was \$22, the handheld mic was \$25, and the speaker was \$25. Ouch!

By 1959, 1150 units had been produced. A new version was started - the KWM-2 which added 40 and 80 meters. Nearly 30,000 of these were built until the model was discontinued in 1982. The sunspot cycle cooperated – in 1957; it was the peak of one of the best sunspot cycles ever. Within a few years, it was sunspot minimum and activity had shifted to the lower bands, so the new capability of the KWM-2 was really needed! Some of the earliest county hunters did run the Collins gear, but naturally, many could not afford the 'top of the line' Cadillac prices and performance.

In the KWM-2, you could add a 'noise blanker'. None was available for the KWM-1. A cw filter option only appeared in the KWM-2A radio. Before that, using a KWM-1 or 2 on cw left you with wide bandwidth receiver (SSB

filter). The KWM-2 let you switch up to 14 100 KHz segments, and the 2A version let you switch up to twice that number.

A Collins unit in decent condition will fetch well over \$1000 today. There are thousands of Collins collectors with many of them overseas keeping prices of these radios sky high. Some very rare accessories for the KWM-1 included the 'novice adapter' which provided crystal control transmit, and the "DX adapter' which allowed split operation

The KWM-1 was one of the first, if not the 'first' HF transceivers for ham use. Many KWM-1 and 2 were also put into military use aboard aircraft, to provide communications for the President while outside the country, and for other government purposes.

Shortly after, many 'cost improved' transceivers followed from Swan, National, and Heathkit, as shown in previous issue. The work of Collins engineers at home was the basis for the modern 'transceiver' design with one knob tuning both transmitter and receiver. Seems simple, but it was a big step at the time!

### Summer Gas Price Increases

It is now 'summer' season for gasoline blending. Prices go up because it costs more to make summer gasoline. A quick review: From http://www.theoildrum.com/node/2374#more

"As gasoline evaporates, volatile organic compounds (VOC's) enter the atmosphere and contribute to ozone formation. Gasoline's propensity to evaporate is measured by Reid vapor pressure (RVP). In order to control VOC emissions, the Federal Clean Air Act Amendments of 1990 require that all gasoline be limited to an RVP maximum of 9.0 psi during the summer high ozone season, which the Environmental Protection Agency (EPA) established as running from June 1 to September 15. The Act also authorized the EPA to set more stringent standards for nonattainment areas. As a result, EPA limits areas designated as "high volatility non-attainment" to a maximum RVP of 7.8 psi during the high ozone season. Some States elected to require even more stringent restrictions to achieve local clean air goals, and require 7.2- and 7.0-psi gasolines."

Now you thought that 'ethanol' was green?

"In the face-off between California and Corn Belt states over ethanol, California lost again this month. Federal officials concede that the cornbased fuel additive can increase smog and soot pollution from vehicles.....

The EPA conceded that California air quality officials are right about ethanol's polluting effect in summer. Nonetheless, in its tortured ruling, the federal agency said California had not "clearly demonstrated" that the ethanol requirement would delay or interfere with the state's ability to meet federal clean air standards. Incredibly, the ruling said that even if California had demonstrated that the ethanol rule prevented the state from meeting clean air standards, the EPA "would deny the waiver." Why? "This reduction in the use of ethanol would undermine the potential benefits vis a vis energy security and support for rural and agricultural economy that Congress expected" from its ethanol rule. "

So not only is summer fuel going to cost you more, in addition by blending in ethanol, you are likely to cause more smog and pollution in the process. However, the farmers will be happy, and the USA will burn just a tad bit less oil. Happy farmers make for happy politicians from corn growing states.

Making gasoline with lower vapor pressure costs more money. Adding in ethanol costs more money. As county hunters, we don't have too many choices – either buy gas, or take more conservative trips. (or buy a car with better gas mileage).

# The Great Global Warming Scandal

Recent programs on the BBC, and other scientific evidence are piling up to show that 'global warming' caused by human activity is far from the 'truth'. It seems that Al Gore's "An Inconvenient Truth" is quite possibly turning out to be nothing but hot air by the anti-capitalists and eco-freaks. Just some recent examples of their mis-statements that are a good part of the 'basis' of their claims. See the video at: <u>http://video.google.de/videoplay?docid=-4520665474899458831</u>

This is a must see video!!!! (About an hour).

The basic premise of the "global warming caused by manmade CO2 emissions" crowd is now seriously suspect. Yes, the planet appears to be warming up, but that is a trend that has been going on for hundreds of years. The correlation between CO2 and decade long global warming simply does not correlate over long periods of time. When global temps rise, CO2 levels rise, as they have for over 600,000 years! Man wasn't around in enough quantity before 1900 to make any difference, yet cycle after cycle happened, and it wasn't 'made made' CO2 that caused it.

From: http://www.lewrockwell.com/orig6/sanandaji9.html

"The media portrays a dramatic image of how the ice is melting in the Polar Regions as a consequence of global warming. We are warned that the North Pole might become ice free during the summer months at the end of this century and that the polar bears might become extinct due to this development."

"In a study published in the journal *Nature* a number of polar researchers showed that they had observed a net cooling of 0.7 degrees in the region between 1986 and 2000. Another study published in *Science* showed that the East-Antarctic ice sheet had grown with 45 million metric tones between 1992 and 2003."

"The simple answer is that there exist studies that point to both directions, perhaps indicating that scientists know relatively little about global climate. But what counts to most ordinary people is what media is reporting, and media is often highlighting the most alarming studies and seldom report of studies that go against the notion that human activity leads to global warming. To put it simply, the news is filtered through an environmentalist view of the world.

An interesting example of how media sometimes gets it wrong is how journalists reported that there had never been so little ice in the Arctic than in 2005. This claim was based on satellite images by NASA which showed that the geographic extent of the ice sheet had never been so small since measurement began in 1979. One must however keep in fact that about half of the ice in the Arctic melts each summer and that two months before this measurement the extent of the ice sheet was the same as the previous year. The problem is that satellite images show the surface of the ice but not the thickness.

Capten Årnell at the summer expedition with the polar-ship Oden could tell that he had never seen so much ice in the Arctic than in 2005. It was with great difficulty that he had passed through the region. What had happened in 2005 seems to be that the ice had packed densely against the Canadian part of the Arctic. The geographical extent had been reduced but the ice was thicker."

"As for polar bears, much evidence points to that their numbers are increasing rather than diminishing. Mitch Taylor, a Canadian expert on animal populations, estimates that the number of polar bears in Canada has increased from 12 000 to 15 000 the past decade. Steven C Amstrup and his college have studied a population of polar bears in Alaska and reported that the number of females had increased from 600 to 900 between 1976 and 1992. Even a report from the WWF which is entitled "Polar bears at risk" and warns that the populations of the polar bears might become extinct due to global warming, supports that the number of polar bears is increasing. In the report the polar bears in the world are divided into 20 populations. It shows out that only 2 of these populations are decreasing, while 10 are stable, 5 are growing and 3 are not possible to comment about."

Back around 1000, there were vineyards in Northern England. Colonies were formed in Greenland and Iceland. 8000 years ago, temperatures were significantly warmer than today! The polar bears survived. Then we had the little ice age, for over 100 years, with temps significantly below normal. There was no 'human activity' to change the climate back then! Of course not!

Most of the temperature rise in the past 200 years occurred before 1940. It was only after WW2 that the world started on the Post WW2 expansion that saw much more emissions from burning oil. Yet, for the next 35 years, global temperatures actually fell! The facts don't fit the 'conclusions'. In 1975, some were on a 'global cooling' kick. Turns out after 35 years,

temperatures started to rise again, putting an end to the 'catastrophic global cooling' hysteria.

If you look at all the ice cores, showing CO2 levels and temp levels over a 600,000 year period, the record shows that temperatures rise, and then 800 years later, the CO2 levels begin to rise. Not the other way around. Rising temps eventually cause more atmospheric CO2. That is easily explained by showing the time constant of the oceans to warm is hundreds of years. Warmer water cannot absorb as much CO2 (it typically absorbs 1/3<sup>rd</sup> of all CO2 produced each year – the largest source of CO2 is volcanoes and oceans). With one degree warmer deep oceans (not just the surface) a significant quantity (hundreds of times more than human activity) is put back in the atmosphere. Repeat, temps rise, then hundreds of years later, the CO2 levels increase. Over 600,000 years.

It turns out the only thing that correlates over the past hundreds of years with temperature records is SUNSPOT and solar output activity. Sunspot records go back hundreds and hundreds of years.

"Those who think global warming is a natural process point to the fact that in the last 10,000 years, the warmest periods have happened well before humans started to produce large amounts of carbon dioxide.

A detailed look at recent climate change reveals that the temperature rose prior to 1940 but unexpectedly dropped in the post-war economic boom, when carbon dioxide emissions rose dramatically."

"If greenhouse warming were happening, then scientists predict that the troposphere (the layer of the earth's atmosphere roughly 10-15km above us) should heat up faster than the surface of the planet, but data collected from satellites and weather balloons doesn't seem to support this."

"For some people, the final nail in the coffin of human-produced greenhouse gas theories is the fact that carbon dioxide is produced in far larger quantities by many natural means: human emissions are miniscule in comparison. Volcanic emissions and carbon dioxide from animals, bacteria, decaying vegetation and the ocean outweigh our own production several times over."

"New evidence shows that that as the radiation coming from the sun varies (and sun-spot activity is one way of monitoring this) the earth seems to heat up or cool down. Solar activity very precisely matches the plot of temperature change over the last 100 years. It correlates well with the anomalous post-war temperature dip, when global carbon dioxide levels were rising."

#### (source

http://www.channel4.com/science/microsites/G/great\_global\_warming\_swin dle/arguments\_1.html)

The solar magnetic field has more than doubled in the past century. It is part of some cycle we just don't understand yet.

In the Book MeltDown, the author Patrick J Michaels writes about the predictable distortion of global warming by politicians, scientists and the media. He gives hundreds of examples of exaggerations, distortions and misstatements that have occurred in just the past few years.

In another book, the Shattered Consensus- The True State of Global Warming:

A book reviewer writes: "The overall theme is to reveal the flaws in the 2001 Report of the Intergovernmental Panel on Climate Change, which is accomplished many times over. This is especially valuable at this moment because we are between the release of the Summary for Policymakers of the 2007 Report and the delayed main body of the Report. Misleading and incomplete statements in the Summary abound, and are dealt with in whole chapters, which cover Michael E. Mann's deceptive temperature record of the past 1000 years, the tendency of warming predictions from modeling to exaggerate warming, the failure of the atmosphere to lead surface temperatures, the failure of hurricane frequency predictions, the lack of any basis for scares on moderate global warming, the correlation of what little warming there is with solar output and solar effect on cosmic rays, themselves affecting cloud formation, and the failure of climate models to allow for the effects of cloud formation.

To take one deception in detail, the Mann graph of temps from 1000-2000 AD was deliberately manufactured to eliminate the Little Ice Age (1450-1850) and the Medieval Warm Period (940-1450) that was warmer than now even though CO2 levels were much lower than now. This graph, without even its original error bars, has been presented by innumerable climate zealots as fact without admitting that two Canadians, Essex & McKitrick, worked out the flaws in it to the point where the Editor of Nature, in which the graph was first, published, ordered a "correction of error" by Mann to be published, which was done incompletely."

However, tens of thousands of jobs are at stake in the global warming scam. Those jobs depend upon ever increasing hysteria about 100 foot sea rises, desertification of Florida, etc. Even Al Gore's main business is now trading 'carbon credits', meaning you can emit all the carbon you want, and for a mere pittance buy 'carbon offsets' where someone, somewhere, claims that they are reducing carbon dioxide output, planting millions of trees to absorb it, and therefore selling the credits. Much of that is phony hype that really isn't happening either. Like they plant 1 million trees, and elsewhere chop down another million, but claim carbon credit for the million they planted.

Yes, global temps are rising. But it is not necessarily due to human activity causing CO2 which is the correlating cause. It is the result of warming happening first from other causes, then CO2 rising from that. Nothing else many scientists suggest.

Where did all the 'global warming hysteria' start? England, of all places! In the 1970s! (From <u>http://nottakingsides.wordpress.com/2007/03/12/movie-the-great-global-warming-swindle/</u>)

"The original theory was from a fringe scientist and when it surfaced nearly all mainstream scientists found it laughable. Man's contribution to CO2 in the atmosphere is so small when compared to the contributions from volcanoes, plants and especially the oceans, it's doubtful man could effect anything, let alone climate, by producing CO2. But Thatcher had a problem and a plan.

The previous government had been brought down by a devastating and violent coal mine strike and another strike came along as she was in office. Being determined to break the cycle of labor, a large part of it being coal miners, reeking such havoc and ultimately dictating terms to the government, she was determined to move the country away from coal as a power source.

Not trusting Middle Eastern oil as a power source that would produce stability, she wanted to move Britain toward nuclear energy in a major way. **The strongest selling point was that nuclear energy was clean and she seized upon the CO2 theory, reasoning that if she could increase concern**  *over coal,* she'd be able to implement plans to begin building nuclear reactors.

Millions of government dollars were placed on the table at Britain's National Academy of Science to produce specific science that heightened concerns over CO2 as a serious health and environmental concern. The meme, if you will, and the dollars available to scientists for such work grew, in Britain and across Europe and even in the US. It was the seed of the Global Warming industry we see today."

Talk about the law of unintended consequences!

So having a 'world command economy' isn't going to do anything, other than make enviro-whacks and liberal politicians foam at the mouth, telling you what you can and can't emit, and how much you will pay for that privilege. It will deny advances all across Africa and the 3<sup>rd</sup> world, as policies do not allow large coal deposits to be used for electricity generation, dooming millions to a life of abject poverty. It will distort economic decisions.

The temp increases will occur as long as the solar magnetic field and activity increase. That may decline in 10-15 years as some solar physicists predict. Meanwhile, enjoy the sunspot and solar activity. There isn't anything we can do about it. Worry about CO2 levels? Why? It's not the main cause. It is the result. Yes, you can be concerned about mercury emissions and other pollutions from burning coal fossil fuels, but getting worried about 'CO2" as a pollutant is just plain folly. Then again, politicians aren't scientists, and scientists only get funding for what is 'politically correct'. Anyone who casts doubt upon global warming hysteria isn't going to get funded for research! Anyone who does research on anything but the 'accepted' causes is accused of 'being in the employ of those dastardly oil companies'. The hysteria is all encompassing.

Over the past 100,000 years, you have to look at Milankovich cycles to explain intense periods of glaciations, and other periods of extreme warmth when tropical animals roamed around northern Europe. We are in the "Little Ice Age' period, having 18,000 years of increasing world temperatures. Worry more about deforestation of the rain forests (which is in some cases appearing to happen, and not in other cases), and the loss of biomass. There are many things to worry about, but adding "CO2" to the list of pollutants is not at the top of the list.

So you have to look at both sides of the argument. Yes, the world is warming slightly. Is human activity a 'contributor' and how much of warming is really associated with human activity? Or is a result of steadily increasing solar activity in the last few centuries? Or are the claims of the currently politically correct movement actually backed up by science, or by misinterpretation of the science? All good questions. Or are the arguments for a complete scam the stronger position?

In the past decade, the polar ice caps on Mars have retreated, and temps on the moons of Jupiter, Neptune, and the planetoid Pluto are increasing. Do we blame this on the LGM and other space critters emitting CO2?

More debunking at:

http://video.google.com/videoplay?docid=8962029509133322828&hl=en http://video.google.com/videoplay?docid=8331667895569646104&hl=en http://video.google.com/videoplay?docid=3854286977297911526&hl=en

Likely, the 'truth' lies somewhere in between, but the 'science' on either side is neither complete, nor 'testable' in the real world. However, the super hype by the Al Gore types seems totally unwarranted. At this point, it is nothing but hysterical political maneuvering with an anti-capitalist viewpoint of 'the lowest common denominator' and social engineering of the worst kind.

# Al Gore's Zine Mine?

#### http://www.opinionjournal.com/diary/?id=110009804

Over the past few years, Al Gore has been retreating and retreating on his issues on Global Warming. First it was 20 foot sea rises in the next century. Then it was 3 feet. Even the politically motivated UN commission, the IPCC, concluded that sea rise would be half of that. Besides having a house that consumes 20 times the electricity of an average American home, it turns out all Gore has to look no further than in the mirror to find the 'worst case polluters' in the USA.

"Mr. Gore has personally earned \$570,000 in zinc royalties from a mine his father bought in 1973 from Armand Hammer, the business executive famous for his close friendship with the Soviet Union and for pleading guilty to making illegal campaign contributions during Watergate. On the same day Al Gore Sr. bought the 88-acre parcel from Hammer for \$160,000, he sold the land and subsurface mining rights to his then 25-year-old son for \$140,000. The mineral rights were then leased back to Hammer's Occidental Petroleum and the royalty payments put in the names of Al Gore Jr. and his wife, Tipper."

"Mr. Gore published "Earth in the Balance," in which he wrote: "The lakes and rivers sustain us; they flow through the veins of the earth and into our own. But we must take care to let them flow back out as pure as they came, not poison and waste them without thought for the future.""

"In 2002, the year before they shut down, they ranked 22nd among all metalmining operations in the U.S., **with total toxic releases of 4.1 million pounds.** A new mine operator, Strategic Resource Acquisition, is planning to reopen the mines later this year. The Tennessean reports that just last week, Mr. Gore wrote SRA asking it to work with a national environmental group as it makes its plans. He noted that under the previous operator, the mines had, according to the environmental website Scorecard, "pollution releases from the mine in 2002 [that] placed it among the 'dirtiest/worst facilities' in the U.S.""

Now this is the guy going around claiming we all need to be ultra green? Worried about 'emissions'? The one purchasing 'sin forgiveness' credits so he can burn coal produced electricity by having corporations plant trees on land that local farmers often need to survive?

While Mr. Gore is renovating his old 'farmhouse' that is at least 5 times larger than the average American house, and adding 'solar panels', he will still consume many times what the average American does to support his lifestyle.

"It's time people ask Mr. Gore "Are you ready to change the way *you* live, as well as the way you lecture the rest of us?""

# Peak Oil News

From: http://p088.ezboard.com/fdownstreamventurespetroleummarkets.showMessa ge?topicID=19517.topic

"Evidence is mounting that oil prices will soon climb to new, perhaps unaffordable for many, highs. Some think "soon" is three, four, or five years away. Others think "soon" may be as close as three, four, five, or six months. It is this latter scenario in which oil and gasoline prices reach new highs before the year is out that we look at today....

Although they are currently considered "ample," total US stockpiles have been dropping since February indicating that we are burning more than we are pumping and importing. Increased US production is largely out of the question...

Some hold that US importers are cutting back during the spring maintenance season when oil refineries traditionally undergo cleaning and overhaul. Others, looking at the drops in crude production by the US's traditional suppliers such as Mexico, Saudi Arabia, Nigeria, and Venezuela, are starting to wonder if importers can really find all the crud they want to import. Keep in mind that one of these days the US will be bidding for available supplies against the well-heeled such as China, Japan, and Europe.

Without going into a long story, it is looking as if the Nigerian electoral process is more likely to initiate yet another civil war than to successfully pass power from one president to another. Oil production is already down about 600,000 barrels a day due to insurgent attacks and more are promised if the elections turn into a fiasco. Many scenarios are possible ranging from a near-total cutoff of Nigeria's on-shore oil production to US intervention....

The 64 billion barrel question, however, is the state of the Saudi oil fields. Many hold, and with good reason, that when Saudi Arabia goes into depletion, the oil age is on the way out. During the last six months Saudi production has dropped from 9.5 million to 8.5 million barrels a day. Now there are several possible reasons for this drop ranging from not being able to find buyers for their heavy, sulfur-laden oil at today's prices, through a desire to force up prices by cutting supplies, to the key issue which is that the Saudis simply can't find and open new production fast enough to keep ahead of depletion in their aging fields. If this is the case then 2007 will be a seminal year.

If Saudi production continues to drop during 2007, suspicions of trouble in the kingdom's oil fields will increase to a feverish pitch— as of course will oil prices. If prices increase significantly this summer and the Saudi's don't respond with significantly higher production, then many will hold that, at least temporarily, the Saudis can not increase production.

A sleeper issue due to come to a head this spring is the nature of the participation by western oil companies in production of synthetic crude from Venezuela's Orinoco heavy oil sands. A few weeks back, President Chavez decreed the six western oil companies must turn over 60 percent interests and control of the Orinoco projects to the government's oil company. Negotiations are now going to determine the terms under which the Western oil companies will remain involved in the projects in which they have already invested \$30 billion.

The next few weeks should tell whether the oil companies are willing to stay in the Orinoco helping the Venezuelans make synthetic crude, using the oil companies proprietary technology, for much less profit, or simply walk away seeking to recover their investment in the courts. At stake is about 500,000 barrels a day of synthetic crude production which the Venezuelans may or may not be able to keep running by themselves.

Keep an eye on the hurricane season. The El Nino hot spot in the Pacific, which many believe suppressed the 2006 hurricanes in the Gulf, has cooled off. Surface temperatures are already above normal so the ingredients are in place for an active 2007 hurricane season.

Keep the other eye on what the Mexicans are telling us about production from their giant Cantarell oil field, most of which has been coming to the US. Should production really tank in 2007, some believe that the US will have difficulty finding enough oil on the world market to import.

Iraqi oil production continues to bubble along with exports running about 1.5 million barrels a day. Stealing oil and revenue in Iraq is obviously so

profitable to the various insurgent groups that nobody wants to blow up the gravy train until they have to. If the recently announced US crackdown on oil stealing is successful, we might see more oil infrastructure blowing up and exports going down.

As a closing thought, keep your remaining eye on the dollar. Some believe there is enough financial turmoil just ahead to limit our ability to import oil."

# More news on "Peak Coal"

You've likely heard that the USA is the "Saudi Arabia of Coal". Read on – this is another story that might fit into the "Al Gore Book of Fairy Tales".

From:

http://p088.ezboard.com/fdownstreamventurespetroleummarkets.showMessa ge?topicID=19516.topic

"A soon-to-be-released study by the Energy Watch Group in Germany on the future of global coal supplies has implications so surprising and farreaching that energy policymakers may take years to digest it. ... The report's central conclusion is that minable global coal reserves are much smaller than is commonly thought, **and that a peak in world coal production is likely within only ten to fifteen years**....

...the use of coal is increasing dramatically in China as that nation rapidly industrializes (in 2005, China was responsible for 36.1 percent of world coal consumption, the U.S. for 9.6 percent, and India 7.3 percent). As a result of these factors, the global consumption of coal is today growing faster than that of oil or natural gas—a reverse of the situation in earlier decades.

...Looking to the future, many analysts who are concerned about emerging supply constraints for oil and gas foresee a compensating shift to lowerquality fuels. The conversion of coal to a gaseous or liquid fuel is feasible, and coal-gasification and coal-to-liquids plants are being constructed at record rates....

about 90% of coal reserves are concentrated in 6 countries: USA, Russia, India, China, Australia and South Africa. The USA alone holds 30% and is the second largest producer. China is by far the largest producer but contains only half of the reserves of the USA. Therefore the development of these two countries is a key for future coal production.

However, the report's authors (Werner Zittel and Jörg Schindler) are of the opinion that "the data quality is very unreliable," especially for China, South Asia, and the Former Soviet Union countries. Some nations (such as Vietnam) have not updated their "proved reserves" for decades, in some instances not since the 1960s. China's last update was in 1992; since then, 20 percent of its reserves have been consumed, though this is not revealed in its official figures.

Even more striking is the fact that since 1986 all nations with significant coal resources (excepting India and Australia) that have made the effort to update their reserves estimates have reported substantial downward resource revisions. Some countries—including Botswana, Germany, and the UK— have **downgraded their reserves by more than 90 percent**. Poland's reserves are now 50 percent smaller than was the case 20 years ago. ...The report concludes: "the present and past experience does not support the common argument that reserves are increasing over time as new areas are explored and prices rise."

...The EWG report's authors, taking these factors into account, state: "it is likely that **China will experience peak production within the next 5–15 years, followed by a steep decline.**" Only if China's reported coal reserves are in reality much larger than reported will Chinese coal production rates not peak "very soon" and drop rapidly.

... The United States is the world's second-largest producer, surpassing the two next important producer states (India and Australia) by nearly a factor of three. Its reserves are so large that America has sometimes been called "the Saudi Arabia of coal." The U.S. has already passed its peak of production for high-quality coal (from the Appalachian Mountains and the Illinois basin) and has seen production of bituminous coal decline since 1990. However, growing extraction of sub-bituminous coal in Wyoming has more than compensated for this. Taking reserves into account, the authors of the report conclude that growth in total volumes can continue for 10 to 15 years. However, **in terms of energy content U.S. coal production peaked in 1998** at 598 million tons of oil equivalents (Mtoe); by 2005 this had fallen to 576 Mtoe.

This forecast for a near-term peak in U.S. coal extraction flies in the face of

frequently repeated statements that the nation has 200 years' worth of coal reserves at current levels of consumption. The report notes: "all of these reserves will probably not be converted into production volumes, as most of them are of low quality with high sulfur content or other restrictions." It also points out that "the productivity of mines in terms of produced tons per miner steadily increased until 2000, but declines since then."...

Nations that are currently dependent on coal—China and the U.S. especially—would be wise to begin reducing consumption now, not only in the interests of climate protection, but also to reduce societal vulnerability arising from dependence on a resource that will soon begin to become more scarce and expensive. "

#### WARC 2007

The ARRL is supporting the USA delegation to the upcoming WARC. In the latest ARRL Letter (published by ARRL, Newington, CT 06111):

"Technical report text on two World Radio communications Conference 2007

(WRC-07) agenda items of interest to Amateur Radio has survived the WRC-07 Conference Preparatory Meeting (CPM-07). The nearly 600-page Conference Preparatory Meeting Report (CPM Report) contains "methods" that satisfy the International Amateur Radio Union's (IARU) desired options for allocations in the vicinity of 136 kHz, 5 MHz and 7 MHz, thanks to the efforts of the IARU delegation.

"The IARU was successful in retaining these options in the official report," Said IARU President Larry Price, W4RA, who headed the IARU delegation to CPM-07 February 19 until March 2. "Of course, it is a long step to actually get an allocation at the WRC." Ken Pulfer, VE3PU, also served on the IARU delegation.

Sponsored by the International Telecommunication Union (ITU), CPM-07 drew to Geneva some 1100 delegates from more than 100 countries to finalize and adopt the massive technical report, in preparation over the past four years. The CPM Report will guide the work of delegates attending

WRC-07 October 22 through November 16. It provides background information on each WRC-07 agenda item, various methods of addressing the agenda items and the advantages and disadvantages of each.

Agenda Item (AI) 1.13 addresses the allocation of HF spectrum between 4 and 10 MHz, including the possibility of allocation changes in the 40 and 60 Meter bands, while AI 1.15 opens the possibility of a secondary ham radio allocation in the vicinity of 136 kHz. IARU Secretary David Sumner, K1ZZ, concedes that AI 1.13 is "one of the most complex and controversial items" on the WRC-07 agenda.

"It's anyone's guess as to how the dust might settle come November," he commented. The CPM Report presents eight methods to satisfy specific parts of AI 1.13. Methods 6 and 7 are favorable to the Amateur Radio Service.

Method 6 would provide a worldwide secondary amateur allocation of 5.260 to 5.410 MHz "to allow communications at times when propagation conditions do not permit the use of the presently allocated bands at 3.5 and 7 MHz." On the down side, the CPM Report said, such a 5 MHz amateur allocation could impact spectrum available for the Fixed and Mobile and the Broadcasting services.

Method 7 provides a primary allocation at 7.200 to 7.300 MHz in Regions 1 and 3 "to globally harmonize the Amateur Service allocations." Among Method 7's disadvantages, the CPM Report said it could reduce spectrum now allocated to HF broadcasting in Regions 1 and 3 and "significantly complicates the problem of identifying" additional Broadcasting Service spectrum.

Adoption of Method 7 at WRC-07 would achieve the IARU's goal of a worldwide, 300-kHz Amateur Radio allocation at 7 MHz, however. It essentially implements the second phase of the work begun at WRC-03, which expanded the Amateur Radio allocation at 7 MHz by 100 kHz (7.100 to 7.200 MHz) by March 2009. It would have no impact on the current 7.000 to 7.300 MHz 40-meter allocation in Region 2 (the Americas).

AI 1.15 Method A would establish a secondary amateur allocation at 135.7 to 137.8 kHz in all three Regions "with footnotes ensuring protection of other services operating in the same band." One alternative footnote would

set a maximum radiated power limit of 1 W EIRP and would require that stations not cause harmful interference to radionavigation stations in certain countries. A second alternative footnote doesn't include the 1 W EIRP power limit. Method B would make no changes to the allocations table. The CPM Report lists no "foreseen" disadvantages to Method A.

The CPM Report notes that more than 20 countries have established either domestic amateur allocations or authorized experimental and amateur communication in the low-frequency range, including 135.7 to 137.8 kHz"

" Jon Siverling, WB3ERA, and Walt Ireland, WB7CSL -- both of the ARRL's Technical Relations Office near Washington, DC -- represented the League on the US delegation to CPM-07. Jim Dean, VE3IQ, represented Radio Amateurs of Canada (RAC) on Canada's delegation, while Jay Oka, JA1TRC represented the Japan Amateur Radio League (JARL) on Japan's delegation."

If we get our 'wish list' we might receive expanded bands at 5 MHz, a clearer 7 MHz band, and a new band at 136 KHz. It's a tall order, but the current WARC bands came out of previous success. Many interests including Short Wave broadcasting wanting space for 'digital broadcasting' are trying to claim the same spectrum. Stay tuned!

### Forever Stamps

The Post Office is raising rates again on May 14, 2007, so if you have any long overdue QSL cards or MRCs with envelopes, try and get them all out by then, otherwise you'll have to add 2 cents more for first class – from 39 cents to 41 cents.

The good news is for the second unit of postage, now 24 cents, the rate will drop to 17c for each additional unit of postage – so the buros will save a few pennies when multiple stamps are required.

Starting in April, you will be able to buy 'forever stamps'. These will sell initially for 41 cents, and they will always be good for mailing a first class letter. If postage rates go up, you will not have to add postage. The 'forever stamp' will be good enough. As stamp prices rise, the cost of new 'forever

stamps' will rise as well. So if you buy a handful of stamps, and don't use them up by the next rate increase, you are in good shape. No need to run to the post office to get some 2c or 3 cent stamps to add on.

The priority rates will also be going up significantly (like Dollars) so think about mailing off all your QSL cards to the outgoing buro before May 14 if you send them priority mail.

There will not be a rate printed on the forever stamps – so they will not be good for sending things to Canada or overseas as the denomination needs to appear for international use.

# Ultra Efficient Power Amplifiers

A new type of linear power amplifier is coming to the market shortly due to the experimentation of some European hams. As you likely recall, there are 'voltage amplifiers' and 'current . There are Class A, AB, B, C, D and E and E/F, G and H types now with innovative solid state design. The latest experimental amps are UEPAs, which are especially suited for mobile antennas and shortened home station antennas, and where things are run on limited power supplies such as in vehicles.

http://en.wikipedia.org/wiki/Electronic\_amplifier

In Europe, several hams on the cutting edge of technology have discovered a near zero output current amplifier in using high frequency 'electronic' circulator technology in Class E/F. It's especially useful for 'digital signals' including digital modes and voice, but useful for SSB as well.

Most people don't have the big dollars it takes to buy an amp, no less install one in their car with the need for second batteries, beefed up alternators, super heavy #4 wires to carry the 80 or 100 amps needed, etc. Now imagine that technology will soon cut the costs of high power amps (really needed at the sunspot minimum now) plus reduce the power requirements!

There are three critical design principles that make Ultra Efficient Power Amplifiers work. First is an ultra low source impedance on the output. Your transceiver now expects a 50 ohm antenna. Most antennas and feedlines are 50 ohms or above. A standard radio provides easily rated power into 50 ohms, plus or minus just a bit. If you put a 25 ohm load on it, it will not put out more power, and likely less. The max out point is 50 ohms. Back in the 'old days' rigs weren't so fussy and matched a wide range of antenna types.

Hams up on their theory will recall that to get the most power out of a source, you want the source to have the lowest output 'source impedance'. Reduced to the most simple example, if you have a 13.8v battery, if you put a 13.8 ohm resistor across it, you get an amp flowing (if the battery has no internal resistance) or 13.8 watts. That gives you power proportional to current as  $P = E \times I$ . If you want more power in your load, you drop the resistance down to  $1/10^{\text{th}}$ , and with a 1.38 ohm resistor, with zero source impedance, you get 10 amps flowing, or 13.8 x 10amp or 138 watts. The key to getting lots of power with minimum system loss is having a zero source impedance generator. If your battery has no source impedance, putting a dead short across it will generate infinite power in the load (as long as it survives before melting).

If your battery had 1 ohm internal resistance, you would never get more than 10 amps to flow. So the key is having a low source impedance amp (or one that appears electrically to look like it). That is the first part of the equation. New Class E/F amplifiers can be set up that way.

The second part is something that is quite common in the commercial two way radio world. If you go to any mountain top location with dozens of transmitters, especially 450 MHz, 800 MHz trunking systems and cellular base stations, you will see racks of transmitter combiners, cavities, and ferrite isolators and circulators. [1]

A "circulator is best thought of as a "Magic Box" containing three transmission lines spaced 120 degrees apart. These transmission lines are placed between two disks of ferrite material. On the other side of the ferrite is a non ferrous ground plane and then a magnet followed by a ferrous pole piece that shields the unit from external magnetic fields"



These help reduce the mixing of signals together within the equipment, and help reduce the creation of harmonics and spurious. They are necessary to allow sensitive receivers to be wiped out by low level spurious and sideband noise. They are very common at frequencies above 50 MHz, but there is seldom any requirement for below that frequency, and the cost of conventional ferrite circulators increases rapidly as the frequency drops. However, modern technology has now allowed this lower range to be extended electronically. [2]

"The purpose of the circulator is to absorb all energy entering a port and to pass that energy on to the next port. High reverse isolation ensures that the energy flows in one direction around the circulator and that the impedance of one port is not affected by the other ports. The microwave circulator uses the non-linear properties of ferrite immersed in a magnetic field whereas this circuit uses high speed operational amplifiers."

A basic circulator is a device that allows 'directional transmission'. What goes in port 1 appears at port 2. What goes in at port 2 appears at port 3. Anything that goes in at port 3 appears at port 1. The reverse is not true. Power flows only in the circular direction 'clockwise' from 1 to 2, 2 to 3, and 3 to 1. No power can flow in the opposite direction (it does with high loss- 30 to 40db down). In normal use, the transmitter is connected to port 1, the antenna to port 2, and any 'reflected power' or power from other transmitters picked up by the antenna appearing at port 2 is sent around to

port 3 which has a dummy load connected. Since a dummy load generates no power, no power appears back at port 1. New high power circuits allow implementation down to about 5 MHz. With additional work, this might be extended even lower.

What we want to do is take 'reflected power' and use it constructively to help amplify the 'forward' part of the signal, which can be done electronically, giving us superb efficiency. In the block diagram, this part is labeled phase inverter, but it is more complex phase angle shifter, to get the needed matching phase on the reverse power to be the same as the input.

A typical r.f amp used for mobile applications today is not much more than 60% efficient. You run a kilowatt input, and get 500-600 watts out. With UEPAs, we can up that significantly and eliminate a lot of other lossy matching impedance matching components in the antenna radiating system.

The third part of a SPA is the common effect seen by every ham that tries to 'tune up' an antenna. If you take a mobile whip tuned to 7.238, and move your transmit frequency down the band, the "SWR" goes up. If you look at a watt meter, at 7.238 you might have 100 watts 'forward' and 3 watts reflected. If you go to 7.038.5, you might see '150w forward' and '50 watts' reflected, assuming your transmitter (or antenna tuner) can put out rated power at that frequency. Most transmitters just can't handle that reflected power, and many 'shut down', or take an antenna tuner to provide a low SWR to the transmitter, and manage to impedance match into the antenna.

Of course, in the old days with pi-network outputs, you could match a wide range of antennas. If you have ever gotten into 'matching' to antennas, you know there is a 'real impedance' and 'reactive impedance' part of the antenna match. Ideally, today you want a 50 ohm 'resistive load' for your transmitter, but often have to add 'capacitance' or 'inductance' or combinations to get a good match. We can use that to our advantage if we can tune out the reactive part of the antenna, and leave a LOW resistive part, the lower the better! This is not the normal practice, as you strive for a 50 ohm match! Mobile antennas fit into the 'low' impedance category, often only a having a few ohms impedance.

Now, what we have to do is use this phenomenon, along with parts 1 and 2, to build a UEPA.



Block Diagram - Ultra Efficient Power Amplifier

If you look at the block diagram, it works in the following way. Let us just take a CW signal. Let us assume your antenna has a impedance of 5 ohms plus a reactive part. We first have to cancel out the impedance with a capacitor or inductor, leaving only the resistive part. Now we have a 5 ohm antenna, fed by the power amp that has near zero output resistance by design, so wedo have a mismatch. But you can easily get high power with a low source impedance, and a low load resistor! Think of the battery example before! The amp (the source) will put out lots of power into a low resistance load!

Let us say, in this case, that if we put a watt meter in the antenna line – we could see maybe "500 watts forward" instantly, and "150 watts reflected". We take the electronic circulator to take the reflected power, and feed it around via the digital electronic high power phasing network, under microprocessor control, to be exactly in phase again with the input signal. We feed that into the amplifier, which now has 650 watts output. The output goes up, and the power being reflected is somewhat higher. This is fed around again, until the amp reaches near 95% efficiency at a kilowatt input. That takes only microseconds.

A power leveling circuit built into the amp insures that this loop does not exceed 95% of the rated power of the amplifier. Thus, the current amp may be taking 12.5 volts at 40 amps, running a KW input, and the amp will ramp up to 950 watts output. If the circuit fails and the amp approaches 100%, you might have instability problems as it is then a big oscillator. One must keep it in the 'amplifier' range. That takes a high speed microprocessor with state of the art D/A and A/D converters.

This is only possible by the ultra low impedance output, using a very low impedance antenna (like a short mobile antenna or helical whip at home) with the reactance tuned out, and the UEFA design. So instead of needing 80 or 100 amps to get 800 watts out, if you follow the UEFA design principles, you can get almost 50% better efficiency. You can run it off a standard car battery and alternator. No need for a second battery. On SSB and digital, it works the same way – the ramp up is essentially instantaneous. It tracks the voice SSB envelope, or complex digital waveforms. CW signals come out clean.

Of course, you need to include a harmonic filter to meet FCC limits, and the microprocessor code is fairly complex but should be made available as 'freeware' shortly. The automatic reactance tuning is not much different that your standard automatic 'antenna tuner' now.

Get set to join the UEPA bandwagon soon! Look for newly announced products at Dayton Hamvention!

References:

[1] http://wa8dbw.ifip.com/Circulator.html

[2] <u>http://www.wenzel.com/pdffiles/RFDesign3.pdf</u>

[3]http://www.nxp.com/acrobat\_download/various/SC19\_POWER\_AMPL\_ DESIGN\_1.pdf

- [4] http://www.alan.melia.btinternet.co.uk/classepa.htm
- [5] http://www.classeradio.com/2module.htm

# Upcoming Events for County Hunters

Courtesy ARRL Contest Corral, April 2007 Issue, QST Magazine, ARRL, Newington CT 06111

There are some good contests coming up for county hunters in April. The Florida QSO party is always good with many fixed stations and many mobiles. Activity on all bands, and all modes. Michigan has always been good, and the others depend upon how many mobiles get out there putting out counties. Even if you don't need the counties, give the folks contest contacts to help them out! Many do need more 'band counties' so this is a great time to get them. There should be lots of 40M activity, and from GA and FL, 20 meters should be quite useful for much of the country. Don't forget to listen 15 and 20M as some of the fixed stations have big signals there should there be any openings whatsoever. MI should be a good one, with folks going all out to get the counties on the air.

April 7, 8

**Missouri QSO Party** -- CW/SSB, sponsored by the Boeing Employees Amateur Radio Society of St. Louis (BEARS) from 1800Z Apr 7-0500Z Apr 8 and 1800Z-2400Z Apr 8. Frequencies (MHz): CW -- 40 kHz from band edge and 1.810; Phone -- 1.850, 3.980, 7.280, 14.280, 21.380, 28.310 kHz, work MO stations once per band and mode. Categories: Fixed, MO Mobile, MO Rover. Exchange: RST, serial number and MO county or S/P/C. QSO points: CW -- 2 points, Phone -- 1 point. Score: MO stations -- QSO points × States + Provinces + MO counties + 1 for DX; non-MO stations -- QSO points × MO counties. Multipliers count only once. QSO with W0MA counts 100 QSO points one time. For more information: www.qsl.net/w0ma

April 14, 15

MICHIGAN MINI APRIL 12, 13, and 14th.... DAYS INN..GRAND HAVEN, MI U.S.31 PHONE 616-842-1999 Mention Ham Radio ROOMS \$65..Held till March 22 REGISTRATION is single \$11..couples \$15 Sorry no Banquet, but will have cake and gifts in the hospitality room, No badges will be made at the Mini, so please let us know as soon as possible so we can let John know. SEND REGISTRATIONS TO: Paula Batema 1567 66th St., Fennville, Mi.49408.

**Georgia QSO Party** -- CW/SSB, sponsored by SECC and SEDXC from 1800Z Apr 14-0359Z Apr 15 and 1400Z-2359Z Apr 15. Frequencies: 80-10 meters. Categories: SOAB, MS, MM, Rover, Novice/Tech; HP, LP (<150 W), QRP; CW/SSB/Mixed. Rovers must activate at least two GA counties, no county line QSOs. Exchange RST and GA county or S/P/C. QSO points: SSB -- 1 point, CW -- 2 points. Score: QSO points × GA counties (GA station use states and provinces) counted only once per band and mode. For more information: gqp.contesting.com

April 21

**Michigan QSO Party** -- CW/SSB, sponsored by the Mad River Radio Club, from 1600Z Apr 21-0400Z Apr 22. Bands: 80-10 meters. Frequencies: CW -- 45 kHz from band edge; Phone (MHz) -- 3.825, 7.200, 14.250, 21.300, 28.450. Work stations once per band and mode, MI-to-MI QSOs allowed, mobiles and portables can be worked from each county. Categories: SO, MS, MM, Mobile SO, Mobile MO. Exchange: serial number and MI county or S/P/C. QSO points: CW -- 2 points, Phone -- 1 point. Multipliers for MI stations are states, provinces and MI counties; multipliers for non-MI stations are MI counties. Multipliers count once per mode. Score: QSO points × multipliers. For more information: www.miqp.org

April 28, 29

**Florida QSO Party** -- sponsored by the Florida Contest Group from 1600Z Apr 28-0159Z Apr 29 and 1200Z-2159Z Apr 29, 20 hours max, work FL stations. Frequencies (MHz): CW -- 35 kHz from band edges, Phone --7.260, 14.260, 21.335, and 28.485, no 160 or 80 meters, VHF/UHF. Categories: SO, MS, MM (one signal per band), Mobile (SO and SO+driver), School Club, SWL, all categories HP (<150 W), LP or QRP, Mixed Mode/CW/SSB (except MM and SWL). Exchange: RST and FL county or S/P/C. QSO points: CW -- 2 points, SSB -- 1 point. Score: FL stations -- QSO points × S/P/C (W/VE/KH6/KL7 do not count as DXCC entities, DC is a separate multiplier) × power multiplier; non-FL stations -- QSO points × FL counties × power multiplier. All multipliers count once per mode. Power multiplier -- HP ×1, LP ×2, QRP ×3. For more information: www.floridaqsoparty.org

**Nebraska QSO Party** -- CW/SSB/Digital, sponsored by the Heartland DX Association 1700Z Apr 28-1700Z Apr 29. Frequencies (MHz): 160-2 meters; CW -- 1.805 and 35 kHz above band edge, Novices/Technicians --10 kHz above band edge; Phone -- 1.915, 3.865, 7.265, 14.265, 21.365, 28.465, 146.460. Work stations once per band/mode. Work NE mobile stations again in each county. County lines count as one QSO with each county. Exchange: RST and NE county or S/P/C. QSO points: CW/Digital --2 points, Phone -- 1 point. Score: QSO points × S/P/C for NE stations or NE counties (multipliers count once only). For additional information: www.qsl.net/hdxa

# Dayton Hamfest in May

May 18, 19, 20 – County Hunter Forum Friday afternoon. This year, Tim, W8JJ is the Forum Moderator.

Dinner will be at the Ryan's Steak House, 6999 Miller Lane, near Little York Road, just off I75. Same place as past two years. At 5:30 to 6pm arrival time.

### Awards

Bingo #289, Joe, N5UZW, 3/7/2007 Second Time #369, Jim, K0ARS, 2/16/2007 USACA #1150, Butch, WY0A, 3/9/2007 USACA #1151, Barry, N0KV, 3/22/2007 USACA #1152, Barry, KB8OMG, 3/23/2007 (all cw)

# Picture Gallery



N9STL in Lake County Florida On trip with KA3DRO



WY7LL and WY7ML, Campbell County, WY, LC for KI7WO



N8KIE giving out LC WBOW to W9JL in 2005

For the new or non-county hunter, this is the very last contact to complete all 3077 for USACA--the last for the 'whole ball of wax'. It usually takes a special trip on someone's part to get the LC for the station ready to finish working all of them.

That's it for this month. See you next month!